

ACADEMIA ROMÂNĂ  
CENTRUL DE CERCETĂRI ANTROPOLOGICE "FRANCISC RAINER"  
ASOCIAȚIA EUROPEANĂ DE ANTROPOLOGIE  
GRUPUL ANTROPOLOGILOR FRANCOFONI  
COMISIA ROMÂNĂ DE ANTROPOLOGIE  
MUZEUL OMULUI - MUZEUL DE ȘTIINȚE NATURALE PLOIEȘTI  
CONSILIUL JUDEȚEAN PRAHOVA

Conferința cu participare  
internățională

*Desfășurată sub înaltul patronaj al Președintelui României  
prof.univ.dr Emil Constantinescu*

SECURITATEA PRAHOVA ANANTROPOLOGIEI  
DE LA ANANTROPOLOGIE LA XXI-E SIECLE  
THE 21ST CENTURY'S CHALLENGES TO ANTHROPOLOGY

*Președintele Conferinței:  
Profesor Charles Susanne  
Președintele Asociației Europene de Antropologie  
și al Grupului Antropologilor Francofoni  
București și Sinaia,  
29 aprilie - 1 mai 1998*





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**C o n f e r i n ța c u p a r t i c i p a r e  
i n t e r n a ț i o n a l ă**

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**SECOLUL XXI SI PROVOACA RILE ANTROPOLOGIEI  
DEFIS DE L'ANTHROPOLOGIE AU XXI-E SIECLE  
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Ediție apărută sub îngrijirea:

**Dr. MATEI STÎRCEA-CRĂCIUN**  
**Ing. LIGIA APĂVĂLOAE**

**Dr. CRISTIANA GLAVCE**

Colaboratori:

**Drd. EMILIA IANCU**  
**Arh. MONICA PLISCA**  
**Drd. MARIN CONSTANTIN**

Tehnoredactare computerizată:

**Drd. Emilia Iancu**  
**Ing. Ligia Apăvăloae**

**Adresa Centrului de Cercetări Antropologice “Francisc Rainer”,**  
**Academia Română,**  
**Bd. Eroii Sanitari nr.8**  
**P.O. Box 35-13, București**  
**Tel/Fax:(+40)-1-638 28 55**  
**E-mail: rainer@sunu.rnc.ro**

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ROMÂNIA



PREȘEDINTELE

*Doamnei dr. Cristina Glavce  
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Domnului dr. Matei Sîrcea Crăciun  
Secretar Științific al Centrului de Cercetări Antropologice "Francisc Rainer"*

*București, 23 martie 1998*

*Stimați colegi,*

*Am primit scrisoarea dumneavoastră din 14 ianuarie a.c., referitoare la Conferința Internațională "Noi probleme ale antropologiei în secolul XX", programată a avea loc în perioada 29 aprilie - 1 mai 1998. Accept cu bucurie propunerea dumneavoastră ca această prestigioasă manifestare științifică să se desfășoare sub patronajul Președinției României.*

*Este semnificativ și încurajator faptul că, în pofida dificultăților prin care a trecut și mai trece țara noastră, specialiștii din diverse domenii fac eforturi pentru a fi prezenți în circuitul de idei și preocupări al lumii contemporane, căutând răspunsuri, împreună cu colegii lor din alte țări, la marile întrebări pe care și le pune omenirea. Recursul la știință și cultură este, poate, calea cea mai directă prin care România își poate recupera locul firesc în Europa și în lume.*

*Vă felicit pentru această inițiativă și vă doresc mult succes.*

*Cu colegială prețuire*

Emil Constantinescu

A handwritten signature in black ink, appearing to read "Emil Constantinescu", written over a printed name.

PREȘEDINTELE ROMÂNIEI





## Cuvânt de deschidere

### Academician Eugen Simion, Președintele Academiei Române

Sunt bucuros ca în calitate mea de președinte al Academiei Române să vă salut, aici, în Aula Academiei Române și să urez succes colectivului dumneavoastră.

Dezbateți o temă care depășește interesul specialiștilor. Antropologia este o știință care ne implică, în fond, pe toți, umaniști și științifici, fizicieni și literați.... Dacă înțeleg bine, dumneavoastră încercați să definiți posibilitățile antropologiei, acum, în pragul secolului XXI. Înțeleg deasemenea că, vorbind despre *antropologie*, nu se poate să nu vorbiți și despre om și, dacă vorbim despre *om*, vorbim, în fapt, despre tot. Este subiectul nostru predilect, al tuturor: omul ca ființă istorică, omul ca ființă socială, omul ca ființă culturală sau omul ca *ființă*, pur și simplu... Dar ce este, azi, *omul*, ce-a devenit el, cum definim omul la sfârșitul acestui secol care a amestecat toate conceptele și care refuză, sistematic, imaginea tradițională a omului ca ființă unitară? Este o întrebare care vine și revine în științele umane sau, cum îi zice Gaëtan Picon, în *umanisme*le din acest secol.

Ce se poate observa este că fiecare "umanism" sau, mai corect spus, fiecare știință umană are propria *înțelegere* și dă propria *definiție* a omului: marxismul spune că omul este suma relațiilor sociale, psihanaliza ne învață că omul este suma complexelor sale, fixate deja în mica copilărie; existențialismul consideră că omul este ceea ce este angajamentul lui în lume, reflex al situației lui în lume; structuralismul și poststructuralismul răstoarnă totul și ne atrag atenția că omul este *o ființă gramaticală*, *o ființă de hârtie* ș.a.m.d. Omul și-a pierdut imaginea lui de marcă, aceea de a fi rege peste lucruri și ființe... A devenit o oglindă spartă, trebuie să te uiți în cioburile aruncate în iarbă... Este timpul ca el, sau mai degrabă, cei care studiază omul, să-i regăsească unitatea, coerența, pregnanța în raport cu lumea ce-l poartă...

L-am citat înainte pe Gaëtan Picon care, într-o scriere din 1960, vorbea de dezacordul *umanismelor contemporane* în ceea ce privește definirea omului. Lipsește de acolo imaginea dată de oameni învățați ca Eliade, Dumezil, Corbin etc. aceia care au apărut ideea că omul contemporan, indiferent din ce punct de vedere l-ai privi, are și o dimensiune spirituală. Este o contribuție esențială pentru acest secol în care omul și-a pierdut, cum ziceam, chiar unitatea imaginii sale în lume. Ar trebui să-i fim recunoscători lui Eliade că într-un secol însângerat de totalitarism și de sisteme ideologice care se contestă sălbatic, el gândește omul – ca ființă care poate recâștiga sensul globalității lumii și poate învinge violențele istoriei. Încă o dată, cum? Redescoperind miturile...

Rezumând acest imperfect rezumat al ideilor eliadești despre omul modern și posibilitățile lui de salvare în istorie putem reține: (1) orice om cunoaște, în afara ontologiei la care aderă în chip rațional, și o *altă ontologie*, ieșită din propria sa experiență, o ontologie care este *structural epifanică* (2) omul contemporan va fi constrâns să integreze cele două forme de cunoaștere (*cunoașterea logică, rațională și*

*cunoașterea simbolică*) (3) Marx a definit omul ca “sumă a relațiilor sociale” și a demascat *inconștientul social*; Freud a definit omul ca sumă a complexelor interioare și a demascat “inconștientul personal”, rolul istoricului religiilor (proiectul lui Eliade, așadar) este “să identifice prezența transcendentului în experiența umană, să izoleze în enorma masă a inconștientului ceea ce este *trans-conștient*”. Pentru acest fapt, completează Eliade, studiul simbolismului religios i se pare pasionant și decisiv. Omul nu este o simplă ființă gramaticală (omul semioticienilor), nu-i nici *revolta* lui și angajamentul lui în istorie (omul existențialiştilor), omul este o ființă infinit mai complexă și mai bogată. În gândirea lui Eliade omul este – putem spune – o *sumă a miturilor sale*; (4) omul modern, sărăcit, agresat, alienat, revoltat, nu poate fi totuși strivit: “am impresia că omul va reuși dacă vrea acest lucru – să rămână liber și creator, în orice circumstanță, cosmică sau istorică”; el va redescoperi *dimensiunea sacramentală a existenței* și, prin aceasta, demnitatea sa metafizică; (5) unul din marile fenomene ale secolului al XX-lea este descoperirea *omului ne-european* și a universului său spiritual; este o prejudecată că omul european este centrul lumii spirituale, că Europa continuă să fie centrul cultural al planetei; Europa este o provincie a lumii spirituale și riscul este ca spiritul ei să devină insuportabil provincial; înaintea culturii europene sunt alte culturi, mai vechi și mai bogate; această descoperire făcută de Eliade și de alți istorici ai religiilor modifică toate datele problemei; ierarhiile se schimbă, omul european, care a trăit atâtea secole în visul superiorității și întâietății sale, trebuie să-și revizuiască rapid teoriile și să-și redefinească condiția lui în lume...

Mai mult decât oricare alt istoric și antropolog, Mircea Eliade a definit limpede acest fenomen și a tras semnalul de alarmă, invitând pe mandarinii intelectuali occidentali să se trezească din *snobismul* lor (termen pe care l-a inventat, dacă nu mă înșel, Ion Vinea; este bun, este expresiv și se potrivește în cazul de față; am sentimentul că Eliade nu-l cunoștea); (6) antropologia religioasă a lui Eliade este fundamentată pe ideea *prezenței sacralului* în ființa omului comun. Și, totodată, pe ideea că în existența istorică există un scenariu mitico-ritualic ascuns, irecognoscibil. Există o mitologie *camuflată* (un termen capital în vocabularul lui Eliade), un sistem de *semne*, de hierofanii care întâmpină pe omul areligios, complet desacralizat din societățile zise profane. Omul acesta, în ciuda a ceea ce i se spune și a ceea ce crede chiar el despre sine, *participă* la experiența sacralului prin visele, prin visele treze, prin anumite aspecte ale comportamentului său (cum ar fi dragostea pentru natură), prin nostalgiile, pulsunile, chiar prin *distracțiile* sale (lectura, spectacolele).

În fapt mi se pare important din punctul de vedere al unui specialist – nu în antropologie - ci în literatură (aceea care studiază omul în și prin infinitatea ficțiunilor sale!) și anume că în pragul mileniului trei, omul care s-a pierdut pe sine și și-a pierdut propria imagine, trebuie să se regăsească. Sau trebuie ajutat să se regăsească în cioburile pe care istoria i le-a împrăștiat haotic... Acesta mi se pare a fi pariul antropologiei la începutul secolului ce urmează. Căci științele omului sau științele despre om trebuie nu numai să-i descrie bolile de care suferă, dar și să-l ajute să se vindece, să-și regăsească sensul existenței și chiar o filozofie de existență într-o societate a informatizării...

## CHANGEMENTS SECLAIRES DE LA CROISSANCE ET DU DEVELOPPEMENT EN EUROPE

SUSANNE, C., BODZSAR, E., BIELICKI, T., HAUSPIE R., HULANICKA, B., LEPAGE Y.,  
REBATO, E., VERCAUTEREN, M.

### 1. INTRODUCTION

Le concept de changements séculaires est un thème anthropologique et auxologique classique dans le sens d'une croissance et d'un développement plus rapides, de tailles moyennes plus élevées, d'une maturation plus précoce, observés en Europe depuis plus d'un siècle. Ces changements sont qualifiés de positifs dans la mesure où ils sont associés au processus d'industrialisation: les fig. 1 et 2 résument les observations européennes publiées par Bodzsar et Susanne (1998) concernant l'évolution de la taille d'une part et de l'âge à la ménarche d'autre part. Ces figures montrent également que la variation européenne observée dans les années 1940 et 1950 a fortement diminué au niveau des années 1980-'90. De telles observations de diminution de variabilité interrégionale ont été effectuées également à des niveaux plus locaux, tels que le Nord et le Centre versus le Sud de l'Italie (Floris et Sanna, 1998), les différents départements français (Demoulin, 1998) et les régions espagnoles (Rebato, 1998), où l'augmentation de taille, par exemple, a été plus grande dans les régions où au départ les tailles moyennes étaient moins élevées.

En fonction de l'âge, l'évolution séculaire de la taille est plus élevée durant la période pubertaire: Eveleth et Tanner (1990) évalue, pour la période 1880-1980, les changements à 1.5 cm par décennie pendant l'enfance 2.5 cm par décennie pendant la puberté et à 1 cm par décennie à l'âge adulte. Ces valeurs pubertaires sont en fait dues à l'accumulation de l'augmentation absolue de taille et au développement pubertaire progressivement plus précoce. Naturellement, cette évolution ne s'est pas réalisée de manière linéaire: la fig. 3 montre que, pour la Belgique, et l'âge au pic de croissance pubertaire (PHV) estimé par le modèle Preece-Baines, l'évolution a été lente de 1830 à 1920 (0.34 mois/décennie), plus rapide de 1930 à 1960 (3.44 mois/décennie) et plus lent à nouveau à partir de 1960 (1.14 mois / décennie) (Susanne et Vercauteren, 1997). Plus récemment, dans certaines régions européennes, le changement séculaire n'est pas plus élevé pendant la puberté que pendant l'enfance, c'est le cas pour la Belgique, la Norvège, la Pologne (au niveau urbain), ce qui signifie que dans ces cas l'accélération du PHV s'est arrêté. Cette observation n'est pas encore générale, les données tchèques, slovènes, polonaises et celles de Jena témoignent encore d'un effet d'accélération (Bodzsar et Susanne, 1998). Il est devenu évident que ces changements de croissance et de développement sont de bons indicateurs des conditions de vie d'une société, de la situation nutritionnelle et sanitaire (Susanne, 1985). Tanner (1966, 1981, 1986, 1992) a même proposé le terme d'épidémiologie auxologique. C'est un outil également pour examiner les changements d'une société et de sa stratification sociale (Bielicki, 1986).

L'observation dans ce cadre, dans certaines études européennes récentes, d'arrêt de changements séculaires demande une interprétation prudente: il se pourrait que cet arrêt traduit l'absence d'amélioration de conditions de vie mais il se pourrait aussi que ces conditions, même si certaines améliorations seraient encore observées, auraient atteintes un niveau permettant l'expression optimale des potentialités génétiques (Susanne et Bodzsar, 1998).

### 2. AUTRES EXEMPLES DE CHANGEMENTS SÉCULAIRES.

#### 2.1. Proportions corporelles

Il semble bien établi que l'évolution séculaire de la taille est essentiellement liée à celle de la longueur des membres inférieurs et pas à celle des dimensions du tronc (Udjus, 1964, Himes, 1979, Tanner et al., 1982, Tanner, 1990, Susanne, 1993).

Les changements de morphologie corporelle sont plus controversiels dans la mesure où les publications sont contradictoires. Ainsi, le diamètre biacromial diminuerait relativement à la taille dans des échantillons hongrois (Eiben, 1977), polonais (Wolanski, 1978) et belges (Susanne, 1993) mais, au

contraire, augmenterait à Szekesfehervar (Hongrie, Bodzsar, 1998), à Jena (Allemagne, Jaeger, 1998) et à Ljubljana (Slovénie, Stefancic et Tomazo-Ravnik, 1998). De même, les diamètres du bassin augmentent relativement à la taille en Hongrie (Bodzsar, 1994, 1998) et en Pologne (Wolanski, 1985) mais diminuent en Slovénie (Stefancic et Tomazo-Ravnik, 1998) et en Belgique (Susanne, 1993, Vercauteren et al., 1998).

Ces résultats contradictoires sont probablement liés à des évolutions nutritionnelles différentielles, à des effets du mode de contrôle pondéral, à des modifications de style diététique et/ou une pratique plus fréquente d'activités physiques.

Ces facteurs expliquent également des modifications observées aussi pour le poids par rapport à la taille avec certaines observations actuelles de poids relatif moins élevé en Suède (Ljung et al., 1974), en Tchèque (Prokopec 1968 et Vignerova et Blaha, 1998, pour les filles de plus de 15 ans), en Slovénie (Stefancic et Tomazo-Ravnik, 1998, à partir de 13 ans), en Belgique (Susanne, 1993, Hauspie et al., 1997, à partir de 13 ans) et à Jena (Jaeger, 1998 aux tailles supérieures à 150 cm), mais également des observations de poids relatif plus élevé en Pologne (Hulanicka et al., 1990). De même, pour des pays où une évolution vers un type plus longiligne avait été observée, une tendance récente inverse vers un alourdissement relatif a été publiée par Cernerud (1993) et Lindgren (1998) pour la Suède, Liestol et Rosenberg (1995) pour la Norvège et Rona (1998) pour l'Angleterre. A part les facteurs déjà cités, le sédentarisme et l'augmentation du temps passé à observer la télévision pourraient être des facteurs supplémentaires par la réduction de la consommation énergétique.

## 2.2. Maturation sexuelle

La plupart des études sont relatives à la ménarche qui se déroulait 3-4 années plus tardivement un siècle passé, avec un rajeunissement de 3 à 4 mois par décennie (Tanner 1962, 1981, Bodzsar et Susanne, 1998). Mais, comme pour la taille, l'âge à la ménarche ne diminue pas linéairement, il a même augmenté en période de guerre (Vlastovsky, 1966, Harper et Collins, 1972, Brudevoll et al., 1979): ainsi, pour les données belges et hongroises (Susanne et Vercauteren, 1997, Bodzsar, 1998) le 50<sup>ème</sup> et 10<sup>ème</sup> percentiles se relèvent nettement pour le groupe de filles nées en 1930-'40 et mûrissant donc dans la seconde guerre mondiale (fig. 4 pour les données hongroises).

Actuellement, les changements séculaires de maturation sexuelle diffèrent énormément d'une région européenne à l'autre:

- un rajeunissement au niveau tchèque (Prokopec 1989), allemand (Bremerhaven, Ostersehl et Danker-Hopfe, 1991) (Jena, Jaeger, 1998), grecque (Papadimitriou, 1998), italien (Sicile, Sardaigne, Floris et Sanna, 1998), hongrois (Szeged, Farkas, 1983), espagnol (Prado, 1989), néerlandais (Van Wieringen, 1986, Burgmeyer et van Wieringen, 1998);

- une stabilisation au niveau basque (Rebato, 1998), belge (Vercauteren et Susanne, 1985, Vercauteren et al., 1998), italien (Bologna, Floris et Sanna, 1998), hongrois (région de Kormend, Bodzsar, 1998), norvégien (Brunland et al., 1980), suédois (Lindgren, 1976).

- un âge plus avancé au niveau croate (Prebeg, 1995, 1998), polonais (Bielicki et Hulanicka, 1998), russe (Moscou, Godina, 1998), Suédois (Stockholm, Lindgren et Hauspie, 1989).

La variabilité du processus de ménarche, par la différence entre le 10<sup>ème</sup> et le 90<sup>ème</sup> centile, s'est considérablement réduite. Ainsi, au niveau belge (Vercauteren et Susanne, 1985, Hauspie et al., 1996, Vercauteren et al., 1998), le 50<sup>ème</sup> centile a diminué de 4,5 mois par décennie entre 1920 et 1960, de 4,8 mois par décennie au 90<sup>ème</sup> centile alors que le 10<sup>ème</sup> centile restait au niveau de 11,8 années. Une observation similaire est effectuée au niveau hongrois (Bodzsar, 1998). En fait, l'amélioration des conditions de vie a éliminé la plupart des facteurs provoquant des ménarches tardives.

## 2.3. Débrachycéphalisation

Si depuis le néolithique un processus de brachycéphalisation a été observé en Europe (Schwidetzky, 1974, Twiesselman, 1980), depuis la fin du 19<sup>ème</sup> siècle de nombreuses observations de débrachycéphalisation ont été publiées et concernent la Belgique (Vercauteren et al., 1983, Susanne et al., 1988, Vercauteren et al., 1998), la Bulgarie (Boev et Yordanov, 1998), la France (Marquer et al., 1961, Demoulin, 1998), l'Allemagne (Jaeger 1998) et la République tchèque (Vignerova et Blaha, 1998).

Dans tous ces cas, la tendance à débrachycéphalisation résulte d'une nette diminution de largeur céphalique et d'une valeur relativement stable de longueur céphalique.



### 3. DIFFÉRENCES SOCIALES

Les différences socio-économiques sont aussi classiquement connues dans la littérature anthropologique avec des tailles et poids moyens plus élevés dans les classes sociales élevées ainsi que des maturations plus précoces (Bodzsar, 1975, Bielicki et Welon, 1982, Eiben 1989, Eveleth et Tanner, 1990). Ces observations ont été effectuées avec des définitions très variables du milieu socio-économique, profession et/ou éducation des parents, degré d'urbanisation, dimension des lieux de résidence, dimension des fratries, conditions sanitaires, conditions de logement, etc.

Récemment, des diminutions, voire disparitions, de différences socio-économiques ont été observées (Salzler, 1975, Lindgren, 1976, Smith et al., 1980, Rona et Chinn, 1986, Lindgren, 1994). Elles sont des indications d'amélioration des conditions de vie, favorisant les groupes sociaux les moins élevés. Les changements séculaires sont donc plus rapides dans les groupes sociaux défavorisés (Susanne et Hauspie, 1972, Vercauteren, 1993, Weber et al., 1995, Hauspie et al., 1996, 1997, Vercauteren et al., 1998).

### 4. HOMOGENÉITÉ DES POPULATIONS: CONTRASTE ENTRE LA POLOGNE ET L'ESPAGNE

La Pologne est une des nations européennes la plus homogène, sans pratiquement de minorités, mélangée par des migrations internes massives à la fin des années '40 et début '50.

L'évolution séculaire en terme de taille, de poids et d'âge à la ménarche y est évident. Récemment, une divergence s'est fait jour par des changements toujours positifs pour la taille et un arrêt voire des changements négatifs pour l'âge à la ménarche (Laska-Mierzejewska, T., 1991, Hulanicka et al., 1990, 1991, Bielicki et Hulanicka, 1998).

A la fin des années '80, suite à des problèmes de paupérisation, une augmentation de l'âge à la ménarche a été observée dans les villages et villes, Varsovie exceptée (fig. 5). Au niveau de la taille, l'évolution positive a continué cependant, supposant que pour la taille l'environnement familial jouerait un rôle tampon.

Des différences sociales élevées y ont aussi été à plusieurs reprises publiées (Bielicki et al., 1981, 1986, 1992, Bielicki, 1986, Hulanicka et al., 1990), bien que l'amplitude des inégalités ait décliné par une évolution séculaire plus élevée des groupes sociaux les moins favorisés (Bielicki et al., 1992, 1998).

Mais, récemment, contrairement aux observations d'autres pays européens, les inégalités sociales ont augmenté à nouveau (Hulanicka et al., 1993). Ces résultats correspondent à la crise économique de 1970 à 1981, accompagnée d'une diminution de consommation de viande par exemple, et de détérioration sanitaire.

Au contraire de la Pologne, l'Espagne est plus hétérogène au niveau environnement physico-géographique et environnement humain, en termes de nutrition et de conditions de vie, résultant en des différences morphologiques. L'industrialisation y a débuté tardivement, essentiellement dans les années 1960 et ceci principalement à Barcelone, Madrid et au Pays Basque (Rebato, 1998), elle fut accompagnée de migrations à partir des régions rurales. Ceci résulte en une évolution séculaire non uniforme et plus élevée pendant la période 1970-1985. De plus, la variabilité interrégionale de taille et d'âge à la ménarche diminue régulièrement de 1960 à 1990 (Rosique et al., 1995, Rebato, 1998), le taux le plus élevé d'évolution séculaire étant observé pour les régions au départ les plus défavorisées.

### 5. ASPECTS NUTRITIONNELS

Les changements nutritionnels en Europe ont été conséquents pendant les dernières décades.

Ainsi, en Galicie (Nord-Ouest de l'Espagne), des changements très significatifs sont apparus entre 1970 et 1985 avec essentiellement un accroissement de consommation de protéines animales, correspondant aussi à une intensification de l'évolution séculaire (Tojo et al., 1987, Rebato, 1998).

Les différences sociales de consommation nutritionnelle apparaissent également comme en Pologne (Bielicki et al., 1981): en fonction de niveau salarial plus élevé, la consommation de viande, d'oeufs, de fromage, de fruits et de légumes augmente. Cette consommation est aussi réduite dans des familles nombreuses par rapport à des familles plus réduites (Bielicki et al., 1992).

Dans les régions européennes de l'OECD (1985), des modifications significatives de consommation ont été observées de 1955 à 1988 (Susanne et al., 1987, Susanne et Lepage, 1990). Ainsi, la consommation de protéines essentiellement animales a augmenté (fig. 6), ainsi que la consommation de

graisse d'origine animale et végétale. L'évolution de la consommation de sucre est plus contrastée, elle augmente essentiellement dans les pays du Sud (Espagne, Italie, Portugal) qui partait en 1955 de valeur très basse, mais diminue dans les pays nordiques où la valeur de 1955 était élevée.

Pour la consommation de protéines animales, et non celle d'origine végétale, pour la consommation de graisse animale et végétale, une nette corrélation négative existe entre la valeur de 1955 et l'augmentation entre 1985 et 1955 (fig. 7), cette corrélation n'apparaît pas pour la consommation de sucre.

Comparant les changements séculaires de la taille avec la consommation nutritionnelle, certains parallélismes semblent apparaître:

- pour la Pologne (Bielicki et al., 1997, Segula et al., 1997) en termes de consommation de viande, de graisse et de sucre

- pour la même Pologne, le lien n'est pas net pour le total de protéines et est absent pour la pomme de terre

- pour d'autres pays européens (OECD, 1985) en termes de consommation de protéines animales (fig. 6)

- pour ces mêmes pays, la relation est moins nette pour les graisses et est absente pour le sucre.

## 6. CONCLUSION

L'interprétation des changements séculaires doit tenir compte des facteurs génétiques et mésologiques, puisque les facteurs envisagés sont polygéniques.

Au niveau génétique, le problème est que les populations humaines changent continuellement par l'intermédiaire des migrations. Comment considérer ces nouvelles populations? Une solution pourrait être de considérer pour les études de changements séculaires futures uniquement les enfants issus de parents autochtones. Cela faciliterait la comparaison avec les données plus anciennes, mais ce ne serait pas tenir compte du devenir d'une population, qui intégrerait les enfants issus de mariages mixtes ou même d'enfants de couples nouvellement nationalisés.

Mais, même dans des populations considérées comme homogènes, l'influence de migrations internes n'est peut-être pas négligeable. Des migrations sélectives ou de la vigueur hybride, bien que jamais démontrées dans des populations humaines, ne peuvent être exclues. Dans des populations plus hétérogènes, telles que l'Espagne, la France, l'Italie, la présence de sous-populations doit être considérée.

Les facteurs mésologiques, de santé et de nutrition, semblent essentiels. Des parallélismes existent entre des changements séculaires et les revenus moyens ou le produit national brut, mais ils existent également pour les facteurs nutritionnels en termes quantitatifs, de consommation de protéines, de graisse et/ou de sucre. Les éléments les plus significatifs semblent être la consommation de viande ou de protéines animales. Des facteurs qualitatifs peuvent aussi avoir une influence, tels plus de protéines animales par rapport à des protéines végétales, des graisses animales par rapport à des graisses végétales, de produits laitiers améliorés en vitamines, calcium et phosphore, de changements nutritionnels chez les nouveau-nés.

Les changements positifs doivent donc être interprétés en fonction de l'ensemble de ces facteurs, aussi lorsqu'ils sont négatifs pendant les périodes de crise. L'arrêt de changements observés actuellement dans certains pays européens doit aussi en tenir compte: il y a-t-il arrêt d'amélioration des conditions de vie? Voire même une situation mésologique moins favorable? ou les conditions ont-elles atteintes une qualité telle que le potentiel génétique s'exprime de manière idéale?

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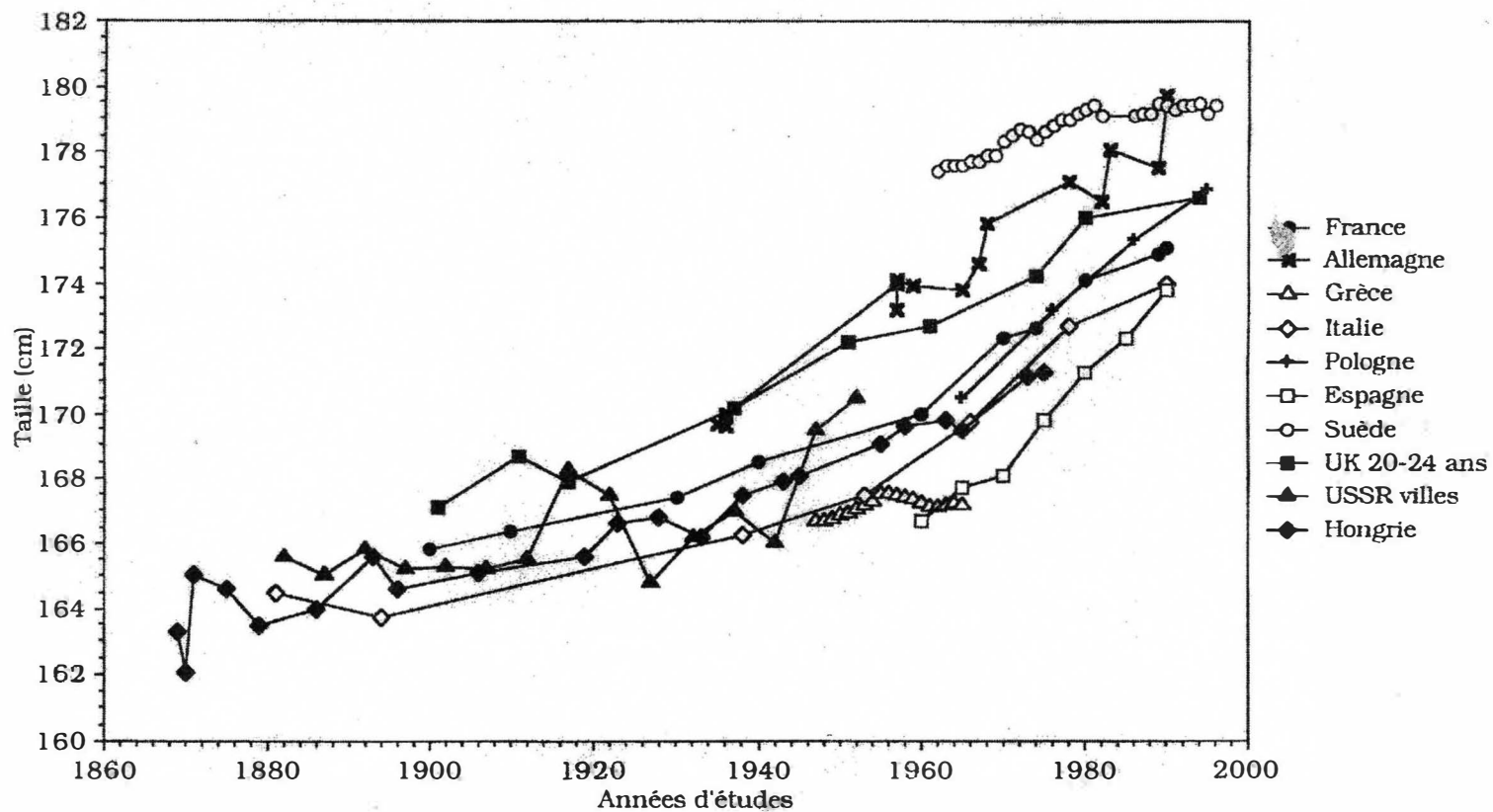
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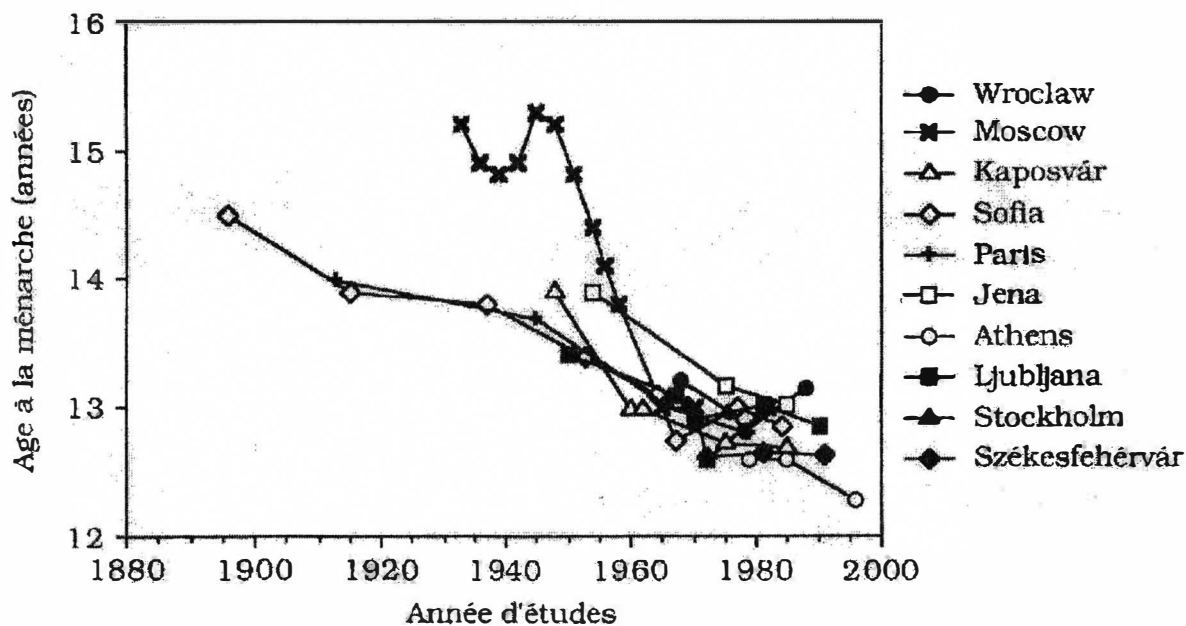
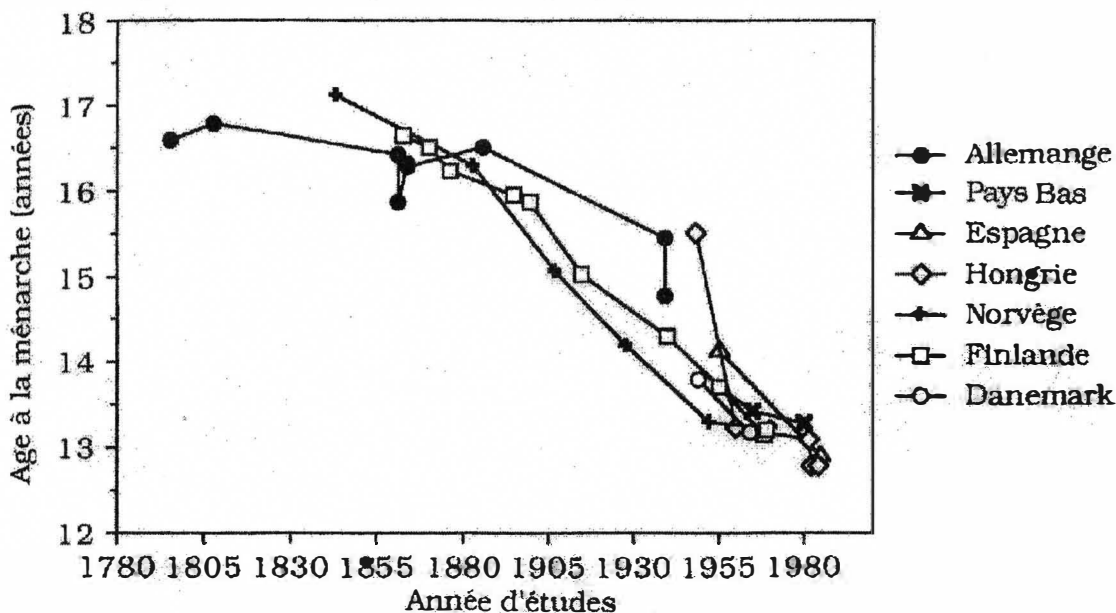


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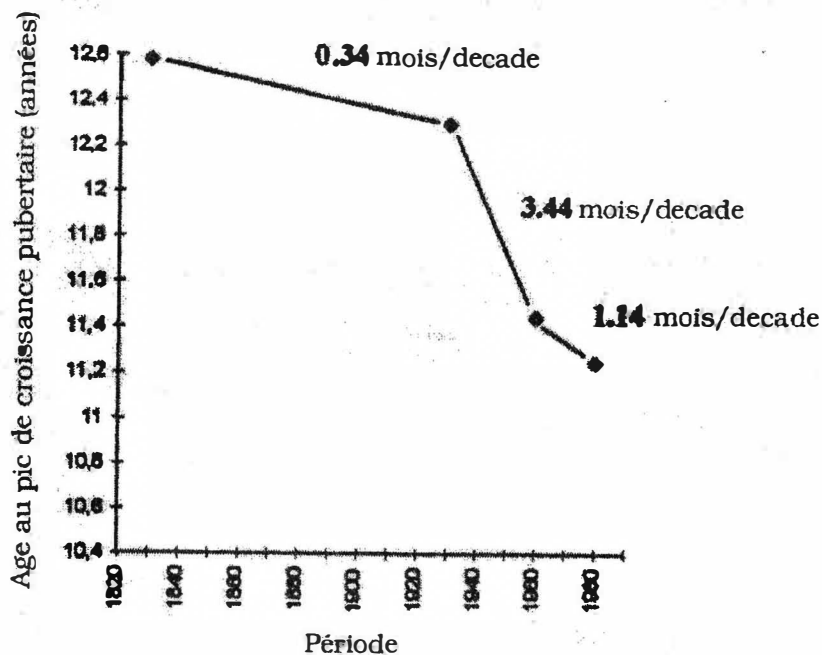
Figure 1. Taille des recrues en Europe, 1860-1996.



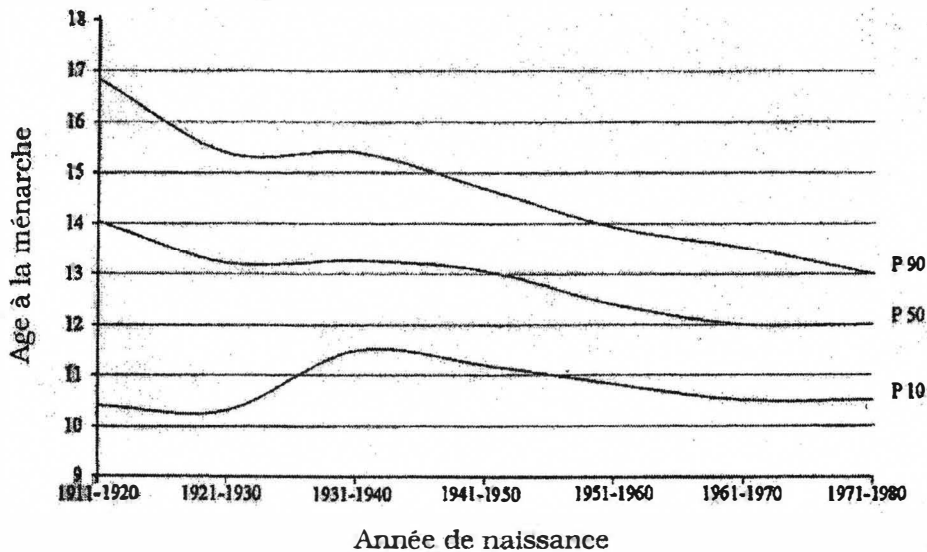
**Figure 2.** Evolution de l'âge à la ménarche en Europe.



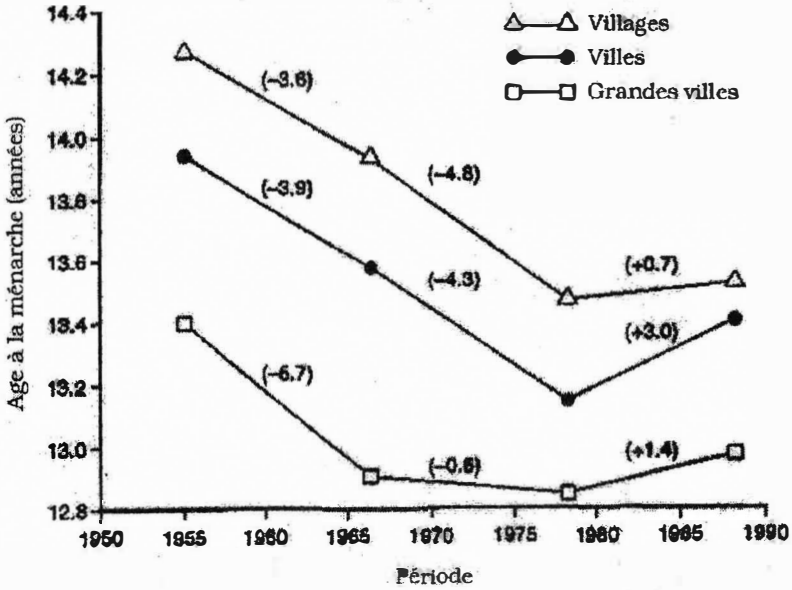
**Figure 3.** Evolution séculaire à l'âge au pic de croissance pubertaire.



**Figure 4.** Age à la ménarche en relation avec l'année de naissance



**Figure 5.** Evolution séculaire de l'âge à la ménarche en Pologne, les nombres entre parenthèses représentent l'évolution en mois/décade.



**Figure 7.**

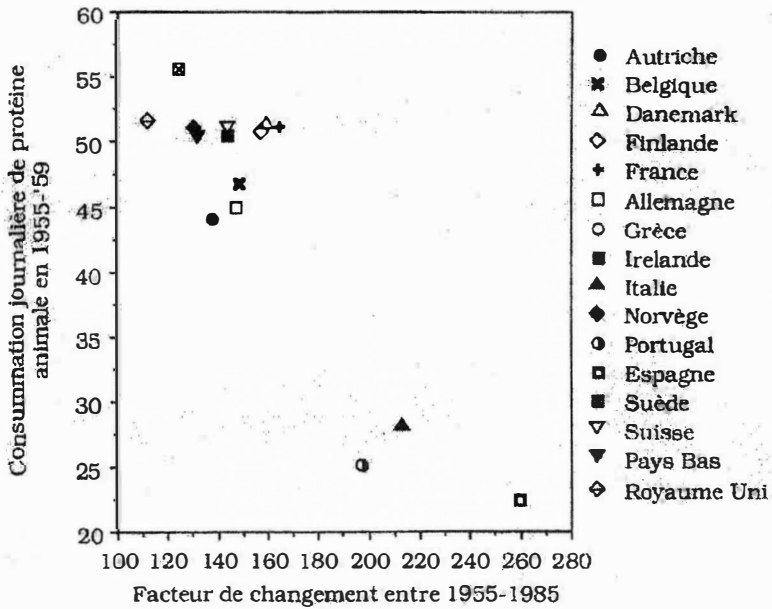
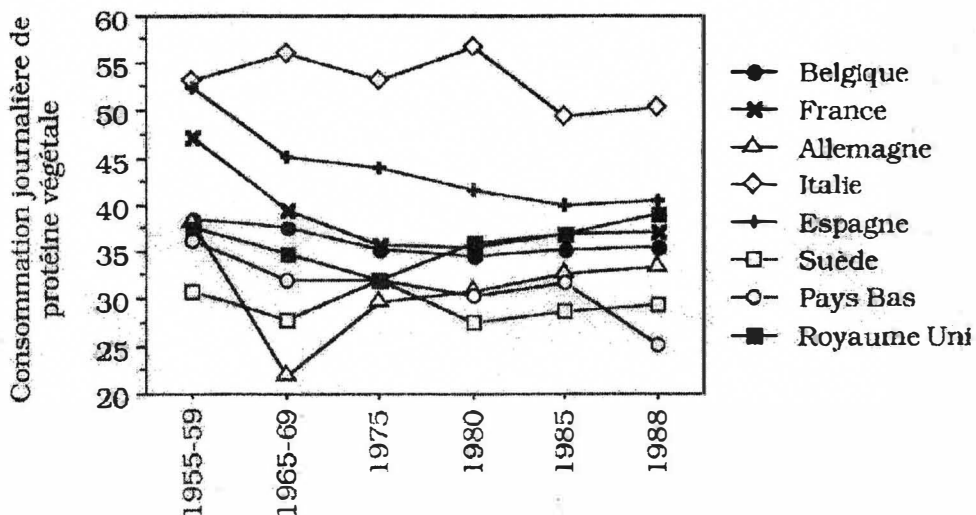
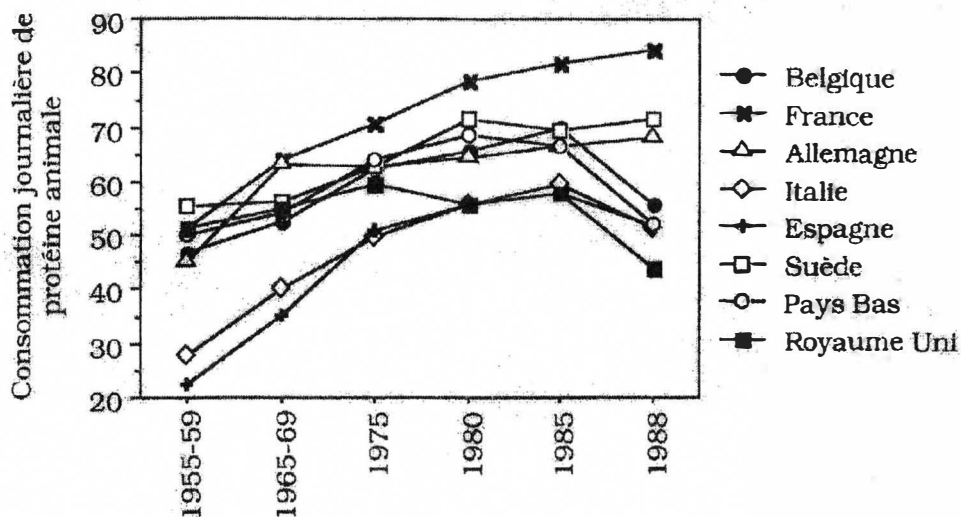


Figure 6.



## SCURTA PREZENTARE A ANTROPOLOGIEI ROMANEȘTI ȘI LOCUL EI ÎN CERCETAREA ANTROPOLOGICĂ INTERNAȚIONALĂ

DR. CRISTIANA GLAVCE

În primele scrieri istorice românești sunt menționate trăsături fizice, caracteristici psihice și ale vieții socio-culturale referitoare la populațiile baștinașe, cât și a popoarelor care au traversat ori s-au oprit pe teritoriul țării noastre. Astfel primele informații antropologice sunt foarte timpurii, dar despre noțiuni de antropologie putem vorbi odată cu apariția Tratatului de Antropologie a lui Vasici Ungureanu (1830). Ulterior o serie de teze de doctorat ale unor medici români susținute la Paris, Berlin, Viena și Budapesta abordează probleme antropologice, afiliind astfel România la țările cu tradiție în antropologie.

Primul curs cu elemente antropologice este ținut la Iași de prof. Cizak (1850). Tot în această perioadă încep primele cercetări antropologice a căror rezultate sunt publicate în reviste străine de specialitate. Spre sfârșitul sec. XIX marile reviste de cultură și știință românești: "Convorbiri literare" sub direcția lui Titu Maiorescu și "Contemporanul" lui Dobrogeanu Gherea publicau articole de antropologie privind originea omului, a raselor umane precum și contribuții originale pe plan teoretic și conceptual. Studiul lui Ghibănescu - "Evoluție și educație" care tratează "mișcarea" materiei de la anorganic la organic până la om.

Inceputul sec. XX marchează o dezvoltare și o direcționare bine precizată a cercetărilor antropologice atât pe populațiile istorice (în colaborare cu arheologii), cât și pe populațiile actuale.

Antropologul de renume mondial Eugene Pittard nu numai că formează o serie de specialiști români, dar ani în șir (1900-1937) participa alături de aceștia la studii pe teren în cele mai reprezentative zone ale României: atât pe nuclee de populație autohtonă cât și în regiuni cu adevărat mozaic populațional cum este Dobrogea. Drept rezultat apar în edituri străine monografiile despre populațiile românești precum și numeroase articole în reviste de antropologie de renume.

În primele decenii ale secolului XX încep să fie recoltate date în mod sistematic și se realizează primele cartografieri ale caracteristicilor metrice pe populații românești. Tot acum sunt stabilite măsurătorile pentru recrutare (dupa școala franceză de antropologie) ce constituie o baza de date de referință în evoluția populației în timp.

La Iași prof. Botez introduce elemente de antropologie în cursurile universitare ale Facultății de Științe Naturale și totodată fundamentează școala ieșeană ce are o pondere deosebită în dezvoltarea antropologiei românești.

Paralel se conturează și se dezvoltă școlile de antropologie clujeană și bucureșteană, fiecare cu un specific aparte.

Școala clujeană condusă de prof. Papilian cu o puternică amprentă medicală și socială prezintă o dezvoltare deosebită în perioada interbelică. Personalitățile de renume în antropologia românească ale acestei școli sunt înlăturate din circuitul vieții științifice după 1944, desființându-se astfel acest centru antropologic. Cercetările rămase sunt de actualitate și în prezent prin caracterul lor pluridisciplinar de abordare a problemelor cât și prin vastitatea domeniilor abordate: de la paleoantropologie la antropologia populațiilor contemporane, dezvoltând cercetări de antropologie medicală, demografică, auxologică, rasială și socio-culturală.

Dispariția școlii clujene nu a împiedicat însă intrarea în circuitul național și internațional al problematicilor antropologice abordate de specialiștii clujeni.

Prof. Francisc Rainer, fondatorul școlii bucureștene a reușit să instituționalizeze antropologia în România prin crearea Institutului de Antropologie inaugurat cu ocazia desfășurării celui de-al XVII-lea Congres Internațional de Antropologie și Arheologie, București, 1937. Acest congres a statuat antropologia românească în rindul țărilor cu tradiție în acest domeniu.

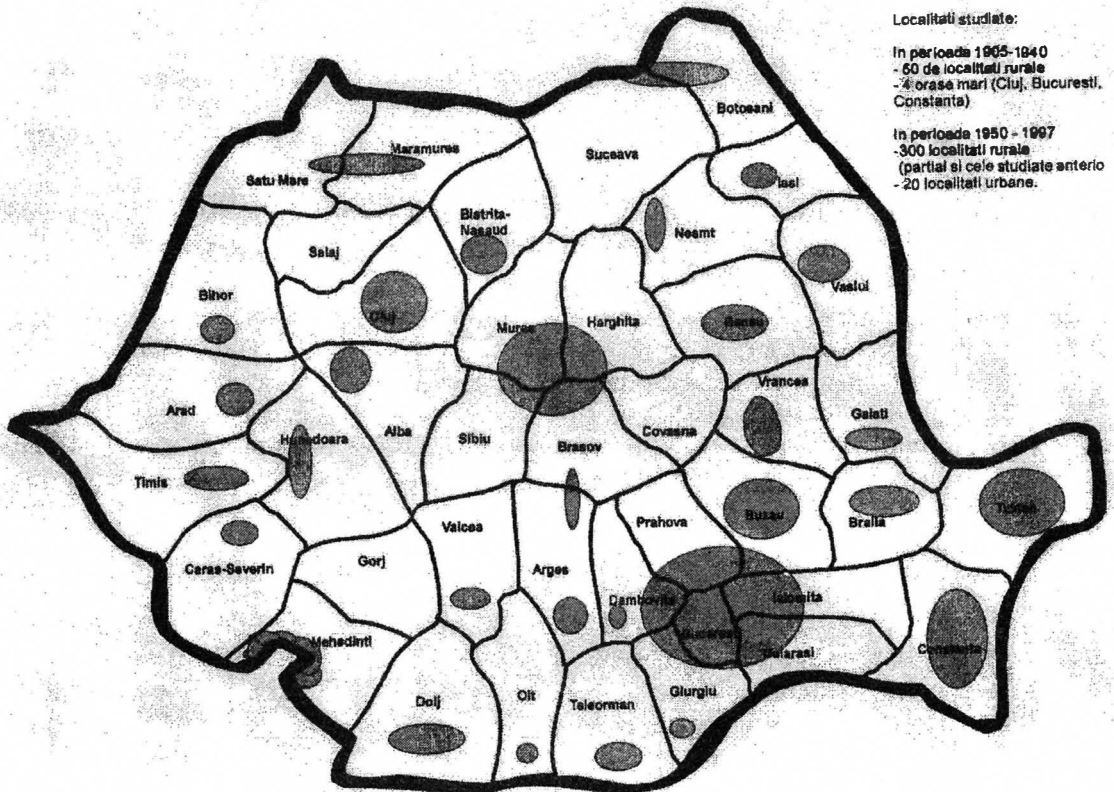
Specificul antropologiei românești încă de la început a constat în abordarea pluridisciplinară și înțelegerea interdisciplinară a omului, atât din perspectiva paleoantropologică cât și contemporană. Prof. Rainer nu concepea studiul biologicului uman rupt de psihicul sau/și mediul socio-economic în care trăiește. Aceasta concepție împărtășită de prof. D. Gusti, întemeietorul școlii sociologice românești, definește cadrul problematic al antropologiei moderne de la noi din țară. Încercările conjugate ale acestor



doă mari personalități în abordarea pluridisciplinară a antropologiei datează din perioada interbelică. După 1944 antropologia dispare ca instituție până în 1950 când prof. Stefan Milcu, cu colaboratorii săi reușește reorganizarea ei și direcționează interdisciplinar cercetările. Colectivului bucureștean de antropologie i se alătură din 1958 colectivul de cercetători ieșeni cristalizați în jurul acad. Olga Necrasov.

Cele două colective colaborează la realizarea unor cercetări moderne de antropologie având ca principală tematică formarea și continuitatea poporului român pe teritoriul țării noastre.

După 1990 Institutul își recapătă personalitatea sa instituțională permițând realizarea unei tematici obiectivate în programul de cercetare "Structura antropologică a populațiilor actuale istorice și preistorice de pe teritoriul României în perspectiva ultimului deceniu al secolului XX".



Tematicile se încadrează în domeniul cercetării fundamentale privind aspectele bio-medicale și socio-culturale ale fenomenului om în complexitatea sa actuală și în evoluția sa individuală și populațională.

Individul uman este abordat în complexul sau unitar ca organism viu. Aspectele biologice (normalitate și patologice) și cele socio-culturale sunt tratate în perspectiva sincronică și diacronică.

Componența grupului de cercetători ai centrului oglindește specificul școlii antropologice românești. Fiecare specialist, reprezentat fie ai științelor pozitivistice (medici, biologi, informaticieni, biofizicieni), fie a științelor umaniste (filologi, sociologi, psihologi, istorici) tinde să acopere un spectru tematic cât mai larg în cercetarea antropologică contemporană.

Distribuția pe teme urmărește să aducă noi aspecte în cunoașterea omului contemporan și celui istoric.

Tematica de cercetare a centrului pornește de la paleoantropologie la antropologia contemporană și de la antropologia biologică la cea socio-culturală. Aceasta reflectă atât păstrarea tradiției antropologiei instituționalizate în țara noastră încă din 1937 cât și preocupările actuale ale cercetătorilor noștri care se înscriu în cadrul preocupărilor pe plan mondial. Ele constau în investigații teoretice și practice privind structura antropologică a populațiilor focalizate pe principalele domenii:

- **Paleoantropologie:**

- Cercetări privind cunoașterea structurii antropologice a evoluției populațiilor umane care au trăit pe teritoriul României în diferite etape preistorice și istorice, începând din paleoliticul inferior (cultură) și resturi osoase mai consistente începând din epipaleolitic.
- Cercetări privind permanența și schimbarea în structura și comportamentul populațiilor vechi și actuale de pe teritoriul României.

- **Antropologie biologică:**

- Studiul antropologic al populațiilor contemporane din România cu accent asupra impactului perioadei de tranziție.
- Aspecte antropologice privind relațiile dintre vârsta biologică și cea cronologică la copii și adolescenți.
- Elaborarea Atlasului Antropologic al României.
- Evidențierea factorilor care intervin în dinamica proceselor de creștere și dezvoltare.
- Cercetări de demografie istorică.

- **Antropologie medicală I**

Laboratorul de cercetări auxologice:

- Metode antropologice de evaluare a stării de sănătate a populației din România.
- Expresia în antropologie de la naștere până la moarte: o investigație clinică de antropologie medicală. Factori determinanți culturali, patologici și mișcși.
- Investigații antropologice complexe asupra adolescentului: date antropometrice, biochimice, serologice, morfologice, tipologice, psihologice și socio-economice, precum și corelații între nivelurile hormonale și trăsăturile constituționale.
- Cercetări de biochimie populațională cu implicații medicale.

- **Antropologie medicală II**

Laboratorul de genetică și antropologia familiei:

- Contribuții metodologice în studiul eredității unor caractere polifactoriale (antropometrice și morfo-fizionomice).
- Cercetări bio-medicale asupra populației longevive.
- Expertize de paternitate.
- Patologia dermatoglifelor și implicațiile ei medicale.

- **Antropologie medicală III**

Laboratorul de antropologie psiho-medicală:

- Dezechilibre psihice la limita dintre normal și patologic; studii asupra vulnerabilității psihice în populația urbană și asupra fragilității psihice în perioada de tranziție de la adolescență la adultul tânăr în condițiile perioadei de tranziție de la noi din țară.

- **Antropologie medicală IV**

Laboratorul de electrofiziologie:

- Studii interdisciplinare de fiziologie antropologică. Corelații între tipurile fiziologice, reactivitate la boli și terapii adecvate.
- Parametri electrofiziologici în evaluarea nivelului de sănătate (o tehnică originală de investigație paraclinică de uz curent în cadrul Spitalului Universitar București).

- **Antropologie socială și culturală:**

- Strategii sociale și mentalități în satul românesc.
- Cercetări asupra corelațiilor socio-culturale și asupra morbidității reflectate în paternurile de locuire la comunitățile trăind în blocuri.
- Paternuri de mentalitate în satul tradițional românesc (colaborare cu Ecole de Hautes Etudes en Sciences Sociales, Paris).

- **Antropologie teoretică:**

- Omul și cultura: contribuții la o antropologie sistemică; concepții asupra omului la gânditorii români și străini.
- Antropologia obiectului cultural.
- Antropologia sistemică în secolul XX.
- Contribuții la hermeneutica obiectului cultural contemporan.
- Antropologie vizuală: simbolismul materialului în sculptura lui Constantin Brâncuși.
- Valori simbolice ale fierului în societatea contemporană.
- Identitatea ca valoare.
- Cercetări privind fragilitatea umană.

- **Laboratorul de etologie umana (funcționează din 1994):**

- Cercetări privind relația om - animal în mediul urban și rural.
- Investigații asupra agresivității și comportamentului "teritorial" la populații tinere trăind în medii restrictive de libertate.
- Comunicarea verbală și non-verbală.

Dovada nivelului înalt al cercetării științifice din cadrul Centrului sunt cele 3 premii acordate de Academia Română pentru lucrări de prestigiu. Menționăm cele 4 atlase antropologice publicate cu abordare pluridisciplinară a unor regiuni cu importanță în formarea și continuitatea poporului român.

O valoare deosebită o are Atlasul Olteniei care a rămas singurul document despre o zonă dispărută sub lacul de acumulare a Porților de Fier, atât privind populațiile ce au trăit în acea zonă, a culturii lor cât și a mediului ambiant. Există materiale publicate parțial sau nepublicate încă care rămân unicele documente a unor comunități umane de la noi din țară care au disparut ca urmare a unor modificări eco-industriale forțate.

Cel mai important obiectiv al cercetărilor (Valea Bistriței, sate depopulate prin migrații în zone industriale) Centrului îl reprezintă realizarea unui atlas antropologic pentru întreaga țară. Primul volum ce se referă la Muntenia așteaptă a fi tipărit.

Centrul de Cercetări Antropologice sub egida Academiei Române publica anual fără întrerupere din 1950 revista în limba română "Studii și cercetări antropologice" și din 1964 "Annuaire roumain d'Anthropologie". De asemeni numeroase materiale au fost publicate în reviste naționale și internaționale de prestigiu.

După al XVII-lea Congres Internațional de Antropologie și Arheologie din 1937, la 62 de ani se reușește organizarea unei Conferințe Naționale cu participare internațională.

Se cuvine să exprim un cuvânt de recunoștință față de colegii din străinătate care în toată perioada de restriște și-au manifestat solidaritatea prin materialele pe care ni le-au trimis, prin invitațiile făcute la manifestări științifice internaționale, prin colaborările realizate.

Considerăm că antropologia românească prin tot ceea ce reprezintă poate fi alăturată școlilor de prestigiu din lume.

Dorim să vă mulțumim dumneavoastră tuturor celor care ați venit la această sărbătoare științifică a noastră, realizată după o atât de lungă perioadă de tăcere.

Dorim totodată să ne exprimăm speranța că timpul care ne stă înaintea va fi mai îngăduitor decât cel care a urmat congresului din 1937 și că până la următoarea întâlnire nu vor mai trece atât de mulți ani.

## DEMOGRAFIA ȘI ANTROPOLOGIA

Academician Vladimir Trebici

1. În urmă cu patru decenii, într-un studiu pentru U.N.E.S.C.O. cu privire la situația demografiei în învățământul universitar, sociologul-demograf Frank Lorimer scria: “Căsătoria dintre economie și demografie, încheiată sub auspiciile lui Malthus s-a dovedit futunoasă și de scurtă durată”. “Recăsătorirea” s-a produs prin anii 1950; factorul favorizant a fost “explozia demografică” din lumea a treia. Cât de trainică este “recăsătorirea” celor două discipline nu se poate spune cu certitudine de vreme ce nu toți economiștii sunt de acord ca populația să fie tratată ca variabilă endogenă pentru sistemul economic.

Recent a apărut un studiu cu titlu interogativ: “Poate economia să mijlocească relația dintre antropologie și demografie?”, semnat de Vijayendra Rao<sup>1</sup>. Autorul răspunde prudent la posibilitatea “căsătoriei” dintre antropologie și demografie, referindu-se la rolul de posibil “naș” al lui G.S. Becker, laureat al Premiului Nobel pentru economie, apreciat, deopotrivă, de economiști, sociologi și demografi. Două din lucrările sale fundamentale sunt disponibile și în versiune românească.

Istoria recentă a științelor ne oferă numeroase exemple de “căsătorii”, “divorțuri” – mai curând “abandonuri” -, urmate de “recăsătorii” și, mai recent, de “uniuni consensuale” (“cohabitation sans mariage”), între științe. Fenomenul are o explicație simplă: progresul foarte rapid al științelor, împrumuturile frecvente dintre ele, mai ales în planul teoriilor și metodelor, de unde necesitatea reexaminării statutului fiecăreia în parte, înainte de a stabili noi “alianțe”.

2. Problema se pune și pentru cele două științe: demografia și antropologia. Considerațiile se vor face pentru situația specifică din România, avându-se în vedere problemele concrete pe care le formulează realitatea socială și posibilele răspunsuri pe care le-ar putea da cele două științe. Anticipând, vom spune că problema nu poate fi circumscrisă la raportul dintre antropologie și demografie. Ea implică și raporturile cu sociologia, psihologia socială, etnologia și economia politică.

Dacă științele sociale, în numeroase cazuri, stăpânesc același domeniu, sub raport epistemologic este important să se precizeze specificitatea obiectului, specificitatea metodelor, specificitatea demersului teoretic. Să începem ce definițiile celor două științe.

Demografia este “studiul populațiilor umane, tratând mărimea, structura, evoluția și caracteristicile lor generale, văzute în principal din punct de vedere cantitativ”<sup>2</sup>. Există numeroase definiții ale demografiei (R. Pressat, de pildă), dar esențialul se regăsește în definiția citată: populația umană, structuri, evoluție, caracteristici generale și principalul, limbajul cantitativ, practic cel statistic. Mai exact, este vorba despre populația umană, văzută ca sistem demografic relativ autonom, în care stocurile și structurile sunt în permanență modificate de fluxuri – nașteri, decese, migrații. După cum rezultă din chiar termenul de demografie, funcția sa principală este descrierea. Încercarea de a-i schimba denumirea în demologie, pentru a accede la un statut superior, nu a avut succes, așa cum s-a întâmplat cu etnografia care a reușit să ajungă la statutul de etnologie. Diviziunea științifică a impus, în decursul timpului, crearea de ramuri: pe de o parte, demografia pură, teoretică, matematică, ținând de metodologie, iar pe de altă parte, demografia economică, socială, istorică, determinată de aplicațiile metodologiei la domenii specifice. Se va fi remarcat că nicăieri demografia nu vorbește de teorii sau modele explicative, deși ea se referă la acestea. Ele sunt însă elaborate de alte științe.

Antropologia are un statut diferit; în același timp, vom constata numeroase puncte de intersecție cu demografia. În formularea sa cea mai generală, antropologia este “discurs despre om” sau “studiul omului”<sup>3</sup>. Această definiție generală și universală are nevoie de specificări și detalieri, pe care Gheorghită Geană le dă în continuare. “Antropologia – aflăm mai departe – este o foarte cuprinzătoare și complexă

<sup>1</sup> Vijayendra Rao. Can Economics Mediate the Relationship Between Anthropology and Demography?, in Population and Development Review (The Population Council), 23: 4, p. 833-838, December 1997.

<sup>2</sup> Louis Henri. Dictionnaire démographique multilingue. Volume français. Deuxième édition préparée par... Dodina Editions. U.I.E.S.R., Liège, 1981.

<sup>3</sup> Dictionar de sociologie. Coordonatori Cătălin Zamfir și Lazăr Vlasceanu. Editura Babel, București, 1993. Termenii de antropologie, etnologie, etnografie și cei înrudiți au fost redactați de către Dr. Gheorghită Geană.

știință a omului ca individ, grup și specie, vizând atât structura cât și comportamentul acestor ipostaze (entități)”.

Diviziunea fundamentală, acceptată de marea majoritate a specialiștilor, este aceea în: a) antropologie fizică și b) antropologie culturală sau socială (terminologie disputată de cele două școli: europeană și americană); lăsând la o parte relațiile antropologiei cu sociologia și etnologia, vom preciza că demografia este interesată de antropologia culturală sau socială, definită astfel: “disciplină științifică de sine stătătoare care studiază comportamentul uman (s.n.) bazat pe norme (cultura), în context spațio-temporal concret” (p. 41). Ca și demografia, antropologia a cunoscut o proliferare de discipline. Antropologia culturală se ramifică în: antropologie economică, juridică, politică, estetică, educațională și altele. Până la un punct, se constată o anumită simetrie după obiect, cu demografia.

Nu este nici o îndoială că cele mai mari progrese au fost înregistrate de antropologia culturală. Este suficient să se compare tematica Congresului al XVII-lea internațional de antropologie și paleoantropologie (București, 1937), dominat de personalitatea profesorului Francisc Rainer, cu tematica actualei Conferințe internaționale. Din cele opt sesiuni, numai trei ne trimit la antropologia fizică: paleoantropologie, antropologie biologică și antropologie medicală. Celelalte sesiuni sunt: antropologie socială, culturală și lingvistică, antropologie informațională, antropologie și demografie, antropologie politică.

Să reamintim că prof. Fr. Rainer, colaborator al prof. Dimitrie Gusti, la cercetările sociologice, era partizanul orientării biologiei și antropologiei spre social. Această concepție era prezentă și la prof. Gheorghe Banu, prof. Iuliu Moldovan, Dr. Sabin Manuila, Dr. Petru Râmneamțu, Dr. D.C. Georgescu.

Cu demografia românească s-a întâmplat ceva ciudat. Deși o axiomă a acesteia ne spune că evenimentele demografice fundamentale – nașterea și moartea – au un caracter dual: biologic și social și, ca atare aspectul biologic a început, treptat – treptat, să fie ignorat de demografi și aceasta, în condițiile în care biologia și medicina se apropie tot mai mult de social. În prezent, tendințele demografice din România, mai ales în perioada de tranziție, impune științei demografice să acorde importanța cuvenită factorului biologic, după cum vom încerca să arătăm în continuare. Etimologic, antropologia, cu al său  $\alpha\nu\theta\rho\omega\pi\omicron\varsigma$  este știința despre om; demografia are ca obiect  $\delta\eta\mu\omicron\varsigma$  – popor, populație.

Dacă este adevărată metafora “populația este omul la plural”, rezultă că antropologia și demografia au un “condominium” – omul, populația, văzute din puncte de vedere complementare. Se va remarca imediat diferența dintre cele două științe:  $\lambda\acute{o}\phi\omicron\varsigma$  și  $\phi\rho\acute{\alpha}\psi\epsilon\tau\eta$  ceea ce sugerează o deosebire de grad, nu neapărat de calitate. Antropologia are o armătură teoretică, rolul ei în explicarea comportamentelor este foarte important. Dar acest rol îl au și sociologia și psihologia socială. Pe de altă parte, demografia este obligată să folosească noțiunea de comportament: nupțial, familial, reproductiv, migratoriu, cărora ea, demografia, le dă definiții mai curând operaționale. Dar, demografia este cea care pune în evidență, prin descrierea diferențială, existența comportamentelor. Variația fertilității pe categorii socio-profesionale, după teritoriu, religie sau naționalitate, pe baza informației statistice, prelucrate corespunzător de demografie, este o primă indicație asupra comportamentului reproductiv. Antropologia va da seamă – împreună cu sociologia – asupra genezei, funcționării și manifestărilor comportamentului reproductiv în condiții concrete spațio-temporale. Teza este valabilă și pentru celelalte comportamente și, în primul rând, pentru cel nupțial și familial, unde noțiunea fundamentală este sistemul de rudenie. Aici antropologia se întâlnește cu etnologia.

3. Considerațiile privind necesitatea întăririi raporturilor dintre antropologie și demografie nu sunt dictate de interese abstracte, teoretice. Am amintit că tendințele demografice recente, unele cu caracter negativ, obligă – da, obligă! – cele două științe ca să stabilească o conlucrare mai activă, coerentă, care să aibă drept rezultat cunoașterea și explicarea cauzală a acestor tendințe.

Cea mai vizibilă, este scăderea numărului populației României, cu consecințe sociale, economice, politice și geopolitice, ușor previzibile. Or, cauza principală este scăderea fertilității, cu tendințe de lungă durată. Dacă fenomenul este general european, în schimb specifică pentru România este menținerea mortalității generale și a celei infantile la un nivel înalt, așa cum arată evoluția speranței de viață la naștere și a ratei mortalității infantile. Structura mortalității pe cauze de deces, prevalența unor cauze, impactul unor boli considerate ca eradicate, variații semnificative din punct de vedere teritorial și etnic – puse bine în evidență de studiile demografice – sunt tot atâtea semne de îngrijorare. Analizele cauzale sunt – din păcate – destul de puține. Iată deci un domeniu în care colaborarea dintre antropologie și demografie poate aduce foloase teoretice și practice inconstestabile. Și nu este singurul domeniu. Demografia ar trebui să se reorienteze către aspectele biologice, cu atât mai mult cu cât se vorbește tot mai frecvent despre

deteriorarea potențialului biologic al poporului român. Să ne amintim de monumentală monografie “Sănătatea poporului român” a prof. Gheorghe Banu (1935). Informația macrodemografică este disponibilă. Ea trebuie completată cu cercetări microdemografice, cu anchete somatometrice, antropologice și etnografice. Știm puțin – și, desigur, fragmentar – despre factorii ecologici, despre comportamentul alimentar și despre efectele lor asupra morbidității și mortalității populației.

Familia, “nucleul de bază al societății”, cunoaște și ea evoluții insuficient studiate. Recensământul populației, ca și ancheta integrată a gospodăriilor, oferă informații, dar analiza cauzală este modestă. Structura etnică și confesională ridică și ea probleme de cel mai mare interes atât pentru antropologia culturală cât și pentru cea fizică<sup>4</sup>. Sugestii s-ar putea găsi și pentru antropologia religioasă.

Dacă demografia solicită antropologiei ajutor în domeniul teoriei comportamentelor și al analizei cauzale, nu e mai puțin adevărat că și antropologia ar trebui să valorifice pe scară mai largă materialele demografice și să aplice cu mai multă perseverență metodologia demografiei în anchetele sale.

Sub raport logistic, în sânul Academiei române există un început de colaborare între Centrul de Cercetări Antropologice și Centrul de Cercetări Demografice – acesta înființat în 1995. Mai este un drum lung până la metamorfoza acestor “centre” în “institute”.

Printre spiritele tutelare ale celor două științe figurează prof. Francisc Rainer, cu vrednicii săi continuatori, acad. Ștefan Milcu și prof. Victor Săhleanu, dr. Dabin Manuila, Anton Golopenția, cărora li se adaugă distincții colaboratori actuali.

Conferința noastră va însemna – sperăm din toată inima – un bun prilej pentru a reînnoi colaborarea dintre antropologie și demografie, cu cert folos pentru știința românească.

<sup>4</sup> . VI. Trebici. Structura confesională a populației. Centrul de Cercetări Demografice al Academiei Române. Mai, 1998.





## IMPLICATIONS DE LA PALÉOANTHROPOLOGIE ROUMAINE DANS LA CONNAISSANCE DE L'ÉVOLUTION DE LA STRUCTURE ANTHROPOLOGIQUE DES POPULATIONS PRÉHISTORIQUES ET HISTORIQUES AUTOCHTONES, DE LA PALÉOPATHOLOGIE

CEZARINA BALTEANU, DAN BOTEZATU

Le présent travail essaie de synthétiser brièvement et seulement comme pour suggérer des axes de recherches, les résultats de la paléanthropologie roumaine, accumulés durant les soixante-dix dernières années dans notre pays, en tant que fruit de la collaboration avec l'archéologie.

La préoccupation de base dans les études paléanthropologiques des populations est de mettre en évidence la structure anthropologique du fonds biologique des populations ayant vécu sur le territoire de notre pays et d'en établir les éléments spécifiques, qui vont servir de "marqueurs" dans le processus de la formation de notre peuple. Les recherches paléanthropologiques ont poursuivi la permanence et la continuité de l'élément autochtone le long du temps, mettant en évidence parallèlement, d'une certaine façon, l'importance des différentes tribus qui ont pénétré dans l'aréal carpato-danubien-pontique et le phénomène d'assimilation de celles-ci. Au fur et à mesure que les matériaux paléanthropologiques se sont enrichis de nouvelles découvertes, on a approfondi des études de paléodémographie grâce à des aspects nouveaux, hormis ceux de l'âge et du sexe : la longévité, l'espoir de vie, la mortalité infantile, l'âge moyen au décès etc.

Le tableau pathologique des populations étudiées est chargé et variable comme diversité, à partir des temps les plus reculés. De la sorte, on a pu mettre en évidence les plus vieilles affections : des caries dentaires (à différents degrés de complications), des vices d'éruption dentaire, on a pu également vérifier sur un échelon impressionnant de cas la corroboration entre les caries dentaires et les multiples phénomènes d'arthrose et l'on a identifié aussi d'autres maladies qui laissent des traces dans le système osseux.

Parmi les problèmes soulevés par les recherches de la paléanthropologie roumaine il y a aussi les plus vieilles tentatives de l'homme d'améliorer les souffrances causées par les traumatismes, tout comme le controversé problème des trépanations ou des déformations craniennes, constituant de la sorte un très bon fondement de l'histoire de la médecine.

En Roumanie, les recherches paléanthropologiques se sont développées plus tard que celles de l'anthropologie contemporaine déterminées par le rythme plus lent des fouilles et des découvertes archéologiques. Ce travail représente l'essai de synthétiser les directions dans lesquelles la paléanthropologie roumaine a apporté de réelles contributions au niveau actuel de la connaissance.

La préoccupation principale des études paléanthropologiques populationnelles est de mettre en évidence la structure anthropologique du fonds biologique des populations qui ont vécu sur le territoire de notre pays et d'établir en même temps les éléments spécifiques qui serviront de piliers dans le processus de synthèse du peuple roumain. Nos recherches poursuivent la permanence de l'élément autochtone à travers le temps et établissent le poids des différentes tribus, ayant pénétré dans la région carpato-danubio-pontique et le phénomène de leur assimilation.

Le vestige humain le plus ancien découvert en Roumanie est le neurocrâne de Cioclovina, appartenant à l'Aurignacien (Paléolithique). C'est un **dolichocrâne**, le front dépressionné et le relief supraorbital du type Prédmost. Une découverte plus tardive de l'Épipaléolithique de Ostrovul Corbului met en évidence des éléments semblables au premier: la forme du crâne et le relief supraorbital.

Les études archéologiques concernant le Néolithique ont montré qu'à la base des vestiges matériels il y a un **passage**, «**essaimage**» des populations du bassin méditerranéen, dans les régions du Nord et du Nord-Est comprenant aussi le territoire actuel de la Roumanie: le Sud du pays, le Sud de la Transylvanie et la Moldavie.

Les restes néolithiques, beaucoup plus riches que ceux paléo-et épipaléolithiques, représentés par de nombreuses nécropoles, nous ont permis une étude anthropologique plus ample et plus complexe. La

culture néolithique la plus ancienne de la Roumanie, la culture Criș représentée par les populations des nécropoles de Gura Baciului, Bedehaza, Trestiana - Bârlad, offre des formes prédominantes méditerranéoïdes graciles, qui attestent des liaisons génétiques avec la population des régions égéennes et anatoliennes, mais aussi, des formes robustes paléoméditerranéoïdes et protoeuropoïdes, des caractéristiques des populations anciennes autochtones.

La population de la nécropole de Cernavodă (la culture Hamangia) présente une polymorphie plus accentuée que celle des autres populations néolithiques autochtones. En dehors du fonds autochtone, des populations néolithiques on y trouve aussi un mélange avec des méditerranéoïdes graciles, provenus probablement de populations du monde méditerranéen assimilées par les locaux, mais aussi, la présence de certains éléments brachycrânes, à teinte alpine, qui peuvent être rattachés au type arménoïde ou dinaroïde, grâce auxquels on ne peut négliger la liaison des populations de la culture Hamangia avec le monde égéen-anatolien.

La structure anthropologique des populations de certaines cultures néolithiques plus particulières Boian, Gumelnița et Cucuteni-Tripolie vient à l'appui des hypothèses de beaucoup d'archéologues en faveur de l'épanouissement, dans le même espace, des cultures Gumelnița et Cucuteni développées sur un fonds Boian. De plus, quoique l'étendue de la culture Cucuteni -Ariuşd - Tripolie soit très vaste, grâce au fonds anthropologique commun des populations de Cucuteni (à la fois méditerranéoïde et dinaroïde), on peut démontrer l'unicité du fonds génétique de ces nombreuses tribus néolithiques.

La polymorphie des structures anthropologiques des populations à partir du Néolithique moyen (reflétée dans les grandes nécropoles de Cernica et de Cernavodă, qui indiquent un essor démographique important) peut être expliquée, à part l'assimilation de certaines tribus nouvellement, aussi par l'extension de l'exogamie chez les tribus de la culture Boian.

Mais l'intensification du degré de brachycéphalisation crânienne, manifestée surtout chez les séries féminines est un phénomène difficile à justifier. Dans la polymorphie de la structure anthropologique des populations, tant anciennes qu'actuelles, on ne peut pas exclure l'influence des écosystèmes spécifiques territoriaux.

Les populations anciennes de la culture Boian, similaire à celle de Ruse (Bulgarie) témoignent de particularités zonales. Même les populations tribales de la vaste zone de la culture Cucuteni - Ariuşd - Tripolie, bien qu'ayant un fonds structurel commun, offrent beaucoup de particularités zonales.

Pendant la période de transition de l'Énéolithique à l'âge du Bronze, le fonds méditerranéoïde avec les particularités locales des populations tribales autochtones est enrichi de certains éléments spécifiques des tribus nomades de la culture des amphores sphériques ou des tombes à cistes de pierre (Piatra Neamț, Dolheștii Mari, Băcești). De nouveaux caractères y apparaissent: la taille élevée du type anthropologique protoeuropoïde, mais gracilisé, avec des tendances accentuées de brachycéphalisation.

C'est toujours à la fin du Néolithique, que d'autres populations nomades apparaissent sur le territoire de notre pays. L'une d'elles se remarque par des tombes en ocre, planes ou des tumuli (Holboca, Valea Lupului, Smeeni, Stoicani, Liești, Bujoru). Cette population a une ossature puissante surtout les hommes; les femmes sont plus graciles. Les hommes offrent des variantes du type protoeuropoïde, nordoïde et quelques éléments dinaroïdes semblables aux séries des steppes nord-pontiques (la culture Drevne - Iamnaia). Les femmes ont une structure protoeuropoïde gracilisée; quelques unes sont méditerranéoïdes évoluées, semblables au fonds anthropologique de la culture Boian et Gumelnița. La gracilisation peut être l'effet du mélange avec les populations énéolithiques autochtones.

Les nombreuses cultures des tribus protothraciques (les nécropoles Dealul Sofia, Poiana, Trușești, Zimnicea, etc.) ou découvertes isolément (Smeeni IV, D'aia Parte) montrent le même fonds méditerranéoïde rencontré dès le Néolithique et continué à partir de l'âge du Bronze ou du Fer jusqu'à nos jours.

La diffusion accentuée du rite funéraire d'incinération chez les Daces, quoique rendant difficile le déchiffrement des structures anthropologiques, nous aide à découvrir les cimetières birituels (Soporul de Câmpie en Transylvanie, Ocnița et Petriș), ce qui atteste toujours le fonds méditerranéoïde autochtone, mais aussi des éléments protoeuropoïdes et dinaroïdes.

L'extension du phénomène de brachycéphalisation remarqué dès le Néolithique en Transylvanie à Gura Baciului dans les nécropoles de bronze, d'une fréquence plus élevée en Transylvanie, sera réalisée dès l'âge du Fer chez les populations autochtones parsemées sur tout le territoire du pays (les nécropoles Balta Albă, Gogoșu, Zimnicea, Gabăra, Săbăoani, etc.).

L'explosion démographique des populations ayant accentué l'exogamie, les conditions historiques particulières (la colonisation surtout pendant le Hallstatt en Dobrogea), la période des migrations

proprement dite dont on peut parler au début de l'époque féodale n'ont pas éteint le fonds méditerranéen des populations locales. En revanche, dans les zones d'influence de ces phénomènes, la structure anthropologique des populations locales s'est enrichie de nouveaux éléments:

- l'influence par les Scythes de certaines tribus locales de Dobrogea (Cavaclar, Isaccea, Brătei, Ciumbrud, etc.);
- l'enrichissement avec des éléments méditerranéens évolués grâce aux influences grecques et romaines des colonies de Dobrogea (Histria, Tomis et Callatis);
- la symbiose daco-romano-alano-gothique du début du féodalisme précoce (Sântana de Mureș, Botoșani, Transylvanie, Spanțov) mène à l'enrichissement du fonds structurel avec des éléments de robustesse des nomades;
- l'augmentation des éléments dinariens et alpins à la limite de cohabitation avec les Slaves (les nécropoles de Izvoru - Giurgiu et Sultana - Călărăși);
- l'augmentation des nouveaux éléments nordiques et protoeuropéens, par la cohabitation avec les populations moraves du type Stare - Mesto: les nécropoles de Transylvanie - Biharia, (XI - XII siècles), Ciumbrud (X siècle), Dealul Viilor - Sighișoara (X - XII siècles);
- les nécropoles des sites du carrefour des voies commerciales ou datés du point de vue historique pendant les grandes migrations, offrent de très grands mélanges de toutes les populations cosmopolites, rencontrées dans le fonds anthropologique autochtone (X - XII siècles à Dinogetia et Enisala-Tulcea toutes les deux byzantines, XVII-XVIII siècles à Pua Pietrii - Giurgeni).

Ce fut le mérite de la paléanthropologie roumaine d'avoir extrait minutieusement d'une immense source, à la suite d'une collaboration permanente avec l'archéologie le fonds principal des géniteurs des populations autochtones, ainsi que celui produit par les cohabitations à la longue avec d'autres populations qui ont évolué sous l'influence des lois génétiques, démographiques, des conditions du milieu et historiques.

Au fur et à mesure de l'enrichissement des documents paléanthropologiques avec de nouvelles découvertes, on a approfondi aussi les études de paléodémographie par de nouveaux aspects, à part l'âge et le sexe: la longévité, l'espérance de vie, la mortalité infantile, l'âge moyen au décès, etc.

De telles études ont rencontré des difficultés: des nécropoles ont été détruites par les travaux agricoles ou les aménagements. La conservation précaire des matériaux des nécropoles très anciennes ou situées dans des sols impropres, les rites des tribus d'enterrer les enfants dans les sites (les tribus néolithiques de Gumelnița), de certaines tribus thraciennes ou daces qui incinéraient leurs morts, tout ceci a alourdi les études de paléodémographie.

Cependant, la grande richesse des collections bien conservées et datées nous a permis d'établir quelques particularités paléodémographiques.

Ainsi l'âge au décès des plus anciennes tribus néolithiques (la culture Criș) est de 30 ans. Il s'accroît à 35 ans plus tard (les cultures Boian et Hamangia), grâce à l'adoucissement du climat et à l'amélioration des conditions de vie. Dans les nécropoles de Gumelnița où il n'y a pas d'enfants, on a établi la fréquence de l'âge au décès de 18 à 25 ans notamment pour les femmes fécondes, et pour les hommes de 30 à 32 ans, tandis qu'on remarque l'absence de l'âge de 50 ans.

Les nécropoles de Cucuteni où tous les âges sont représentés y compris 50 - 60 ans nous permettent d'établir l'âge moyen au décès vers 25 - 30 ans pour les deux sexes.

Les études paléodémographiques réalisées pour l'époque féodale pour de très grandes séries (Izvoarele- VII - IX siècles, Obârșia- XII - XV siècles, Doina Girov- XII-XV siècles, Trifești- XIII - XIV siècles, Hudum- XIV siècle, Străulești- XV - XVI siècles) nous montrent que l'espérance de vie est très basse, en comparaison avec les siècles antérieurs; vers la fin du XIV siècle on remarque l'espérance de vie la moins élevée, suivie par un accroissement sensible vers nos jours.

Une fois les premières formations, pré-étatiques roumaines fondées, le pouvoir de défense s'accroît, les communautés s'épanouissent, et leur évolution démographique se passe d'une manière favorable du point de vue économique.

### CONSIDERATIONS SUR CERTAINS ASPECTS PATHOLOGIQUES

Les plus anciens squelettes découverts sur le territoire de notre pays montrent comme affections pathologiques des caries dentaires et des lésions de la colonne vertébrale et des articulations des os longs.

Le problème des caries dentaires est rencontré dès le Néolithique d'une manière différentielle chez les différentes populations tribales. Ainsi, sur un grand nombre de sujets néolithiques de la nécropole

de Cernica, 75% des hommes et 80% des femmes sont affectés par les caries dentaires. En revanche, les tribus néolithiques de Cernavodă et de Chirinogi - Oltenița ne sont pas saisies par cette maladie.

Quelle pourrait en être la raison? Il pourrait s'agir soit d'une prédisposition génétique des tribus, soit d'un enrichissement en oligoéléments du sol et de l'eau.

Une autre observation intéressante déduite de l'étude des collections paléoanthropologiques de tous les âges historiques est la corrélation entre la fréquence des caries dentaires et les affections de la colonne vertébrale et des articulations. Dans les nécropoles d'Alba Iulia et de Sighișoara - Dealul Viilor, 50% de la population est atteinte par ces maladies.

Le problème des interventions chirurgicales est de la même longue date que les maladies. Une intervention soit thérapeutique, soit religieuse se rapporte aux trépanations crâniennes. La plus ancienne opération de ce genre a été découverte dans le tumulus de Holboca; il s'agit d'une tombe à ocre de la période de transition. Il est possible que les pâtres nord-pontiques en aient apporté la technique. Les trépanations crâniennes découvertes sont uniques ou multiples; certaines ont un anneau osseux de cicatrisation, preuve de la survie du des fois cet anneau, indiquant la mort subite du sujet.

Comme fréquence, les trépanations crâniennes sont enregistrées surtout pendant l'âge du Bronze, leur nombre diminuant et disparaissant pendant l'âge du Fer, notamment au début. Nous rappelons une trépanation intéressante, unique en son genre, faite sur un os long, et attestée par radiographie dont le sujet est un enfant de Gumelnița, découvert dans le tell de Hârșova: l'enfant survécu à l'opération.

Le rite funéraire est celui d'un sacrifice humain, mais la trépanation aurait pu avoir aussi un but thérapeutique, étant donné les traces de traumatismes osseux au niveau du périoste de la jambe entière.

Le problème des déformations crâniennes voulues, a ses racines ethniques et des raisons probables d'ordre esthétique. Des telles opérations sont faites aussi de nos jours en France. Dans notre pays on a trouvé de nombreux crânes déformés par un certain type de bandages (planchettes) chez les populations de Sarmates, Goths et Huns.

En général, le tableau des maladies des populations anciennes est moins chargé que celui des populations contemporaines.

Il y a des maladies très anciennes. Ainsi, le plus ancien cas d'ostéosarcome a été rencontré à Valea Orbului (le Néolithique, la culture Boian) au niveau de l'humérus droit.

Le problème des maladies neuro-endocrines est lui aussi très ancien; le cas le plus ancienne de nanisme a été découvert dans les couches néolithiques de Gumelnița (Popina -Bordușani) et la hauteur est de 75cm.

Mais les plus fréquents sont les cas de fractures, certaines consolidées en position anatomique, d'autres en position vicieuse, datant du Néolithique et étant extrêmement abondantes à l'époque féodale.

Les données mises à notre disposition par la paléoantropologie dans ces cas sont très intéressantes surtout pour l'histoire de la médecine, en témoignant pour la plupart de maladies anciennes, mais aussi du désir de l'homme de les guérir.

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## ASPECTS PATHOLOGIQUES BUCCO-DENTO-MAXILLAIRES EN ROUMANIE À PARTIR DU NÉOLITHIQUE À L'ÉPOQUE ACTUELLE

PĂTRU FIRU, SVETLANA APOSTOLESCU

L'analyse anthropologique des particularités pathologiques des affections bucco-dento-maxillaires peut nous donner des éléments objectifs sur le génofond des populations qui ont vécu sur le territoire de la Roumanie avec les facteurs environnants qui ont influencé le mode de vie, les moeurs, l'alimentation et le comportement des populations à travers les siècles.

En examinant 2000 squelettes trouvés en Roumanie et datant de l'époque néolithique à l'époque féodale et 30.000 habitants de Roumanie de l'époque actuelle, les auteurs ont décrit les particularités de la carie dentaire, de la périodontite des anomalies dento-alvéolo-maxillaires et de l'usure dentaires; on analyse aussi les éléments des cultures respectives et l'étyopathogénie probable.

L'usure dentaire est la première affection qu'on observe chez les populations du néolithique à nos jours, à des degrés différents suivant le mode d'alimentation.

La carie dentaire a un indice de fréquence de 20.6% en néolithique; cet indice hausse vers 50.9% pendant le feudalisme et à 80% au commencement du 19-e siècle; maintenant en Roumanie cet indice arrive à 95% - 98%, on a associé la fréquence de la carie dentaire avec l'alimentation prédominante des hydrocarbonates (pain, pomme de terre, sucre raffiné) et l'hygiène bucco dentaire pour évaluer la culture et l'éducation des populations des époques respectives.

La périodontite est observée dans l'antiquité chez les personnes âgées; la résorption osseuse est associée avec une réaction osseuse avec des ostéophytes, jusqu'à nos jours, lorsqu'on n'observe plus l'apparition des ostéophytes.

Les premières anomalies dento-alvéolo-maxillaires apparaissent en néolithique, comme incongruence dento-alvéolaire lorsque, les alpins, les méditerranéens et les dynarques viennent sur le territoire de la Roumanie pour fonder des familles.

Les anomalies dento-maxillaires, sagittales, transversales et verticales apparaissent avec les migrations en groupes des Dynarques au sud des montagnes Carpathes et des Nordiques dans la région intra Carpathique de la Roumanie; la fréquence et les formes cliniques des anomalies dento-alvéolo-maxillaires varient avec les types anthropologiques régionaux de Roumanie.

### 1. CARIA DENTARĂ ÎN EVOLUȚIA UMANĂ

În cadrul afecțiunilor buco-dento-maxilare, peste 400, cele mai importante prin frecvență sunt caria dentară, periodontita, anomaliile dento-maxilare și cancerul bucal. Dintre acestea, caria dentară este de departe maladia cu cea mai mare morbiditate, complicațiile ei influențând negativ aparatul cardiovascular, hepatic, renal, articular.

Statisticile stabilite de OMS, prin Date Bank, pe anul 1997 arată o creștere a indicilor de carie dentară și periodontita la țările în curs de dezvoltare, printre care și România, și menținerea acestora la nivel constant sau chiar la scăderea lor în țările dezvoltate industrial, unde igiena buco-dentară a devenit o practică curentă.

Studiul bolii carioase privește entitatea morbidă în corelație cu factorii exo- și endogeni: genetici, metabolici, endocrini, nutriționali, funcționali, în ansamblul condițiilor de mediu înconjurător, geografic, social, cultural. Corelația cu factorii exo-endogeni este obligatorie pentru stabilirea diagnosticului și pentru cercetările prospective, de prognoză, care relevă necesitatea stabilirii unui program de prevenire primară, prepatogenă, în funcție de factorii bio-psiho-sociali din țara noastră.

La nivelul cunoștințelor de astăzi, caria dentară este considerată un proces complex caracterizat prin fenomene de tip cronic-regresiv și ireparabil, având debut obligatoriu pe o suprafață dentară expusă mediului bucal. Procesul este dependent de factori etiologici multipli, cu acțiune concordantă în declanșarea procesului: un anumit mod de alimentație, anumită structură dentară, prezența florei microbiene bucale și este influențat de intervenția unor factori cum sunt: saliva, forma și poziția dinților, educația și mai ales păstrarea igienei buco dentare.

Caria dentară este o afecțiune comună omului și animalelor, astfel, s-au găsit carii pe dinții fosilelor de pești din paleolitic în perioada ermică, iar ulterior la mamifere - la belodonte, carnivore și



omnivore. Primatele, prin adaptarea la viața arboricolă și la hrana cu predominanță în tuberculi făinoși, favorizând apariția cariei dentare.

În cadrul hominidelor prezența cariei dentare și periodontitei este constantă atât la Australopiteci, Pithecanthropi, cât și la Neanderthalieni la care dispar spațiile simiene, apar reduceri dimensionale ale caninilor iar arcadele alveolare se reduc sagital. La Neanderthalieni apar rapoartele ocluzale "cap la cap" la nivelul incisivilor și "ad palatum" lateral. Apar cariile de colet ca o consecință a prezenței crestei ecuatoriale molare și a formei molarilor, cu o suprafață ocluzală mai mică decât ecuatorul, formă ce se regăsește astăzi în forma molarilor temporari. În schimb, aceeași formă se constituie ca o barieră de protecție a periodonțiului, formele de afectare periodontală fiind mai rare.

La omul actual, reducerea ecuatorului molar reduce semnificativ cariile cervicale, în schimb, datorită și faptului că punctele de contact aproximal se situează în treimea ocluzală, și nu în cea gingivală ca la Homo Neanderthalensis, se constată o creștere semnificativă a indicilor de frecvență a periodontitei.

Prin aceste modificări de formă a dinților permanenți în cadrul filogenezei, ce favorizează apariția și evoluția periodontitei, atât caria dentară cât și periodontita pot fi considerate ca niște consecințe ale reducerii filogenetice dentare.

Numeroase studii au demonstrat ceea ce a fost denumit "traseul dentar descurajant al evoluției umane", dar și creșterea ratelor pentru pierderea pre-mortem a dinților, abcesele perapicale și alți indicatori de maladie alveolară. De exemplu, frecvența cariei dentare este în general mult mai mică la vânători-culegători decât la agricultori, indiferent dacă datele provin de la grupurile actuale sau populațiile preistorice. Creșterea susceptibilității la carie în timp și ratele diferențiate dintre vânători-culegători și agricultori ca populații sunt în mod obișnuit atribuite tranziției de la dieta supra-proteică la cea hiper-carbohidrată.

Anumite trăsături generale cu privire la patologia orală se pot desprinde pentru Pleistocenul superior și Holocen. Se constată o creștere a frecvenței cariei dentare începând cu pleistocenul superior târziu, ratele nefiind mult diferite de cele din Holocen, localizările de predilecție sunt la nivelul molarilor, se constată apariția policariilor și a formelor penetrante, în special în Holocen când se constată și o mai mare incidență a cariei dentare la femei. În Pleistocenul superior timpuriu proteinele animale constituiau baza dietei acestor grupuri, situație explicabilă în această perioadă de glaciațiuni. În Pleistocenul târziu, datorită ameliorării condițiilor climatice, s-a creat o mai mare diversitate a florei disponibile făcând posibilă o mai mare exploatare a resurselor de hidrați de carbon.

În sfârșit, în regiunile sudice ale Europei, perioadele mai calde ale Holocenului fac posibilă creșterea fructelor subtropicale, făcând disponibile smochinele, curmalele și alte fructe dulci și lipicioase. Au început să apară diferențe regionale în privința resurselor vegetale, iar mierea de albine începe să fie colectată în special în ariile sudice ale Europei.

La Homo Sapiens Recens, odată cu începutul Neoliticului, apar primele modificări legate de noul mod de viață, prin reducerea influenței factorilor de mediu extern și de creșterea influenței factorilor psiho-sociali, o dată cu parcurgerea diferitelor forme de organizare. În zonele temperate apare o adevărată explozie demografică, apar amestecurile populaționale dintre crescătorii de vite și agricultori și uniformizarea vieții sedentare și parțial sedentare. Ca o consecință directă se constată o creștere a frecvenței anomaliilor dento-maxilare, a cariei dentare și a periodontitei, cu predominanța formelor aproximate ale cariei dentare. Astfel, în țara noastră se constată o creștere a frecvenței periodontitei cu 25% în Neolitic, iar indicele de frecvență al cariei dentare crește continuu de la 18% cât se înregistrează în Eneolitic, la 29% în epoca bronzului, corelat probabil cu schimbările condițiilor de viață și cu modul de alimentație datorită folosirii pe scară largă a uneltelor agricole.

O nouă ascensiune bruscă a indicelui de frecvență a cariei dentare apare în perioada feudalismului târziu, când ajunge în unele localități din țara noastră la 80%.

Este de remarcat și faptul că numeroase crani datând din neolitic și eneolitic prezintă câte un singur dinte afectat de boala carioasă, pe când în feudalism fiecare craniu are majoritatea dinților afectați de carii de diverse tipuri, grade de intensitate și complicații.

Un criteriu important în studiul cariei dentare în evoluția umană îl are indicele cariopatografic, el modificând atât modificările filogenetice cât și influența continuă a factorilor mezologici. El prezintă interes și în studiul prevalenței cariei dentare: în prezent se constată o trecere rapidă spre complicații acute și cronice pulpare și periapicale, comparativ de exemplu cu populațiile din epoca feudală sau cu populațiile mongole actuale la care evoluția rămâne în continuare lentă.

Caria dentară a cunoscut în evoluția sa trei curbe ascensionale ca frecvență. Prima a fost generată în Neolitic de schimbările survenite în mediul de viață, ce au generat modificări ale modului de viață și alimentație prin apariția agriculturii, creșterii consumului de cereale, folosirea pâinii dospite. A doua

generată în prefeudalism și în feudalism de dezvoltarea intensivă a agriculturii și apariția morăritului, iar a treia, în secolul XIX prin începutul folosirii zahărului rafinat produs din sfecla de zahăr.

În societățile industriale și post-industriale se remarcă o nouă creștere, a patra, a indicatorilor de analiză, datorită unor factori multipli, cum ar fi urbanizarea și industrializarea ce fac să predomine modul de viață specific marilor aglomerări urbane, poluarea caracteristică acestor aglomerări, modul de viață sedentar, factorii specifici de stress, alimentația din ce în ce mai rafinată, semipreparată, hipercalorică, ce nu mai este în măsură să stimuleze suficient și armonios dezvoltarea activității aparatului dento-maxilar.

Stomatologia din trecut și chiar și de astăzi, așa cum se manifestă în multe țări printre care și țara noastră, era dominată de un tratament restaurativ și curativ, ceea ce necesită aparatură, material, metode și personal mai complex, mai costisitor și care nu poate acoperi decât parțial nevoile de asistență.

În concepția actuală asistăm la un nou sistem de acordare a asistenței stomatologice, cel preventiv, în care responsabilitatea este împărțită în doi, între medic și pacient, și în care cea mai importantă devine prevenirea primară, prepatogenă, cea aplicată înaintea debutului bolii.

## 2. STUDIUL PROBLEMEI PE PLAN NAȚIONAL ȘI INTERNAȚIONAL

Studiul aspectelor de morfopatologie dento-maxilară ale scheletelor umane aparținând populațiilor vechi, strâns legate de modul de viață și condițiile socio-economice a constituit preocuparea multor autori din țară și străinătate.

În cadrul analizei efectuate, s-a urmărit încadrarea celor două maladii sociale - caria dentară și periodontita - în fiziopatologia generală și compararea datelor rezultate din studiul regiunilor țării noastre, cu cele comunicate în literatura de specialitate, la grupurile umane actuale și din trecut.

Studiul a pornit de la concepțiile actuale, care consideră caria dentară și periodontita ca maladii de origine plurifactorială în care condițiile generale de mediu precum și modul de viață joacă un rol dintre cele mai importante. Astfel, pornind de la concepția includerii patologiei în studiile antropologice, introdusă în țara noastră de către șoala Fr.I.Rainer - St.M.Milcu, și care permite să se ajungă la o cunoaștere complexă, istorico-biologică a populațiilor, am analizat corelațiile dintre aspectele morfopatologice dento-maxilare și condițiile de viață socio-economice, în special modul de alimentație legat de obiceiurile populațiilor vechi, de la paleoliticul superior până în feudalismul târziu, cât și a celor actuale, de la capitalism până la societatea post-comunistă, în tranziția spre capitalismul sub formă modernă.

P.Adler, P.Boev, H.Brabant, A.Vallois și alții au publicat studii asupra diferitelor colecții paleoantropologice. În țară, O.Necrasov, Ct.Maximilian, Nicolăescu Plopșor și colaboratorii au făcut studii antropologice asupra materialului preistoric găsit la noi. Analizele lor asupra culturii Hamangia din perioada veche a neoliticului (4000-3000 î.d.H.) - mai veche decât culturile Cucuteni și Gumelnița și în bună parte contemporană cu cultura Boian ajung la concluzii asemănătoare cu cele ale studiilor efectuate asupra populațiilor ocromane din eneolitic - Complexul Holboca, Iași - cât și a celor efectuate la Cernavodă, datând din epoca de tranziție spre epoca bronzului (în jur de 1900 î.d.H.).

Caracteristicile interesante, comune acestor studii și a altora efectuate asupra aceluiași perioade, sunt lipsa leziunilor odontale și a complicațiilor acestora, raritatea abceselor dentare, apariția molarilor de tip evolutiv, cu dimensiuni mai reduse și abraziunea dentară accentuată, generalizată. Această abraziune de gradul II și III caracteristică omului preistoric, indică un puternic aparat masticator și predominanța alimentației dure, nelipicioase, ce constă din vegetale: rădăcini, cereale primitiv preparate (amestecate cu paie) ce conțin siliciu, semințe.

Lipsa molarului de minte inferior - apărută în paleoliticul superior - atinge o frecvență de cca 30% la tranziția dintre neolitic și bronz.

Datele culese de C. Maximilian la Drobeta, așezare getică romanizată de Traian și cu un amestec rasial, sciți, celți, sarmați (material din sec. 2-3 d.H.), relevă extinderea cariei dentare și a complicațiilor acesteia - edentațiile, datorită poate și acestui amalgam populațional.

În 1965, Firu și Nicolăescu-Plopșor studiază aspectele morfopatologice dento-maxilare a unei colecții de aproape 1500 de cranii (colecția Rainer a Centrului de cercetări antropologice Fr.I.Rainer), material aparținând perioadei cuprinse între paleoliticul superior și epoca feudalismului târziu (sec. 17-18).

Caria dentară descrisă la australopitecine, pitecantropi, omul din Rhodezia, Neanderthalienii de la muntele Carmel și Crapina (Clement, Boev, Vallois, Boerlich) era deja răspândită în mezolitic (oamenii d'Afalou din Alger cu frecvența cariei dentare de 3,8% - Boule). Autorii confirmă datele din literatură: de la 18% în eneolitic, indicele de frecvență a cariei dentare crește continuu cu o ascensiune în epoca bronzului (29%).

Mai remarcăm raportul invers între frecvența cariei dentare și abraziunea dentară gravă, generalizată, aceasta din urmă scăzând de la 60% în Neolitic până la 5% în feudalism datorită schimbărilor survenite în modul de alimentație.

### 3. INCIDENȚA PERIODONTITELOR

Frecvența mare a acestui fenomen patologic se constată în neolitic și poate fi explicat prin faptul că la populațiile din acea epocă se reduce prima dată bosa vestibulară a molarilor, caracteristică omului fosil. Prin dispariția acesteia, periodonțiul vine în contact direct cu alimentele în procesul masticăției și trece printr-o perioadă de reacție violentă care se manifestă prin fenomene inflamatorii. Cu timpul s-a produs adaptarea la noile condiții, astfel încât în epoca istorică următoare se produce din nou un echilibru în cavitatea bucală.

În feudalism același fenomen se explică prin scăderea rezistenței generale a organismului și mai ales a periodonțiului marginal datorită preparării rafinate a alimentelor de consistență moale, care solicită mult mai puțin întregul aparat dento-maxilar.

De altfel, creșterea treptată a procentului de fenomene de periodontită din epoca bronzului până în cea feudală se datorește în cea mai mare măsură schimbărilor petrecute în modul de alimentație o dată cu evoluția condițiilor de mediu fizic și socio-economic.

O dată cu creșterea frecvenței periodontitei cresc și complicațiile acesteia - granuloame, chisturi dentare etc. - care apar în epoca bronzului și ajung la procente maxime în feudalismul târziu.

## THE ORIGIN OF NEANDERTHALS

SILVANA CONDEMI

The Neanderthals, a typical European population, are perhaps the best known fossil population with well-distinguished features. The attempt has often been made to explain the anatomical particularities of the Neanderthal fossils in terms of adaptation. Their traits would thus result from an adaptation to a cold natural environment. This hypothesis seemed all more plausible, given that for a long time only European fossils belonging to stages 4 and 3 - recognized as cold stages - were considered to be Neanderthal. However, as we will see more closely in this paper, we recognize today that the evolution of the Neanderthal lineage took place over the course of a long period of time and that that certain Neanderthal features became differentiated before the stages 4-3. We recognize, therefore, that the anatomical particularities of the Neanderthals cannot be interpreted solely as a consequence of adaptation to a rigorous climate. According to the present state of our knowledge, it appears that the Neanderthals population should be principally interpreted as the result of geographic isolation. Of course, this isolation must be related to the unique geographic position of the European peninsula and to the particular climatic conditions that prevailed in Europe during the entire Pleistocene.

### A. THE OLDEST HUMAN FOSSILS IN EUROPE: HOMO ERECTUS, HOMO HEIDELBERGENSIS, HOMO ANTECESSOR OR ARCHAIC HOMO SAPIENS?

Among all of the regions of the ancient world, it is the continent of Europe which, thanks to the extensive fossil record, allows us to reconstruct with precision the evolution of its population over the last 500,000 years.

For the oldest periods, the human presence in Europe is demonstrated only by artifacts or paleosurfaces. As recently as three years ago, the artisan of this industry (between 1.000.000 and 500.000 years old) was unknown. Today, two sites, Campo-Grande a Ceprano in Italy and La Grande-Dolina d'Atapuerca in Spain have yielded human fossils originating in this earliest period. The preliminary studies of these fossils shows similarities with those from Africa and they have been attributed to *Homo erectus* (1, 2).

From levels dated between 550.000 and 500.000 years old came the well-known fossil from Mauer which, for a long time, was the oldest human remains discovered in Europe. This fossil is roughly contemporary to the first human remains discovered at Box Grove (England) and only slightly older than Arago (France), than Visogliano (Italy), and perhaps also (if the dating is correct) than those from Petralona (Greece), as well as from Atapuerca -Sima dello Huesos (Spain).

The discovery of very ancient human fossils in Europe has raised many questions concerning these first inhabitants of the European continent. Indeed, we do not know whether these ancient fossils belong to *Homo erectus* or if they should be related to archaic *Homo sapiens* or even to a unique species particular to Europe, *Homo heidelbergensis* or *Homo antecessor* (Cf. fig. 1).

In the present state of our knowledge, it is often supposed that *Homo erectus* existed in Europe, although no European fossil can be related with certitude to this species. While some researchers believe that this species existed only in Africa and Asia, for others it was present only in Asia and still others believe that what we call *Homo erectus*, in fact designates an early form of *Homo sapiens* present on all three continents (in this case there would only be *Homo sapiens*, which would be a gradual species). (Cf. for a broad discussion of this theme: 3, 4, 5, 6)

Thus, the chronological as well as the morphological boundaries between *Homo erectus* and the first *Homo sapiens* have not yet been clearly established: the ancient European fossils are sometimes attributed to *Homo erectus*, and sometimes to *Homo sapiens*. The features which are sometimes described as characteristic of archaic *Homo sapiens* are often primitive features which are also present on *Homo erectus*. In western Europe, the European fossil which well illustrates this difficulty of interpretation is the Arago skull, which is a *Homo erectus* for some authors, above all for M. A. de

Lumley (7) and, for others, an archaic *Homo sapiens* that already shows one Neandertal feature on its maxillary.

## B. HOMO SAPIENS NEANDERTHALENSIS OR HOMO NEANDERTHALENSIS?

We are aware that Europe witnessed the development of an original population, called Neandertals. Over a long period of time, a large majority of researchers considered that the Neandertals belonged to a sub-species of *sapiens*, *neanderthalensis*. According to this point of view, the subspecies *neanderthalensis* could only have derived from the species *sapiens*. Once again this raises the problem of the relationship between *Homo erectus* and *Homo sapiens* in Europe (Cf. fig. 1). What fossils in Europe belong to *Homo sapiens* from which the Neandertals evolved?

During recent years the hypothesis according to which Neandertals belonged to a sub-species of *sapiens*, *neanderthalensis* has been challenged by some researchers who believe that the Neandertals constitute a separate species, *Homo neanderthalensis*. In this case, however, the same problem we raised above reappears in another form : what is the relation of *Homo neanderthalensis* with the presumed species *Homo erectus* which preceded it? (Cf. fig. 1)

The divergence between these two different points of view may be explained by the fact that in the opinion of certain researchers the Neandertals present so many particular (unique, derived) features that they must be considered to constitute a separate species. For others, the fact that Neandertals and *Homo sapiens sapiens* share common features (for example, a great cranial volume) indicates that they should be considered to be two sub-species of *sapiens* (for the features see section C "the Neandertal features").

Fig. 1

Chart resuming the different possible ways in which the ancient European populations might have succeeded one another.

<i>Homo sapiens sapiens</i>	<i>Homo sapiens sapiens</i>	<i>Homo sapiens sapiens</i>	<i>Homo sapiens sapiens</i>
<i>Homo neanderthalensis</i>	<i>Homo neanderthalensis</i>	<i>Homo sapiens neanderthalensis</i>	<i>Homo neanderthalensis</i>
<i>Homo erectus</i>	<i>Homo antecessor</i>	<i>Homo sapiens</i> "archaic"	<i>Homo heidelbergensis</i>

## C. THE NEANDERTALS FROM AN ANATOMICAL POINT OF VIEW

How then might we define the Neandertals? Which features permit us to characterize them, even on the basis of a small fragment? In other words, which features are unique to this population, allowing us to identify this lineage without ambiguity?

Although the anatomical particularities of the Neandertals were placed in evidence beginning with the earliest studies on these fossils, the recognition of features unique to the Neandertal population is still very much subject to controversy.

The scientific community for a long time considered every feature not present on modern man to be a Neandertal feature. The absence of fossils for comparison outside of Europe only led to an exaggeration of the role of European fossils in human evolutionary history. Today we know that the Neandertals are a population which inhabited only a small part of the ancient world (Cf. fig. 2).

There thus never was an evolutionary phase beginning with which Neandertals might be considered to be the ancestors of mankind as a whole.

Numerous discoveries of ancient fossils throughout the world make it possible to attempt a differentiation between archaic (plesiomorphic) features and derived (apomorphic), specialized features. Indeed, an archaic feature may well have persisted over time among different human forms and thus be found among different fossil groups (Cf. fig. 3). For this reason, such features cannot by themselves be determining factors, as can be, however, features which are unique to a single lineage.

Fig. 2

Spatial distribution of sites where humans fossils have been found.

On the map early sites appear as squares and Neandertal sites as dots. Although many Neandertal sites in Europe are not precisely dated, most are between 80,000 and 35,000 years old ("classic Neandertals").

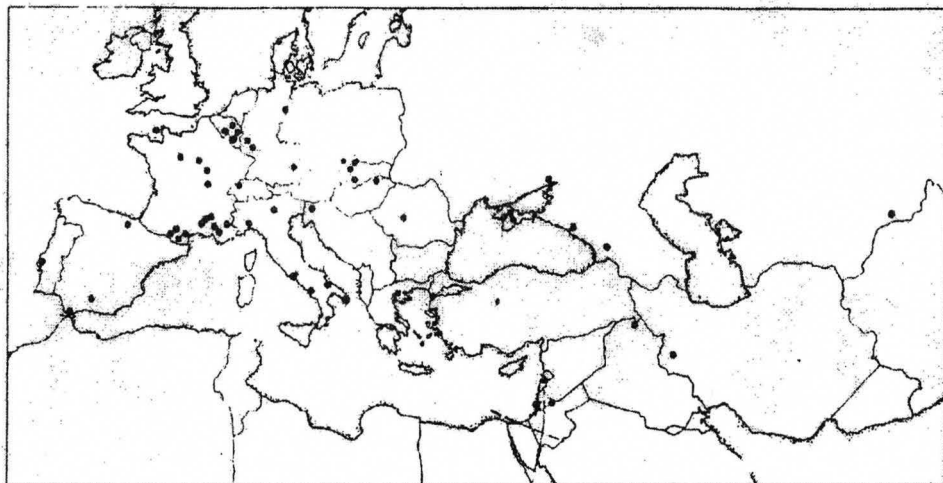
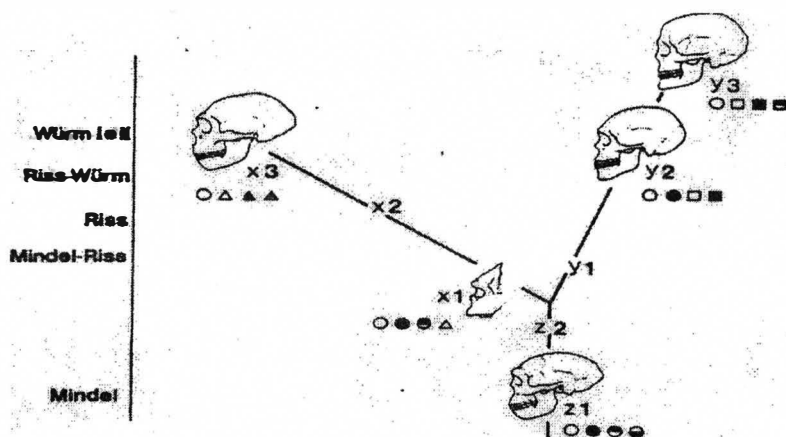


Fig. 3

Hypothetical sketch showing two evolutionary lineages, X and Y, which differentiate from a common ancestor, Z. The features present on the different lineages are symbolized by circles, triangles and squares. The circles represent archaic features present on the common ancestor, the triangles and square derived features acquired by the two lineages



This methodology, apparently simple, nonetheless encounters certain difficulties in its application. The most important of these difficulties stems from the necessity of having samples of ancient fossils of all skeletal regions in order to clarify the differentiation of archaic and derived features. However, this method only rarely takes the possibility of reversions into account, distorting in this way our representation of the feature polarities.

Thus, for example, the large sphenoid angle and the flattened base of the Neandertal cranium was always considered to be an archaic feature, since it is similarly found among the anthropomorphic primates. Nonetheless, the study of pre-Würmian European fossils has shown that Steinheim, Petralona, Saccopastore 1 and 2 have a relatively small sphenoid angle compared to classic Neandertals (8). For this



reason, the flattened base of the cranium of the Neandertal (La Chapelle-aux-Saints, La Ferrassie 1 and Circeo 1) should be considered to be typical of Würmian Neandertals.

### The features of the Neandertals

During the past ten years, a large number of studies have been undertaken comparing single fossils presumed to be Neandertal with *Homo erectus* and modern humans (9-18). All of these studies have the merit of refining the morphological analysis, giving an increasingly precise idea of Neandertal bone morphology while taking into account a certain variability among Neandertals.

### The Neandertals are distinguished by :

1) the presence of archaic traits.

Archaic traits are those inherited from ancestral forms. They are not observed on any modern humans (for example: the low and elongated cranial vault, the absence of frontal protuberances, the absence of a chin, and the great overall robustness)

2) Derived traits which the Neandertals share with modern humans

for example the strong cranial capacity [on the average of 1518 +/- 169]; the marked curvature of the occipital; the reduction of the size of the third molar.

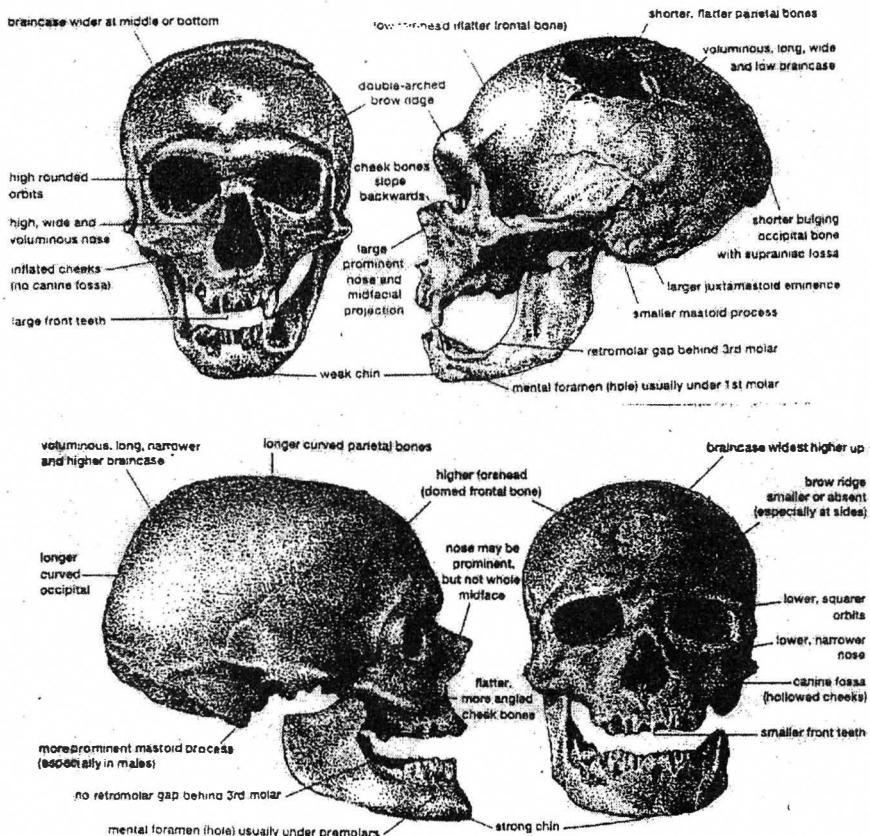
3) Derived traits, which are truly diagnostic for Neandertals, unique to the Neandertals. These can be briefly summarized as follows:

### Cranium and Face (Cf. fig. 4)

Fig. 4

Principal features found in "classic" Neandertals (La Chapelle-aux-Saints, above) and in anatomically modern skull (Cro-Magnon, below)

**Fig. 4: Principal features found among « classic » Neandertals (La Chapelle-aux-Saints, above) and on the anatomically modern skull (Cro-Magnon, below) (from Stringer C.B. and Gamble C., 1993)**





Superior view: maximum width of the cranium

Occipital view: the shape of the cranium in occipital view, the so-called "bomb shape", and the morphology of the occipital bone with the torus transverse occipital and the suprainiac fossa.

Lateral view: the shape of the occipito-mastoid region with the juxtamastoid eminentia more developed than the mastoid process; on the temporal bone, the presence of a *tuberculum mastoideus anterior*; still more important: the zygomatic processes is on the same level as the *meatus acusticus externus*.

Facial view: the particular form of the supra-orbital torus; the shape "in extension" of the face with the modification of the zygomatic bones, the body of the maxillary bone with the absence of canine fossa, the frontal apophysis and the nasal bones.

**Jaw** (Cf. fig. 4)

- 1) the lateral development of the condyle;
- 2) the displacement of the mental foramina above the first molar;
- 3) the retromolar space;
- 4) large anterior dentition in comparison to the posterior.

### The postcranial skeleton

**Scapula** : Neandertals exhibit a dorsal groove, a ventral groove on *Homo sapiens sapiens*.

**Pelvis** : on Neandertals the pubis ramus is long and thin, longer than the ramus pelvis of a female *Homo sapiens sapiens*.

**Hand** : on Neandertals the first finger exhibits two phalanges having almost the same size, whereas on *Homo sapiens sapiens* the second is smaller than the first.

**Femora** : rounded and not triangular diaphysis that is typical of *Homo sapiens sapiens*

**The distal segments** : The proportions of the forearm and the tibia are similar to those found among people of the extreme north, such as Esquimos. This leads us to believe that the Neandertals had adapted to a cold climate and that they became differentiated during a period of rigorous climatic conditions in Europe.

## D. WHEN DID THE DIFFERENTIATION OF THE NEANDERTAL LINEAGE START?

One of the most important tasks of current paleoanthropology lies in the identification of unique (derived) Neandertals features. The recognition of these same features on the ancient human fossils makes it possible to trace the emergence of the Neandertal lineage.

In the present state of our knowledge, it can be affirmed that Europe was the cradle of the Neandertals, the place of differentiation and evolution of this population.

Western Europe shows a chronological sequence that permits us to reconstruct an evolutionary pattern which occurred over a long period of time, in other words, during at least 350.000 years. When they are sufficiently complete to permit analysis, ancient fossils discovered in Europe clearly show the evolution and diversification leading to the Neandertals which, far from brutal or sudden, was progressive. Over the course of time, the fossils increasingly exhibit Neandertal traits. In western Europe, all of these pre-Würmian fossils, beginning from about 400.000 years ago, are in my opinion pre-Neandertals, in other words fossils which preceded, both chronologically and phylogenetically, the Würmian Neandertals. The presence of Neandertal traits among these fossils shows that the differentiation of this typical European population was already underway.

In central Europe, the fossils from the Saalian complex are considered to be either *presapiens* (19) or *Homo erectus*. During the past years the hypothesis of a presence of *Homo erectus* in central Europe has been supported by the interpretation of fossil remains from Reilingen (20) and Bilzingsleben (21, 22).

My study of the fossils found in Germany (23, 24, 25) has neither permitted me to confirm the status of *Homo erectus* nor of *presapiens* for those specimens. In my view, the presence of the Neandertal features on the German fossils indicates that they should be included in the Neandertal lineage. Thus, as in western Europe, the fossils of central Europe attest the very ancient presence of the Neandertal lineage.

## E. ORDER OF SUCCESSION OF THE NEANDERTAL TRAITS ON THE WESTERN AND CENTRAL EUROPEAN FOSSILS.

The evolution of the Neanderthals which occurred over a long period of time, spanning at least 450,000 years, may be traced thanks to the identification of the apomorphic features. Among these pre-Würmian European fossils, one notices a progressive increase, from the oldest to the most recent, in the number of the Neanderthal features (26, 27, 16,17). The fossils preceding "classic" Neanderthals may be termed "pre-Neanderthal" or "proto-Neanderthal" both in a chronological and phylogenetic sense. The different stages of this evolution leading to the Neanderthals may be summarized on the basis of three great fossil groups : 1 - A group of the early Pre-Neanderthals; 2 - A group of the late Pre-Neanderthals; 3 - A group of Proto-Neanderthals (Cf. table 1). The traits present on each of these groups are as follows:

**1 - The early pre-Neanderthals** corresponds to archaic fossils (before stage isotopic oxygen 12) which present only a few Neanderthal traits. Which Neanderthal traits emerged among this group of fossils?

The first Neanderthal features can be observed on the face. This morphological change of the face is visible on Arago XXI, whose age is estimated to be 450.000 years old. The zygomatic bone is rather flattened out with a swelling of the frontal apophysis of the maxillary bone.

Beside this, a lateral development of the mandibular condyle may be observed on the mandible of Arago 2 and 13. On this same jaw from Arago we observe a backward displacement of the mental foramen, which shifts back under the first premolar. These features (backward displacement of the mental foramen and lateral development of the condyle) are related to a morphological change of the face. Thus, it seems that the first changes and signs of diversification among Neanderthals occurred on the face and on the mandible.

The Neanderthal features present on Arago are also found on other European fossils: on the mandible of Atapuerca (Sima dello Huesos, AT 75) and on the face of the fossil of Petralona. This backward displacement is also visible on Atapuerca (AT 75).

By contrast, the occipital region is still very archaic, as we see from the occipital bone of Petralona, which is entirely comparable to that of Vertesszöllös. Concerning the other regions of the cranium, all of these fossils are very archaic, notably in the morphology of the parietal bone.

### 2 - The late Pre-Neanderthals.

All of the fossils stemming from the isotopic stages between 11 and 7 may be included in this group. It includes fossils which display a systematic presence of Neanderthal features in corresponding bone regions (among all of the adult and child specimens), notably in the occipital region, in the mastoido-occipital region and in the frontal region. Thus, the occipital bone already exhibits all the Neanderthal features and they are practically indistinguishable from those of classic Neanderthals.

In the same manner, the mastoid regions among western European fossils are similar to those of the classic Neanderthals. On the occipital bone the Neanderthal morphology is already present (Swanscombe, Steinheim, Bilzingsleben A3, Biache-st-Vaast 1, Reilingen, La Chaise - abri Suard). Where the parietal bones are still preserved, they show a modification in form and, above all, in the position of the parietal protuberances which are found in intermediary position between the high position characteristic of modern man and the lower position of the archaic fossils considered to be *Homo erectus sensu lato* (La Chaise - abri Suard).

Another anatomic region differentiates itself among this second group of fossils: the region of the supra-orbital torus. This can be noticed on the recent fossil discoveries in France in the Suard cave and at Biache (2). These fossils display the presence in this period of the continuous supra-orbital torus of the Neanderthals - in other words, the complete fusion of the ciliar and supraorbital arc. These features are also exhibited on the frontal B4 of Bilzingsleben.

Along with the presence of all of these derived Neanderthal features, a group of archaic traits persist, such as the weak cranial capacity (clearly observable on Biache 1, or La Chaise Suard) and the pronounced thickness of the bone (Bilzingsleben, Biache - St-Vaast 2, La Chaise abri Suard).

### 3 - The Proto-Neanderthals, in other words, the last predecessors of the Neanderthals.

These fossils exhibit a larger number of Neanderthal features (notably on the facial region), and the loss of a certain number of archaic traits (above all the reduction of the bone thickness), no longer

observed on the Neandertals. All of the fossils from the isotopic stage 5 are included in this group: Saccopastore 1 and 2; La Chaise - abri Bourgeois-Delaunay, Ehringsdorf and Reilingen.

Due to the presence of a large number of Neandertal features, these fossils can be considered to be Neandertal. However, they are also distinguished from classic Neandertals by the presence of a large number of archaic features, as well as of a quantity of incompletely developed Neandertal traits. These latter traits concern the facial morphology (zygomatic bone, nasal bone, and maxillary bone) and the temporal morphology (mandibular fossa, mastoid process, position of the zygomatic process).

### CONCLUSION

It is after the isotopic stage 5 that the definitive development of the cranial architecture of the classic Neandertals occurs. In this period, a large augmentation of the cerebral capacity takes place, simultaneously with an antero-posterior elongation of the entire cranium, which modifies the form of the cranial bones (above all, the shape of the occipital bone, with a well-defined "chignon", and the temporal bone, with the external auditory meatus situated at the level of the zygomatic process root). All of these modifications are accompanied by an accentuation of the Neandertal facial traits. It is probable that the particular position of the external auditory meatus and of the mandibular fossa are related to this development of the facial structure.

The evolution of the Neandertal population seems to occur in an isolated region. This evolution was able to take place thanks to the particular climatic conditions that predominated in Europe during the middle Pleistocene.

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Tab. 1

## Evolution of the european populations

EUROPEAN FOSSILS	Isotopic Stage O2	AGE	HUMANS
Cro-Magnons (F)		28 000	Modern Humans ( <i>Homo sapiens sapiens</i> )
St. Césaire (F) La Ferrassie (F) La Chapelle-aux-Saints (F) Neanderthal (D) Spy (B) Regourdou (F) Circeo (I)	3-4	35 000 40 000 45 000	Neandertals ( <i>Homo sapiens neanderthalensis</i> / <i>Homo neanderthalensis</i> )  "Classic" Neandertals
Salzgitter-Lebenstedt (D) Saccopastore (I) Reilingen (D) La Chaise: B.D. (F) Ehringsdorf (D)	5	110 000 130 000	"Proto" -Neandertals
La Chaise: S. (F) Biache-St-Vaast (F) Steinheim (D) Swanscombe (GB) Bilzingsleben (D)	7-9	180 000	"Late" Pre-Neandertals
Atapuerca: S.H. (S) Petalona (G) Arago (F)	9-12	< 350 000 450 000	"Early" Pre- Neandertals
Boxgrove (GB) Mauer (F)	13-15	475 - 620 000	? ( <i>Homo sapiens</i> / <i>Homo erectus</i> / <i>Homo heidelbergensis</i> )
Atapuerca: G.D. (S) Ceprano (I)	18-20 22	700 000 800 000	"archaic" Humans ( <i>Homo erectus</i> / <i>Homo heidelbergensis</i> )
Dmanisi (Georgia)		< 1 800 000	<i>Homo erectus</i> ?



## SOME DEMOGRAPHIC ASPECTS OF THE MIDDLE BRONZE AGE IN MUNTENIA AND OLTENIA

ALEXANDRA COMȘA

The demographic studies concerning Muntenia and Oltenia provide an image of the Middle Bronze Age communities in southern Romania. They reflect both the living and hygiene conditions of that time, together with some social aspects or beliefs which were specific to the analyzed people.

In Muntenia, infantile mortality obviously increased from the Early up to the Late Bronze Age. It had also high values in Oltenia.

The adolescents have low variations in the series under study.

The mortality in adults was generally higher for women. A trend to the decrease in the number of adult individuals in cemeteries can be observed. Also, the long living individuals detained a low percentage in the necropolises. Small number of people could get over the age of 50.

Still, with some exceptions, there was a constant grows of the life expectancy, due to the gradual progress of the society towards a more civilized level.

The complex investigations concerning the archaic populations in Romania resulted in the discovery of important skeleton series. By their anthropological analyses, it had been established the age and sex of those individuals. The obtained data are elementary for the paleodemographic studies.

The dating of the Bronze Age that we will deal with in the following lines is still a matter of controversy among archaeologists. Yet, the most accepted opinions converge to the time limits mentioned below:

- the Early Bronze Age - about 2500 - 1700 B.C.;
- the Middle Bronze Age 1700-1350/1300 B.C.;
- the Late Bronze Age 1350/1300-1100 B.C. (MORINTZ, 1978, p. 12; SCHUSTER,

1997, p. 17). The mentioned period is fairly well known from the anthropological viewpoint, due to the studies concerning necropolises and isolated burials. Still, there is no uniform distribution of the funeral discoveries on Romania's territory and thus, for some regions there is consistent information, whereas for others it is less relevant. Such a situation could be pointed out by a comparison between the historical provinces of Muntenia and Oltenia.

The Middle Bronze Age, that we will deal with in the present paper, is better represented in Muntenia, where great cemeteries had been unearthed. They were found in the archaeological sites from Sarata Monteoru (Buzau County) - 173 individuals, Pietroasa Mica (Buzau County) - 64 burials (out of which 62 were inhumations and 2 cremations), Căndesti (Vrancea County) - 409 skeletons. All those series belong to the Monteoru Culture.

In Oltenia, the mentioned period is known by the necropolises from Cârna (Dolj County) and Ghidici (Dolj County), both being part of the Gârla Mare Culture.

An aspect that differentiated those two burial groups was the funeral rite, which, for the Gârla Mare Culture, was mainly represented by cremation, whereas the one specific to the Monteoru Culture was inhumation. Yet, an advantage in the case of cremation cemeteries was that the suckling skeletons could be used for the anthropological study, because they were kept in urns with lids, which assured a better protection against the harmful factors from the ground, which, otherwise, are very active in an inhumation necropolis. Of course, given the destruction of the bones in lesser or greater degree, after being burnt, the information which resulted from the anthropological study was less consistent. This fact hampered the attempt of obtaining complete demographic data. When the skeletons had been only interred, much more elements could be entirely used, when the soil allowed the preservation of bones in good conditions.

In the historical period under study, there were socio-economical factors (e.g. the level of economical development, living and health conditions) that exerted a certain influence upon the demography of the respective populations.

In the present paper, we will tackle some demographic aspects, like: the structure on age and sex, the average age at death, as well as the mortality proportion between the sexes, for the series of the Middle Bronze Age in Muntenia and Oltenia.

### INFANTILE MORTALITY

In direct connection, both with the precarious hygiene conditions and with the possible accidents at birth, the infantile mortality reached a high level all along the Bronze Age.

In Muntenia, it varies between 18,75% at Pietroasa Mica (Table no. 3), and around 37% at Căndesti (Table no. 2). The necropolis at Sarata Monteoru had an intermediate position, with a rate of 29,30% (Table no. 1).

In Oltenia, the mortality of the children was also high, reaching 37,25% at Cârna (Table no. 4) and 26,32% at Ghidici (Table no. 5), for the individuals aged between 0-14 years.

A feature in common for the cemeteries in both historical provinces, was represented by the category *infans I* who died in greater number than those in *infans II*. Exceptions were the necropolis from Pietroasa Mica (Table no. 3) in Muntenia and Ghidici in Oltenia (Table no. 5), where occurred the reverse situation (25% *infans I*, and 75% *infans II* in the first case; 40% *infans I* and 60% *infans II* in the second one).

### THE MORTALITY OF THE JUVENIS

As concerns that age, the mortality of the Middle Bronze Age in Muntenia had a rate of 4,62% at Sarata Monteoru (Table no. 1), 5,62% at Căndesti (Table no. 2) and 15,63% at Pietroasa Mica (Table no. 3).

In Oltenia, the rate of 15,79% from Ghidici (Table no. 5) is very close to the one from Pietroasa Mica. From this point of view, there was a significant difference between the mentioned cemetery and the one at Cârna, where the *juvenis* category represented just 1,96% (Table no. 4).

Because the number of adolescents was usually smaller than the one of the children, it was considered that, while the individuals advanced in age from the *infans I* to *juvenis*, the resistance of their body increased, resulting in a proportional decrease of the mortality rate for the respective category.

### THE MORTALITY OF THE ADULTS

The weight of the deceased adults varied, but without being found great differences among the various cemeteries. Their percentage for the necropolises from Muntenia was of 23,70% at Sarata Monteoru (Table no. 1), 20,05% at Căndesti (Table no. 2) and 15,63% at Pietroasa Mica (Table no. 3).

In Oltenia, the registered values were comparable with those of the previously mentioned province, being of 21,57% at Cârna (Table no. 4) and 21,05 at Ghidici (Table no. 5).

Generally, the female sex had a higher mortality rate, both at this age category and at the *juvenis* one, due to its period of maximal fertility, which caused a great number of deaths. They were probably the consequences of the complications appeared at /and after parturition (e.g. in Muntenia, at Pietroasa Mica, there were 22,22% women and 11,64% men (Table no. 3) and in Oltenia, at Ghidici, 21,05% women, men being not represented). At Căndesti, the percentage of men who died in adulthood was greater than the one of the women (11,98 men and 7,33% women) (Table no. 2). The same situation existed in the necropolis from Cârna (8,82% men and 4,90% women) (Table no. 4).

### THE MORTALITY OF THE MATURES

In Muntenia, there was a trend of the mortality to decrease at the respective age category, beginning from the Early, towards the Late Bronze Age (MIU, 1996, p. 11). For the Monteoru Culture, the mortality rate of the two sexes was inverted, because the male individuals, compared with those of female sex, were in greater number.

Regarding the necropolises from Oltenia, it couldn't be made any comparison with the Early Bronze Age, because there is no cemetery dated back in that stage. At Cârna and Ghidici, the mortality



had maximal values at the mature age (39,22%, respectively 36,84%) (Tables no. 4 and 5). It could be observed the same trend from Muntenia, which consisted of the existence of a significant difference between the male individuals which at Cârna (24,52%) prevailed and the female ones, which had a lower percentage (6,86%) (Table no. 4). At Ghidici the males were in 26.31%, whereas the females detained 5.26% (Table no. 5).

### THE MORTALITY OF THE SENILES

For the senilis group, the mortality was low, because a small number of individuals could get over the adult age and even a lesser one surpassed the mature category. In this sense, as examples could be given the necropolises from Sarata Monteoru, where the mortality rate of the mentioned age was 1,73% Monteoru (Table no. 1), and the cemetery from Cârdesti, where it reached 1,22% (Table no. 2). A similar situation was found in Oltenia. For example, in the cemetery from Ghidici, the senile category was not represented (Table no. 5), the same like in the cemetery at Pietroasa Mica, from Muntenia.

It is a well-known fact that, in the mentioned age group, the women were in greater number. When the fertile period ended, due to a higher resistance of their body, they survived longer than men, reaching more advanced ages.

### SEX RATIO

Usually, in most of the Bronze Age cemeteries it was detected a fairly equal proportion between the sexes. When the number of men was similar with that of the women and children existed as well, the necropolis had certainly belonged to a peaceful community (e.g. Sarata Monteoru, 52,2% men and 47,8 women) (CARAMELEA et al. 1963, p. 250). Of course, the goods from the burials accounted also for this hypothesis. In some cases, there was a great discrepancy between them. This, associated with the funeral inventory, consisting mostly of weapons, had lead to the conclusion that the respective interments were dedicated to warriors. This would be also an argument, to support the theory that a high consideration was given to that caste, due to its special place given in the cemetery. An example in this sense, it could be the necropolis at Pietroasa Mica, with its third level of interments, which was exclusively dedicated to men (GEORGESCU, 1992, p. 79).

Considering the total number of individuals from each cemetery, a disproportion between males and females could be noticed just at Cârdesti (62,44% men and 37,56% women) (NECRASOV et al., 1985, p. 38) and Pietroasa Mica (52,94% men and 44,43% women) (GEORGESCU, 1992, p. 74). The only interpretation given to those data (confirmed also by the archaeological context) was the existence of intra and inter-tribal conflicts, which certainly, affected mostly men.

In Oltenia, at the cemetery from Cârna, because 56 out of the total of 102 individuals had unknown sex, and others had just a partly certain assignment, could not be made any statements regarding the proportion between the sexes.

At Ghidici, where the osteological material provided a greater number of relevant elements in establishing sex, the proportion between males and females was relatively balanced.

### LIFE EXPECTANCY

This is an indication, which cumulates the level of mortality for all age categories of a certain population, in a distinct time span.

For the series with a great number of skeletons and statistical relevance, such as those from Sarata Monteoru and Cârdesti, this was established by using the life expectancy at birth (with the complex method of Acsadi and Nemeskeri), For the cemeteries with a small number of individuals, like the one in Ghidici, it could be established just the average age at death.

In the necropolises belonging to the Monteoru Culture from Muntenia, the archaeological investigations pointed out that the development level of those populations was much higher in comparison with the one of other contemporary material cultures. Despite that, the life expectancy of those series was low, reaching 22,00 years at Sarata Monteoru and 22,11 years at Cârdesti. A possible explanation for that, it was considered to be the contact of the Monteoru populations with allogenic tribes, who probably had brought some contagious illnesses, for which those communities had a lower resistance. Thus, a greater number of individuals had died (CRISTESCU, 1965, p. 32). The mentioned

average ages at death were lower than those found for the communities of the Early Bronze Age studied until now both in Muntenia and in the other historical provinces (MIU, 1996, p. 12).

In Oltenia, also, the Gârla Mare Culture was an advanced civilisation, as well. Unfortunately, in the cemetery from Cârna, due to the great number of individuals with unknown age or with a less certain one, it couldn't be inferred the life expectancy (NICOLAESCU-PLOPSOR, 1961, p. 380), whereas at Ghidici its value was established at 25,71 years, which is similar with the one of the Monteoru Culture bearers (COMSA, mss.).

## CONCLUSIONS

Considering the up given data regarding the mortality, it could be stated that the infantile mortality, both in Muntenia and Oltenia, reached high values, especially for the *infans I*, in comparison with the *infans II* group, being excepted the cemetery from Pietroasa Mica in Muntenia and from Ghidici in Oltenia, where the reverse situation existed.

The adolescents didn't detain too high percentages, more frequently passing away the adults and matures. A small number of individuals had reached the senile age, so that the longevives were less represented and in the cemeteries from Pietroasa Mica, Cirna and Ghidici non existing at all.

The proportion between sexes was usually balanced. Evident differences with the prevalence of the male individuals had still been noticed in two necropolises (Pietroasa Mica and Căndesti from Muntenia). They were considered to have been determined by the intra- and inter-tribal conflicts, which occurred at that time and affected mostly men. The life expectancy had low values, being of 22,00 years at Sarata Monteoru, 22,1 years at Căndesti for Muntenia and of 25,71 years at Ghidici.

The final conclusion that we could infer is that, in both historical provinces of Muntenia and Oltenia, the demographic evolution was similar to the one of other Romanian territories. This was surely influenced by the social-economical conditions, for which significant differences could not be archaeologically detected among the various tribes of the Bronze Age, especially as it concerns its middle stage.

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Table no. 1

Repartition by age and sex of the individuals from the necropolis at Sarata Monteoru (Buzau County)<sup>1</sup>

Sex/Age	Male		Female		Unknown		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
Infans I (0-7 years)	-	-	-	-	32	18,50	32	18,50
Infans II (7-14 years)	-	-	-	-	18	10,6	18	10,6
Juvenis (14-20 years)	-	-	-	-	8	4,62	8	4,62
Adultus (20-30 years)	20	11,56	21	12,14	-	-	41	23,70
Maturus (30-60 years)	40	27,9	31	17,92	-	-	71	41,04
Senilis (60-x years)	-	-	3	1,73	-	-	3	1,73
Total	60	34,68	55	31,79	58	33,52	173	100,00

Table no. 2

Repartition by age and sex of the individuals from the necropolis at Căndesti (Vrancea County)<sup>2</sup>

Sex/Age	Male		Female		Unknown		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
Infans I (0-7 years)	-	-	-	-	104	25,43	104	24,43
Infans II (7-14 years)	6	1,47	4	0,98	36	8,80	46	11,25
Juvenis (14-20 years)	5	1,22	15	3,67	3	0,73	23	5,62
Adultus (20-30 years)	49	11,98	30	7,33	3	0,73	82	20,05
Maturus (30-60 years)	75	18,34	42	10,27	3	0,73	120	29,34
Senilis (60-x years)	3	0,73	2	0,49	-	-	5	1,22
Unknown	6	1,47	6	1,47	17	4,16	29	7,09
Total	144	35,20	99	24,21	166	40,59	409	100,00

<sup>1</sup> The data from this table, as well as the ones for the Cirna and Pietroasa Mica cemeteries, resulted by reconsidering the repartition of the individuals according to the anthropological school in Iasi, for whom the senilis age group begins at 60 years. This was necessary, because the ages *maturus* and *senilis* were not comparable with each other when taking into account the anthropological determinations. The specialists from Bucharest, following the proposal made in the '60s by D. Nicolaescu-Plopsor and adopted by other anthropologists from the same center, consider the *maturus* age between 30-50 years and the *senilis* between 50-x years, while those from Iasi take the *maturus* age category between 30-60 years and the *senilis* one between 60-x years. The information used for this table had been taken over from the following papers: V.V. Caramelia, D. Nicolaescu-Plopsor, C. Maximilian, *Contributii paleodemografice la studiul unor comunități tribale din epoca bronzului de pe teritoriul României*, Probl.Antr., VII, 1963, p. 249, 250, 255; K. Maksimilian, V. Karamelia, D. Nicolaescu-Plopsor, *Paleodemograficeskoe issledovanie naselenija epohi neolita i bronzi Ruminii*, Vopr.Antr., 15/1963, p. 65-67; C. Maximilian, V.V. Caramelia, P. Firu, A. Negrea Gherga, *Sarata Monteoru. Studiu antropologic*, Bucuresti, 1962, p. 89-95.

<sup>2</sup> O. Necrasov, D. Botezatu, G. Miu, *Contributii noi la paleodemografia si paleoantropologia populatiei din cultura Monteoru*, Thr.-D., 1976, 1-2, p. 38.

Table no. 3

Repartition by age and sex of the individuals from the necropolis at Pietroasa Mica (Buzau County)<sup>3</sup>

Sex/Age	Male		Female		Unknown		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
Infans I (0-7 years)	-	-	-	-	3	4.69	3	4.69
Infans II (7-14 years)	-	-	-	-	9	14.06	9	14.06
Juvenis (14-20 years)	4	6.25	6	9.37	-	-	10	15.63
Adultus (20-30 years)	6	9.37	4	6.25	-	-	10	15.63
Maturus (30-60 years)	24	37,50	8	12.50	-	-	32	50,00
Senilis (60-x years)	-	-	-	-	-	-	-	-
Total	34	53.12	18	28.12	12	18.75	64	100,00

Table no. 4

Repartition by age and sex of the individuals from the necropolis at Cirna (Dolj County)<sup>4</sup>

Sex/Age	Male		Female		Unknown		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
Infans I (0-7 years)	-	-	-	-	33	32,35	33	32,35
Infans II (7-14 years)	-	-	-	-	5	4,90	5	4,90
Juvenis (14-20 years)	-	-	-	-	2	1,97	2	1,97
Adultus (20-30 years)	9	8,82	5	4,90	8	7,84	22	21,57
Maturus (30-60 years)	25	24,52	7	6,86	8	7,84	40	39,22
Senilis (60-x years)	-	-	-	-	-	-	-	-
Total	34	33.34	12	11.76	56	54.90	102	100,00

<sup>3</sup> The table had used the data kindly offered by L. Georgescu, the author of the anthropological study concerning the mentioned necropolis (see L. Georgescu. *Necropola din epoca bronzului de la Pietroasa Mica. Studiu antropologic comparativ*, CA, IX, 1992, p. 74, 80).

<sup>4</sup> The information had been taken over from: D. Nicolaescu-Plopsor, *Cercetari antropologice asupra osemintelor din necropola de incineratie de la Cirna*, in VI. Dumitrescu, *Necropola de incineratie din epoca bronzului de la Cirna*, Biblioteca de arheologie IV, Bucuresti, 1961, p. 380.

Table no. 5

Repartition by age and sex of the individuals from the necropolis at Ghidici (Dolj County)<sup>5</sup>

Sex/Age	Males		Females		Unknown		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
Infans I (0-7 years)	-	-	-	-	2	10,53	2	10,53
Infans II (7-14 years)	-	-	-	-	3	15,79	3	15,79
Juvenis (14-20 years)	-	-	-	-	3	15,79	3	15,79
Adultus (20-30 years)	-	-	4	21,05	-	-	4	21,05
Maturus (30-60 years)	5	26,31	1	5,26	1	5,26	7	36,84
Senilis (60-x years)	-	-	-	-	-	-	-	-
Total	5	26,31	5	26,31	9	47,37	19	100,00

## LIST OF ABBREVIATIONS

CA=Cercetari Arheologice, Bucharest.

Probl.Antr.=Probleme de Antropologie, Bucharest.

SCA=Studii si Cercetari de Antropologie, Bucharest.

Thr.D.= Thraco-Dacica, Bucharest.

Vopr.Antrop.=Voprosi Antropologij, Moskow.

<sup>5</sup> Al. Comsa, *Cercetari paleoantropologice privitoare la populatiile tracice din Muntenia*, mss.



## MENTALITIES IN POST-WAR FRENCH SOCIETY. A SURVEY<sup>1</sup>

MARIANA NET

Les changements sociaux intervenus après la seconde guerre mondiale n'ont pas été sans laisser de traces assez profondes au niveau des mentalités.

L'article s'occupe des mentalités dominantes en France dans l'intervalle 1945-1989, telles qu'elles sont reflétées dans quelques mémoires des écrivains (et des artistes) publiées après la guerre (voire dans les textes de Jean Baudrillard, Pierre Emmanuel, Alfred Fabre-Luce, Pierre Vidal-Naquet).

On analyse la manière dont les mémoires des écrivains reflètent le Gouvernement de Vichy, la guerre d'Algérie, et l'attitude des Français envers les pays de l'Est; les choix projectifs et l'autodéception ("wishfull thinking"); l'identité et l'altérité, le nationalisme et le racisme; la violence, la drogue et la vie privée; l'école, les média et l'unification des mentalités; la perception du temps et de l'espace et la réalité virtuelle; la mémoire et l'oubli; l'évasion et la liberté; la vie à la campagne, l'interdépendance entre systèmes des valeurs et mentalités.

### 1. INTRODUCTION

The present article is part of a more comprehensive study, aiming at describing French mentalities as reflected in writers' (and artists') memoirs which refer to the 1945-1989 interval.

Post-war French society is characterised by spectacular changes. As far as social history, morals, private and public life, economic relationships and education are concerned, changes have occurred at different - sometimes slower, sometimes speedier - paces, but they couldn't help having an impact upon mentalities. No doubt, quite a lot of these changes are not confined to French society only. They characterise, to various degrees, all relatively "normal" societies. Specific, national and local, nuances are nevertheless essential.

The invasion of publicity, the unprecedented development of mass-media (especially of its audio-visual constituent), the migration of populations, the disappearance of several professions and the creation of others, the quasi-annihilation of the old system of values, the quasi-disappearance of the religious dimension of most people, the different attitude towards culture, history and tradition, the invention of computers, sex liberation, (juvenile) delinquency, drug addiction, are as many aspects (listed at random) which ought to be taken into consideration by a survey of (French) mentalities between 1945-1989. Although the French writers' memoirs referring to this period do speak about cultural identity and about (individual and group) attitudes towards religion and politics, and sometimes tackle family relationships, too, it is a fact that most of the members of the French intelligentsia seem fairly unaffected by most of these changes; they seem quite unaware that society and mentalities around them are constantly changing.

Therefore, any attempt at understanding post-war French society and post-war French mentalities - which strongly depend upon the former - should start from the analyses dedicated to these phenomena by sociologists, journalists, philosophers, and cultural theorists. This is the aim of the present article.

### 2. THE GOVERNMENT OF VICHY, THE ALGERIAN WAR, AND THE ATTITUDE TOWARDS EASTERN EUROPE

One of the most important aspects to be dealt with by any analysis of post-war French mentalities is people's attitude towards the Algerian war, as well as their *post-festum* attitude towards the Government of Vichy. Until relatively recently, there seemed to have been a consensus of silence about these two events, a kind of wide-scale suppression of their souvenir. Very few journalists and sociologists dared to analyse these phenomena in an open way.

<sup>1</sup> This work was supported by the Research Support Scheme of the Higher Education Support Programme, grant no. 215/1995.



One of them is Jacques Julliard, a chronicler of *Le Nouvel Observateur*. In 1991, he compiled a book including some of the most important commentaries published in the above-mentioned journal. Concerning the general post-war reaction towards the Government of Vichy, Julliard wrote:

“[Le procès] le plus délicat, le plus redouté: celui de l’attitude des Français sous l’occupation. Car la longue prudence des historiens de notre pays n’a fait que refléter la volonté de la communauté nationale de jeter sur cette sombre période le voile de l’oubli. [...]”

Non qu’il faille nécessairement tenir la communauté nationale pour globalement coupable de complicité avec le nazisme ou avec les historiens de l’Occupation, la tendance avait été d’escamoter l’attentisme du plus grand nombre et l’indignité de quelques-uns derrière l’héroïsme de quelques autres: c’était la thèse de la complémentarité du bouclier et de l’épée, symbolisée par les figures de Pétain et de De Gaulle. Aujourd’hui, c’est la tendance inverse qui semble prévaloir. Les Français, gangrenés de longue date par une idéologie fascisante ou parafasciste, auraient été dans leur grande majorité complices, au moins tacitement, de l’entreprise totalitaire. [...] Quiconque croit [...] à la nécessité d’aller jusqu’au bout de la vérité sur cette période cruciale - sans craindre de remuer la bonne - ne peut que condamner les caricatures, les simplismes et les anachronismes”. (Julliard, [1983] 1991 : 33).

In another article referring to the same phenomenon, Julliard referred to the people’s wilful delusion by the (official) media, viz. to the attempt at, and success in, influencing mentalities:

“Dès le lendemain de la guerre, le cinéma exaltait une résistance des Français moyens, symbolisée par le Noël-Noël du *Père Tranquille* [...]”

Plus tard encore, Emmanuel d’Astier de la Vigerie en fera la remarque dans *Le Chagrin et la Pitié*, la Résistance française fut d’abord le fait de marginaux, de déclassés, d’irréguliers, d’hommes et de femmes qui n’avaient en somme à perdre que leur propre vie.” (Julliard, [1985] 1991 : 36).

As far as the Algerian war is concerned, it is once again fairly recently that silence has been broken. The books of Pierre Vidal-Naquet (1989a, 1989b, 1993) are symptomatic to this effect. The sociologist Jean-Pierre Sirinelli (1990) described, in his turn, the implications of the Algerian war upon the French (left-oriented) intelligentsia, and upon French public servants.

Here are some of Sirinelli’s remarks:

“Assurément la guerre d’Algérie a notamment marqué en profondeur une génération de jeunes clercs en lui conférant un principe d’identité. Pour cette raison même, cette génération, qui est une image rétinienne de ce conflit, et sa vision de la vie de la cité s’en ressentira toujours. De ce point de vue, c’est l’événement qui a pressé sur l’intellectuel”. (Sirinelli, 1990 : 223).

As regards French intellectuals’ attitude towards the horrors happening in Eastern Europe after the war things are more intricate<sup>2</sup>. Most of the intellectuals either resorted to wishful thinking and closed their eyes to the actual facts, or even took an active part in left-hand propaganda. Gide was a spectacular exception to this “rule” (cf. Koch, [1995], 1997). Etiemble was another exception along the same line. His case will be dealt with in a future article dedicated to French writers’ memoirs.

But it is once again a journalist, viz. Pierre Emmanuel, who took the risk - fairly early - of denouncing the crimes committed by Stalinism in Eastern Europe. He bore the consequences of his act. He notes:

“Tout journaliste d’opinion qui tient à la sienne a connu des difficultés avec certaines directions. Les miennes ont commencé après que j’eus, en 1947, exposé la stalinisation de l’Europe de l’Est, dont j’avais été le témoin oculaire. Cette analyse, que tant de faits ont corroborée depuis, était sacrilège pour l’intelligence de gauche d’alors qui m’en punit par un ostracisme durable, appliqué même par des revues dont je me croyais proche spirituellement. Toute ma vie, j’ai ressenti cet ostracisme de gauche envers moi”. (Emmanuel, 1983 : 40).

A partial explanation of this mass phenomenon of self-deception, closing their eyes to “reality”, and wishful thinking that everything was for the best, as well as of the intellectuals’ moral “responsibility”, is given by Sirinelli:

“Si les effets de la Seconde Guerre Mondiale se prolongèrent aussi longtemps après la fin du conflit, les intellectuels français [...] étaient entrés rapidement en guerre froide. Et dans ce contexte d’affrontement idéologique aigu, les intellectuels communistes allaient se tenir “à leur créneau” jusqu’aux ébranlements de 1956, dont les pétitions et manifestes non seulement fournissent un bon reflet, mais dont ils constituent de surcroît des rouages: c’est en effet à travers ces textes collectifs qu’apparaîtront et

<sup>2</sup> For a (necessarily partial) overview of this phenomenon, see Koch [1995] 1997.

s'amplifieront les désaccords de compagnons de route et d'intellectuels communistes avec la ligne adoptée alors par leur parti". (Sirinelli, 1990 : 167).

### 3. HISTORICAL ATTITUDES, AND WISHLFUL THINKING

Julliard's analysis of the same phenomenon is a much more in-depth and pertinent one. The journalist is constantly preoccupied with the intricate relationship between the French people, (their) History, and wishful thinking. His explanation seems sound enough:

"On s'est trop hâté de dire que les Français ne supportent pas de regarder leur passé en face. Qu'en sait-on, puisqu'on s'ingénue à le leur cacher, à le leur arranger [...] ? Vieille tradition nationale qui empêche beaucoup d'étrangers de regarder tout à fait la France comme un pays démocratique. [...] Aux lendemains de la guerre, on a vu s'affirmer la volonté de donner des années 1940-1944, les plus controversées de notre histoire, une sorte de version moyenne, acceptable pour la majorité des Français. De l'histoire consensuelle à l'histoire manipulée il n'y a qu'un pas, et il a fallu les livres [des étrangers] pour qu'éclatent enfin les vérités désagréables". (Juillard, 1991 : 36-37).

Things are not much better towards the end of the Cold War:

"[En 1985] on continue de ne pas écrire l'histoire. Il ne s'agit pas de mettre en cause la Résistance". (Juillard, 1991 : 40).

and Julliard's voice is still a rather singular one.

A fairly similar idea is expressed by Jean Duhamel, who considers wishful thinking as one of the general characteristics of the French people:

"Les Français croient ce qu'ils veulent croire et non pas ce qui est. [...] Il leur faut pratiquement vingt années pour accepter la réalité d'un progrès, à titre rétrospectif [...]. L'intérêt n'est pas ici dans ce mécontentement éternel, mais dans le refus obstiné, même à l'époque de la croissance et de la prospérité d'accepter la réalité des faits." (Duahmel, 1993 : 195).'

If Duhamel's remarks were right, the "ostrich attitude" of the greater part of the French intelligentsia could be accounted for. Further on (1993 : 193), Duhamel plainly states that the French people had never been in the habit of appraising History:

"[...] en France, l'exécutif a peur de la réalité: jamais on n'a appris aux Français à regarder leur Histoire en face, sans fard et sans omissions pieuses."

As regards political attitudes, and conceptions about the way in which the State should be governed, Emmanuel introduces the concept of "enarchy", and compares present-day (i.e. 1983) French leaders to those of a "feudal" society, and/or to the Communist Nomenclature:

"[...] une réserve nombreuse d'énarques (à droite on dit *pépinière*; à gauche plutôt un *vivier*), l'énarchie, à travers les régimes successifs, administre et maintenant gouverne la France comme une féodalité d'un type nouveau, féodalité sans cesse croissante, qui a ses suzerains et ses feudataires, du haut en bas de l'administration de l'Etat et des grandes collectivités. Sommes-nous si loin de la Nomenclatura?"

Alfred Fabre-Luce refers to the historical roots of the French people's present-day behaviour, and considers it isn't much different from what it used to be two hundred years ago:

"Ce qu'il y a de plus curieux dans de tels comportements, c'est que l'intérêt proprement-dit n'y joue pas [grand] rôle.

Il y a bien, diffus dans le public, un vieux réflexe clientéliste, aussi enraciné dans le passé que la crainte du fisc. On fraude pour se défendre contre la gabelle du XVIII<sup>e</sup> siècle, et on cultive la famille du Chef de l'Etat parce que Napoléon distribuait à la sienne des couronnes." (Fabre-Luce, 1981 : 67).

Still according to Fabre-Luce, things can go back much further than that: the journalist claims that many French people have preserved a "primitive" mentality:

"Beaucoup de Français du XX<sup>e</sup> siècle sont encore (devant le Pouvoir et devant la Mort) des primitifs superstitieux." (Fabre-Luce, 1981 : 68).

In the same book, the author notes that in the early '80s, there are still some "archaic", picturesque zones of France:

"Elle a connu [en Corse] un monde archaïque, savoureux, riche de traditions, rongé de haine, sur lequel règnent des morts" (Fabre-Luce, 1981 : 32).

The information is filtered through the imagination and cultural loading of a witness; however, it cannot be entirely discarded.

#### 4. THE SELF AND THE OTHER. NATIONALISM AND RACISM

Many French journalists, sociologists and philosophers have recently dealt with the *identity* of the French people in this epoch of changes. In his 1983 book, Pierre Emmanuel tackled the essential relation between (individual and group) identity and fictionalisation:

“Tous, peu ou prou, nous sommes solidaires de l'action se déroulant sur ce théâtre [du monde]. Sur ses planches s'édifient mutuellement une partie de la réalité humaine et le gros de son illusion; car nous sommes, dans des proportions variables, à la fois réels et illusoire, individuellement et collectivement. Nous, notre vie et la vie en ce monde: sitôt que nous le comprenons la question surgit, qui peut être obsédante: Comment participer le plus possible à notre réalité et le moins possible de notre illusion? Vivre dans l'illusion (de notre personnage, de nos désirs, de nos biens, de notre avenir, de notre passé, de notre sempiternelle force centrifuge) n'est-ce pas mourir à chaque instant, ou ne vivre que par un robot de nous-mêmes, un *moi-protagoniste* qui atrophie notre être, voire le maintient en état de mort? Ce moi-protagoniste peut souffrir une multiplicité de *moi-satélites* de ces vies plurales que l'on nomme pudiquement “la vie privée”.

Tant que nous n'avons pas de chef d'îlot ou d'immeuble, “la vie privée de chacun ne regarde personne”, comme on dit. On dit bien: car on n'est personne. Cette vie plurielle, privée (de quoi?), cette sarabande de *moi* qui tantôt se confondent et tantôt se multiplient, se passe toute loin du regard de l'être, soit que ce regard n'effleure pas encore à la conscience, soit que nous l'ayons crevé. Or, seul ce regard peut dissiper l'illusion, identifier la réalité.” (Emmanuel, 1983 : 277).

This is just another way of saying that mentalities do not change so easily, that they do not vary much, either with time or with space.

Jean Baudrillard speaks about identity in philosophical terms, and connects this problem with artificial intelligence; in the late '80s, artificial intelligence was a fact which could no longer be ignored: “Le succès fantastique de l'intelligence artificielle ne vient-il pas du fait qu'elle nous délivre de l'intelligence réelle, du fait qu'en hypertrophiant le processus opérationnel de la pensée elle nous délivre de l'ambiguïté de la pensée, et de l'énigme insoluble de son rapport avec le monde? Le succès de toutes ces technologies ne vient-il pas de leur fonction d'exorcisme, et du fait que l'éternel problème de la liberté ne peut même plus y être posé? Quel soulagement! Avec les machines virtuelles, plus de problèmes! Vous n'êtes plus ni sujet, ni objet, ni lieu, ni aliéné, ni l'un, ni l'autre: vous êtes le même dans le ravissement de ses commutations. On est passé de l'enfer des autres à l'extase du même, du purgatoire de l'altérité aux paradis artificiel de l'identité” (Baudrillard, 1990 : 65).

De-personalization seems the most outstanding result of the invasion of artificial intelligence in people's lives.

Alfred Fabre-Luce refers, in his turn, to the loss of (individual) identity at this turn of the century. According to him, not even signature is a personal mark any longer:

“C'est bien. Il me semble que je penserais la même chose si j'apprenais que la phrase et d'un autre. Je comprends mieux Marguerite Yourcenar disant que cette question de signature lui est indifférente.” (Fabre-Luce, 1981 : 28).

It is quite relevant, however, that, in Fabre-Luce's opinion, de-personalization is thoroughly achieved only if one (obliquely) resorts to fiction; the reference to Marguerite Yourcenar is symptomatic in this respect.

In Baudrillard's *Cool Memories*, the *mask*, viz. the necessity to hide one's true identity, and to ostentate another one, is a dominant theme; the necessity of adopting a mask is triggered by the responsibility to grasp “reality”, to understand the world.

“Rien dans la nature de l'homme ne peut l'entraîner à ce comportement irrationnel, excessif, de prendre le pouvoir, de faire la guerre, sinon le masque, la figure du masque, à l'ombre duquel il peut relever le défi, d'un monde dont on ne saura jamais la vérité, et qui relève donc fondamentalement de l'artifice”. (Baudrillard, [1987] 1990a : 127).

Along the same line, Baudrillard's *Cool Memories* endow *hypocrisy* with the status of an *event*; people live through it because of the overwhelming *solitude* they have to endure, especially on holidays.

“Une femme a passé toute la journée de Noël dans une cabine téléphonique sans appeler personne. Si quelqu'un se présente, elle se retire, puis reprend sa place. Personne ne l'appelle non plus, mais d'une fenêtre de la rue, toute la journée, quelqu'un l'a observée, n'ayant sans doute rien d'autre à faire. C'est le syndrome de Noël.” (Baudrillard, [1987], 1990a : 117).

It is only natural to relate the theme of the *self*, of *identity*, to that of the *Other*, the *Different*, the *Stranger*.

Duhamel is right to notice (1993 : 77) that:

“La peur de l'étranger est enfouie dans le coeur des hommes. Elle vient de très loin, de cette mémoire collective, transmise depuis si longtemps, génération après génération, qu'elle en appartient presque au patrimoine génétique.”

But Duhamel equally pointed out that the generic fear of the Other is, usually, converted into the fear of immigration. This special kind of fear intermingled with national pride:

“La France est un pays d'immigration. elle n'a cessé de l'être, depuis des siècles et de siècles. Elle le demeure, malgré les efforts sur une échelle cependant diminuée.” (Duhamel, 1993 : 81).

But national pride is hardly a shield against racism. Emmanuel explains this phenomenon at length. He goes from simple statements of facts, e.g.:

“On le sait, maint chauffeur de taxi parisien est raciste. Est-ce parce que le métier, mal payé, passe de plus en plus aux mains d'immigrants?” (Emmanuel, 1983 : 56)

to an in-depth analysis of this paradoxical issue, which involves the self to the same extent to which it involves the Other. Uprooting, self-splitting, and the quest of identity is a characteristic feature of nearly every (modern) human being, irrespective of race, religion, and nationality:

“Nous autres Français, nous nous sommes aperçus, par exemple, qu'une grande partie de notre main d'oeuvre était arabe, et l'Islam notre principal fournisseur en énergie. Cela nous a fait réfléchir, mais mal, d'une manière bornée. Ces Arabes parmi nous, vaguement, nous les sentons sous la Protection. Laquelle? Celle des émirs, celle de nos intérêts [...]. Or, ces étrangers sont maintenant d'ici, le brassage planétaire des multitudes va se poursuivre, et s'accélérer avec ce qu'on nomme le “progrès” technologique. Aussi faut-il nous préparer psychologiquement à la montée d'un nouveau racisme; parallèle à la “crise” économique dont nous-allons souffrir. “Crise” qui est une ordalie de l'homme. Ni les Portugais, ni les Marocains, ni les Asiatiques ne sont parmi nous les seuls déracinés: nous sommes autant qu'eux les habitants de nulle part qui n'avons plus de patrie, fût-ce en nous-mêmes.” (Emmanuel, 1983 : 55).

Still according to Emmanuel, racism engenders racism, for the minorities are not without responding to the hostile attitude felt towards them:

“Voici que les Français découvrent chez eux que le racisme enfante le racisme: celui des minorités, étrangères, est d'abord un réflexe de défense avant d'être une pulsion de l'agression. Le racisme anti-noir, même bienveillant, a fait naître chez le Noirs un racisme anti-blanc, entretenu parfois par l'exaltation romantique de la négritude ou des valeurs africaines”. (Emmanuel, 1983 : 157).

In this way, the circle is closed: one is both oneself *and* the Other, depending on the perspective adopted at a certain moment:

“L'autre, c'est aussi, tout simplement, pour les autres, chacun de nous. L'autre est en nous.” (Emmanuel, 1983 : 57).

## 5. VIOLENCE, DRUGS, AND PRIVATE LIFE

If violence and hooliganism are, basically, negative reactions towards the Other, drug addiction is, as a rule, a negative reaction against oneself, though one of its primary results is, usually, an inflation of the ego.

Duhamel (1993 : 143) considers that:

“[...] la peur des villes se confond de plus en plus avec la peur de l'insécurité de la violence et de la drogue. [...] Or la peur de l'insécurité touche au plus profond de l'équilibre social et personnel. La vie en société est censée mettre fin aux agressions physiques et réduire la délinquance et la criminalité.”

Nevertheless, this commonsensical remark is not shared by Baudrillard ([1987] 1990 : 82), who accounts for violence, terrorism, and the awareness of imminent catastrophes in philosophical terms, and states that, theoretically, such concepts - and even such manifestations - are “sublime”, because they oppose any kind of power any they aim to reform both people(s) and societies:

“Le terrorisme [...] tente de piéger le pouvoir par un acte immédiat, sans attendre la fin de l'histoire. Il se met dans la position extatique de la fin, espérant introduire les conditions du jugement dernier. Il n'en est rien, bien-sûr, mais ce défi est admirable.

N'y a-t-il pas une lueur de cette exigence dans le fantasme global de catastrophe qui plane sur le monde actuel?”

French analysts, whether they are sociologists or journalists, also speak about sex liberation and the mutations which this phenomenon has engendered on a social scale, as well as at the individual level. The danger of aids is one of the negative effects of sex liberation:

“Comme [le sida] se transmet par voie sexuelle et par le sang, [il] déchaîne aussi l’imaginaire et les fantasmes. Ses risques augmentent effectivement avec le nombre de partenaires. [...]” (Duhamel, 1993 : 149).

Family life is also deeply affected, and altered, by sexual liberation and the mutations it has engendered in mentalities. In this case, mentalities have changed rather speedily and have not been without effect upon private and social life. Along this line, Duhamel remarks:

“[Après la guerre] les familles se font et se défont, ou bien ne se font pas. Les couples s’unissent et se séparent, cohabitent, se marient à l’essai ou ne se marient pas. Les enfants remplacent progressivement leurs frères et soeurs d’antan par des demi-frères et des demi-soeurs [...] ou même, de plus en plus, par d’autres enfants avec lesquels ils cohabitent [...] sans aucun lien de parenté, parce que leurs parents respectifs vivent ensemble; c’est là une situation totalement nouvelle qui rompt avec des siècles de traditions, d’habitudes, de coutumes et de lois. [...] la cellule familiale n’est pas, n’est plus le havre toujours disponible ni le bastion insubmersible” (Duhamel, 1993 : 139).

Fabre-Luce makes comments upon more intimate aspects connected with sexual liberation, and upon their social (and political) consequences:

“J’ai [...] dénoncé cette opération de l’intelligentsia de gauche qui associe capitalisme et permissivité, alors que l’expérience nous montre tout le contraire: un Occident permissif et des communismes puritains.” (Fabre-Luce, 1974 : 118-119).

As usual, fashions, (inferiority and superiority) complexes, prejudices play an important part in social and historical perception. Often enough, the fight against one kind of prejudice only leads to replacing it by a different prejudice. Man seems doomed never to escape taboos. Once again, Fabre-Luce’s remarks (1974 : 118-119) are relevant:

“Je feuilletais l’autre jour la collection 1972 d’un magazine féminin. J’y ai lu, à côté d’articles conseillant aux couples de bien cultiver leur “bonheur” avant toute procréation d’enfants, ou de traiter ces enfants en étrangers pour mieux respecter leur dignité, un article de Geneviève Dormann qui contenait des observations curieuses. L’orgasme, disait-elle, fait maintenant partie du standing des couples au même titre qu’une piscine. Des jeunes femmes qui y parviennent (ou le disent et le croient, c’est parfois affaire de suggestion) s’étonnent de n’être pourtant pas heureuses. D’autres femmes, qui vieillissaient tranquillement, se croient obligées de rouvrir leur vie sexuelle. Le bluff de certains devient pour d’autres une norme qui les condamne. Une mère s’inquiète et consulte parce que sa fille de treize ans est encore vierge. Une femme se sent frustrée financièrement parce qu’elle n’a pas “amorti sa pilule” dans le mois. Sous prétexte de libération, la mode impose des comportements qui sont la négation même de la spontanéité.

En matière sexuelle, j’aurai donc passé ma vie à lutter sur deux fronts. Successivement, et même parfois simultanément - car la terreur puritaine n’a pas encore disparu, alors que la terreur “érotique” se précise”.

Fabre-Luce also refers (1974 : 290) to some problems involved by (in)equality between the sexes, and to their legal and economical implications. No doubt, quite a lot of these problems are different in the latter half of the 20th century (France) from what they used to be before:

“Beaucoup d’injustices dont les femmes sont présentement victimes vont, je pense, disparaître dans un proche avenir. Elles feront céder peu à peu, sur le plan législatif ou syndical, des hommes qui n’osent pas fonder leurs pratiques sur une théorie et montrent ainsi qu’ils en ont un peu honte. Mais la lutte pour l’égalité dans le travail, si importante soit-elle, est secondaire par rapport à une vieille compétition entre les sexes. Cette compétition a connu récemment de nombreux développements, dont le plus important est le retournement de la contraception. La femme ayant réussi à se rendre maîtresse du contrôle des naissances, l’homme tente maintenant de lui reprendre ce contrôle, en usant de la capote anglaise contre l’enfant forcé, devenu légalement captateur d’héritage. Un autre développement, c’est le partage des travaux ménagers. Sur ce plan-là, l’homme se défend d’avance [...]”

The consequences of these phenomena are deeper and more intricate than they seem at first sight:

“Enfin, pour assurer sa suprématie, [l’homme] culpabilise la femme qui travaille au dehors en lui faisant sentir qu’elle n’arrive pas à concilier ses deux devoirs: professionnel et familial. La société doit s’efforcer de réduire ces tensions en inventant des solutions ingénieuses (travail à temps partiel, etc.).”



Mais parfois l'option s'impose. On constate alors que beaucoup de femmes préfèrent la réussite conjugale à la réussite professionnelle. Même les militantes se divisent. le travail à l'extérieur est considéré par certaines comme une libération, par d'autres comme une "récupération". (Fabre-Luce, 1974 : 291)

## 6. SCHOOL, MEDIA, AND THE UNIFICATION OF MENTALITIES.

On the other hand, in the latter half of the 20th century, school and television are *unifying factors*, which have about the same characteristics everywhere. Their main consequence is to reduce not only *sexual* differences, but also *class* differences (and even class consciousness) in a spectacular way. Duhamel (1993 : 117) gives a synthetic description of this phenomenon:

"L'éducation, la formation et la télévision sont de grandes unificatrices. D'ailleurs, ce n'est pas une coïncidence si, depuis cette métamorphose des moeurs et des modes de vie, la conscience de classe traditionnelle recule si vivement."

Once again, this phenomenon has at least two opposite faces. According to Julliard ([1990] 1991 : 67-68), French education undergoes a process of constant degradation. In the journalist's opinion, the French government(s) should be made responsible for neglecting culture and education, as their irresponsibility has a boomerang effect:

"Et pourquoi donc, s'il vous plaît, voudrez-vous que la violence s'arrête à la porte des lycées? A cause de la majesté des lieux, quand les murs se lézardent, que le plâtre tombe des plafonds? La moindre agence du Crédit lyonnais est un palace à côté du CES Mendès-France ou du lycée Jean Racine. A cause du prestige des professeurs, quand on leur donne un traitement que Philippe Bouvard aurait honte de proposer à son valet de chambre? Le sacerdoce, c'est fini. A cause de la dignité du savoir quand on dépense des milliards de francs [...] à comparer les mérites culturels de la Une et de la Cinq? *Quand la société ne respecte plus son enseignement, pourquoi voulez-vous que les jeunes la respectent?*" [my italics, M.N.]

One of the basic characteristics of developed societies in the latter half of the 20th century is the complexity of media and of communication means. Their influence upon mentalities and upon the organisation of society is undeniable. Once again, Baudrillard ([1987] 1990a : 113) tackles this problem from a philosophical angle, and, paradoxically enough, states to prefer physical effort to intellectual one; according to him, the latter should be reserved to the pleasure of the senses:

"Le prix payé pour la complexité de la vie est trop grand. Quand on considère la somme d'efforts téléphoniques, télépathiques, techniques et relationnels nécessaires pour ajuster le moindre comportement dans cet univers étrange qu'on appelle la vie sociale, on rêve de la clarté de l'effort physique chez les primitifs. C'est particulièrement vrai des complications mentales inutiles. Il faut préférer toujours l'effort physique pur, et réserver par prédilection l'énergie mentale au seul plaisir des sens."

Baudrillard is not the only one to consider the over-development of media as dangerous for mankind in general. Fabre-Luce goes even further (1981 : 99) and warns against the risk of the "robotisation of man":

"J'ai un projet qui a le mérite de ne rien coûter: la lutte contre la robotisation de l'homme."

The journalist explains in a nutshell the harmful effects of the increasing share computers hold in people's lives:

"Un directeur d'I.B.M., interviewé, a dit regretter la décadence du calcul mental. Plus grave serait une démission intellectuelle qui soustrairait à l'esprit critique les résultats d'un mauvais programme parce qu'ils auraient été proclamés par ce nouveau demi-dieu: l'Ordinateur. Il ne s'agirait plus alors seulement de paresse, mais de superstition.

Brisons la nouvelle idole, l'ordinateur que l'enfant embrasse comme un être vivant [...]" (Fabre-Luce, 1981 : 105).

## 7. TIME, SPACE, AND VIRTUAL REALITY

Nevertheless, by the end of the cold war, virtual reality had become a fact. It triggers, and accounts for quite a novel Weltanschauung, and it is supposed to have had a tremendous impact upon mentalities. In order to attenuate the shock, philosophers explain some of its causes and effects.

According to Paul Virillio, virtual reality is a result of technological development; it depends on the new - individual and group - perception of time and space:

“Aujourd’hui [...] la technologie [crée] de toutes pièces de nouvelles interruptions, une modification du temps propre, une distorsion du jour astronomique, qui n’est pas sans effet sur l’aménagement de l’espace urbain, mais également sur celui de l’architecture, puisque la fenêtre tend à prendre le pas sur la porte [...]. Mais cette sondaine distorsion de la visibilité de la journée n’est pas uniquement le fait des technologies télévisuelles, technologies capables à boucher l’espace sur lui-même, mais également des techniques de la communication aérospatiale, techniques capables à leur tour, de boucher la durée du jour astronomique [...]. Voir ce qui n’était pas visible devient, ainsi, une activité qui renouvelle l’exotisme des conquêtes territoriales du passé, mieux: voir ce qui n’est pas réellement vu, devient une activité *en soi*, activité non plus exotique mais endotique celle-là, qui renouvelle les conditions de perception, la nécessité même de la réalité physique.” (Virillio, 1993 : 83-84).

If the above-quoted considerations of Virillio account for the circumstances which have led to the “invention” of virtual reality, Baudrillard (1987 : 15) accounts for the latter concept in terms of its relevance for mentalities:

“Cette réalisation du satellite orbital dans l’univers quotidien correspond à l’élévation de l’univers domestique à la métaphore spatiale, avec la mise sur orbite du deux-pièces-cuisine-douche dans le dernier module humain, donc à la satellisation du réel lui-même. La quotidienneté de l’habitat terrestre hypostasiée dans l’espace, c’est la fin de la métaphysique, c’est l’ère de l’hyperréalité qui commence. Je veux dire: ce qui se projetait ici, mentalement, ce qui se vivait dans l’habitat terrestre comme métaphore est désormais projeté, sans métaphore du tout, dans l’espace absolu qui est celui de la simulation.”

## 8. MEMORY AND FORGETFULNESS. EVASION, FREEDOM.

French philosophers of the last two decades also speak about *memory* and *forgetfulness*. For Baudrillard (1981 : 77):

“L’oubli de l’extermination fait partie de l’extermination, car c’est aussi celle de la mémoire, de l’histoire, du social etc. Cet oubli-là est aussi essentiel que l’événement [...]”

while Lyotard (1988 : 74) refers to:

“[...] ces dispositifs culturels qui constituent des formes de mémoire relativement étendues [et] restent étroitement liés au contexte historique et géographique. C’est ce contexte qui fournit à ladite mémoire la plupart des événements qu’elle doit saisir, stocker, neutraliser et rendre disponibles. La culture traditionnelle reste ainsi profondément marquée par la localisation à la surface de la terre de sorte qu’elle ne se laisse pas aisément transplanter ni communiquer.”

This last remark seems pertinent enough. In effect, it has been the implicit assumption of all our studies dedicated to memoirs and mentalities<sup>3</sup>.

This being the case, it is quite natural for people to seek to “evade”, every now and then, from the multifarious constraints of their everyday duties and their everyday universe. As a rule, intellectuals “evade” by resorting to culture and imagination:

“[...] mon travail de journaliste, qui m’enferme toute la semaine dans le monde obsédant de l’actualité m’autorise, me semble-t-il, à m’évader quelques heures dans l’ailleurs et dans l’imaginaire. D., évadée de ses préoccupations domestiques, m’y rejoint. Nous ressemblons à ces Japonais qui, le soir, font glisser les panneaux de leur demeure pour délimiter autrement leur espace.” (Fabre-Luce, 1981 : 49-50).

The need for “evasion” has been inherent to every human being, from everywhere, from the beginning of time. Nevertheless at this last turn of the century, in a developed democratic society, i.e. France, its causes may be different from elsewhere. One of these specific causes is described by Fabre-Luce (1981 : 56-57), who describes some of the “dangers” threatening individual and group freedom. He refers to the moment when, in June 1981, Giscard d’Estaing had just lost the general elections:

“Pendant vingt-cinq minutes encore dans l’hexagone (et plusieurs heures outre-mer), des Français vont voter. Peu importe: *ils ne changeront pas le résultat. Les voilà, en quelque sorte, dépouillés de leur droit de citoyens.*

*Nous-mêmes commençons à être modifiés. Nous sentons naître en nous des ralliements ou des résistances. Nous transformons inconsciemment nos opinions et nos jugements. J’ai lu quelque part que*

<sup>3</sup> Cf. Mariana Net, “Memoirs and Mentalities”. In: *Echinox*, 1-2-3/1997 (in press); “Communist Terror in Romania. Between Document and Fictionalisation. The Case of Prison Memoirs” I. In: *RJS - Revista de istorie sociala*, 1-2/1996 (in press); “Communist Terror in Romania. Between Document and Fictionalisation. The Case of Prison Memoirs” II. In: *RJS - Revista de istorie sociala*, 1-2/1997 (in press); “History, Mentalities, Justifications. The Case of Post-War Romanian Memoirs”. In: *RJS* 1/1998 (forthcoming); “O constanta a mentalitatii (romanesti) din vremea comunista: “a trece *dincolo*”, “a fi *afara*”. In: *Echinox* 4-5-6/1997 (in press); “Kitsch as a Possible Token of Mentalities in Post-War Romania”. In: *Kitsch and Transition* (forthcoming).



trente mille enfants non désirés allaient naître en France au cours de l'été. Une telle anticipation est déjà gênante, on y perd un peu de liberté. Mais nous pourrions croire que notre mémoire au moins nous appartient. Un ami que j'avais entendu, la veille, hésiter dans son pronostic ne craint pas d'affirmer: "Je l'avais bien dit."

## 9. SYSTEMS OF VALUES AND MENTALITIES.

Julliard ([1990] 1991 : 68) goes even further, and mentions the disintegration of the old system of values, which leads to social insecurity and to unprecedented violence:

"Mais pourquoi justement la violence est-elle en train de devenir un langage universel? [...] Et pourquoi aujourd'hui et non hier, une poignée de brutes et de crétins est-elle capable de faire la loi dans un train, une rue, un magasin, un HLM ou un lycée? Je ne vois qu'une réponse; parce que la société n'est plus sûre de son bon droit; parce qu'elle n'a plus de système de valeurs à opposer au système de la violence."

while Emmanuel (1983 : 9) puts forth the same conclusion in a milder, more detached way:

"[...] je crains que l'évolution des pouvoirs et celle des mentalités n'aillent pas dans le sens des libertés civiles, et je ne sais si la notion de citoyen existe vraiment chez nous. Heureusement, il y a des sursauts d'indépendance, de plus en plus nombreux contre le déterminisme qui menace sous couleur de bien public." (my italics, M.N.)

## 10. THE COUNTRYSIDE

All the considerations made so far referred (at least, implicitly) to life in French *towns and cities*. One of the implicit assumptions was that the difference between *the town* and *the countryside* life in France has been abolished. If such a statement can have a certain amount of truth by the end of the cold war, this was hardly the case at the end of the World War II. Annie Moulin's book (1988) stands proof to this effect. The researcher refers, among other things, to the bread ration books, which lasted until 1949 (Mounin, 1988 : 204). She also specifies that, immediately after the War:

"Le cadre de vie semble inchangé. [...] Le chauffage est réservé à la salle où est installé un fourneau à bois ou à charbon qui sert aussi à faire la cuisine. Le sol en terre battue est de plus en plus recouvert par un carrelage ou un plancher. [...] Chez les exploitants [de la terre] les plus aisés, un salon-vitrine peu utilisé rassemble les meubles les plus récents et les photographies de famille. Mais l'habitat est toujours sans grand confort. En 1946, moins de 20% des logements ruraux ont de l'eau courante, seulement 4% sont reliés au tout-à-l'égout. Les deux tiers des fermes de Savoie n'ont pas de vrais W-C. L'hygiène se trouve affectée. [...] La majorité des paysans ne font leur toilette qu'un fois par semaine. Si 83% des foyers sont raccordés à un réseau de distribution d'électricité, la plupart des paysans se contentent [...] d'une lampe 25 watts [...] simplement suspendue au milieu de la salle."

This state of the art determined mass migration of peasants to the neighbouring towns. Afterwards, the scarcity of jobs, as well as pollution, the necessity of big enterprises to expand and encompass even the countryside, etc. led to a revival of life in the country.

On the other hand, tractors made a "revolution" (Mounin, 1988 : 215), leading, once again, to "la destabilisation de la paysannerie. L'exode rural s'accélère brutalement à partir de 1950." Later on, the social security measures taken by the State had as an effect "la paysannerie réinventée" (Mounin, 1988 : 218).

Therefore, "Entre 1975 et 1982, les recensements ont enregistré une spectaculaire renaissance du monde rural. Pour la première fois depuis plus d'un siècle, la population des communes rurales a augmenté plus vite que celle des communes urbaines, ce qui correspond à un retournement des courants migratoires. Mais il ne s'agit nullement d'un retour à la terre. Les agriculteurs ne sont plus majoritaires dans la campagne." (Mounin, 1988 : 241). The development of farming techniques and household facilities has played an important part to this effect. Publicity has had a relevant share, too.

## 11. SOME GENERAL CHARACTERISTICS OF FRENCH PEOPLE.

According to Duhamel (1993: 159), the French are fond of novelty and enjoy being fashionable and up to the mark, but at the same time they are afraid of reforms and changes of any kind. In the same analyst's opinion (Duhamel, 1993: 243), contemporary French society is both unhappy and unsettled. Mentalities are disintegrated once the old administrative and social structures are:

“Plus rien n'est acquis, plus rien n'est assuré.

Au-delà, les croyances et les mentalités, les valeurs et les fois se fissurent, se craquent, se disloquent, parfois s'effondrent.” (Duhamel, 1993: 185)

This conclusion has been actually shared (although sometimes implicitly) by almost all the studies taken into consideration in the present article.

In Pierre Emmanuel's opinion (1983: 236), most of the contemporary French people are tributary to a frustrated alienated mentality, which is accounted for by economic reasons. That is why he pleads for energetic steps to be taken by all the decision factors, in order to change mentalities. To this end, all partisan interests should be overcome. Whether mentalities can be changed by governmental efforts or not is however doubtful.

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## STRATEGIES OF INTEGRATION IN THE ARTISTIC MILIEU : THE ALL-WOMEN EXHIBITIONS IN BUCHAREST BETWEEN 1916-1923

IOANA VLASIU

My research started from the hypothesis that behind the hierarchies established by traditional art-historical narratives there are not only aesthetic considerations to be taken into account, but the system in its entirety, beginning with art schools and going further with the institutional framework the display of art works - exhibitions (personal, salons, national, international etc) artistic associations, awards, collecting, art critic - involved in the construction of an artistic career.

I will examine in this paper why the first all-women exhibitions to be held in Romania (five between 1916-1923) became necessary and were considered to be the only bias for women artists to assert themselves and which were their results. The question of women artists' relations to the different artistic movements of their time will be also treated as a significant one so far as the women artists were interested to assert themselves as modern artists.

Istoria artei romanesti din a doua jumătate a sec. al XIX-lea, când arta de inspirație occidentală se impune atât la nivelul instituțiilor cât și al gustului, nu a reținut numele nici unei femei artiste. Cu toate acestea sau, poate, tocmai de aceea, în 1916 are loc la București prima expoziție a artistelor, ceea ce înseamnă că un număr suficient de femei erau implicate în activități artistice.

Cum se intersectează însă mai exact categoriile "arta" și "femeie" la începutul secolului și care au fost premisele organizării acestei prime expoziții a artistelor femei? Minima educație artistică era parte a educației standard pe care orice fată din aristocrație sau din marea burghezie o primea și, în egală măsură, un element necesar în construcția tradițională a identității feminine. A practica arta la nivel profesional nu era însă convenabil pentru ceea ce se numea o fată "de familie bună". Dimpotrivă, pentru fetele de origine modestă, cultivarea talentului artistic putea duce spre o carieră onorabilă de profesor de desen. Se poate spune că stereotipurile feminității la început de secol permiteau două alternative în ceea ce privește educația și cariera artistică. Prima ar fi practicarea artei la nivelul unui diletantism superior, urmând ceea ce ar putea fi numit "modelul Reginei", pentru că atât Regina Elisabeta, cunoscută ca scriitoare și artistă sub pseudonimul Carmen Sylva, cât și Prințesa Maria, viitoarea Regina Maria expuneau frecvent la Tinerimea Artistică acuarele, proiecte de mobilier, broderii, enluminuri în spiritul manuscriselor medievale etc. (1)

A doua alternativă era cea de profesor de desen. Nici una din aceste alternative nu era însă compatibilă cu stereotipul artistului în jur de 1900, nici cu acela al artistului academic - care în arta românească poate fi cel mai bine identificat cu George Demetrescu Mirea - și încă mai puțin acela al "artistului blestemat" pe care l-am putea eventual recunoaște în Ștefan Luchian. Pentru femeile care doreau să se distanțeze atât de condiția de diletant cât și de aceea de profesor de liceu, amândouă forme de activitate artistică profund depreciate în comparație cu "marea artă", drumurile pareau închise.

Totuși alte oportunități apar odată cu noua ideologie artistică a Jugendstilului (2) care reevaluează artele decorative, încearcă să înlăture distincția dintre arte majore și arte minore și să impună un sistem artistic non-ierarhic. În mediul românesc aceste idei castigă teren odată cu înființarea asociației Tinerimea Artistică în 1902. Este semnificativ în acest sens comentariul lui Al. Tziguța-Samurcăș privind programul Tinerimii Artistice: "Intr-adevăr, membrii cercului [e vorba despre Tinerimea Artistică], partizani ai marilor mișcări artistice din restul Europei, s-au încumetat cei dintâi, să învingă prin expozițiile lor tradiția, persistentă încă la noi, a împărțirii artei în două categorii, una a așa ziselor arte superioare, singure demne a fi expuse, și alta a artelor inferioare, decorative sau industriale. Convinsi fiind că arta în general nu-si poate împlini înalta ei misiune decât atunci când sfera frumosului cuprinde și pe aceea a utilului, ei au încercat să dea și artei române această îndrumare, care singură o va putea scăpa de pieirea spre care o duce indiferența unora și nepriceperea altora. Educația publicului trebuia deci în primul rând îngrijită prin popularizarea așa ziselor produse industriale; căci numai acela care știe să aprecieze un covor sau o

tesatura aleasa va fi in stare sa inteleaga si frumusetile unui tablou sau ale altei opere mai complicate. Acesta era frumosul program ce-si propunea sa realizeze Tinerimea Artistica.” (3)

In presa romaneasca a timpului au loc dezbateri privind artele decorative, importanta lor estetica dar in egala masura economica. Abgar Baltazar este unul dintre artistii cei mai interesati de aceste probleme si autorul unor importante articole pe aceasta tema.(4) Apoi nu este o intamplare ca muzeul pentru a carui infiintare Tzigara-Samurcas s-a zbatut atat de mult s-a numit, cel putin la inceput, in 1906, Muzeul de arta decorativa, nationala si industriala. Si, iarasi, nu este intamplator ca in 1914 se infiinteaza o catedra de arte decorative la sectia de fete, condusa de Cecilia Cutescu-Storck, prima femeie profesoara la Scoala de arte frumoase din Bucuresti si, pare-se, dupa propriile ei declaratii, prima din Europa.(5) De altfel, ceea ce am putea numi “calea artei decorative” - arta decorativa intr-un sens larg care inglobeaza decoratia murala (6) - este bresa prin care Cecilia Cutescu-Storck reuseste sa se afirme in arta romaneasca de dinainte de primul razboi.

Dupa 1900, nu mai existau discriminari de gen in privinta posibilitatilor de a incepe o cariera artistica, ca urmare a legiferarii, in 1895, in urma unor dezbateri care incepusera inca din 1886, a admiterii fetelor in scolile de arte frumoase.(7) Inainte de 1900, intre 1880-1890, alaturi de 90 de baieti inscrisi figurau doar patru fete. O schimbare sensibilă se petrece dupa 1900. Intre 1900-1910 numarul baietilor inscrisi creste considerabil la 330; numarul fetelor este si el impresionant - 141; numai ca dintre acestea 98 se retrag. E adevarat si ca numarul baietilor care abandoneaza e mare.(8) Dar asupra cauzelor acestui fenomen, care sunt de cautat in statutul precar al artistului in epoca, nu putem insista acum. Daca nu mai exista discriminari de gen pentru a incepe o cariera artistica, sansele de afirmare la nivel superior ale artistelor raman insa reduce.

In acest context are loc prima expozitie a artistelor femei,(9) a carei initiatore au fost Cecilia Cutescu-Storck, Olga Greceanu si Nina Arbore. Expozitia, organizata in folosul Crucii Rosii si sub patronajul Reginei Elisabeta, desi nu starneste prea multe comentarii, este totusi bine primita.

P.Georgescu-Rachtivanu atrage atentia asupra “impresiei de vigoare” pe care o lasa expozitia si remarca cu perspicacitate “tendinta vadita chiar de a nu trada insusirile ce revin pe drept sau prin obiceiul de a le atribui lor, personalitatilor femeiesti”.(10) Am spune astazi ca participantele la expozitie impartaseau un punct de vedere egalitarist, incercand sa rivalizeze prin “vigoare” cu standardele artistice masculine. Merita subliniat punctul de vedere al criticului pentru care feminitatea nu este doar biologica, ci si construita cultural, punct de vedere pe care nu toti cronicarii viitoarelor expozitii feminine il vor impartasi.

Dupa razboi viata artistica romaneasca inregistreaza schimbari notabile, apar noi asociatii artistice, care modifica ecuatia tendintelor si orientarilor estetice. Dificultatile artistelor de a negocia cu institutiile care asigura expunerea lucrarilor de arta se diversifica si ele. Cea mai prestigioasa asociatie de dupa razboi, Arta Romana, a stabilit prin cele opt expozitii ale ei - ultima are loc in 1928 - un nivel incontestabil de profesionalism si moralitate artistica, o ierhie implicita in viata artistica romaneasca. In 1921 Sigmund Maur o considera drept “cea mai importanta manifestare artistica, nu numai a ultimei sezuni de expozitii, ci a intregii miscari artistice a tarii romanesti.”(11) Pentru O.W.Cisek era “societatea care de la 1917 incoace a devenit reprezentativa prin cele mai de seama eforturi pe taramul creatiei adevarate”. Constituita oficial in 1918, asociatia este practic infiintata cu ocazia expozitiei din 1917, organizata, in plin razboi, la Iasi, de catre artistii mobilizati la Marele Cartier General. Multi dintre ei purtau la vernisaj uniforma militara.

Aceste prerogative masculine, prezente inca de la fondarea Artei Romane s-au mentinut in buna masura si mai tarziu. Intrebata in 1927 asupra ratiunii expozitiilor femeilor artiste Nina Arbore(13) raspunde:” De ce am infiintat acest Salon? Nu ca o miscare feminista, ci tot din motive artistice. Femeile talentate nu prea erau primite nicaieri. Chiar Arta Romana nu prea primea bucuros pictura feminina. De aceea am infiintat acest Salon in care femeile talentate sa poata expune, fara greutatile pe care le cer expozitiile personale/.../ Nu se poate tagadui ca salonul femeilor a facut cunoscute cateva din aceste elemente tinere.” (14) Nina Arbore, eleva a lui Matisse si prietena cu unii artistii rusi de avangarda, practica un modernism care nu trecuse neobservat si se numara, de altfel, in 1921 printre cei cativa artisti invitatati sa expuna la Arta Romana, alaturi de membrii fondatori. Este si singura artista care va expune la Arta Romana.

Aparitia Artei Romane a modificat echilibrul fortelor artistice, uzurpand autoritatea Tinerimii Artistice, care de acum inainte nu mai detine monopolul consacrarii artistice. Este greu sa nu punem in legatura cu aceasta noua configuratie a scenei artistice romanesti deschiderea, in 1922, la Maison d'Art, a celei de a doua expozitii a artistelor pictori si sculptori si sa nu o interpretam ca o incercare de a

face fata unor exigente estetice sporite. Expozitia, ignorata, in general de criticii exigenti, cu exceptia lui Eugen Craciun, s-a bucurat totusi de mai mult interes decat cea din 1916. Organizata in timp de razboi si in folosul Crucii Rosii, expozitia din 1916 lasase mai mult impresia unei actiuni conjuncturale decat a unei interventii in campul tensiunilor artistice ale momentului. In 1922 dincolo de consideratiile asupra fiecarei artiste, expozitia este perceputa ca manifestarea unei grupari omogene chiar daca criteriile de asociere nu par tuturor foarte limpezi. "Nu stim daca e o grupare noua sau doar o asociatie vremelnica a mai multor artiste adunate laolalta de catre greutatile inerente luptei", scrie Sigmund Maur(16). Pentru Eugen Craciun (17), care le asigura pe artiste de "toata simpatia" sa, expozitia, expresie a "unui feminism de aleasa speta", nu este "intru nimica inferioara manifestarilor masculine de aceiasi natura". Sigmund Maur este in schimb dezamagit de a nu fi gasit in lucrarile expuse "partea originala caracteristica sufletului feminin". Cu toate acestea acelasi critic considera ca expozitia "se prezinta neobisnuit de bine pentru piata noastra artistica de astazi. Nu cunoastem alcatuirea juriului sau numele persoanei care a ales lucrarile. Trebuie felicitata insa pentru spiritul obiectiv critic de care a dat dovada./.../ valoarea tablourilor expuse este intr-adevar aleasa si unitatea si armonia de vederi atinsa nu se mai intalneste la noi decat la Arta Romana" (18).

Raportarea la Arta Romana era cum am vazut un punct sensibil si o analogie de acest fel reprezenta o judecata de valoare implicita. Alaturi de artiste deja cunoscute - Rodica Maniu, Nina Arbore, Cecilia Cutescu-Storck, Olga Greceanu, Merica Ranniceanu, Lucia Demetriad, etc. sunt semnalate foarte elogios cateva debutante - Riza Propst Kreid, Elisabeta Braun Mellinger, Esmee Gafencu, Nadia Grossman Bulighin despre care astazi nu se mai stie nimic sau prea putin. Risa Propst Kreid si Elisabeta Braun Mellinger sunt si pentru Victor Ion Popa "doua frumoase talente plastice care sunt mai mult decat doua fagaduiri". Ele expun "portrete, peisaje, naturi moarte, construite cu o rara cunoastere a desenului modern, puternic si expresiv si cu acea vigurozitate trainica in coloratie, pe care-o da mai putin invatatura anumitor formule si mai degraba o sincera dezvaluire a instinctului plastic."(19)

Intr-o scadere de prestigiu fata de expozitia din 1922 este cea din 1924 unde, spune acelasi fidel comentator al expozitiilor artistelor, Victor Ion Popa, "se zbat toate curentele din lume si nu poate fi vorba de o linie comuna". Este acuzata absenta unui program artistic care ridica intrebari ce nu lipsisera nici mai inainte, asupra rostului asocierii pe criterii de gen. "Feminism?" se intreaba cronicarul. "De ce atunci expun unele doamne la expozitii ale altor societati ca sa le zic asa barbatesti? Nevoia sa expuna? Dar cealalta alcatuire nu le pun nici o piedica. Inca odata, nu-i intelegem rostul si nici nu-i putem vedea viitorul cand ii lipseste o credinta. Diferenta de nivel dintre expozitia de anul trecut si cea de acum dovedeste dealtminteri inceputul de razbunare a lipsei de directiva."(20) Absenta din expozitie a catorva dintre artiste de prestigiu - Cecilia Cutescu-Storck, Olga Greceanu, Elena Popea, Rodica Maniu va fi justificat probabil o astfel de opinie.

In schimb parerile cronicarului de la Clipa, adversar convins si zgomotos al modernismului, trebuie privite mai curand ca un elogiu: "Aproape toate expozantele", spune el, "s-au imbolnavit subit de modernism. Aproape toate, in loc sa ne aduca frumosul din natura si sa ni-l reprezinte delicat, cu toata sensibilitatea caracteristica femeii ne-a infatisat uratul sub toate aspectele." (21)

Tot in 1924 are loc o interesanta initiativa a gruparii feminine care nu a ajuns din pacate sa fie finalizata. In presa se anunta ca "in curand va avea loc in capitala inaugurarea unei expozitii internationale organizata de cateva femei sculptore si pictore, propovaduitoare ale artei moderne."(22) Se mai precizeaza ca "intreaga strainatate, creatoare de opere noi, a raspuns cu mult entuziasm la aceasta invitatiune" si ca Marie Laurencin "va asista personal la vernisaj". Aceasta proiectata expozitie internationala promitea sa fie o expozitie cu un program modernist de asta data explicit. Si tot cu acest prilej gruparea feminina urma sa primeasca numele Arta Libera. Era in mod evident un raspuns adus obiectiilor acelor critici care nu vazusera in manifestarile de pana atunci o directie estetica clara.

Din pacate nu avem nici un fel de informatii despre participarile asteptate din strainatate. E de presupus ca Cecilia Cutescu-Storck, Nina Arbore, Rodica Maniu, Elena Popea, Lucia Dem. Balacescu si nu in ultimul rand Milita Patrascu, care petrecusera, toate, mai multi ani la studii in Franta si Germania, isi contactasera vechile legaturi. Sunt cunoscute, de pilda, relatiile Militei Patrascu cu Sonia Delaunay si Natalia Gonciarova, pentru a pomeni doar nume de rezonanta.

Pe de alta parte, cu un an inainte, in 1923, Olga Greceanu si Nina Arbore avusesera o expozitie la New York, invitate de directorul ziarului The Future, astfel incat relatiile internationale par sa fi ocupat un loc destul de important in activitatea gruparii (23). Nu este exclus ca organizarea expozitiei internationale a Contimporanului in 1924, chiar anul proiectatei expozitii internationale a femeilor, sa le fi zadarnicit planurile. In orice caz Milita Patrascu - singura de altfel din grupul artistelor femei - participa



la expoziția Contimporanului și e foarte probabil ca sculptorita să-și fi transferat energia de organizatoare și relațiile din lumea pariziană, în beneficiul Contimporanului.

Tot în 1924 se redeschide, sub patronajul noului director al artelor, Ion Minulescu, primul Salon Oficial de după război, foarte receptiv față de cele mai noi orientări și se înființează Sindicatul artelor frumoase. De asemenea participarea românească la Bienala de la Venetia este cea mai importantă de până acum și de altfel ultima până în 1938, arta contemporană fiind substanțial reprezentată (24). Este semnificativ că tocmai în acest an de varf al manifestărilor și înfruntărilor artistice, gruparea feminină prin expozițiile și proiectele ei, prin orientarea clară spre modernism, se află într-un sincronism perfect cu orientările majore din arta românească a timpului.

Dacă expoziția din 1925 (25) trece aproape neobservată, cu ocazia celei din 1926 (26) se reaprind discuțiile privind asocierea pe criterii de gen. Există deopotrivă reacții de simpatie și respingere. Poetul simbolist Dimitrie Karnabatt, critic de artă ocazional, scrie articolul cel mai elogios care a apărut vreodată pe marginea expozițiilor feminine, vehiculând diverse stereotipuri ale masculinității și feminității. "Perfidia răzbunătoare a bărbaților afirmă că femeile nu se înțeleg niciodată între ele. Expoziția aceasta răstoarnă victorios, definitiv, această afirmație./.../ aceste artiste nu alcătuiesc o asociație artificială și convențională, ci ceva mai mult decât un cerc profesional - o școală vie de credințe și procedee privind lumea exterioară prin aceiași vizualitate, realizările în formele artei plastice prin mijloace tehnice asemănătoare. Nota predominantă a acestei expoziții - a acestei școli - este modernismul, dar în sfera înaintată și variată a acestui modernism aproape fiecare exponentă aduce o notă particulară, notă caracteristică a ființei ei, căci femeia în artă, ca și în viață, tinde într-o măsură mai apreciabilă ca bărbatul la individualizare, la afirmare personală." (27) Antimodernistii preferă să vada chiar în opțiunea expozanților pentru arta nouă un capriciu imputabil "naturii feminine". "Dintr-o privire fugitivă asupra ansamblului expoziției artistelor se degajează o impresie precisă; avem în față numai reprezentanțele artei la modă. Sexul slab este terorizat de capriciile modei. /.../ Nici una din autoarele de la Mozart nu e demodată. Bărbații, chiar mult mai tineri și mai entuziasmați decât unele din artistele din sala Mozart, schiopătează în urma lor formand ariergarda tineretului reacionar!

În orice caz expoziția de la Mozart nu poate fi blamată pentru vechimea tehnicii, ci mai curând ar merita un reproș pentru tendința nervoasă, persistentă, trasa de a fi "modernă" cu orice pret sau de a copia cât se poate de fidel modelele occidentale cele mai noi. " (28)

Emil Riegler este și el iritat de "factura modernă cubistă" care domină expoziția. Braque, Picasso, Archipenko și Brancusi i se par spiritele ei tutelare. Critica sa își are sursele într-un traditionalism foarte îngust care reduce arta la imitația cea mai plată. El regretă absența "ambientului românesc", a "tipurilor, locurilor și florilor noastre", a "vietii", ceea ce nu-l împiedică să comenteze entuziast "foca de lemn provocatoare" a "Militei Patrascu, " punctul central din care se încălzește expoziția". (29)

Semnificativă este cronică lui Marcel Iancu, un avangardist care nu a mai putut ignora "voința de modernism" a grupării feminine. Comentariul său ocolește orice referință la expoziție ca manifestare a unui grup și preferă să privească, cu scrupul analitic, fiecare individualitate în parte. (30)

O ultimă manifestare a "artistelor pictori și sculptori" și care se poate spune că încheie cu succes de stima seria de manifestări inițiată în 1916, este expoziția din ianuarie 1927 de la sala Hasefer, organizată de Ștefan I. Nenitescu, consilierul acestei galerii. Autoritatea sa în lumea artistică a contribuit desigur ca expoziția să se bucure, de pildă, de atenția lui Oscar Walter Cisek care o consideră "mai selectată și mai concentrată decât în alți ani". Chiar dacă are rezerve, el înțelege să salute seriozitatea unui efort comun - "expoziția ne dă și în anul acesta imaginea unei colective voințe artistice" - dispariția efectelor ieftine, limpezirea intențiilor în cazul talentelor tinere. Varfurile expoziției raman Nina Arbore, Olga Greceanu, Cecilia Cutescu-Storck, carora Cisek le acordă o atenție specială, dar este remarcată și Merica Ramniceanu, după cum este deplănsă absența "puternicului talent" al Elisabetei Fuchs. (31)

O bună parte dintre artistele care s-au făcut cunoscute cu ocazia expozițiilor evocate sunt omologate de istoriile mai vechi sau mai noi ale artei din perioada interbelică. Încă din 1935 G. Oprescu în istoria sa a artelor, semnală fenomenul "curios" al artei feminine și calitatea ei (32).

Rămâne însă surprizător faptul că expozițiile de grup dintre 1922 și 1927, ca manifestări ale modernității care au îmbogățit peisajul artistic al epocii, au fost puțin cercetate, iar sintezele recente ale artei interbelice le trec cu vederea. Expozițiile artistelor pictori și sculptori au avut un program ambicios de depășire a diletantismului și al unui spirit comercial concesiv față de gustul unei clientele mediocre, al cărui model, desigur dificil de atins, a fost Arta Romană. Dacă ecoul celor șase expoziții a fost limitat și critici de prestigiu ca Oscar Walter Cisek, Alexandru Busuioceanu, Ștefan Nenitescu, Aurel Broșteanu au evitat să-și spună cuvântul sau au făcut-o cu multă zgărcenie, preferând să scrie despre cele mai

cunoscute artiste ale grupului doar cu ocazia expozitiilor lor personale, descurajand, astfel, fie si indirect, continuarea manifestarilor de grup, efortul nu a fost lipsit de consecinte.

Dupa expozitia Contimporanului din 1924 unde, dintre artiste, nu au participat decat Milita Patrascu si Irina Codreanu, numeroase pictorite si graficiene vor fi cooptate la diversele expozitii ale gruparii de avangarda - expozitia Academiei artelor decorative (1925), Arta noua (1932), Grupul Plastic (1934), Contimporanul (1935, 1936) sau Criterion (1933). O expozitie de prestigiu precum aceea organizata cu ocazia Congresului Presei Latine in 1927 la Bucuresti, va invita deasemenea cateva pictorite: C. Cutescu-Storck, Nina Arbore, Merica Ramniceanu, Olga Greceanu, Nadia Grossman-Bulighin, Lucretia Mihail, Cornelia Babic-Daniel.

In 1931, cu ocazia Salonului Oficial din acel an, Aurel Brosteanu reamintind rolul Artei Romane, nu omitea sa recunoasca printre continuatorii ei si "aportul catorva femei pictori si sculptori": "Spiritul tineresc al minunatei injghebari care a fost Arta Romana este continuat in generatia imediat urmatoare de cateva constiinte active, al caror scop imediat este improspatarea viziunii si cultivarea expresiei. Din acest punct de vedere, aportul catorva femei pictori si sculptori nu mai poate fi tagaduit." (33) De altfel chiar incetarea activitatii gruparii este cea mai buna dovada ca scopurile ei fusesera atinse. Alte expozitii feminine se vor organiza abia din 1938 incolo, cu motivatii diferite si intr-o conjunctura culturala si politica diferita.





## THE RELATIONSHIP BETWEEN MASTER AND DISCIPLE IN CARLOS CASTANEDA'S WORK-A MODEL OF PERMANENT LEARNING AND SELF-REALIZATION

EMILIA TOMESCU

*Motto:*

Freedom means Knowledge and Education means Creation.  
In order to be free, we have to acquire knowledge and find courage to create ourselves and the world around us.

The traditional relationship between Master and Disciple was during centuries more than a transfer of information to bring about erudition. It was formation and information at the same time, it was spiritual communion, it was creation of a new personality having as a model the Ideal Being, the God himself, by giving the motivation and encouragement beside the perfect model, by teaching how to Live, how to Act, explaining to the Disciple that to Know means to have access to a superior order, that to Have Knowledge is to Be and to Do your best, to Act according to your instruction, (see the yoga tradition or the Greek tradition and old philosophy). The traditional "school" was meant to produce Elevated Human Beings, people who lived on a high level of awareness.

The traditional way of teaching was based on the communion between Master and Disciple, during which the Disciple was taught not only to acquire information but also to experience it on his own; as a result, a new step forward Being was made, which externally seemed to be viewed as a special kind of wisdom. People learnt in order to create themselves, to become Real Human Beings, which illustrates that the eternal dream of the perfect Human Being is strong and appealing - we have only to think of the impressive stories, legends, myths about heroes and supermen in search of perfection able to fulfil incredible tasks for the benefit of mankind. This ideal about the perfect Human Being in terms of archetypes is present in time and space all over the world and is still appealing to us because it is connected with an ontological preoccupation for us Human Beings: the search for perfection, for the origins and the purpose of life.

The main preoccupation of the traditional "school" was the big change that had to take place inside the Human Being, as most of the traditional systems of initiation were based on the formula "Know Your Own Self" the Greek: γνωθι σεαυτον that is = try to become aware of yourself and shift your level of perception from surface to deeper levels.

A real wise man knows much but what is important is that he knows well; the quality of his knowledge and the purpose are dominant; he understands his own nature and the fact that he is part of the Nature surrounding him and he acts accordingly. He learns and applies his knowledge, does his best all the time to make it real and useful.

But it takes years of training to teach somebody or yourself to deal wisely with the world of every day life and our own self; that's why a Master is mainly a Guide and the big lesson he can teach you is to make your own experience, to use your personal effort in acquiring every new step forward.

The conclusion is the same Castaneda drew - that a Man of Knowledge means mainly "a way of conducting oneself", "a way of behaving", that is the end result of a long training.

Carlos Castaneda's books tell the story of the self-realization, each of them representing a step towards the inner self. His work, as a whole, is like a theme with variations that go deeper and deeper to different levels of knowledge until the hero - the author himself - is sure and convinced that all wisdom, strength and power lie within himself. These books tell and show us how to become Men of Knowledge, how to be our own Masters, how to be Free.

Starting with "The Teachings of Don Juan, a Yaqui Way of Knowledge" and "A Separate Reality", Castaneda went on with "Journey to Ixtlan", "Tales of Power" and "The Second Ring of Power". Then he got to "The Eagle's Gift" and "The Fire from Within" until he reached "The Power of Silence" and "The Art of Dreaming"; the stories were presented in sets, arranged in increasing levels of complexity and were used to make evident the abstract cores of Don Juan's lessons to open the Disciple's mind.

Trying to become a Man of Knowledge, Castaneda started his attempts to see beyond the surface realities of life; this experience involved an effort of will, a casting off of preconceptions - and great courage.

Through Don Juan's stories, the true meaning of the eternal quest is finally revealed; the visions of Don Juan give the vital secrets of belief and self realization that are transcendental and valid for us all.

The process of becoming a Man of Knowledge implies more stages and qualities:

1. to become a man of knowledge is a matter of learning.
2. a man of knowledge has unbending intent.
3. a man of knowledge has clarity of mind.
4. to become a man of knowledge is a matter of strenuous labour.
5. a man of knowledge is a warrior.
6. to become a man of knowledge is an unceasing process.
7. a man of knowledge has an ally (a master, a guide).

These seven concepts were themes. They ran through the teachings, supporting Don Juan's entire knowledge. Since the operational goal of his teachings was to produce a Man of Knowledge, everything he taught contained the specific characteristics of each of the seven themes. Together they made up the concept Man of Knowledge as a way of conducting oneself, a way of behaving - which was the end result of a long training. Don Juan, Carlos Castaneda's Master, taught him that "to look at" is at one level and "to see", is at a different one, as "to see", can be synonymous with "to understand"... Don Juan taught Carlos Castaneda the mastery of awareness and that **all the powers we need are at hand, within ourselves**; he made him a master of himself.

We must acknowledge the fact that all of us consciously or unconsciously, openly or secretly - are looking for a Master to be our Model, to show us how to deal with our problems, with our lives. As Carl Rogers says "each of us has an image of our ideal self - the self we'd like to be".<sup>1</sup>

First we look for such a model in our family and then at school trying to identify the best possible model among our parents, relatives or teachers. Sometimes we are lucky, our mother or father or both are real models for us. Or we have to wait as we find out that our own parents are not in accordance with our own ideal. Thus we must look around and see if other relatives or friends or teachers are better models for us.

Some people look for models that can help them deal with the material aspect of their life. This is easier to accomplish. But if someone is interested in finding a spiritual model, he/she will need a lot of time, even his/her whole life. Anyway, the main thing is to continue the search as the search itself can bring about great results and if we are really looking for a mentor, we'll find him/her.

One can become a Man of Knowledge in different fields of activity but the most important achievement is to acquire the knowledge about oneself because each person's earth quest is the search for meaning and purpose in his or her life; **it is the establishment of identity and the realization of inner potentials and individual responsibility that should be our main preoccupation in our journey through life.** The Humanistic view of developing humans states that the self is continually developing, despite the individual's feeling of a single and unique personal identity throughout life.<sup>2</sup> Thus "there is no average person; we must all seek our own identity".<sup>3</sup> That's why the development of the self (the process of self-actualization) is considered the goal towards which humans should strive to achieve fulfillment.<sup>4</sup> "The process of self actualization is the act of becoming whatever one has the potential to become through one's own efforts... But it is not a static goal towards which individuals consciously or unconsciously strive; it is a process, an on going activity. Self - actualization is in fact the process of development"<sup>5</sup>, mainly a spiritual one.

This can be done only if the person in search meets a real Master who is aware that each person has his/her own personality that has the right to grow and flourish. The Master has to have a global vision of the relationship and also a complex attitude towards the new personality who is to become; the Master must help the young personality create itself through **personal effort** and become consciously and fully aware of his/her responsibility towards his/her own search. The Master is a Guide who shows the Disciple the Way, who gives him/her the Map towards the Realm of Knowledge, helping him/her to free himself/herself and live like a real Human Being, **permanently responsible** for his/her acts; the Master educates the Disciple by encouraging him/her to create his/her own personality and life. The Master is needed until the Disciple becomes his/her own master and proceeds.

And because each of us has an image of an ideal self, a model we'd like follow, and because the first models can be found in our family or at school, we can draw the conclusion that **great**

responsibilities arise - as ever before - for the Family and the School the young person attends. These two institutions must offer direction during this stage of personal development (with or without crises) if adolescents are to develop their identity and a positive attitude towards life together with a clear sense of their social role. Learning should be permanent and, at the same time, oriented towards a better integration of the individual in society. The cultural level - that is, the level of the spiritual self-realization that characterizes an individual-is directly influencing the degree and the value of his participation to social life.

This is what qualifies an individual active in society and gives him/her the status of citizen, a human being fully aware of his/her responsibilities as a Human Being.

Influencing the creation of the new personality, any school has to teach the young person some essential values such as: self-respect, self-trust, respect for the others, courage to create and express oneself, responsibility for his/her own acts, all these above all information. Irrespective of what we teach, we have to help the young person to become aware of himself/herself and be open to the world around because Educating means Creating and stimulating Creation as Life itself is Creation and self - Creation. That's why the Big Lesson School should give to all its pupils is "to become aware that one can consciously create himself/herself and his/her own life. In other words the lesson should be To Become the Master of the Powers existing in himself/herself = To Be Free = To Be a Man of Knowledge.

Thus the relationship between parent and children as well as the one between teacher and pupil must include: faith, optimism, autonomy, encouragement, search for identity, responsibility, inner continuity, creativity in all aspects of one's life. "Achieving a sense of personal identity seems to enable an individual to have successful personal relationships" <sup>6</sup>, and be the master of himself/herself.

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## REVIVAL OF AN OLD SYMBOL IN CONTEMPORARY ART: THE CROSS IN PAUL NEAGU'S SCULPTURE

MATEI STÎRCEA-CRĂCIUN

The paper examines symbolic connotations in two iron sculpture compositions by Paul Neagu, *A-Cross* and *Fish*, which are part of his notorious cycle: *Nine Catalytic Stations* (1975-1987). The *A-Cross* motive may be identified in several works by Neagu where it appears to suggest knife shapes and/or cross signs. On the other hand, the *Fish* motive seems to gloss over a stylised cross shaped trajectory. The knife pattern and the cross pattern are both analysed with respect to their capacity to suggest cultural dynamics phenomena as well as basic thinking mechanisms. These findings are further linked to a discussion over *hylesic* (material) *symbolism* in Neagu's *Stations*, i.e. a concept earlier defined by the author concerning the semantic correlation between material and shape in art objects. While defining Neagu's *Stations*, *A-Cross* and *Fish* as contemporary comments on the symbol of the cross, our analysis serves a double purpose. a) To emphasise the coherence of cultural discourse in a contemporary abstract art production; b) To advocate the opportunity for approaching abstract art through symbolic anthropology techniques of interpretation. It is our contention that symbolic anthropology may provide an efficient instrument to better assess the contributions of visual art to shaping contemporary mentalities.

**A-CROSS\*** *'To challenge public convention, Paul Neagu notes, is radical work'*. On another occasion, he adds: *'Sculpture appears to be a creative category related to the body, the concrete, the matter of the primordial making and doing. When sculpture is art it brings its things, its concreteness, its body as fact, forthwith, into the world. Such a projective character (birth-like) emancipates the sculpture into the world, first as occupation and second as immersion. By that virtue, sculpture making is making for the first time* (our emphasis).'<sup>1</sup> When referred to *A-Cross*, the statement above may leave the impression that sculpture is ultimately defined as an unrealistic commitment. Is, for instance, Neagu's sculpture *A-Cross* to be understood as the making for the first time of 'a-cross'? The hyphenated spelling of the title as well as the very structure of the composition including a visible cross pattern makes it clear that the subject dealt with *has* in some way to do with the symbol of the cross. How indeed can anything really new be added by the end of the 20th century to the endless multitude of elated or erudite interpretations of the cross that have been accumulated within the Christian cultural tradition? Are two crossed metal bars not too simple a solution to pretend talking afresh about a two thousand year old theme? Any fundamental truth the cross topic may carry is likely to have already been exhaustively debated a long time ago. And yet . . .

As an equivalent to the French *'a travers'* or to the German *'durch'*, the preposition 'across' is homophonous in English to the syntagm *'a cross'*. The title of the composition probably speculates the homonymy as a means of hyphenating the two meanings, i.e. of defining a field of understanding where they are both simultaneously valid. Which implies that the sculpture itself might be intended to dissert over the symbol of the cross in the ultimately abstract terms of a most common preposition. Pioneering examples provided by several philosophers like Heidegger or the Romanian Constantin Noica convincingly proved that the philosophic analysis of the semantic fields covered by prepositions make an unexpectedly rich topic. Neagu's sculptural approach brilliantly follows in the wake of predecessors. The digression over the cross, as a sign of torture and redemption, can be expanded, as Neagu strives to demonstrate, to a wider area of thought than the one assigned to it by tradition. Between the sculpture's shape, title, and medium a fluid relationship is established: a dialectics of fusing perceptions and

\* The paper includes a selection from a coming volume: *Emblems of the Spirit. Paul Neagu's Nine Catalytic Stations. An Introduction to Hylesic Symbolism*. Cf. MSC, *Embleme ale Spiritului, Noua Statiuni Catalitice*, in SECOLUL XX, *EXILUL*, 10-12, 1977, 1-3, 1998, PP.384-395.

meanings resulting into an expanded awareness about the unlimited power of suggestion of a crucial symbol.

What else might *A-Cross* suggest, through its form, one cannot help wondering, if not a side view of the active part of a knife's blade. Let us meditate over the dramatic metamorphosis of the obsidian pick, turning into bronze blade, then into sharp iron edge. Let us conceive of such evolution as a predestination: a couple of definite gestures awaiting the discovery of an adequate tool, apt to serve them best, marks just the first - and the easier - part in that evolution. The decisive step is only accomplished when the new tool is made of the optimum available material. Considered in sheer quantitative terms, at a planetary scale, iron comes as the fourth most abundant element on earth, and as the first most abundant metal. Iron ores, the reddish earth, stood always close to human settlements quietly waiting for the time when smiths would be ready to use them as more handy additions to the 'presents' fallen from the sky. The iron-tipped spear redefines the act of hunting, while the iron sword gives an entirely new dimension to warfare.

If *Nine Catalytic Stations* are meant as a comment on history's universal principles, there could be no better way of defining such principles than through relevant illustrations of their operation. This means the sculptor's discourse on the Spiral can be assessed for relevance by probing the capacity of his compositions to conjure up major changes, the landmarks of history. "*If a present image does not make you think of an absent image, explained Gaston Bachelard, if one fortuitous image does not trigger a multitude of fortuitous images, an outburst of images, then there is no imagination... An image's (poetic) value can only be measured by the extent of the aura of images (it brings forth).*"

Through its arrow-shaped profile, *A-Cross* seems to echo an elementary force; it suggests an irrepressible urge to proceed blindly in a given direction. Let us recall the great Indo-European migrations. The trauma they must have caused is today a challenge to imagination. It was the call of iron that summoned them up, ravaging prosperous civilisations, spreading hatred among men, irresistibly urging them to achieve prosperity through the deadly use of well sharpened weapons. According to Colin Renfrew, *The plain fact is that until daggers were invented no metal product was so remarkable or original as to be indispensable (. . .) The dagger, on the other hand, was a new form and one which could not be, or at any rate was not, produced in the old world from the obsidian!* History would provide the ultimate confirmation that daggers were a shape best fitting iron, swiftly monopolised by iron, over larger and larger areas of the world. A material catalysing the production of definite shapes meant to fit man's needs is a material acquiring an image. With the invention of daggers iron got a 'face' visible to humans, i.e. a *hylesic* profile, as we may call it with reference to the concept defined earlier. And this profile - it is important to note - is not a static one but a dynamic one. It slowly evolves in time, indefinitely, with the discovery of other new shapes and uses.

A knife, this most common and humble hypostasis of a cutting 'across' instrument, is apparently shown by Neagu in *A-Cross*, under a generic and a metaphoric attire, as expanded to the proportions of a machinery weighing hundreds of pounds. It is possibly meant to help the viewer toward an awareness of the unfathomable depth of the history of knives. In one of Neagu's sketches, the asymmetric rocking base of *A-Cross* compounds the attribute of dynamism with a perception on the part of the viewer over the unpredictability of its movement drives. With its unbalanced triangular base, *A-Cross* illustrates the idea of uncontrollable motion. One can imagine it sliding down a sloping lawn in tumbling chaotic spirals. "*Iron was given us to our misfortune*", complained Herodotus, while referring to the harm caused by weapons. While this statement can not be challenged, it does not cover the whole of the matter under consideration. With cutting a-cross turning increasingly into an operation commanded by iron, an archetype of the metal-cut was developed - in symbolic terms *the sword of light*, as well as, later on, *the cross of victory* - which was to set standards for discriminating the good from the evil. It is however too early to start discussing into detail this topic. Neagu may have sensed its wide implications, and the need to develop it in the following *Stations*

## 8

**FISH** From a ring lying on the ground, a metal segment shoots up into the air like an arrow. It rises in a vertical take off towards the blue, then checks its flight, and, hesitating for a while, dives down headforward, as if preparing for a mighty crush against the ground. It, then, swiftly joins the bottom ring again, circles round and round to gather momentum and soars again into the blue . . . Neagu's composition seems to figure a robust and efficient *perpetuum mobile*. A vertical come-and-go movement combines with a horizontal circular motion.



Of course, one may also try and associate *Fish* to a water scenario, better fitting the title of the composition, but the shift will prove of little consequence as against the rewards of a metaphoric interpretation. It is, for instance, more rewarding to assess the vaguely cruciform connection in the sculpture, of a *vertical* movement with a *horizontal* one. With Neagu plainly stating that "the *Fish* is the Spirit", the cruciform trajectory might be seen as emblematic for the way the Spirit evolves amidst human communities. *Going up*, Neagu seems to explain, is as important as *coming down*. Floating in the air is equally critical as treading on the ground.

The poetic and philosophic dimension in Neagu's sculptural discourse seems meant to reverberate some of history's dramatic turns. Let us compare the symbolic message of Neagu's *Fish* with a philosophic text, explicitly addressed to the same topic: *'History, Berdyaev complained, is an appalling failure and nonetheless it is the outgrowth of a secret meaning, so humans cannot leave it: indeed, where should they go? Unlike what Hegel and a few other philosophers maintained, history is hardly a victorious march ahead, or a triumph of Universal Reason. It has hardly identified with the straight ascending trajectory of progress. It has been (on the contrary) an atrocious tragedy. Even the noblest ideas have been corrupted by it. Revelation itself has also been distorted. History is tantamount to objectivity. The vertical thrust of creative impulse, always entailing a breaking down of historic causality, ends up into objectivation, ultimately converts into a horizontal thrust (our italics).'*<sup>1</sup>

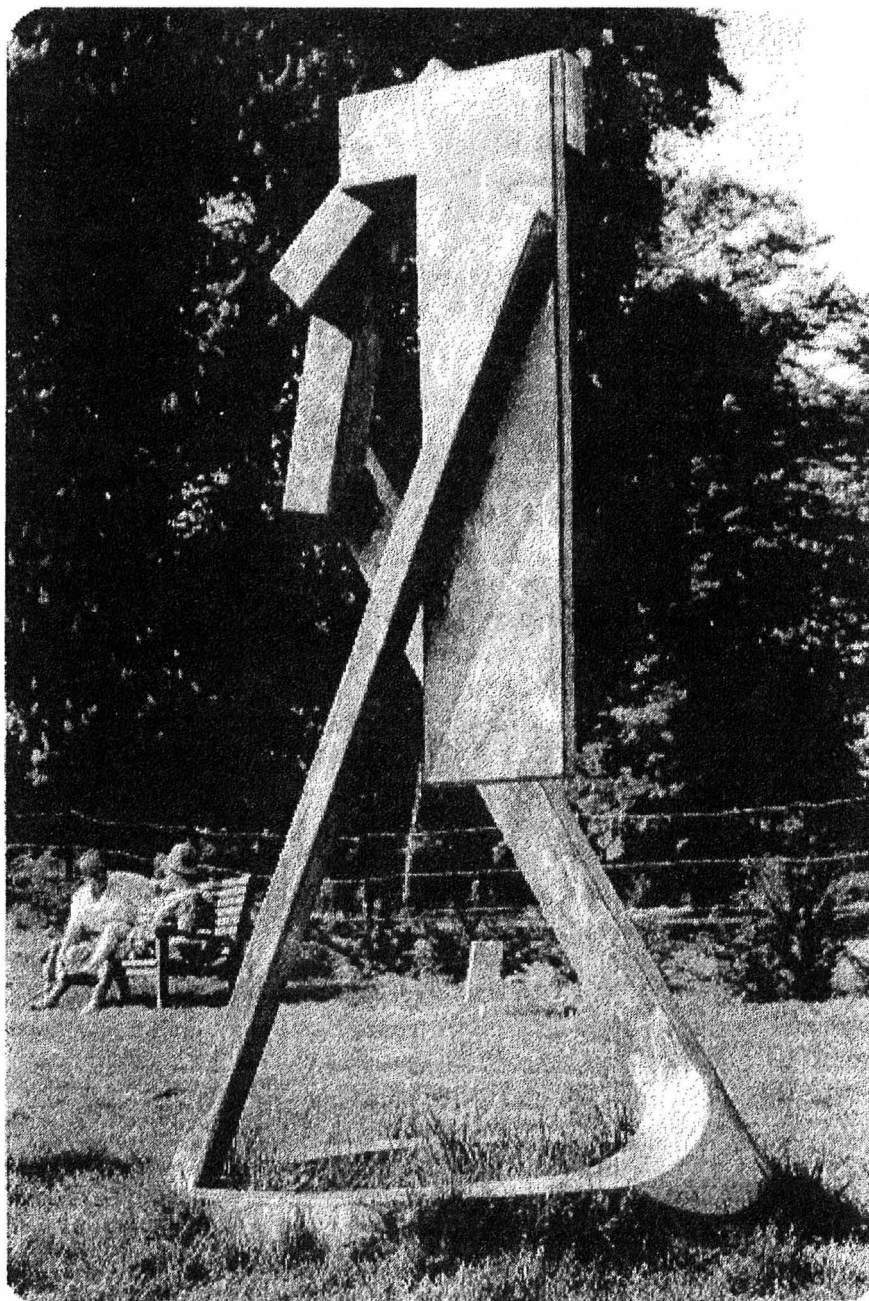
Surprisingly enough, history's defeats, its impotence to safeguarding aspirations from growing corrupted seem to have been illustrated, in synthetic form, in the trajectory of Paul Neagu's *Fish*. Yet the sculptor praises precisely such attributes of history's dynamics that made the object of Berdyaev's harsh criticism. As the fact that they both belong to distinct generations does not by itself clear the matter, it is worth asking which one is right. This is a delicate issue, however, in so far as clear cut answers might prove reductive. Unsteadiness in the evolution of a culture usually witnesses for the fragility of institutions. On the other hand, the same holds true for stagnation, or immobility when exacerbated. Illustrious civilisations collapsed when exaggerated veneration for 'the masters' isolated knowledge from free circulation around society, holding it up rather as an exclusive asset for the initiated few. Is there anything more valuable than rising to perfection? Still, the unwillingness of elitist societies to escape ascending thrusts towards the absolute may sometimes result in disaster. If we are, for instance, to illustrate the latter, that is frozen fixity, or excessive conservatism as a cause for cultural wreckage, one notorious example is to be found in China's past. It is known that the ruling class of the mandarins inexorably caused the decadence of the Chinese empire when they curbed the spreading of technical inventions in order to protect social order from coming under challenge. Europe, on the other hand, did not hesitate to crucify its own history time and again. In other words, Europe was more readily prone either to spread around or simply to annihilate the accomplished ideals of one generation in order to make room for fresh ideals to spring forth (which is tantamount in both cases to '*horizontalising*' matured verticalities).

Let us take a closer look at the *Fish*. The conversion of verticality into horizontality may be especially interpreted as a comment on European history, when assessed, ultimately, with respect to the hylesic influence of iron - the rusting metal, i.e. the dying metal - over its dynamics. Instead of an accuse, like Berdyaev's, Paul Neagu is eulogising the ephemeral condition of ideals, as consonant with death mechanisms controlling natural evolution. To accept the idea of death, such as Nature inflexibly defines it - of death as a precondition of resurrection, and therefore of life -, is an equivalent to accepting the principle of the Spiral, as a trajectory of infinite evolution. Such is the crux of the problem which Berdyaev, on the one hand, and Paul Neagu on the other hand, are approaching from opposing perspectives. The great illuminated searched outside the world, as isolated individuals, such ideals that European culture strove to reach within the world, at a collective level. *La voie royale*, the vertical ascension to Olympian bliss, that is the solitary path towards the absolute, has always been dominated by the powerful aura of gold. Gold alone, it may be asserted by adopting the hylesic point of view, is securing direct access to the loftiest heights of transcendence. From this point of view, Berdyaev's advocacy has to be understood as addressed to those sharing his vocation for the sublime. Which implicitly means that the philosopher's chances to impose 'the way of the gold' into culture predominantly obeying to the calls of iron, that is into a culture bent to desecrate gold by turning it into an amorphous monetary flow, were bound to come under growing challenge.

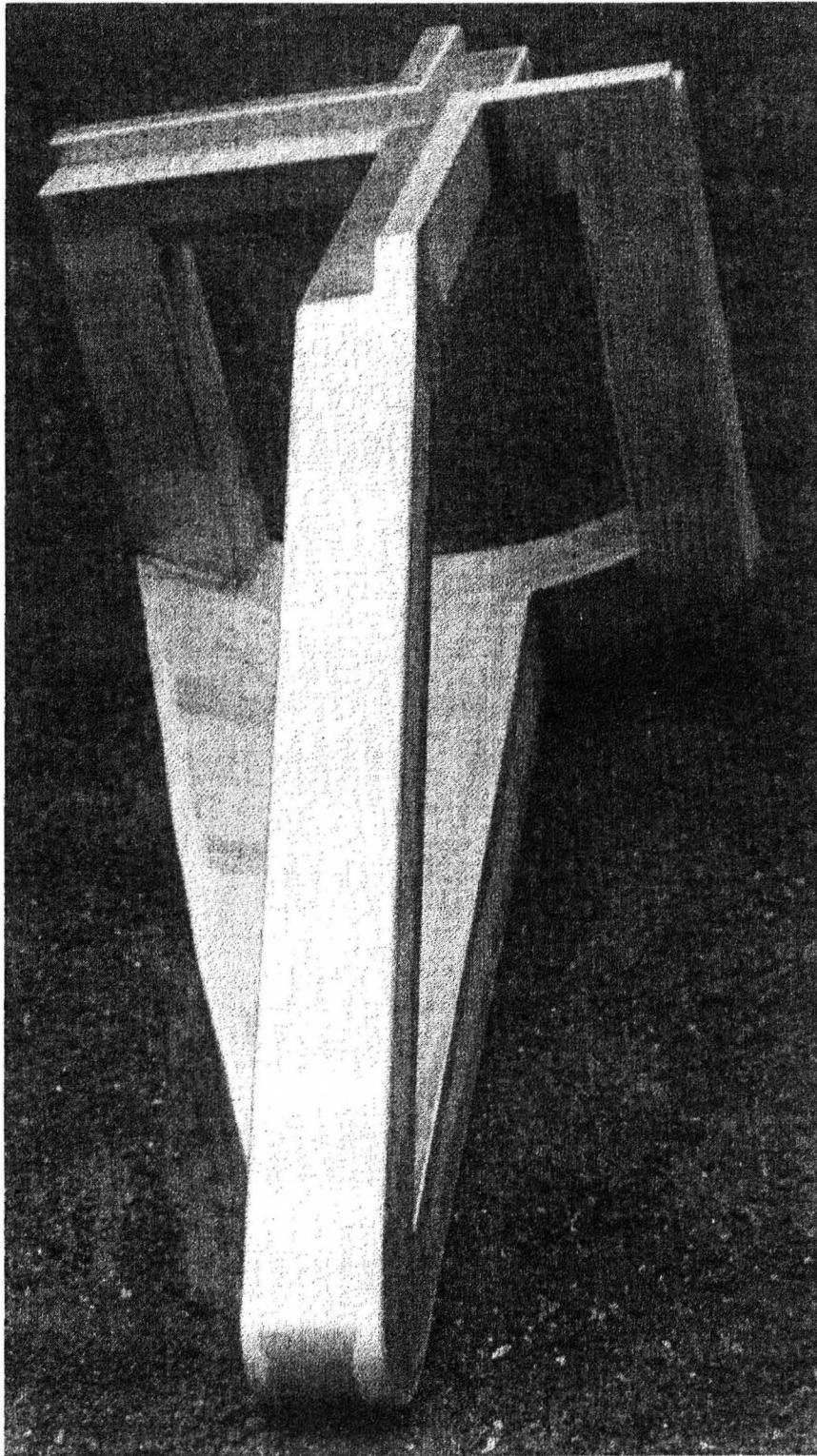
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So, it may be concluded, Neagu's idea of the 'Fish' as impersonation of the Spirit (the artist explicitly stated that to him 'the *Fish* is the Spirit'), does not come from the Christian tradition. For, as a

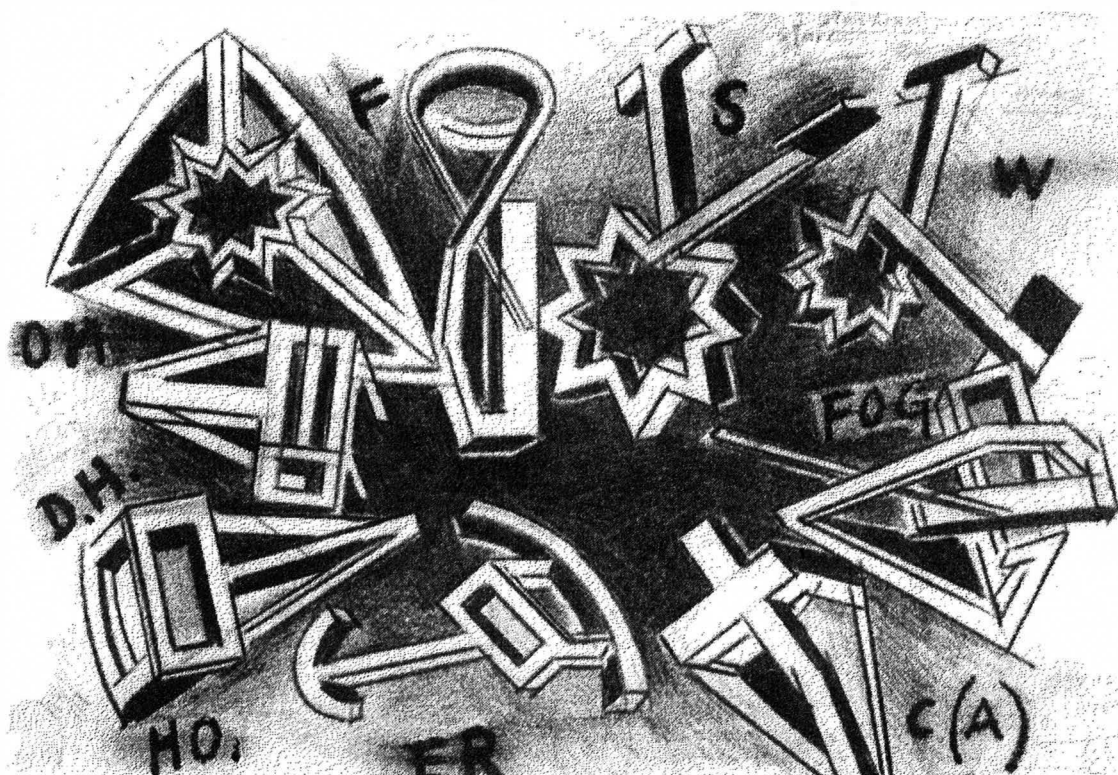
matter of fact, the *Ichtyis* anagram was used by Christians to designate Christ, not the Spirit. The sculptor probably began his composition by figuring its two distinct planes, the vertical one vs. the horizontal one, while searching for means to define their interconnection as defined (or catalysed) by the operation of the Spirit of iron. And then, suddenly, he must have got the revelation of the adequacy of the metaphor of the 'Fish': it is indeed difficult to imagine a better emblem for the Spirit of iron, Neagu may have said to himself, than the one of a strong, elegant, swift, voracious creature, permanently clad in glittering scales like into an invulnerable iron armour . . .



*Paul Neagu, Fish, stainless steel, 1986, 242 x 125 x 127 cm*



*Paul Neagu, A-Cross, stainless steel, 1987, 90 x 90 x 190 cm*



*Paul Neagu, Nine Catalytic Stations, 1987*



## SOURCES ANTHROPOLOGIQUES DANS L'ESTHETIQUE ET LA PHILOSOPHIE MUSICALE DE DIMITRIE CUCLIN

ROXANA SUSANU

La vie de l'homme, de son âme aussi celle de l'univers sont réglées musicalement: c'est l'idée fondamentale de l'esthétique musicale de Dimitrie Cuclin. L'esprit de l'harmonie universelle se traduit par le mouvement. La fonction musicale est exprimée par la relation entre deux sons musicaux. Selon Cuclin, la fonction musicale est le mouvement entre Nadir et Zénith en sens expansif, vers la lumière, la joie et la création, ou dépressif, vers l'ombre et la destruction. L'homme et le son musical sont gouvernés par le même principe d'organisation. Les états d'évolution de l'homme et du son musical sont comparables: animal, psychique et spirituel pour l'homme - le bruit, le son, la fonction musicale. L'évolution psychique de l'homme et des fonctions musicales peut offrir une explication philosophique: "la réessentialisation de la substance, en sens expansif, et la substantialisation de l'essence, en sens dépressif". La science d'aujourd'hui peut indiquer à la création musicale un nouvel sens, car c'est elle qui détermine le progrès des réalités biopsychophysiques humaines.

La vie de l'homme, sa vie psychique, la vie même de l'univers sont ordonnées *musicalement*. "La musique est la totalité des mouvements harmonieux de l'ensemble de la vie humaine et universelle, où l'être essentiel joue les rôles de l'auteur, de l'exécutant, de l'instrument d'exécution et du bénéficiaire" (*Le sens du progrès de la création musicale*, p.20) - telles sont les idées centrales du système musical et métaphysique édifié par le compositeur, l'esthéticien, le philosophe, le poète Dimitrie Cuclin, système qu'il n'a cessé de perfectionner au cours d'une quarantaine d'années.

L'univers conçu par Dimitrie Cuclin est fondé sur la dualité essence - substance; la place de l'homme, qui se situe à leur point de confluence, fait que le philosophe utilise parfois l'expression "triple univers unitaire: essence-substance-homme" (*Correspondance*, p.173). L'essence est un infini dérivant dans l'infini *temporel* de l'univers "extracosmique"; elle constitue le "potentiel" existant du monde. La substance définit l'infini dérivé dans l'infini **spatial** de l'univers et constitue, dans le monde, "l'actuel" vivant.

L'harmonie universelle se traduit par le mouvement (*Le sens du progrès de la création*, p.16). Le mouvement, étape définitoire de la vie et de la musique, engendre le système fonctionnel.

La fonction musicale s'exprime par le rapport entre deux sons musicaux. C'est la fonction et non le simple son qui constitue l'élément fondamental du système musical. Le son est donc le véhicule de la fonction. (*Le sens du progrès de la création...*, p.11). L'unité génératrice du système musical est la **quinte**.

Les fonctions musicales se rapportent à une fonction fondamentale. La "distance" (leur degré de rapprochement ou d'éloignement) par rapport à ce centre gravitationnel se mesure en *quintes*. Plus cette distance est réduite par rapport à la fondamentale, plus les fonctions sont soumises à l'*attraction* de la tonique. Lorsqu'elle s'accroît, elle détermine, peu à peu, la "neutralité" des fonctions, ou la **tendance centrifuge** des fonctions par rapport à la fondamentale. Multipliée à l'infini dans le sens ascendant ou descendant par rapport à la fondamentale, la **quinte** devient l'intervalle générateur d'une spirale qui évolue, par **enharmonie**<sup>4</sup>, dans les plans musicaux les plus éloignés.

La quinte acquiert ainsi, en se multipliant à l'infini, la signification d'un **espace sacré**. Durand, citant Bachelard, définit l'archétype de l'espace sacré par la **répétabilité** que suppose la multiplication, par la **facilité** de multiplication des centres (Cuclin la compare à la multiplication des cristaux) et par l'**ubiquité absolue** du sacré: "L'homme affirme par là son pouvoir d'éternel recommencement, l'espace sacré devient

<sup>4</sup> Au sens traditionnel, l'enharmonie est l'équivalence des noms de certains sons: par ex. si dièse = do. L'équivalence est conventionnelle, car sur le plan acoustique, il existe entre les deux sons une différence qui se laisse exprimer mathématiquement. Dans le système musical tempéré, cette différence a été définie par le terme de COMMA, qui équivaut à la 53-e division d'une octave. Chez Cuclin, l'enharmonie définit l'amplification infinie de la spirale des quintes, par des sons situés fort loin du centre générateur, mais qui portent le nom des 7 sons principaux (do, ré, mi, etc.). Par ex.: sol double dièse - ré triple dièse, ou la quadruple bémol - ré quadruple bémol. La quinte est conservée comme unité de mesure de l'intervalle entre les sons.

le prototype du temps sacré. La dramatisation du temps et les processus cycliques de l'imagination temporelle n'interviennent, à ce qu'il paraît, qu'après cet exercice de dédoublement spatial".<sup>5</sup>

Dans le cadre du système fonctionnel musical, aucune fonction n'exerce un rôle directeur, tyrannique, sur les autres. Chacune d'elles peut devenir, à son tour, un centre temporaire autour duquel les autres graviteront. L'interprétation enharmonique des fonctions autorise la multiplication des centres. La dramatisation du discours musical et les reprises cycliques semblent trouver leur explication psychologique profonde dans cette ubiquité possible du centre.

Les lois du système fonctionnel musical sont dictées par l'attraction ou la tendance centrifuge des fonctions par rapport à un centre générateur, de même que par le mouvement entre Nadir et Zénith, dans le sens expansif, ascendant ou dépressif, descendant.

Les fonctions musicales expliquent les fonctions psychiques et universelles. Le mouvement ascendant correspond à l'expansion vitale vers la lumière, la joie, la création, l'espoir. Le sens descendant du mouvement définit les dépressions de la mort, les ténèbres, le désespoir, la douleur.

Les différents stades de l'évolution humaine sont expliqués par l'évolution de la perception de la fonction musicale:

1. le stade animal, rapporté à une "ère du bruit";
2. le stade psychique, où se produit "la révélation de la proto-vie substantielle du son musical";
3. le stade spirituel, "stade où se révèle la fonction essentielle du son musical, caractérisé par Cicéron, d'une manière subconsciente, par une expression de génie: *homo divinum animal*" (*Le sens du progrès de la création...*, p.10-11).

Dans l'être humain, l'essence et la substance coexistent. Les actions humaines, dirigées sur le plan cosmique et métaphysique, édifient le Moi - domaine fonctionnel personnel. De la "masse fonctionnelle" de l'être humain universel, l'homme se dégage comme un harmonique. Le phénomène de la résonance naturelle des sons inspire à Cuclin une double dérivation de l'homme et de l'être qu'il appelle "humain universel", intermédiaire entre la divinité et l'homme. Le son n'est pas vibration pure, mais un halo de vibrations superposées à la vibration fondamentale. Ces vibrations s'appellent les harmoniques. En théorie, ils sont supérieurs et inférieurs, mais l'ouïe ne perçoit que les harmoniques supérieurs. Dans sa *Théorie de l'immortalité*, Cuclin affirme que l'homme est "un harmonique du grand être supra-humain" (p.51), susceptible d'engendrer, dans le sens ascendant, l'être humain universel, en tant qu'un "harmonique métaphysique supra-humain" (v.*Esthétique musicale*, p.65), ce surhomme étant "responsable de celles de nos œuvres qui surpassent nos propres facultés de conception et de réalisation" (*Théorie de l'immortalité*, p.50).

Le destin, la création, l'immortalité sont les coordonnées qui définissent la relation de l'homme avec l'être humain universel.

Par rapport au destin, l'homme est un instrument aveugle, dirigé par l'être humain universel. "Il y a en nous *quelque chose* de plus grand que nous tous ensemble et qui travaille pour nous tous. C'est lui qui constitue *notre être véritable*. Nous ne sommes que *les instruments aveugles de sa conscience et de sa volonté*" (*Esthétique*, p. 65). L'être humain universel ne peut être perverti, il dirige donc correctement la destinée humaine. Suprêmement conscient, l'être humain universel est l'expression de la volonté divine et dirige la créativité de l'homme. L'être humain universel, résultante temporelle des relations humaines conflictuelles au niveau individuel, social et racial, est engagé dans une ascension directe et continue. "Ce quelque chose de suprême, conscient et volontaire, maître de nos actions créatrices, est *l'être humain*, né du *conflit de tous les individus, de tous les peuples et de toutes les races qui aient jamais existé*, être aujourd'hui multiséculaire, expression mathématique d'un *harmonique métaphysique supra-humain*, dont le progrès dans le concret cosmique *se poursuit dans une ascension directe et ininterrompue*" (*Esthétique*, p.65).

L'homme peut se délivrer de sa substantialité par la création. Celle-ci est "un acte conservateur de l'être ... , transmué en une hypostase nouvelle, exigée pour la satisfaction du phénomène de l'aspiration, inhérent au principe vital" (*Le sens du progrès de la création...*, p.12). "Positif, donc naturel", le progrès dépend de l'opposition entre concours et contraste, qui organise les éléments. La science peut *contrôler* aussi bien le progrès spirituel (la création musicale) que le progrès bio-physique humain. "De nos jours ... la science, pouvant indiquer à la création des significations qui dépassent les réalités bio-psychophysiques humaines, ... se trouve être celle qui détermine les facteurs de progrès et de perfectionnement

<sup>5</sup> DURAND, G. - Les structures anthropologiques de l'imaginaire, tr. roum., Bucarest, éd. Univers, 1977, p.309.

tant de la création musicale et de sa réalisation, que des organes et des facultés respectives, humaines, bio-physiques" (*Le sens...*, p.9-10).

Le sens du progrès est ascendant. La création humaine progresse "vers l'infini et l'éternel, dans le sens unique de l'éveil de la conscience universelle" (*Le sens...* p.21). L'homme, création de l'être universel, progresse dans le sens de l'évolution de la vie universelle, vers l'immortalité, par le triomphe de la vie sur la mort.





## CHROMOSOMAL FLUORESCENT HETEROMORPHISMS IN SIX COSTA RICAN POPULATIONS

PATRICIA CUENCA, ALEXANDER RODEWALD, RAMIRO BARRANTES

The fluorescent chromosome heteromorphisms were studied in 225 Costa Rican individuals who belonged to six different groups: three Amerindian populations (Bribri, Cabécar, and Huetar), Caucasians from the Central Valley, Blacks from Limón province, and a Trihybrid population from Guanacaste. Chromosomes were stained with the QFQ technique and 12 heteromorphic bands in 5 cells per individual were analyzed using the method recommended by the Paris Conference. When testing if the phenotypic frequencies per chromosome band fit the Hardy-Weinberg equilibrium a lower frequency than the expected was observed in the group from Limón for band 15p11. The same deviation was observed for band 13p11 in the Cabécar and Bribri groups. The other groups showed equilibrium for the overall bands. The group from Limón showed the highest variant average per cell while the lowest was shown by the Cabécar. The Limón group, also, presented a higher frequency than the other groups studied except for band 21p11. The Huetar group showed the higher frequency for this same band. Chromosome bands 14p13 and 15p11 proved to be the most conservative. They did not show intergroup variability, in contrast to band 13p11, 13p13, and 22p11 that showed the highest variability.

*Key words:* Chromosome variants, Costa Rican Populations, Q-Bands, Fluorescent Heteromorphisms.

Specific regions of human chromosomes show variability in their morphological characteristics, size, and properties to be stained with certain substances. These regions are called chromosome heteromorphisms, but in literature, they can also be called polymorphisms or chromosomal variants (ISCN, 1985). When using the Q, C, G, DA/DAPI, NORs, and Hoechst 33258 banding techniques, and recently, the restriction enzyme pre-treatment, it is possible to observe these heteromorphisms (Babu et al. 1988; Verma & Babu 1989).

The studies performed in different populations reveal that those subjects who carry these heteromorphisms are mostly phenotypically normal. However, there has been some information about higher frequencies of specific heteromorphisms in groups of patients with some pathologies, such as the case of couples presenting recurrent miscarriages, parents whose children suffer from Down's Syndrome, mentally retarded individuals, patients with specific tumors, and others. Nevertheless, these findings have not always been consistent (Erdtman 1982, Jackson-Cook et al. 1985, Brobow 1985, Kristoffersson et al. 1989).

Since its mode of inheritance is codominant and mendelian (Magenis et al. 1977), this analysis proved to have numerous applications such as in prenatal diagnosis to distinguish between mother cells and foetal cells, in the determination of the origin of extra chromosomes in aneuploidy carriers, in paternity diagnosis, in determining the origin of the haploid chromosome set in chimeras, and in cases of triploidy and tetraploidy.

Research on different human populations has demonstrated not only that the frequencies of different heteromorphisms vary depending on the ethnic groups, but also that there is geographic variation in the same ethnic group (Ibraimov et al. 1986b, Hsu et al. 1987). It has been proposed that these variants can play a role in the adaptation to different climatic environmental factors (Ibraimov et al. 1986b). Moreover, the studies in different populations show a broad variability. Each population possesses a specific standard of these variants regarding the average number, localisation, and size as well as the degree and intensity of fluorescence (Rodewald 1992).

Various genetic markers have been analyzed in some Costa Rican populations (Barrantes 1993, Santos Pasamontes 1992); however, these chromosomal variants or heteromorphisms have not been used yet in their potential applications either in clinic investigation or at the level of populations. In the present study, chromosome heteromorphisms have been analyzed in various Costa Rican populations of different ethnic origins.

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### MATERIALS AND METHODS

The investigation was carried out within populations from the Central Valley, Limón and Guanacaste provinces, and three Amerindian tribes: Huetar, Bribri, and Cabécar. Blood samples were obtained from donors without family ties at the blood banks of the Calderón Guardia, the Tony Facio, and the Anexión Hospitals in San José, Limón, and Guanacaste respectively. Only subjects born in the Central Valley were included in the sample obtain from the Calderón Guardia Hospital. For the Limón sample, individuals whose parents both had English surnames were chosen to guarantee a minimum of 50% of African ascendancy. Regarding the Guanacaste sample, individuals born in Nicoya and Santa Cruz and having ancestors in the region were included (self-named "cholos"). It was decided to study these individuals as a separate population because according to the history of the occupation of Guanacaste, their ethnical ancestors belonged to three different groups: Aborigines, Spaniards, and African slaves living during colonial times.

Among the Amerindians living in the territory of present Costa Rica, the Huetar group was the most numerous at the Spaniards arrival. They occupied the entire Central Valley during the sixteenth century (Ibarra 1984). At present, their representatives live on Quitirrisi Indian Reservation which is located in Mora, 32 km from San José, the capital of Costa Rica. This Reservation has approximately 500 natives. Bribri and Cabécar groups live in an area which is presently known as the Talamanca Indian Reservation in the Talamanca Mountain Range located in the southeast of Costa Rica (District of Bratzi, Cantón of Talamanca). Both groups have populations not only on the Pacific Coast but also on the Atlantic Coast of the Talamanca Mountain Range. According to Bozolli de Wille (1986), the present Cabécar population today totals 2.500 inhabitants on the Atlantic and 875 on the Pacific. On the other hand, the Atlantic Bribri populations have retained more of their cultural characteristics than the Huetar group.

Blood samples were collected in heparin Vacutainers of 5 ml, and stored at 4°C for further processing in the cytogenetic laboratory at the Health Research Institute. Two lymphocyte cultures per subject were processed by standard methods. Chromosome preparations obtained with these methods were stored for three days, and afterwards stained with the QFQ method (Caspersson et al. 1970).

### RESULTS

Table 1 shows the phenotypic distribution for each group. The phenotypic frequency per group for each chromosome band was compared with the frequencies theoretically expected according to the Hardy-Weinberg equilibrium (See Table 2). The Limón sample showed an equilibrium deviation for band 15p11 where the highest frequency for heterozygotes was expected ( $\chi^2=4,1$ ;  $p<0,05$ ).

The Bribri and Cabécar showed less heterozygotes and more homozygous phenotypes than the expected for band 13p11 ( $\chi^2=8,11$ ;  $p<0,01$  for Cabécar and  $\chi^2=8,52$ ;  $p<0,01$  for Bribri). For the other chromosome bands, in the other groups, the frequencies found were as expected. The differences found among the groups after applying  $\chi^2$  can be observed in the last column of Table 2.

The Central Valley sample showed statistically significant differences when compared with Limón. It was  $p<0,01$  for bands 3c, 13p11, 13p13, 14p11, 15p13, 12p13, and 22p13 and  $p<0,05$  for bands 4c and 21p11. For the Huetar group, it was  $p<0,01$  for bands 13p11 and 22p11 and  $p<0,05$  for 14p11 and 21p11. A difference was found in the Guanacaste sample for band 15p13 ( $p<0,01$ ) and for the bands 14p11 and 22p13 ( $p<0,05$ ). Between the Bribri and Central Valley groups, a difference was only found for bands 13p13 and 12p11 ( $p<0,01$ ). No significant differences were found between the Cabécar and the Central Valley groups. Differences were found between the Limón and the Huetar groups in level  $p<0,01$  for bands 3c, 13p13, 15p13, 21p13, 22p11, and 22p13 and in level  $p<0,05$  for band 22p13. Differences were also found between the Limón and Cabécar groups for bands 3c, 13p11, 13p13, and 21p13 ( $p<0,01$ ) and for band 4c ( $p<0,05$ ).

Those of African descent differed from the Bribri group in bands 3c, 13p11, 15p13, 21p13 and 22p11 ( $p<0,01$ ) and in 22p13 ( $p<0,05$ ) and from the Cabécar group in bands 3c, 13p11, 13p13, and 21p13 ( $p<0,01$ ) and in the bands 15p13 and 22p13 ( $p<0,05$ ). The individuals of Guanacaste were statistically different from the individuals of Limón in bands 3c ( $p<0,01$ ) and 13p11 and 21p13 ( $p<0,05$ ). The Huetar and the Bribri groups were only different in band 13p13 ( $p<0,05$ ) whereas the latter was different from the

Cabécar in bands 13p13 and 22p11 ( $p < 0,05$ ). The Bribri was significantly different from the Guanacaste group only in band 22p11 ( $p < 0,05$ ). No difference was found between the Guanacaste and the Cabécar groups. Figure 1 shows graphically the variant frequencies for each group in the 12 chromosome bands. The Limón group showed the highest frequencies in all but bands 21p11 and 22p11. Table 3 shows the average heteromorphisms found in each cell per individual and compared with the averages found by other authors in other population.

Among the Costa Rican groups we studied, the individuals of African descent showed the highest average (6.2) and the Central Valley sample the lowest (2.31). The Trihybrid population of Guanacaste showed the average 3.9 whereas the Amerindians revealed variable averages: the Huetar 3.8, the Bribri 2.87, being the Cabécar the one with the highest average (4).

With regards to the frequencies, the Limón group clearly stands out from the other groups. Its highest heteromorphic frequencies were found for 10 of the 12 chromosome bands studied. Only the Huetar group presented a higher frequency for band 21p11 and 22p11 (Fig 1). The highest frequency in the Limón sample is also reflected in the highest average (6.2) per cell individual (Table 3). Statistically significant differences can be seen in Table 2.

### DISCUSSION

When the methods of population genetics are applied to the cytogenetic data, a controversial result is found basically because these methods are to be applied in genetic frequencies. Cytogenetics, however, studies chromosomal segments specifically in the case of variants. Thus, phenotypic frequencies are used in such a case (Jacobs 1977). Several cytogenetic studies, though, have demonstrated that the data regarding chromosomal variation in different populations fit the Hardy-Weinberg equilibrium (Buckton et al. 1976, Lubs et al 1981, Ibraimov et al 1982a, b, c, and d, 1983a and b, 1986a). In addition, since these chromosomal heteromorphisms undoubtedly exist today and vary in the different human populations, it was decided to apply these methods in this work. It was tested whether the frequencies observed in these populations fit the Hardy-Weinberg equilibrium. Afterwards, equilibrium deviations were found in the Limón group for band 15p11, and in the Bribri and Cabécar groups for band 13p11. We concluded that these deviations occur because of the small size of these populations and because there is no panmixia. Indeed, this phenomenon is more evident in these populations than in the other three populations studied which are more open.

The highest frequency of chromosomal heteromorphisms found either in African populations or in populations of African descent has also been described by other authors (Table 3). The African populations proved to have the highest diversity in most of the genetic features studied. As an example, we can cite the haemoglobin (Kan, Y. and Dozy, A. 1980; Pagnier, J. et al. 1984) and the mitochondria DNA (Vigilant, L. et al. 1989). It is not surprising, then, that this also occurs at a chromosomal level. The gross variability of the African continent highly supports the expansion hypothesis of modern mankind going from Africa to the rest of the world (Cavalli-Sforza et al 1993).

The observed chromosomal variability in 13 populations of Eurasia and Africa living in six different, and clearly defined, environments (from the Arctic region of Siberia to the Equatorial Savannas of Africa) led to the proposal of Ibraimov et al. (1986) in which the Q-bands heteromorphisms may be associated with the fact that the populations adapt themselves to different environmental factors. The Limón sample came originally from slaves belonging to English people and living in Jamaica. Therefore, as stated by literature about the origin of the slaves brought to America, it is highly probable that these populations are composed of descendants of at least seven different African ethnos (Reed 1969). This ethnic heterogeneity may be the reason why a high fluorescent heteromorphic frequency was found in the Limón sample when compared with ethnically homogeneous African populations studied by other authors.

Regarding the specific chromosomal regions, it is worth noting that chromosome bands 14p13 and 15p11 are very stable since they do not show a significant difference among the groups. When comparing these data with the data found in other groups, the following tendencies were observed: there are highly heteromorphic bands in all the populations studied such as 3c and 13p11, whereas 4c, 14p13, and 22p13 show the lowest polymorphic frequencies. Bands 14p11, 15p11, 21p11, 21p13, and 22p11 show variable frequencies in the different groups studied (Table 4). This may be a sign that the repeated sequences of satellite DNA conforming these regions must maintain, even within their variability, a certain organization

to guarantee genome equilibrium. This organization is consistent with some chromosomal band in the different ethnic groups.

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Table 1.

Phenotypic Frequencies for the Fluorescent Chromosomal Heteromorphisms Found in Six Costa Rican Populations.

Phenotype	C. Valley N(%)	Limón N(%)	Huetar N(%)	Cabécar N(%)	Bribri N(%)	Guanacaste N(%)
3C +/+	15(19)	23(43)	4(13)	6(20)	4(13)	8(27)
+/-	38(47)	29(54)	14(45)	13(43)	15(50)	15(50)
-/-	27(34)	2(4)	13(42)	11(37)	11(37)	7(23)
4C +/+	1(1)	0	0	0	0	1(3)
+/-	9(11)	20(37)	4(13)	8(27)	7(23)	4(13)
-/-	70(87)	34(63)	27(87)	22(73)	23(77)	25(83)
13p11 +/+	14(17)	38(70)	17(55)	12(40)	14(47)	10(33)
+/-	43(54)	16(30)	12(39)	7(23)	6(23)	15(50)
-/-	23(29)	0	2(6)	11(37)	10(30)	5(17)
13p13 +/+	0	0	0	0	1(3)	0
+/-	3(4)	17(31)	0	0	5(17)	4(13)
-/-	77(96)	37(68)	31(100)	30(100)	24(80)	26(87)
14p11 +/+	0	1(2)	0	0	0	0
+/-	1(1)	10(19)	4(13)	1(3)	1(3)	4(13)
-/-	79(99)	43(80)	50(87)	29(97)	29(97)	26(87)
14p13 +/+	0	1(2)	0	0	0	0
+/-	10(12)	11(20)	2(6)	4(13)	2(7)	4(13)
-/-	70(87)	42(78)	29(93)	26(87)	28(93)	26(87)
15p11 +/+	0	1(2)	0	0	0	0
+/-	2(2)	4(7)	1(3)	0	0	2(7)
-/-	78(97)	49(91)	30(97)	30(100)	30(100)	28(93)
15p13 +/+	0	2(4)	0	1(3)	0	0
+/-	2(2)	22(41)	1(3)	3(10)	2(7)	7(23)
-/-	78(97)	30(56)	30(97)	26(87)	28(93)	23(77)
21p11 +/+	0	0	0	0	0	0
+/-	4(5)	10(19)	0	2(7)	4(13)	4(13)
-/-	76(95)	44(81)	31(100)	28(93)	26(87)	26(87)
21p13 +/+	0	3(6)	0	0	0	0
+/-	6(7)	31(57)	0	2(7)	4(13)	6(20)
-/-	74(92)	20(37)	31(100)	28(93)	26(87)	24(80)
22p11 +/+	0	0	4(13)	1(3)	1(3)	0
+/-	7(9)	11(20)	18(58)	7(23)	15(50)	7(23)
-/-	73(91)	43(80)	9(29)	22(73)	14(47)	23(77)
22p13 +/+	0	0	0	0	0	0
+/-	4(5)	19(32)	0	4(13)	3(10)	7(23)
-/-	76(95)	35(68)	31(100)	26(87)	27(90)	23(77)

+ With Polymorphism / - Without Polymorphism



Table 2.

Frequency per Heteromorphism for each Homologous Chromosome in Six Costa Rican populations and the Result of the Comparison using  $\chi^2$ .

Chromosome Bands	Central V. N (%)	Limón N (%)	Guanacaste N (%)	Bribri N (%)	Huetar N (%)	Cabecár N (%)	Significant Differences $\chi^2$ *
3c	79 (49)	75 (69)	31 (52)	23 (38)	22 (35)	25 (42)	V-L; L-H; L-B; L-C; l-g
4c	14 (9)	20 (18)	6 (10)	7 (12)	4 (6)	8 (13)	v-l; l-h
13p11	79 (49)	92 (85)	35 (58)	38 (63)	47 (76)	31 (52)	V-L; L-G; V-H; L-C; C-H; L-B; g-h
13p13	3 (2)	17 (16)	4 (7)	7 (12)	0	0	L-C; V-L; V-B; L-H; b-h; b-c
14p11	1 (1)	11 (10)	4 (7)	1 (2)	4 (6)	3 (5)	V-L; v-g; v-h
14p13	10 (6)	13 (12)	4 (7)	2 (3)	2 (3)	4 (7)	
15p11	5 (3)	5 (5)	2 (3)	0	1 (2)	0	
15p13	3 (2)	24 (22)	7 (12)	2 (3)	1 (2)	5 (8)	V-L; L-H; L-B; V-G; l-c
21p11	5 (3)	10 (9)	4 (7)	4 (7)	7 (11)	2 (3)	v-l; v-h
21p13	7 (4)	34 (31)	6 (10)	4 (7)	6 (10)	2 (3)	V-L; L-G; L-H; L-B; L-C
22p11	11 (7)	11 (10)	7 (12)	17 (28)	26 (42)	4 (7)	V-B; V-H; L-H; L-B; C-H; G-H; b-g; b-c
22p13	5 (3)	19 (18)	7 (12)	3 (5)	0	8 (13)	V-L; v-g; l-b; l-c; L-H; g-h

\* The significant difference among the groups is indicated with the corresponding initials joined with a hyphen: V: Central Valley; L: Limón; G: Guanacaste; B: Bribri; H: Huetar; C: Cabecár. A capital letter indicates  $p < 0.01$ ; a small letter indicates  $p < 0.05$ .

Table 3. Chromosomal Heteromorphism Average per Cell for Each Individual and Comparison with the Data of Other Authors.

Populations	H.A.	References
<b>CAUCASIANS</b>		
German 1	1.67	Schwanitz 1976
German 2	3.25	König & Rodewald(not published)
Scottish	4.00	Buckton et al.1976
Netherlander	4.00	Geraedts & Pearson 1974
Northeast European	2.90	Ibraimov 1983b
Highland Russian	1.70	Ibraimov 1982c
American	2.92	McKenzie & Lubs 1975
Costa Rican (Central Valley)	2.31	The present work
<b>MONGOLOIDS</b>		
Steppe Kazakh	3.60	Ibraimov 1982a
Mongoloid (Central Asia)	3.49	Ibraimov 1982a
Chinese	3.50	Ibraimov 1982b
Turkmen	3.00	Ibraimov 1983a
Mongoloid (Highlanders)	2.50	Ibraimov 1982b
Kirghiz (Highlanders)	2.50	Ibraimov 1983b
Tien-Shan (Highlanders)	2.05	Ibraimov 1986b
Chukchi (Arctic-Siberia)	2.20	Ibraimov 1983b
Khakass (Northeast Siberia)	2.53	Ibraimov 1983b
Jakut (Northeast Siberia)	1.64	Ibraimov 1986b
Japanese (Tokyo)	3.83	Yamada & Hasegawa 1978
<b>AMERINDIAN (Costa Rica)</b>		
HuÉtar	3.80	The present work
Bribri	2.35	
Cabécar	4.00	
<b>AFRICAN ORIGIN</b>		
American	4.40	Lubs et al.1977
Mozambican (Highlanders)	4.80	Ibraimov 1982d
Angolan (Highlanders)	4.85	Ibraimov 1982d
Ethiopian (Highlanders)	3.50	Ibraimov 1982d
Limón (Costa Rica)	6.20	The present work
Guanacaste (Costa Rica)	3.90	The present work

H.A.=Heteromorphic Average

Table 4. Heteromorphic Frequencies (%) in 12 Chromosome Bands and Comparison with Other Populations.

Chromosome	Bands											
	3c	4c	13p11	13p13	14p11	14p13	15p11	15p13	21p11	21p12	22p11	22p13
<b>CAUCASOIDS</b>												
Northeast Russian(1)	42.0	2.5	45.0	3.2	7.0	5.2	12.7	2.7	4.2	9.5	5.5	3.2
German(2)	48.3	11.5	57.3	8.55	2.9	11.5	4.7	1.7	0.9	16.2	1.7	2.5
German(3)	52.2	8.8	44.1	12.1	4.2	8.2	4.8	11.5	7.0	14.0	10.9	24.4
Austrian(2)	29.4	7.7	66.1	7.7	4.0	22.8	4.7	1.2	2.5	21.8	2.5	2.7
Denmark(2)	40.9	7.0	65.4	10.2	1.0	15.2	1.3	1.7	1.9	16.8	3.6	1.7
American(4)	42.4	10.1	26.3	2.2	0.0	5.5	0.5	5.0	0.2	3.9	1.0	2.9
Canadian(5)	55.5	14.1	31.4	1.9	0.8	0.2	0.2	0.9	0.1	1.1	0.3	0.3
Scottish(6)	30.7	22.9	18.0	4.2	0.0	4.9	0.0	5.9	0.3	4.6	1.4	7.1
Estonian(7)	65.0	27.8	84.4	4.1	0.0	10.0	0.0	6.4	0.0	8.0	35.9	8.0
Highland Russian(1)	28.4	1.3	25.7	2.7	2.7	2.7	4.1	2.3	4.1	5.4	4.1	1.3
Desert Karakum(1)	36.6	6.5	33.2	3.9	10.3	8.6	15.1	4.3	13.4	6.0	10.3	3.0
Costa Rican C.Valley(8)	49.4	8.8	49.4	1.9	0.6	6.3	3.1	1.9	3.1	4.4	6.9	3.1
<b>AFRICAN origins</b>												
American(4)	37.5	3.6	33.0	3.6	0.0	4.9	1.1	3.8	0.7	5.1	1.4	5.2
Angolan / Mozambican(1)	61.5	2.1	69.8	5.2	13.0	9.9	26.9	2.6	14.1	9.4	19.8	7.3
Highland Ethiopian(1)	41.2	4.4	52.9	4.4	23.5	4.4	10.3	2.9	11.8	1.5	16.2	0.0
Costa Rican Limón(8)	69.4	18.5	85.2	15.7	10.2	12.0	4.6	22.2	10.2	31.5	10.2	17.5
<b>ASIAN origin</b>												
Highland Mongoloid(1)	31.8	5.8	32.4	3.9	2.7	5.8	11.4	3.7	9.6	3.3	10.7	3.8
Steppe Mongoloid(9)	37.5	8.2	42.5	6.6	6.6	8.2	18.0	4.2	9.8	12.0	9.6	8.4
Northeast Asiatic(1)	35.2	3.8	38.9	1.4	3.6	3.8	12.3	2.2	0.2	10.1	2.6	3.8
Highland Kirghiz(1)	36.4	7.3	26.0	3.0	1.5	1.8	5.3	4.0	6.3	3.5	4.3	2.8
Chinese(1)	32.7	9.7	46.4	10.5	8.1	7.3	20.6	5.2	9.7	10.1	7.3	7.7
Chukkchi of Siberia(1)	36.7	1.9	35.2	0.0	4.5	3.0	10.6	1.5	0.4	9.5	1.5	4.9
Khakass of Siberia(1)	33.8	5.8	42.9	2.9	2.5	4.6	10.0	2.9	0.0	10.8	3.8	2.5
Yakut of Siberia(1)	24.5	5.4	15.6	2.9	1.9	2.9	5.7	1.9	7.6	7.3	3.6	2.5
<b>COSTA RICAN Amerindians(8)</b>												
Huetar	35.5	6.5	75.8	-	6.5	3.2	1.6	1.6	11.3	9.7	41.9	-
Bribri	38.3	11.7	63.3	11.7	1.7	3.3	-	3.3	6.7	6.7	28.3	5.0
Cabécar	41.7	13.3	51.7	-	5.0	6.7	-	8.3	3.3	3.3	13.3	6.7

1 Ibraimov 1986b; 2 König & Rodewald; 3 Schwinger & Wehner 1976; 4 Lubs et al . 1977; 5 Lin et al.1976; 6 Buckton et al. 1976; 7 Mikelsaar et al. 1975; 8 The present work.



## **GENETIC STUDIES IN AROMANIAN POPULATIONS**

SCHMIDT HORST, CRISTIANA GLAVCE, CĂTĂLIN GRASA

The Aromunes are a population of unknown origin however they probably represent the oldest of such in the Balkans. During the 17<sup>th</sup> and 18<sup>th</sup> century they formed the majority of the populations of a part of Albania, Macedonia and Northern Greece. Today Aromune villages are scattered in the mountain regions of Northern Greece, Albania, Macedonia and the Dobrudja Region of Rumania. The origin of the Aromunes and their genetic linkage to other Balkan peoples are to be examined through genetic markers (blood groups, serum proteins, erythrocyte enzymes, DNA markers) by an international research project. Initial results from Dobrudja, Rumania describing several genetic characteristics will be presented in this study.

Despite the rich existing literature on the cultural traditions of the Aromanian populations in the Balkans, their origins are highly debated upon, without having yet sure indications for setting them.

Due to the fact that Aromanians speak a language that is very close to ancient Latin, that been frequently related to Romanians whose language is the only one of a Latin origin in Eastern Europe.

Aromanian populations live in Greece, Albania, Bulgaria, states of the former Yugoslavia and Romania. The most and Romans) and Aromanians have developed independently starting from a supposed common frequent hypotheses concerning their origin one can meet in the specific literature are:

1. Aromanians are romanophonic Greeks;
2. Daco-Romans (nowadays' Romanians have resulted from the mixing between Dacians living north from the Danube and Romans) and Aromanians have developed independently from a supposed common origin.
3. Aromanians have developed from the Thracians living south the Danube who learned Latin from the Roman colonists whom they mixed with.

Records pertaining to the Aromanians as an independent people exist from the 8th Century. In the 12th and 13th Century they founded states in Thessalia, Etolia and Epirus.

During the Ottoman Empire, the Aromanians who had retreated into the mountains kept their own government for nearly 500 years and led an autonomous life to some extent. Since they lived as shepherds with large sheep and goat herds, as caravan guides and merchants, they developed a specific culture. An example of this culture is Moskopole ( the 18th Century), a well-known metropolis in entire Europe. At that time Moskopole consisted of 600,000 inhabitants, 72 churches, an academy and a valuable library. After 1913, cultural opportunities were reduced dramatically. Groups scattered throughout Greece, Albania, Macedonia and Romania have not been able to intermarry for the past two or three generations.

Nowadays' the majority of Aromanians, inhabit several communities in the Pindus mountains, in Thessalia and the region between Florina, Kastoria and Kosana. In Albania they can be found in the countryside of Myzeqeja as well as in the regions of Korce and Gjirokaster. They inhabit several village between Ohrid and Bitola in Macedonia. Many Aromanians have ultimately settled in Romania, especially in Dobrogea region.

Biological features of the Aromanian populations are being little studied upon.

A future research project intends to examine the genetic kinship between Aromanians and other Balkan populations through the study of genetic and anthropological characteristics.

As a first step we intend to begin a study of a Aromanian population living in Romania.

### **MATERIAL AND METHOD**

The examined samples consist of 100 Aromanians from the villages of Ovidiu and Kogalniceanu located in the Dobrogea region in Romania. Only individuals whose parents and grandparents are also of Aromanian descent were studied. 145 Romanians from the city of Constanta which is also in the Dobrogea region, were used as a comparison group.

For the calculation of the genetic distances we referred to literature on several comparison populational groups from Romania and Greece. In several cases the data of several studies were pooled via the weighed arithmetic mean in order to obtain representative allele frequencies. We were only able to take 3-4 systems into consideration, since complete data was unavailable for the corresponding comparison groups.

The test for heterogeneity between the two samples using allele and haplotype frequencies resp. has been done with the Pearson statistic. The calculation of the genetic distances was carried out according to Rogers (1972) with modifications according to Wright (1978). The cluster analysis was done by the UPGMA method.

## RESULTS AND DISCUSSION

The allele and haplotype frequencies resp. of the two samples are presented in tables 1-3. The differences between the Romanian and Aromanian population are significant ( $df=38, =80,738, p 0,1$ ).

For the Aromanian sample the frequencies of the allele **O** and the haplotype **CDe** and **Ns** are considerably above, while the **AI** considerably below the comparison samples, consisting of Romanians living in the same geographic region (Table 1).

Differences among serum proteins (Table 2) only need to be mentioned where the frequency of the homozygote **HP\*2SS** are clearly higher for the Aromanians.

However, more differences can be determined for the red cell enzymes (Table 3). In the **PGM 1-System** the allele **1** and **3** is found less frequently in the Aromanians. Also the alleles **GPT\*1** and **GLO\*2** were less frequent, whereas the **GLO\*1** and **GPT\*** were more frequent.

These differences can have several causes. They could be due to founder effects, from the moment the Aromanian population settled in this area, three generations ago. On the other hand, this population is quite small and endogamous, thus genetic drift and consanguinity could be an important factor. Thirdly, the Aromanian population may possess a genetic structure and descent differing from the Romanian. In order to address this problem, we compiled data obtained on several Romanian and other comparison populational groups and calculated the genetic distance. One has been able to work with just 3-4 systems (tables 4-7) since they were the only available ones for comparing samples. The following comparisons among Romanian groups were considered: Transylvania I (Hateg region); Transylvania II (Bran region); Oltenia, Moldavia, Walachia, Banat and Dobrogea. In addition there were two more groups: one group consisted of Aromanians from Greece (known as the Sarakatsans) and a group from Carasova (Romania), consisted of a Serbocroatian population which migrated from the Kosovo region to Romania, in the Banat region in the 12th Century. This population originate from the earlier settlement region of the Aromanians.

On the first dendrogram (Figure 2), that was calculated for the systems **ABO**, **Rh**, **MN**, **Hp**, it can clearly be seen that all of the Romanian groups with the exception of groups from Dobrogea form clusters. The two Romanian populational groups from the Dobrogea area are nearest to this cluster. The Aromanians and the population from Carasova stand apart.

A second dendrogram (Figure 3) including the Sarakatsans show a similar picture although data for only three systems was available (**ABO**, **Rh**, **MN**). All Romanian populational groups, with the exception of the one from Constanta, form clusters. Aromanians from Dobrogea and the Carasova population exhibit larger genetic distance to these clusters. It is also interesting to see that the Aromanians from the Dobrogea and the Aromanians from Greece (the Sarakatsans) are very similar in structure and form their own cluster.

According to these first results it appears that the Aromanians have or have developed a different genetic structure than the Romanian population studied until now. Our studies in Albania, Greece and Macedonia will show to what extent they differentiate from other aromanians and populations from the Balkans. We hope that the examination of more systems, above all DNA-polymorphisms will answer several questions about the descent of the Aromanian population, comparing to the other Balkan population.

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Table1

Blood group – Alleles and Haplotypes frequencies

Alleles	Romanian (Constanta)	Aromanian (Romania)
A1	0,2615	0,1973
A2	0,0581	0,0251
B	0,0976	0,0724
0	0,5828	0,7088
n	145	100
cde	0,3160	0,3105
cDe	0,0218	-
Cde	0,0331	-
cdE	-	-
CDe	0,4738	0,5950
cDE	0,1450	0,0945
CDE	-	-
C <sup>w</sup> De	0,0104	-
CD <sup>w</sup> e	-	-
cD <sup>w</sup> E	-	-
n	145	100
MS	0,2771	0,2707
Ms	0,4098	0,3043
NS	0,0562	0,0043
Ns	0,2569	0,4207
n	99	40
P1+	0,4246	0,3836
P1-	0,5754	0,6164
n	145	100
K	0,0310	0,0500
k	0,9690	0,9500
n	145	90

Table2

Serum protein group – Alleles frequencies

Alleles	Romanian (Constanta)	Aromanian (Romania)
HP*1	0,2931	0,3196
HP*2	0,7069	0,6804
HP*0	-	-
n	145	97
HP*1S	0,2076	0,1667
HP*1F	0,0802	0,1494
HP*2FS	0,6934	0,6322
HP*2SS	0,0094	0,0517
HP*2FF	0,0094	-
n	106	87
CP*A	0,0035	0,0052
CP*B	0,9966	0,9948
CP*C	-	-
n	145	97
C3*S	0,7937	0,7677
C3*F	0,2063	0,2323
C3*VAR	-	-
n	143	99
AMY2*1	0,9621	0,9740
AMY2*2	0,0345	0,0260
AMY2*	0,0034	-
VAR	-	-
n	145	96



Table 3

Red cell enzyme – Alleles frequencies

Alleles	Romanian (Constanta)	Aromanian (Romania)
PGM1*1	0,6226	0,5169
PGM1*2	0,2028	0,3371
PGM1*3	0,1274	0,0618
PGM1*4	0,0472	0,0843
PGM1*V	-	-
n	106	89
PGM3*1	0,7830	0,7528
PGM3*2	0,2170	0,2472
n	106	89
GPT*1	0,5092	0,4082
GPT*1M	0,0099	0,0300
GPT*2	0,4810	0,5618
n	105	89
GOT2*1	0,9952	0,9773
GOT2*2	0,0048	0,0227
n	105	88
ACP*A	0,3208	0,4270
ACP*B	0,6038	0,5337
ACP*C	0,0755	0,0393
n	106	89
ALADH*1	0,9151	0,9326
ALADH*2	0,0849	0,0674
n	106	89

Alleles	Romanian (Constanta)	Aromanian (Romania)
UMPK*1	0,9576	0,9607
UMPK*2	0,0377	0,0393
UMPK*3	0,0047	-
n	106	89
ADA*1	0,8915	0,9101
ADA*2	0,1085	0,0899
n	106	89
AK*1	0,9906	0,9775
AK*2	0,0094	0,0225
n	106	89
PGD*A	0,9811	0,9832
PGD*B	0,0189	0,0169
n	106	89
ESD*1	0,9245	0,9101
ESD*2	0,0708	0,0787
ESD*5	0,0047	0,0112
n	106	89
GLO*1	0,3491	0,4091
GLO*2	0,6509	0,5909
n	106	88
SAHH*1	0,9670	0,9828
SAHH*2	0,0189	0,0172
SAHH*3	0,0142	-
n	106	87

Table 4.

The ABO allele frequencies in some populations

Region	Nr.	Alleles		
		p	q	r
Transylvania I	4253	0,2898	0,1238	0,5864
Transylvania II	1673	0,3189	0,0824	0,5987
Oltenia	3185	0,2735	0,1180	0,6085
Moldavia	1035	0,3081	0,1228	0,5691
Walachia	4713	0,2974	0,1273	0,5753
Banat	6040	0,2806	0,1214	0,5980
Dobrogea	662	0,2941	0,1425	0,5634
Constanța	145	0,3196	0,0976	0,5828
Aromanians	100	0,2188	0,0724	0,7088
Sarakatsani	173	0,2225	0,1105	0,6670
Carasova	332	0,2480	0,0690	0,6820

Table 5.

The RHESUS allele frequencies in some populations

Region	Nr.	Alleles	
		D	d
Transylvania I	3839	0,5711	0,4289
Transylvania II	3529	0,6307	0,3693
Oltenia	2604	0,6045	0,3955
Moldavia	7562	0,6502	0,3498
Walachia	4535	0,6743	0,3257
Banat	5540	0,6310	0,3690
Dobrogea	2729	0,6498	0,3502
Constanța	145	0,6580	0,3402
Aromanians	100	0,6680	0,3320
Sarakatsani	173	0,7250	0,2750
Carasova	332	0,5280	0,4720

Table 6.

The MN allele frequencies in some populations

Region	Nr.	Alleles	
		M	N
Transylvania I	4171	0,5590	0,4410
Transylvania II	3319	0,5553	0,4447
Oltenia	2229	0,5422	0,4578
Moldavia	2792	0,5640	0,4360
Walachia	3931	0,5660	0,4340
Banat	2590	0,5310	0,4690
Dobrogea	927	0,6145	0,3855
Constanța	145	0,6869	0,3131
Aromanians	100	0,5750	0,4250
Sarakatsani	173	0,5029	0,4971
Carasova	332	0,5570	0,4430

Table 7.

The HP allele frequencies in some populations

Region	Nr.	Alleles	
		1	2
Transylvania I	115	0,3565	0,6435
Transylvania II	1221	0,3492	0,6508
Oltenia	986	0,3672	0,6328
Moldavia	221	0,3643	0,6357
Walachia	1843	0,3338	0,6662
Banat	479	0,3423	0,6577
Dobrogea	55	0,3000	0,7000
Constanța	145	0,2931	0,7069
Aromanians	97	0,3196	0,6804
Carasova	332	0,3750	0,6250

Table 8

Modified Rogers distance

Population	1	2	3	4	5	6	7	8	9
1 Transilvania I	****								
2 Transilvania II	0,035	****							
3 Oltenia	0,022	0,027	****						
4 Moldavia	0,041	0,022	0,031	****					
5 Walachia	0,053	0,031	0,043	0,020	****				
6 Banat	0,034	0,023	0,020	0,026	0,030	****			
7 Dobrogea	0,057	0,048	0,058	0,042	0,033	0,050	****		
8 Constanta	0,083	0,073	0,087	0,072	0,066	0,084	0,042	****	
9 Aromanians	0,083	0,063	0,068	0,069	0,060	0,062	0,070	0,084	****
10 Carasova	0,048	0,065	0,051	0,078	0,089	0,066	0,093	0,108	0,087

Table 9

Modified Rogers distance

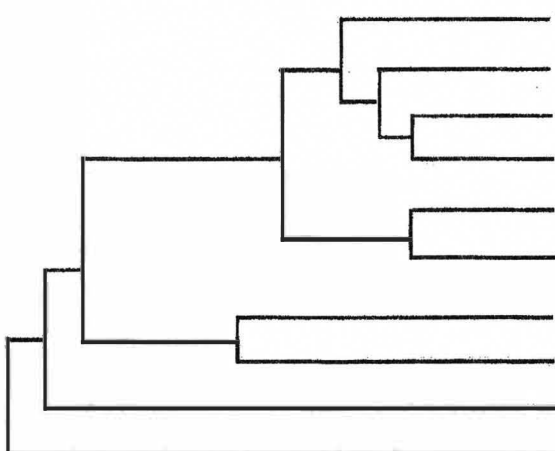
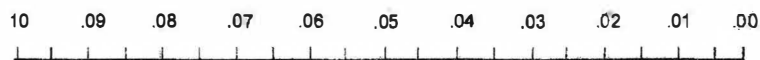
Population	1	2	3	4	5	6	7	8	9	10
1 Transilvania I	****									
2 Transilvania II	0,040	****								
3 Oltenia	0,024	0,029	****							
4 Moldavia	0,047	0,024	0,036	****						
5 Walachia	0,060	0,034	0,046	0,015	****					
6 Banat	0,039	0,026	0,017	0,027	0,034	****				
7 Dobrogea	0,057	0,047	0,054	0,031	0,032	0,052	****			
8 Constanta	0,089	0,077	0,091	0,072	0,073	0,093	0,048	****		
9 Aromanians	0,093	0,071	0,073	0,075	0,068	0,070	0,080	0,096	****	
11 Sarakatsani	0,112	0,086	0,088	0,083	0,072	0,076	0,099	0,130	0,056	****
12 Carasova	0,054	0,074	0,058	0,090	0,100	0,074	0,098	0,115	0,095	0,120

Transylvania I = Hateg region; Transylvania II = Bran region

Systems: ABO, RH, MN

Fig.2

Distance



- Transylvania (Hațeg )
- Transylvania (Bran)
- Oltenia
- Banat
- Moldavia
- Walachia
- Dobruja
- Dobruja (Constanța)
- Aromanian (Dobruja)
- Carasova

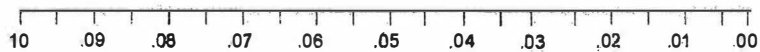
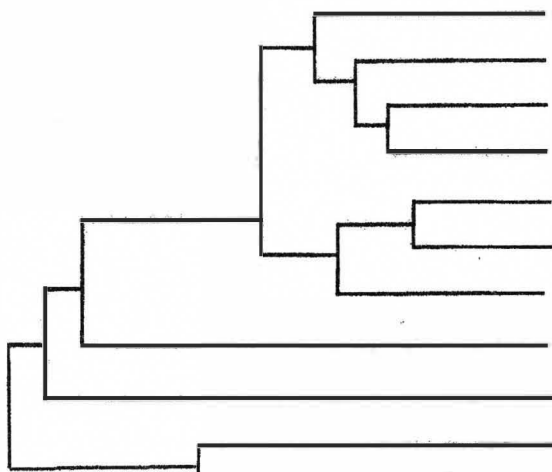
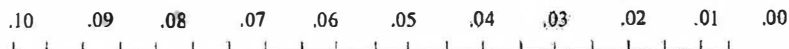
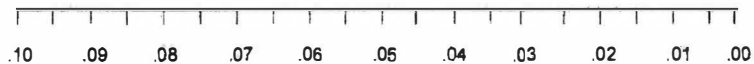


Fig.3

Distance



- Transylvania (Hațeg )
- Transylvania (Bran)
- Oltenia
- Banat
- Moldavia
- Walachia
- Dobruja
- Dobruja (Constanța)
- Carasova
- Aromanian (Dobruja)
- Sarakatsani (Grecia)



## DERMATOGLYPHIC RESEARCH ON POPULATIONS WITH DEMOGRAPHIC PARTICULARITIES

ANA ȚARCA

This work includes a digital and palmary dermatoglyphics study upon a sample of 200 subjects (100 men and 100 women) from Săbăoani village (Neamt County), where the population is predominantly Catholic.

As a first goal of our research, aimed at elucidating a long debated problem concerning the origin of the Moldavian "ceangăi", our study pointed out a dermatoglyphic image which, by most indicators we analyzed, is very similar to that of the Romanian population in general, particularly to that from demographically close villages.

On the other hand, the differences between our results and those obtained by *Malan* and *Bonnevie* from two samples of Hungarian populations, which had served as reference data, proved to be so large that we believe that they could be the result not only of a high endogamy of the population from Săbăoani, but also of a possible influence of the ethnical factor as well.

Therefore, the ethnical affiliation of the studied population still remains, from our point of view, an open subject, until new investigation, which are to be made in the same rural area, with a predominant Catholic population, add, we hope, further proofs to these hypotheses.

Malgré les particularités individuelles dans l'alignement des crêtes papillaires qui leur ont imprimé une grande variabilité, les dermatoglyphes présentent une grande ressemblance lorsqu'on les étudie au niveau populationnel, en nous offrant un tableau qui peut être considéré un vrai "marker" pour l'espèce humaine. De plus, elles remplissent toutes les conditions qui doivent être respectées afin de servir comme critère de base dans le classement de l'humanité (à côté d'autres caractères morphologiques, somatométriques, hématotypiques, etc.) et la différenciation des groupements de populations humaines.

En effet, des études réalisées par de fameux anthropologues et dermatoglyphiciens (*S. M. Leschi, G. Geipel, J. Olivier, H. Cummins, H. H. Wilder, M. Cl. Chamla, etc.*) sur de nombreux échantillons raciaux et des groupes de populations de divers pays et continents [*Chamla Marie Cl., 1968; Ciovrnache M. et autres, 1966; Cummins H., Midlo C., 1961*] ont mis en évidence le fait que, du point de vue dermatoglyphique, elles ne se différencient que par la fréquence des particularités caractéristiques à tous les groupements, ce qui a permis la réalisation de cartes dermatoglyphiques concernant la répartition de ces caractéristiques morphologiques à niveau régional, zonal, national, continental et mondial, des cartes qui servent en tant que données de références dans les recherches dermatoglyphiques populationnelles dans des zones qui n'ont pas été encore étudiées de ce point de vue.

Dans ce contexte, ce travail qui représente une étude des dermatoglyphes digito-palmaires chez une population de *Săbăoani* (département de *Neamț*) appartient à des recherches complexes multi et interdisciplinaires effectuées par des spécialistes anthropologues, des historiens, des archéologues, des ethnographes, des folkloristes, etc. de *Iasi* sur quelques communautés villageoises comprenant des populations de religion majoritaire catholique de *Moldavie* dans le but de déchiffrer l'ethnogenèse de ces groupes de population dont l'origine est très controversée. Par ces recherches on essaie, d'une part, de couvrir certains blancs sur la carte dermatoglyphique de notre pays et, d'une autre part, de mettre en évidence la contribution de ce document biologique important, immuable de point de vue structural pendant la vie, à l'élucidation de l'appartenance ethnique de ces groupes de populations sur laquelle on a émis de nombreuses hypothèses.

On doit souligner aussi, dès le début, que le village *Săbăoani*, qui représente l'objet de la première étape de nos recherches, se situe parmi les plus grandes communautés villageoises de population majoritaire catholique de la *Moldavie* (environ 10 000 habitants) où l'on a gardé intact le modèle traditionnel de mariage entre les individus de la communauté, ce qui lui a imprimé un caractère fermé du point de vue démographique. Cette situation est exprimée de manière suggestive par l'indice très élevé d'endogamie qui est resté pendant les dernières dix décennies autour de 80%, mais aussi par des

nombreux indicateurs du tableau dermatoglyphique digital et palmaire dont les valeurs, chez la population de *Săbăoani*, ont été assez proches de ceux de la population roumaine des unités villageoises endogames [*Țarcă Ana, 1995, 1996, 1997*]. De plus, le risque très grand de la consanguinité dans le cas d'une endogamie accentuée, avec des conséquences négatives sur le potentiel biologique de la population et, par conséquent sur son état de santé, se reflète, comme nous allons voir dans le tableau dermatoglyphique de la population de *Săbăoani*, dans sa charge pathologique (des stigmates malformatifs). Un spectre morbide très large a été confirmé par les déclarations de chaque sujet investigué sur l'état de santé de son ascendance et descendance, en mettant en évidence une incidence accrue des diverses maladies génétiques ou tératologiques (squelettiques ou organiques), des troubles physiologiques ou neuropsychiques.

### MATERIEL ET METHODES

Afin de réaliser cette étude, on a investigué 200 sujets (100 hommes et 100 femmes) du village *Săbăoani* (département de *Neamț*) dont on a recueilli 400 fiches dermatoglyphiques digito-palmaires, en effectuant parallèlement une enquête sur l'état de santé de l'ascendance et de la descendance de chaque famille.

Les méthodes de travail utilisées dans la lecture, l'adaptation et l'analyse des données dermatoglyphiques sont classiques [*Cummins H., Midlo C., 1961*] améliorées par les nouvelles méthodologies d'analyse et d'interprétation [*Gessain R., 1964; Kenneth A. B., 1989; Marquer P., Jacobi, L., 1976*].

### RESULTATS OBTENUS

On a analysé, de tous les indicateurs du tableau digital, la fréquence des principaux modèles digitaux (A, L, W) et les valeurs moyennes des indices classiques de modèle (*Dankmeijer, Furuhashi et Cummins*) qui se sont avérés être les plus illustratifs et les plus utilisés dans les études de Dermatoglyphie ethnique et pour lesquels nous avons eu des données de comparaison avec la population roumaine des autres régions du pays (y compris les communautés à un degré d'endogamie proche de celui du village *Săbăoani*) [*Țarcă Ana, 1979, 1995, 1996*] et avec certains échantillons de population hongroise étudiés par *G. Malan et K. Bonnevie* (tableau no. 1). On peut remarquer dans le tableau que, bien que du point de vue de la fréquence des trois principaux modèles, la série de *Săbăoani* s'inscrive dans la succession classique, présente chez toutes les populations européennes ( $L > W > A$ ), sous l'aspect des valeurs pourcentuelles enregistrées, on signale, comme une particularité caractéristique de toutes les collectivités rurales endogames, une augmentation spectaculaire de la fréquence des arches jusqu'à des valeurs de 12,5% ce qui écarte de manière significative la population de *Săbăoani* des échantillons de Hongrois étudiés par *G. Malan et K. Bonnevie* qui détiennent seulement 6,1% et respectivement 5,0% des arches mais aussi de la population roumaine des autres régions du pays où ce modèle rare varie entre 2,3% et 7,6%.

En ce qui concerne les boucles, en tant que modèle majoritaire, et les tourbillons qui les suivent en tant que poids, même si on assiste à une diminution accentuée de leur fréquence, celle-ci continue à se maintenir dans les limites de variabilité de la population roumaine en général (bien que vers le seuil minimum de l'échelle), sans atteindre des valeurs trop différentes par rapport à celles rapportées pour les deux lots de population hongroise ci-dessus mentionnés, surtout quand on se rapporte à des boucles qui inscrivent une amplitude des différences de seulement 2,1% et respectivement de 2,5% dans l'avantage des dernières.

On retrouve la même tendance ethno-démographique dans le comportement de la population de *Săbăoani* lorsque on analyse les principaux indices de modèle (*Dankmeijer, Furuhashi et Cummins*), comme une expression du rapport entre les principaux dessins digitaux (tableau 1). Ainsi, la valeur 45,70 de l'indice *Dankmeijer* à *Săbăoani* qui se situe parmi les plus grandes valeurs pas seulement de la population roumaine étudiée, mais aussi à niveau européen [*Chamla Marie, 1968; Cummins H., Midlo C., 1961*] se rapproche beaucoup des valeurs que nous avons signalées pour les villages roumains qui ont un niveau d'endogamie proche de celui de *Săbăoani* [*Țarcă Ana, 1995*] comme: *Agăș* (département de *Bacău*), *Mara* (département de *Maramureș*) et *Panaci* (département de *Suceava*) mais, en échange elle diffère de 27 u.i et 30,22 u.i de celles trouvées dans les lots de Hongrois [*Chamla Marie Cl., 1968*].

Par l'indice *Furuhashi* dont la valeur de 45,43 se trouve dans les limites de l'échelle de variabilité chez les Roumains et Européens, la population de *Săbăoani* s'écarte aussi bien des séries roumaines



originaires d'aréals fermés de point vue démographique que des lots de population hongroise ci-dessus mentionnés, par rapport auxquels ils enregistre un indice plus bas d'environ 8 u.i. L'indice de l'intensité de modèle de *Cummins*, pour lequel on n'a des données de comparaison qu'avec la population roumaine, nous démontre par sa valeur moyenne l'intégration de la population de *Săbăoani* dans le comportement de la population roumaine, des communautés rurales endogames en particulier [*Țarcă Ana, 1995, 1996*].

En ce qui concerne la répartition des modèles digitaux en fonction de sexe et latéralité (tableau 2), bien que la population étudiée s'inscrive dans les schémas classiques connus, consistant dans un poids plus élevé pour les arches et les boucles ulnaires sur les mains gauches chez les femmes et par contre, sur les mains droites chez les hommes. Lorsqu'on se réfère à des tourbillons et des boucles radiales, on doit souligner ici, comme *une tendance caractéristique des collectivités rurales endogames, l'existence d'une forte atténuation du dimorphisme sexuel dans le cas des arches et des différences bilatérales pour tous les modèles (plus évidente dans le cas des femmes) qui représente aussi une des plus importantes distorsions ou anomalies dermatoglyphiques à niveau populationnel, avec de profondes implications pathologiques*, si suggestivement illustrée par le tableau morbide chargé de la population de *Săbăoani*.

Afin d'atteindre l'objectif que nous nous sommes proposé, nous avons choisi, **du tableau dermatoglyphique de la paume**, trois des indicateurs qui ont une grande applicabilité dans les études de dermatoglyphie ethnique comparative, à savoir: la fréquence de modèle dans les cinq compartiments de la paume, la fréquence du triradius axial dans de diverses positions et combinaisons et des principales formules palmaires selon H. H. Wilder.

Si on se rapporte d'abord à la **fréquence des modèles dans les compartiments de la paume** que nous avons inscrite dans le tableau 3, celle-ci indique une importante inversion de la succession en ordre décroissant de la valeur présente d'habitude chez toutes les populations européennes ( $IV > Hp > III > Th/I > II$  à la place de  $IV > III > Hp > Th/I > II$ ) et suite à l'analyse comparative des valeurs pourcentuelles enregistrées, on constate une *forte diminution (excepté pour l'aire Thenar/I)* ce qui éloigne notre série de la population hongroise étudiée par *G. Malan* mais aussi de la population roumaine de certaines région du pays, excepté les populations de *Muntenia* et *Transylvanie* par rapport auxquelles notre série se situe près du niveau minimum de son échelle de variabilité.

Cette diminution de la fréquence de modèle des aréals configurationnels (*Hp et Th/I*) et des espaces interdigitaux de la paume (*II, III, IV*) est accompagnée par des renversements importants de la ligne classique du dimorphisme sexuel et des différences bilatérales (tableau 4) tout comme par une sensible atténuation des différences sexuelles pour tous les compartiments et des différences bilatérales seulement pour certains (*Hp, II*) cela s'ajoutant aux distorsions (anomalies) du tableau dermatoglyphique à charge pathologique si souvent rencontrées dans les collectivités endogames [*Kenneth A. B., 1989; Marquer P., Jacobi L., 1976, Țarcă Ana, 1995*] et dans des maladies diverses [*Țurui C., Leonida C., 1979; Vridagh Laureux Stana, 1968*].

<i>Formule</i>	<i>Hp, IV:</i>	<i>femmes &gt; hommes</i>	<i>Hp, II, III: d &gt; s</i>
<i>classique:</i>	<i>Th/I, II, III:</i>	<i>hommes &gt; femmes</i>	<i>Th/I, IV: s &gt; d</i>
<i>Săbăoani:</i>	<i>Hp, Th/I, III, IV:</i>	<i>femmes &gt; hommes</i>	<i>II, III: d &gt; s</i>
	<i>II:</i>	<i>hommes &gt; femmes</i>	<i>Hp, Th/I, IV: s &gt; d</i>

Si l'on analyse la **fréquence du triradius axial "t" dans de diverses positions et combinaisons** (tableau 5), on constate que, pour les formes solitaires basales (t), distales (t', t'') ou marginales (t'''), la population étudiée enregistre des valeurs assez proches de celles de la population roumaine mais aussi de celles de la population hongroise pendant que pour les combinaisons de 2 ou 3 triradi dans la même paume qui se trouvent en corrélation avec la présence dans l'aréal hypothénaire des modèles rares et avec la concentration de 2 ou 3 modèles dans le même espace (situations assez rares chez les populations) elle s'éloigne de 17,3% du lot de Hongrois rapporté par *G. Malan* mais, en échange, elle s'intègre dans le comportement de la population roumaine que nous avons étudiée en *Moldavie, Maramureș et Bucovine*, en particulier de la population des unités rurales comportant un degré élevé d'endogamie en particulier [*Țarcă Ana, 1979, 1995, 1996*].

En ce qui concerne le dimorphisme sexuel et les différences bilatérales dans la distribution du triradius axial (tableau 6), la population de *Săbăoani* peut être incluse, à quelques exceptions près, dans les tendances classiques consistant dans une fréquence plus élevée pour la position basale "t" chez les hommes et pour les positions distales t', t'', t''' et pour les combinaisons de 2-3 triradi chez les femmes, tout

comme pour t et t' sur les mains gauches et pour t", t<sup>u</sup> et les combinaisons de t sur les mains droites, pour certaines d'entre elles (t", t<sup>u</sup> et pour combinaisons tt', t't") on signale une diminution sensible des différences sexuelles et bilatérales comme dans le cas des autres caractéristiques analysées antérieurement.

Enfin, un dernier aspect du tableau dermatoglyphique de la paume des sujets investigués se rapporte au **degré d'inclinaison des crêtes palmaires**, exprimé suggestivement par les formules palmaires principales de *H. H. Wilder* dont la fréquence chez la population étudiée, comparée à celle de la population roumaine de certaines régions du pays et avec le lot de Hongrois rapporté par *G. Malan* est présentée dans le tableau 7. Même si par les fréquences enregistrées pour les trois tendances d'alignement des crêtes palmaires (transversale, intermédiaire et oblique), la population de *Săbăoani* s'inscrit dans la succession classique présente chez toutes les populations europôides consistant dans une prépondérance du trajet transversal, suivi par celui à inclinaison intermédiaire et oblique (11-9-7 > 9-7-5 > 7-5-5), sous le rapport des valeurs pourcentuelles enregistrées, elle fait preuve d'un *fort alignement transversal des crêtes* qui dépasse de 27,7% celui rapporté par *Malan* pour l'échantillon de Hongrois et seulement de 1,4% le seuil maximum de sa variabilité chez la population roumaine étudiée. *Cette augmentation substantielle du poids pour un trajet horizontal des crêtes palmaires* a conduit implicitement à la diminution sensible pour l'inclinaison intermédiaire et oblique, jusqu'à des valeurs qui, par rapport aux autres populations roumaines étudiées (tableau 7), se situent près de ou même en dessous du seuil minimum de leur échelle de variabilité, pendant qu'il s'éloigne avec des valeurs en plus par rapport au lot de Hongrois étudiés par *Malan*, l'amplitude des différences arrivant jusqu'à 14,8% pour le type d'inclinaison intermédiaire des crêtes (9-7-5) et seulement 1,5% pour l'inclinaison oblique (7 - 5 - 5).

On remarque, dans le même tableau 7, *une incidence assez élevée pour d'autres formules que celles principales* (21,5%) qui suggère la grande fréquence des paumes où les lignes principales (D, C et B) s'arrêtent dans d'autres champs que ceux qui conduisent à la réalisation d'une des formules classiques, en imprimant ainsi aux paumes un aspect de réseau chargé, en forme de dentelle. Cette incidence tout comme la tendance pour un alignement transversal des crêtes palmaires s'ajoutent aux distorsions à signification pathologique du tableau dermatoglyphique de la population étudiée que nous avons mises en évidence pour d'autres communautés rurales fermées [*Țarcă Ana, 1995*] mais qui sont présentes aussi dans la plupart des maladies génétiques ou tératologiques graves [*Gessain R., 1964; Țarcă Ana, 1997; Vridagh Laureux Stana, 1968*].

En ce qui concerne l'incidence de ces 3 formules palmaires principales et des autres formules chez les deux sexes, on assiste à un renversement total des tendances classiques dans le sens d'un trajet transversal plus fréquent chez les hommes et non chez les femmes et d'une orientation intermédiaire, oblique et désorganisée (autres formules) chez les femmes à la place des hommes (tableau 8), avec la précision qu'il y a, dans ce cas aussi, une diminution de l'amplitude des différences sexuelles particulièrement pour les formules 9-7-5 et 7-5-5.

Sur les deux mains, excepté l'orientation intermédiaire (9-7-5) de la série masculine, la population de *Săbăoani* suit le comportement général de la population roumaine et europôide en présentant une orientation transversale plus accentuée sur les paumes droites et une orientation intermédiaire et oblique sur les paumes gauches.

## CONCLUSIONS

L'étude des dermatoglyphes digito-palmaires chez la population de *Săbăoani*, département de *Neamț* a mis en évidence un tableau qui, en général, se rapproche de celui de la population europôide dans le contexte de laquelle on inclut aussi bien la population roumaine que la population hongroise auxquelles nous avons rapporté nos résultats. Malgré cela, on a signalé quelques particularités ethno-démographiques se rapportant au comportement des principaux indicateurs dermatoglyphiques analysés qui, sous l'aspect des valeurs enregistrées, plaident pour une plus grande affinité de notre série avec la population roumaine, surtout pour les populations appartenant à des aréals géographiques proches comme ouverture de *Săbăoani* et pour un éloignement significatif des lots de population hongroise étudiés par *G. Malan* et *K. Bonnevie*. Les différences par rapports à ces deux derniers lots étant, pour certains des paramètres analysés, tout à fait frappantes, avec des amplitudes très élevées, il est difficile à croire que ces différences soient provoquées seulement par le caractère très endogame de la communauté de *Săbăoani* et que certains facteurs de différenciation ethnique n'y aient pas contribué. Le problème reste ouvert jusqu'à de nouvelles recherches qui seront effectuées dans cinq autres communautés de la *Moldavie* comprenant une population de confession majoritaire catholique.

Parmi les particularités ethno-démographiques du tableau dermatoglyphique de la population de *Săbăoani*, on doit mentionner:

- une augmentation spectaculaire de la fréquence des arches accompagnée par une diminution du poids pour les boucles et les tourbillons et par des modifications importantes des indices de modèle (*Dankmeijer* et *Furuhata*);

- une diminution substantielle de la fréquence de modèle dans les compartiments de la paume (excepté l'aréa *Thenar/I*);

- une augmentation importante du poids pour les combinaisons de 2-3 triradi dans la même paume, déterminée par l'incidence accrue dans l'hipoténaire de la paume des modèles compliqués structurellement (*W, LP, TL*) ou groupés par 2 ou 3 dans cet espace.

- une transversalité accentuée des crêtes palmaires, suggestivement illustrée par la fréquence élevée pour la formule 11-9-7;

- un poids élevé pour les paumes qui ont un aspect chargé, en forme de dentelle (en réseau) exprimé par la fréquence pour "d'autres formules" que les formules principales.

Toutes ces particularités auxquelles on doit ajouter d'importants renversements ou déviations de la ligne classique du dimorphisme sexuel et des différences bilatérales des paramètres analysés s'inscrivent dans la liste des distorsions (des anomalies ou des dermatoglyphoses) du tableau dermatoglyphique des populations étudiées qui sont une expression graphique du tableau morbide si chargée de cette dernière, fait qui a été mis en évidence aussi par l'enquête des sujets investigués qui a souligné une incidence élevée des maladies diverses, squelettales, organiques ou troubles physiologiques ou neuropsychiques. C'est ainsi que nos résultats viennent confirmer, une fois de plus, qu'on peut retrouver, dans l'iconographie complexe des dermatoglyphes, la structure somatique, physiologique et neuropsychique normale ou pathologique de chacun de nous [*Vridagh Laureux Stana, 1968*], ce qui justifie l'utilisation de ce document biologique important, immuable structurellement pendant la vie en tant que teste d'évaluation de l'état de santé aussi bien à niveau individuel qu'au niveau populationnel, aspect que nous développerons dans nos études prochaines.

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Tableau 1.

Données comparatives concernant la fréquence des principaux modèles digitaux et les valeurs des indices de modèle classique

Populations	A	L	W	Indice Dankmeiyer	Indice Furuata	Indice Cummins
Sabaoani	12,5	60,2	27,3	45,70	45,43	11,50
Bolovanis	11,1	59,8	29,0	38,21	48,54	11,79
Agas	13,1	55,9	30,9	42,58	55,18	11,77
Mara	13,1	54,7	32,1	40,81	58,80	11,90
Panaci	14,1	55,7	30,1	47,03	53,98	11,59
Moldova	9,8	57,7	32,6	29,97	56,61	12,29
Maramures	8,2	57,3	34,5	23,81	60,13	12,62
Bucovina	10,9	57,6	31,5	34,59	54,64	12,06
Muntenia	6,9	63,5	29,5	-	-	-
Autres populations roumaines	2,3-7,6	57,6-73,0	23,3-38,8	9,80-23,40	38,50-51,00	12,0-12,9
Hongrois - G. Malan	6,1	62,3	31,3	18,70	53,90	-
Hongrois - K. Bonnevie	5,0	62,7	32,3	15,48	51,51	-
Européens du Centre et du Nord de l'Europe	3-8%	50-61 C 56-74 N	31-49 C 20-30 N	7,38-40,8	36,0-63,3	-

Tableau 3.

La fréquence de modèle des 5 compartiments de la paume par rapport à d'autres échantillons de populations roumaines et européennes en général

Population	Hp	Th/I	II	III	IV
Sabaoani (village)	29,70	8,00	2,50	28,75	37,00
Neamt (zone)	33,87	9,13	2,05	36,09	48,63
Maramures (zone)	30,94	10,06	4,56	40,75	51,50
Bacau (zone)	39,87	11,29	3,89	38,24	46,96
Suceava (zone)	36,36	8,28	3,21	40,86	37,14
Muntenia, Transilvania C. Vulpe -limites	28,0-44,0	5,9-20,9	0,5-5,6	29,0-49,2	39,7-61,8
Oltenia - M. Ciovârnoche	33,40	14,70	5,70	39,20	47,80
Hongrois - G. Malan	36,00	8,20	7,20	56,00	52,00
Européens -limites	30-45%	5-25%	sub 10%	25-63%	23-69%

Tableau 2.

La répartition pourcentuelle des principaux modèles digitaux chez les deux sexes, sur les deux mains et sur les doigts

Doigts	Main	Hommes (100)					Femmes (100)				
		A	L'	L''	ΣL	W	A	L'	L''	ΣL	W
I	G	9,0	-	62,0	62,0	29,0	4,0	-	63,0	63,0	33,0
	D	3,0	-	59,0	59,0	38,0	4,0	-	63,0	63,0	33,0
	G+D	6,0	-	60,5	60,5	33,5	4,0	-	63,0	63,0	33,0
II	G	22,0	13,0	38,0	51,0	27,0	27,0	14,0	30,0	44,0	29,0
	D	23,0	19,0	25,0	44,0	33,0	25,0	11,0	35,0	46,0	29,0
	G+D	22,5	16,0	31,5	47,5	30,0	26,0	12,5	32,5	45,0	29,0
III	G	17,0	1,0	56,0	57,0	26,0	19,0	1,0	61,0	62,0	19,0
	D	16,0	1,0	57,0	58,0	26,0	16,0	1,0	69,0	70,0	14,0
	G+D	16,5	1,0	56,5	57,5	26,0	17,5	1,0	65,0	66,0	16,5
IV	G	6,0	1,0	51,0	52,0	42,0	6,0	1,0	58,0	59,0	35,0
	D	10,0	1,0	36,0	37,0	53,0	9,0	-	49,0	49,0	42,0
	G+D	8,0	1,0	43,5	44,5	47,5	7,5	0,5	53,5	54,0	38,5
V	G	5,0	-	86,0	86,0	9,0	12,0	-	82,0	82,0	6,0
	D	8,0	1,0	77,0	78,0	14,0	9,0	1,0	80,0	81,0	10,0
	G+D	6,5	0,5	81,5	82,0	11,5	10,5	0,5	81,5	81,5	8,0
I - V	G	11,8	3,0	58,6	61,6	26,6	13,6	3,2	58,8	62,0	24,4
	D	12,0	4,4	50,8	55,2	32,8	12,6	2,6	59,4	62,0	25,6
	G+D	11,9	3,7	54,7	58,4	29,7	13,1	2,9	59,1	62,0	25,0

Tableau 4.

La fréquence de modèle des compartiments de la paume en fonction de sexe et latéralité chez la population de Săbăoani

Compartiments	Hommes (100)			Femmes (100)		
	G	D	G + D	G	D	G + D
Hp	29,0	28,0	28,5	30,0	32,0	31,0
Th/I	9,0	6,0	7,5	10,0	7,0	8,5
II	2,0	5,0	3,5	1,0	2,0	1,5
III	12,0	42,0	27,0	17,0	44,0	30,5
IV	37,0	34,0	35,5	44,0	33,0	38,5

Tableau 5.

Données comparatives concernant la répartition pourcentuelle du triradius "t" dans de diverses positions et combinaisons

Populations	t	t'	t''	t'''	tt', tt'', t't'', tt't''' etc.
Sabaoani	60,7	11,7	3,7	1,5	22,2
Maramures (zone)	64,5	14,5	3,8	2,2	16,9
Bacau (zone)	55,2	14,1	1,4	1,9	29,1
Neamt (zone)	69,7	9,9	2,2	1,1	18,1
Suceava (zone)	65,5	12,2	2,8	1,1	19,3
Hongrois (G. Malan)	62,0	16,5	5,2	-	4,9
Autres populations europoides-limites (H. Cummins)	62,9 - 64,2	15,1 - 21,2	2,1 - 3,1	-	6,7 - 14,0

Tableau 6.

Distribution en fonction de la main et du sexe des diverses positions et combinaisons du triradius axial chez la population de Săbăoani

Sexe	Main	t	T'	t''	t'''	tt', tt'', t't'', tt't'''
Hommes (100)	G	70,0	8,0	3,0	-	19,0
	D	62,0	10,0	3,0	1,0	24,0
	G + D	66,0	9,0	3,0	0,5	21,5
Femmes (100)	G	54,0	18,0	3,0	3,0	22,0
	D	57,0	11,0	6,0	2,0	24,0
	G + D	55,5	14,5	4,5	2,5	23,0



Tableau 7.

Données comparatives sur la fréquence des principales formules palmaires selon H. H. Wilder

Populations	11 - 9 - 7	9 - 7 - 5	7 - 5 - 5	Autres formules
	11 - x - 7	9 - x - 5	7 - x - 5	
	11 - 0 - 7	9 - 0 - 5	7 - 0 - 5	
Sabaoani	48,0	23,7	6,7	21,5
Maramures (zone)	35,1	28,9	17,6	18,4
Bacau (zone)	33,4	30,1	16,8	19,6
Neamt (zone)	35,8	32,2	19,1	12,9
Suceava (zone)	40,7	26,1	14,4	19,1
Autres populations roumaines - C. Vulpe	32,9 - 46,6	25,4 - 34,8	9,8 - 16,3	7,4 - 26,0
Hongrois (G. Malan)	20,6	8,9	5,2	-
Autres populations europoides-limites (H. Cummins et Midlo)	20,6 - 42,9	8,8 - 26,5	5,2 - 12,5	-

Tableau 8.

La répartition pourcentuelle en fonction de la main et du sexe des principales formules palmaires selon H.H. Wilder la population de Sâbăoani

Sexe	Main	11 - 9 - 7	9 - 7 - 5	7 - 5 - 5	Autres formules
		11 - x - 7	9 - x - 5	7 - x - 5	
		11 - 0 - 7	9 - 0 - 5	7 - 0 - 5	
Hommes (100)	G	47,0	21,0	8,0	24,0
	D	54,0	26,0	5,0	15,0
	G + D	50,0	23,0	6,5	19,5
Femmes (100)	G	42,0	27,0	9,0	22,0
	D	49,0	21,0	5,0	25,0
	G + D	45,5	24,0	7,0	23,5





## SOME ANTHROPOGENETIC METRICAL ASPECTS OF RESEMBLANCE AMONG BROTHERS

ELEONORA LUCA, MIRCEA ST. CIUHUTA, DANA CIRICĂ

Based on family studies during the 1988-1994 in seven rural and mountain localities of Bucium-Apuseni and Bran Corridor, our research on resemblance between brothers included 103 families with two children and more. A number of 13 absolute metrical characters were studied for 173 fraternal doublets.

The direction and intensity of metrical resemblance has been defined through the method of correlations among standardised variables. The correlations between parents and offsprings were assessed with Fisher's theoretical values. The research shows on sexual and rank (birth order) point of view.

The results of the present study have a theoretical importance for research on multifactorial heredity in anthropogenetics and a practical importance for the social and legal medicine (estimation of paternal probability) etc.

Dans notre « Etude anthropologique de la famille » nous avons inclu aussi des références sur la variabilité de ressemblance entre divers parentés par quelques caractères à une transmission plurifactorielle. ( 6, 7, 8, 14 ).

Le présent travail met en évidence les résultats de la recherche entreprise par familles sur quelques populations roumaines entre 1988 – 1993, concernant l'héritabilité des caractères anthropométriques, en particulier l'étude de la ressemblance fraternelle. ( 6 – 8 ).

On sait que beaucoup de facteurs mésologiques influencent l'expressivité des caractères métriques : le sexe, l'âge, l'assortiment matrimonial, l'évolution séculaire, facteurs qui s'ajoutent aux divers autres facteurs biogéographiques et socio-professionnels, etc. (11).

Une méthode correspondante qui réduit la plupart de ces influences est la méthode des corrélations entre les variables métriques normées. Cette méthode met mieux en évidence la direction et l'intensité de ressemblance entre sujets et permet aussi d'apprécier plus correctement l'écartement des frères sur l'échelle de la variabilité et la liaison dynamique entre eux. (11).

D'après Fisher, en absence de la dominance et de l'assortiment matrimonial, la corrélation théorique entre frères a une valeur du coefficient de 0,50 (11). Cette valeur peut être influencée aussi par d'autres facteurs liés à la famille (la dimension, l'intervalle entre les naissances, l'ordre de la naissance etc.) et, toujours, par des facteurs « techniques » (la nature, le volume, l'homogénéité de l'échantillon etc., « le style » de prélèvement des données etc.).

Il faut ajouter que les limites d'interprétation des résultats sont comprises dans le contexte imposé par la population examinée, par son phénotype dans les conditions mésologiques spécifiques, en concordance avec l'espace et l'intervalle temporel de l'investigation. (11).

Conformément à l'histoire des recherches de l'héritabilité, des caractères métriques à l'intérieur de la fratrie, à l'aide des corrélations, on a apprécié le suivant gradient des valeurs du coefficient : les plus fortes corrélations, près de la valeur théorique, pour la stature et la hauteur céphalique, de fortes corrélations pour la taille – assise, largeur du bassin, largeur mandibulaire, largeur du visage, largeur frontale ; des corrélations moyennes pour la hauteur du visage et du nez, largeur et longueur de la tête et, finalement, des corrélations plus faibles pour la largeur des épaules et du nez. (12).

### MATERIEL ET METHODE

Sur la totalité des mesurages prélevés pendant les enquêtes familiales (1988 – 1993), nous avons retenus ici 13 dimensions absolues : 9 céphalo – faciales et 4 corporelles. Les données ont été récoltées sur 154 familles : 51 avec un enfant, 61 avec deux enfants, 27 avec trois enfants, 11 avec quatre enfants et

4 familles avec cinq enfants, ce qui correspond à une moyenne de deux enfants par famille. On a retenu pour l'étude de la fratrie, 103 familles avec deux ou plusieurs enfants.

Les familles proviennent de sept villages roumains: Bucium, département d'Alba, respectivement Sohodol, Poarta, Simon, Moeciu de Jos, Moeciu de Sus et Fundata – département de Brasov. L'âge des sujets est compris entre 4 – 40 ans. Les sujets appartiennent à la population autochtone des villages d'au moins trois générations.

On a utilisé les valeurs normées pour apprécier la position de chaque sujet dans le couple fraternel, en rapportant les valeurs absolues des caractères métriques (pratiquement, les phénotypes) des sujets à une population – étalon selon l'âge et le sexe (une population étudiée par dr. Maria Vladescu, dr. Cristiana Glavce et leurs collaborateurs) (3, 4, 13).

Le degré de similitude, la direction et l'intensité de ressemblance entre les frères ont été mesurées par le coefficient de corrélation Brevais – Pearson. Pour une meilleure assurance sur la corrélation on a calculé l'erreur standard et la signification statistique (13).

## RESULTATS ET DISCUSSIONS

### 1. *Corrélations métriques entre les frères, en general.* ( tableau 1, figure 1 )

Toutes les corrélations entre frères (sans tenir compte de rang ou du sexe des sujets) sont positives, directionnellement. Excepté la longueur de la tête, pour tous les autres caractères les corrélations sont statistiquement significatives. Du point de vue de l'intensité, les corrélations sont (exceptant, bien sûr, la longueur de la tête) très forte, forte et moyenne. Ayant un échantillon statistiquement représentatif pour les frères pris en totalité, nous avons rapporté les résultats à la valeur théorique de Fischer ( $r = 0,50$ ) et au gradient d'héritabilité des caractères métriques tel qu'il est apprécié dans la littérature de spécialité.

Ensemble, les frères se ressemblent très fort, par la largeur du visage ( $=0,59$ ) et par la hauteur de la tête ( $=0,50$ ). Entre frères s'établissent des corrélations fortes ( $=0,40$ ) pour la largeur de la tête, la largeur du nez, la stature et la taille – assise et des corrélations moyennes ( $0,30 - 0,40$ ) pour la largeur du front et de la mandibule, la hauteur du visage et du nez, la largeur des épaules et du bassin.

Comparativement, par rapport au gradient mentionné dans la littérature, les corrélations trouvées par nous pour la largeur de la tête et du nez sont plus fortes et celles pour la largeur du front, du mandibule et du bassin sont plus basses, du reste elles concordent.

### 2. *Corrélations métriques entre frères selon le sexe* ( tableau 1 )

Pour tous les trois échantillons sélectionnés selon le sexe des frères – garçons, filles et couples hétérogènes ( mixtes ) – les corrélations sont positives. Au niveau de toutes les catégories fraternelles, les corrélations sont statistiquement significatives pour la largeur de la tête, du visage et du nez, la hauteur de la tête, de la stature et la taille – assise.

Les frères – garçons réalisent sept sur treize corrélations métriques significatives, très fortes pour la largeur du visage et pour la hauteur de la tête, fortes pour la largeur du visage, de la mandibule et du nez.

Les soeurs réalisent dix (sur treize) corrélations significatives, très fortes pour la largeur du front, du visage, du nez et la largeur du bassin et fortes pour la hauteur et la largeur de la tête, la stature et la taille – assise.

Les couples mixtes – frère et soeur – réalisent le plus de corrélations significatives, onze sur treize, très fortes pour la largeur du visage et fortes pour la hauteur et la largeur de la tête et pour la hauteur du nez.

Les trois échantillons des couples répartis par le sexe ont en commun une seule corrélation non – significative pour la longueur de la tête.

### 3. *Corrélations dimensionnelles entre frères selon l'ordre de naissance (le rang)* ( tableau 2 )

Sous la réserve de la représentativité statistique des quelques échantillons (surtout pour les rangs éloignés), nos résultats mettent en évidence la diminution d'intensité de la ressemblance entre frères proportionnellement à l'augmentation du rang (à l'éloignement des rangs).

On voit dans le tableau que le plus de ressemblances métriques sont remarquées entre les frères proches, spécialement entre les premiers frères. Le nombre des corrélations significatives diminue à mesure de l'augmentation du rang. Les frères de troisième rang occupent dans la fratrie une position

presque centrale selon le nombre des corrélations statistiquement significatives réalisées avec les frères d'autre rang, de tous les côtés.

Directionnellement, on remarque seulement des corrélations positives entre les frères 1/2, 1/3 et 2/3 tandis que entre les frères 1/>4, 2/>4, 3/>4 on remarque aussi des corrélations négatives à l'augmentation de l'écartement entre les ranges.

Nous trouvons aussi entre parents /enfants l'augmentation des corrélations négatives et non-significatives proportionnellement à l'augmentation du rang de l'enfant. C'est la modification mésologique au cours du temps que constitue la raison plus objective. Nous avons vu que les conditions mésologiques, spécialement socio – économiques défavorables, mettent leur empreinte sur les phénotypes biologiques et psychiques surtout dans les familles à grande dimension (et surtout si les familles à grande dimension ont des conditions socio – économiques défavorables ).

Notre démarche s'inscrit dans les travaux d'anthropologie de la population, de la famille et aussi aux études de la transmission héréditaire des caractères plurifactoriels. Elle est importante pour la recherche en paternité, en filiation en général. Les résultats peuvent servir aussi à beaucoup d'investigations biotypologiques, cliniques, etc.

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Tableau 1

Les valeurs des coefficients de corrélation métrique entre frères

Nr. crt.	Caractères	Frères (ensemble)		Frères garçons		Soeurs		Frères Garçons / filles	
		n	r	n	r	n	r	N	r
1.	g-op	173	0.11	26	0.24	55	0.17	92	0.01
2.	eu-eu	173	0.49*	26	0.68*	55	0.46*	92	0.44*
3.	ft-ft	173	0.36*	26	0.11	55	0.60*	92	0.24*
4.	zy-zy	173	0.59*	26	0.80*	55	0.63*	92	0.53*
5.	go-go	173	0.30*	26	0.60*	55	0.36*	92	0.13
6.	n-gn	173	0.32*	26	0.33	55	0.26*	92	0.35*
7.	n-sn	173	0.30*	26	0.25	55	0.09	92	0.42*
8.	al-al	173	0.41*	26	0.57*	55	0.56*	92	0.27*
9.	t-v	173	0.50*	26	0.73*	55	0.49*	92	0.44*
10.	V-sol	156	0.40*	26	0.45*	46	0.40*	84	0.39*
11.	V-assis	156	0.41*	26	0.40*	46	0.47*	84	0.37*
12.	a-a	106	0.31*	19	0.30	32	0.12	55	0.39*
13.	ic-ic	106	0.38*	19	0.31	32	0.56*	55	0.30*

\*corrélations statistiquement significatives

Tableau 2

Valeurs des coefficients de corrélation métrique entre frères selon l'ordre de naissance

Nr. crt.	Caractères	Frère 1 avec						Frère 2 avec				Frère 3 avec	
		Frère 2		Frère 3		Frère 4 ;5		Frère 3		Frère 4 ;5		Frère 4 ;5	
		n	r	n	r	n	r	n	r	n	r	n	r
1.	g-op	70	0.32*	28	0.08	15	-0.18	30	0.07	14	-0.45	16	-0.13
2.	eu-eu	70	0.42*	28	0.59*	15	0.34	30	0.54*	14	0.09	16	0.42*
3.	ft-ft	70	0.23*	28	0.57*	15	0.18	30	0.46*	14	0.20	16	0.58
4.	zy-zy	70	0.49*	28	0.68*	15	0.55*	30	0.51*	14	0.61*	16	0.87
5.	go-go	70	0.31*	28	0.43*	15	0.71*	30	0.17	14	-0.02	16	0.44
6.	n-gn	70	0.20	28	0.33	15	0.60*	30	0.47*	14	0.46*	16	0.28
7.	n-sn	70	0.37*	28	0.37*	15	0	30	0.37*	14	0.26	16	0.05
8.	al-al	70	0.55*	28	0.37*	15	-0.07	30	0.19	14	0	16	0.75*
9.	t-v	70	0.54*	28	0.42*	15	-0.03	30	0.68*	14	0.33	16	0.15
10.	V-sol	49	0.54*	25	0.32	13	0.16	24	0.13	12	0.13	14	0.36
11.	V-assis	49	0.40*	25	0.26	13	0.46*	24	0.40*	12	0.42	14	0.57*
12.	a-a	27	0.21	15	0.64*	9	0.28	14	0.58*	8	0.65*	8	0.81*
13.	ic-ic	26	0.35	14	0.60*	9	-0.02	13	0.33	8	0.07	8	0.40

\*corrélations statistiquement significatives

## DISEASES AS A SELECTIVE FACTOR IN HUMAN POPULATIONS

HORST DIETER SCHMIDT,  
CRISTIANA GLAVCE, CATALIN GRASA

We can say that doubtlessly the conditions in present populations have changed due to better health standards, better sources of transportation, an increase in the population density, outbreaking of isolates and a considerable mixture of the population. But other factors such as the over populated cities, the synthetic, frequently inadequate nutrition, the manifold psychological stress situations in our complex societies as well as the pollution related mutation rate can cause new selection pressures and mankind must constantly adapt to newly created environmental conditions.

Population genetics deals with the consequences of Mendelian laws on the composition of the population with special reference to the effects of mutations, selection, migration, and the chance fluctuation of gene frequencies. All these factors together determine genetic population structure. Knowledge of population genetics is useful for many purposes. For example, it provides a basis for an understanding of the epidemiology of genetic diseases and helps in the planning of measures for prevention of genetic damage by environmental agents. Another objective of studies in population genetic is to improve the understanding of human evolution and the prediction of future trends in the biologic evolution of mankind in the face of various environmental changes (Vogel and Motulsky, 1997). Since the human population is much better described than any other species and much better records are available, there are many advantages to studying the population genetics of man.

Evolution theory considers selection to be the most influential factor for changes in gene frequencies. Though chance plays a role in the reproduction of variation within a population, the range of variability and composition of a breeding population is limited. All possible genotypes are not represented in each generation with equal frequency. There are factors that limit the extent of population diversity and determine the gene frequencies from generation to generation. Some individuals, because of their genome, reproduce at a higher rate than others and, thus, contribute more offspring to the next generation. Such persons, because of their reproductive success, are the fittest, in the sense of *Darwinian fitness*. The genotypes that confer a reproductive advantage of some degree to the organism will expand within a population throughout generations, and the gene frequencies will increase. There are several mechanisms that determine reproductive success; the total sum of all those processes that determine survival and reproduction are lumped under the term *natural selection*.

Although the theoretical concept seems clear and distinct, the proof of selective processes in humans is extremely difficult. According to Morton (1968) there are at least six methodical initial steps for proving selection processes:

1. One systematically seeks environmental differences between populations that have high or low frequencies of certain alleles.
2. If the proportion of homozygotes and heterozygotes varies significantly from the Hardy-Weinberg equilibrium, that would be an indication of selection towards certain genotypes.
3. One can seek relationships between genotypes and specific diseases.
4. The various genotypes are tested for fertility and mortality.
5. If the gene frequencies of population vary within age groups or generations, selection can be involved.
6. If the phenotypes of a generation's offspring vary significantly from the expected frequencies according to Mendel's Law, selection can be present.

In this study we would like to elaborate on the third step, the significance of diseases as a selective factor in human populations.

The best, although not fully understood selection mechanism is one which can explain the differences in frequency of the sickle cell gene as it relates to malaria. Since most of you are familiar with this mechanism, I will not go into detail but you know that a single sickle cell gene causes a harmless sickle like deformation of the red blood cells accompanied by oxygen deficiency. Two sickle cell genes (homozygous), however cause severe anemia which can lead to death even in infancy. A selection process which aims at reducing the sickle cell gene.

However, another process counteracts this: the sickle cell characteristic often provides protection against malaria. It has been assumed that the malaria tropical pathogen, *Plasmodium falciparum* is adapted to normal hemoglobin and meets with unfavourable developmental conditions in sickle cell hemoglobin which has only a reduced capacity to bind oxygen. Normal homozygotes die of malaria more frequently than heterozygotes; therefore, a higher concentration of the sickle cell gene is present in malaria areas. These two processes maintain an equilibrium, thus balanced polymorphism exists.

The malaria hypothesis is supported, among other things by the following observations:

1. Malaria and the sickle cell gene are similarly distributed in Africa.
2. Children infected with malaria are less seldom carriers of the sickle cell gene than those of a healthy control group

The fact that the sickle cell gene is rare in several tribes inhabiting malaria infected areas, interferes with the consistency of population genetic theory and the geographical distribution of malaria. Livingstone (1971) further specified the malaria hypothesis with the history of the West African population and the biology of the malaria mosquito (*Anopheles*). *Anopheles* larva cannot live in water that is very shaded or has a strong current. As a result, the larva can rarely survive in the tropical rain forest. Therefore, hunting tribes which inhabit isolated areas of the rain forest are spared from malaria and must not adapt by increasing the occurrence of sickle cell gene - for example the Feloop and Kru tribes in Guinea and East Liberia as well as the Pygmies. Therefore, Livingstone's opinion is that this selection process appeared just recently. Malaria became perilous to a greater extent following the development of agriculture which led to a reduction of woodlands and a more dense colonization. The clearing of the tropical rain forests and the village communities made new incubation spots available. The increasing population density created a favorable environment for the survival of the parasites.

The discovery of these important selection processes led to the following consequences:

1. For the first time it was proven that infectious diseases possessed selective strength.
2. It was proven that malaria is an extremely important selective factor in the evolution of many populations in the tropics and subtropics and that possible other polymorphism are adapted to the same.
3. It was suspected that many injurious genes which appear in large frequencies in several populations, as can only be expected by mutation pressure, are sustained by a balanced polymorphism in connection with infectious diseases.
4. Finally, the possibility that many forms of polymorphism, for example the blood groups, many serum proteins and red cell enzymes represent balanced polymorphism.

These assumptions were tested through many investigations. Their results have led to a great understanding of genetic variations within human populations.

The research efforts in recent years have led to the discovery of other numerous abnormal hemoglobin variations which occur in various frequencies in human populations. Analogous to the sickle cell gene, it was assumed that the variations which occur in higher frequencies also provide the heterozygote carrier with a certain resistance to malaria. Although we are familiar with over 300 different hemoglobin variations, only a few attain polymorphic frequencies in large populations: *Hemoglobin S* in large parts of Africa, *Hemoglobin C* in West Africa and *Hemoglobin E* in Southeast Asia. Other variations were found, not in high frequencies but in polymorphic frequencies within small, limited populations.

Another disease which is probably connected with malaria is *Thalassemia* - a general name for several hereditary diseases which are characterized by a defect in the hemoglobin molecule. Several genetic mechanisms, such as point mutation and disproportionate crossing over lead to a reduced production or an absence of the  $\alpha$  or  $\beta$  globin molecule. Several variations cause severe anaemia in the homozygous form. The geographical distribution indicates an association with malaria. For example: the high frequency in mediterranean region of a severe form of  $\beta$ -Thalassemia, known as Cooley's anemia in the homozygous condition infects 1% of all newborns in several region of southern Europe. Several experimental examinations carried out by Friedman and Trager (1981) prove that the heterozygous carrier of a cellular unfavourable environment exists for the development of the malaria pathogen.



The same is assumed for carriers of the *G6PD-deficiency* allele, who exhibit hemolytic anemia after the intake of drugs, chemicals and also natural substances such as fava beans. It was statistically proven that the frequency of the *G6PD-deficiency* is consistent with the frequency of malaria cases. The results from Sardinia are impressive: several cases of *G6PD-deficiency* were found in the plain in which malaria was endemic and only a few cases were found in the mountainous region in which no case of malaria was reported. More direct evidence was provided by Luzzatto and Bienzle (1979), who proved that in heterozygous women (*G6PD* is X linked) who possess two different cell populations, the degree of parasite infestation was higher in the normal cells than in the cells with *G6PD-deficiency*.

There have been numerous attempts to bring other polymorphism such as haptoglobines or different blood groups in connection with malaria. Most studies did not lead to concluding results. Despite this, new examinations found a correlation between malaria and the *Duffy blood group*. Miller (1975) showed that the Duffy negative cells (*Fy a- b-*) are resistant to the invasion of the *Plasmodium vivax*, or the other way around; malaria plasmodiums require the antigens *Fy a* and *Fy b* as receptors in order to invade the cells. That could be an important selective factor, which could explain the extremely high presence of the phenotype *Fy a- b-* in many Negroid populations of Africa. This phenotype which is practically unknown in other populations, is present in 60 to 90% of Negroid in some regions of Africa.

Such studies have successfully proven that malaria has been a selective factor in determining many forms of polymorphism. What about other infectious diseases? Up until today no proofs that are equally good and direct as is the case with malaria have been found. However, we know that selection is especially effective when its impact exerts itself through differential mortality throughout adult age. Our first data on child mortality in Europe originate from the 18th century. In the mid 18th century 50% of the children died before they reached the age of 20; half of them dying in the first year of life. What were the reasons for this early death? This question can only be answered partially since not all causes of death were identifiable at that time. There is certainly no doubt that children died of viral and microbial diseases (Table 1).

Table 1.

Comparison of the causes of death between two areas near Ulm in the second half of the 19th century

Causes of death	UG	OA
	%	%
Diphtheria	25,2	2,6
Typhus	30,7	1,2
Dysentery	5,0	30,9

Therefore, infectious disease must be seen as an important cause of selective mechanisms. According to Vogel and Motulsky (1979) four groups of infectious disease can be taken into consideration for influencing gene frequency.

1. Acute infections which invaded large areas and affected a great portion of the population, for ex. *the plague, cholera, smallpox*.
2. Chronic infections such as *tuberculosis, leprosy and syphilis*.
3. The heterogeneous group of *intestinal viruses* that often caused death in small children.
4. Tropical diseases such as *malaria*.

There have been attempts to explain the existence of various patterns of polymorphism in today's populations in connection with these disease groups. One example thereof are the *ABO blood groups*. The present distribution of these blood groups appears polymorphic all over the world, and suggests an influence of natural selection. Had it been caused by chance fluctuation of gene frequencies, all possible combinations of gene frequencies for the three alleles should have appeared. This, however, is not the case. The allele O (Figure 1) frequently occurs in populations which were relatively isolated for a long period of time, such as the Aborigines in Australia and Polynesia, the population of northern Siberia and the Arctic. An especially high frequency of allele O is found among the Indians of Central and South

America. We also find a large proportion of type O is isolated or boarder population from Europe, e.g. Icelanders, Irish, Basques, inhabitants of Corsica and Sardinia and the Walsers of Switzerland.

Allele B (Figure 2) is widely found in India and Central Asia from which to the east and west there is a steady decrease.

It has been attempted to explain these varying dispersions in connection with the widespread plague and smallpox epidemics and also with syphilis and other infectious diseases. These hypotheses are supported almost exclusively by historical data; direct proof is only available in regard to recent smallpox cases. Some findings suggests a poorer immune response against *Pasteurella pestis* in group O individuals and agrees with the assumption that O individuals may have had a selective disadvantage due to a higher death rate from plague. Plague repeatedly devastated Europe, mainly affecting densely populated areas. Marginal and partially isolated populations that may have been affected to a lesser degree usually show high group O frequencies. In America the population was almost completely isolated before Columbus' discovery and may have had a special group of infections not shared by the rest of the world population, e.g., syphilis. Some analyses of old data from 1920, when penicillin therapy was not available, show that after the customary therapy of that time (neosalvarsan) individuals with group O had a much better chance to become sero-negative than did those with the other blood groups. For the smallpox we have direct observations in recent populations. The examination by Vogel and Helmbold (1972) , indicated that carriers of the A and AB blood groups contract smallpox much more frequently, show more serious symptoms and die of the disease more often than carriers of B and O type blood. This selective disadvantage of the A allele could partially explain the higher frequency of B type blood in the areas of Asia.

I would like to point out another correlation at this time: Some time ago Eales (1987) reported that there is a high correlation between the Gc-system and AIDS. This study is based on examination of 203 homosexuals who were infected with the AIDS virus or were exposed to a high risk. Among these were 16 homosexuals who were not infected although they had come into regular contact with known AIDS carriers. A control group consisting of a random sample of 50 arbitrarily chosen homosexuals and 122 healthy heterosexuals was examined. The most noticeable result was that those who had contact with AIDS carriers but did not contract the disease were mostly Gc 2 homozygous. On the contrary, the individuals that became infected and suffered severe symptoms were mainly Gc 1F homozygotes. None of the 63 individuals infected with AIDS possessed the Gc 2 allele double. Additionally there was a high correlation between the development of mild to severe forms of the disease and the possession of the Gc 1F, but no correlation with the Gc 2 allele.

The scientists connect these results with the biochemical structure of the three alleles which differ because of differing amounts of *sialinic acid*. Gc 1F possesses a double dose of this acid, Gc 1S a single dose, and Gc 2 possesses none. The researchers opinion is that somehow the sialinic acid favors the linkage of the AIDS virus to the cells which in turn enables the permeation of the virus through the cell membrane.

In regard to these results it is interesting to point out that in Central Africa where the AIDS disease is much more frequent than elsewhere the Gc 1F allele is also more frequently present. Recent studies have come across a frequency of 58%, whereas in Ulm and its vicinity 11 to 14% is common. Why does such great differences in the gene frequency exist? The aforementioned frequencies characterize large population; therefore only selective processes are suitable. Which factors brought this about? After it was known that the Gc protein has the ability to transport vitamin D, it was attempted to establish a connection between the allele frequency and the intensity of solar radiation. These studies did not lead to conclusive results; therefore, other factors must have been responsible for giving the Gc 1F allele a selective advantage in Africa or a disadvantage in Europe. This example illustrates how rapidly selection processes can change in time and space.

Not only infectious diseases were brought in connection with polymorphism. Several studies which used large random samples have highlighted a correlation between certain genotypes and certain diseases.

Figure 1

Frequency distribution of allele O

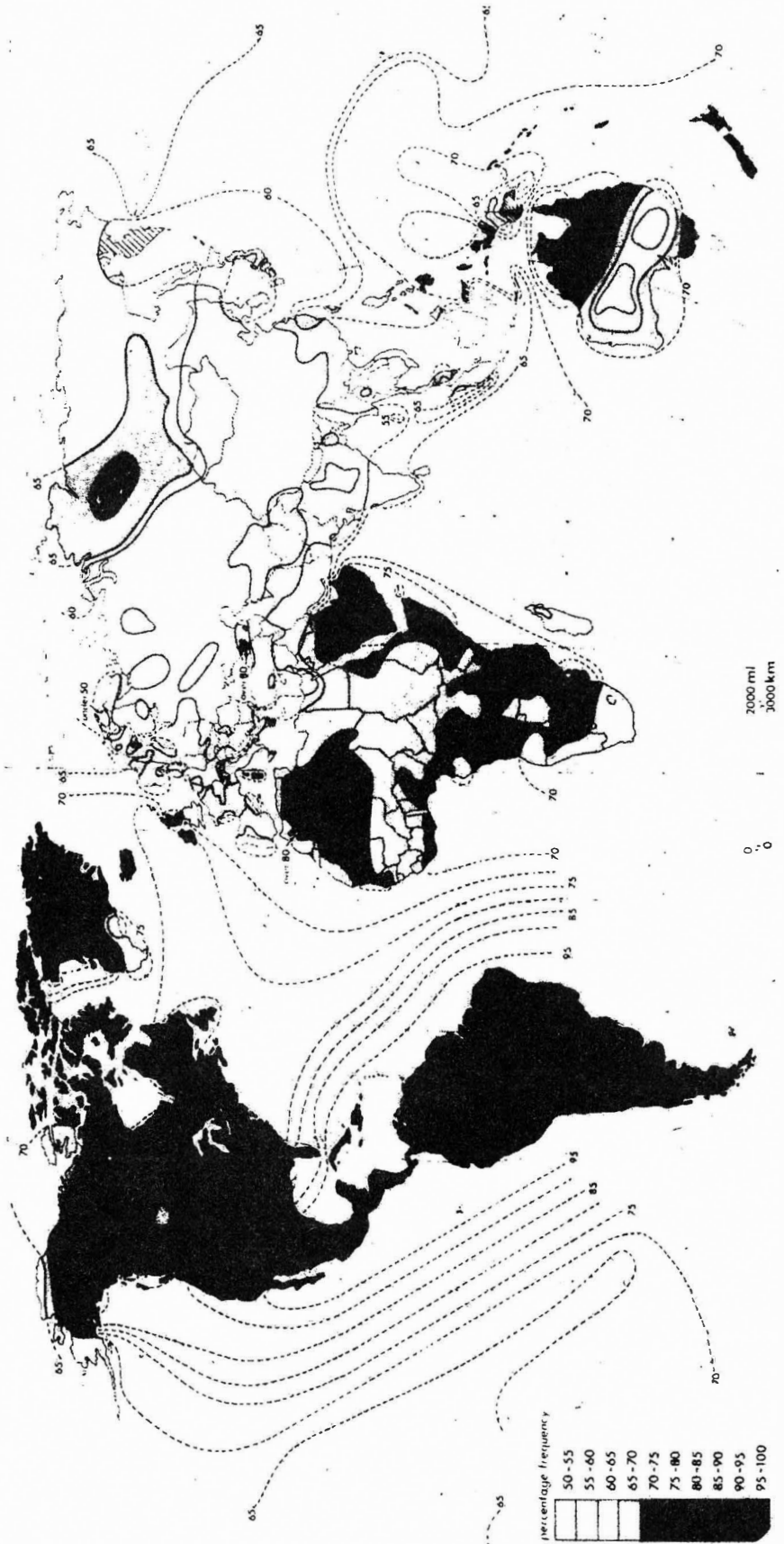
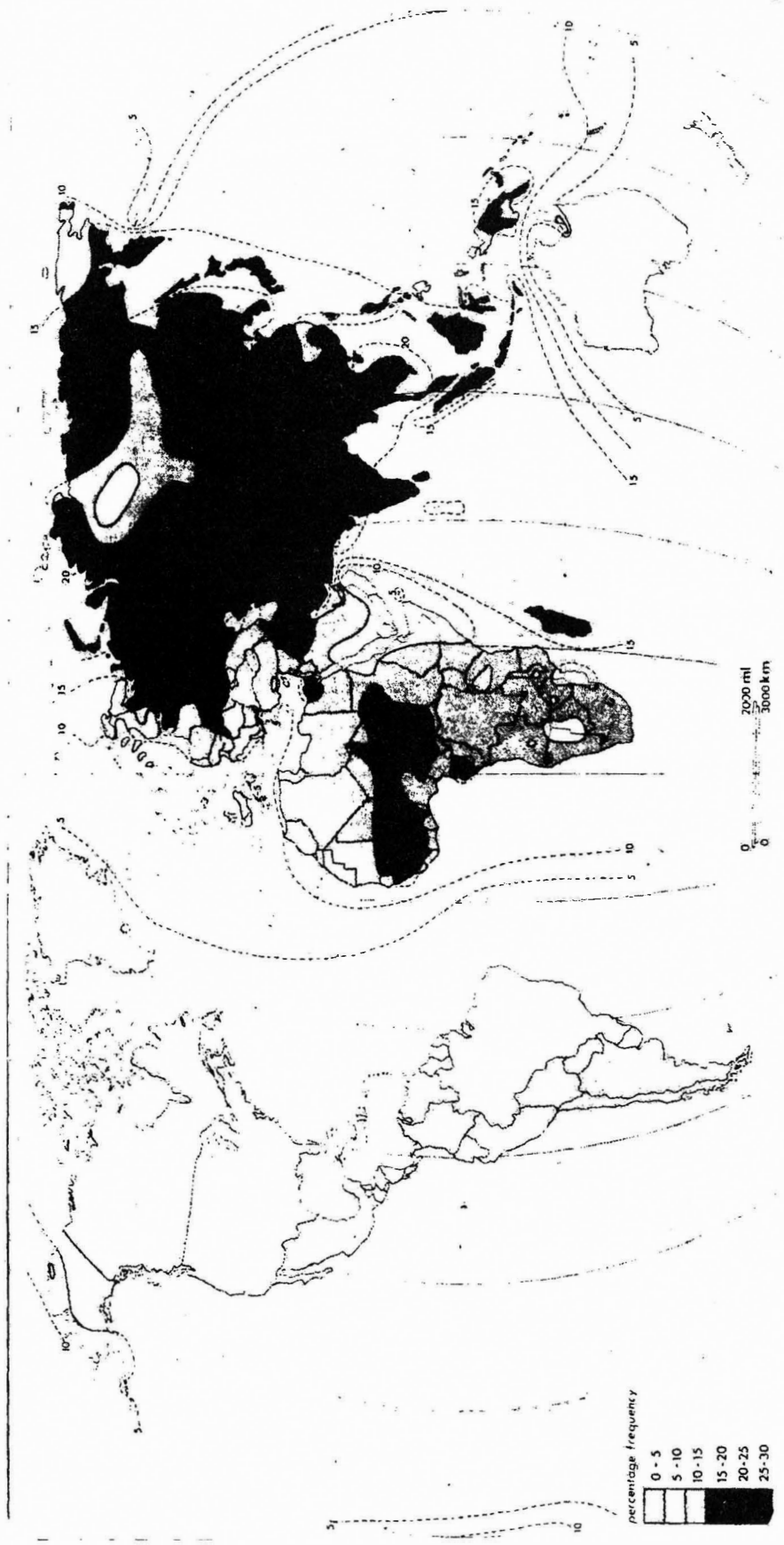


Figure 2

Frequency distribution of allele B



## **PRELIMINARY ESTIMATION OF THE Y ALU POLYMORPHIC ( YAP) ELEMENT IN THE ROMANIAN POPULATION**

GH. ȘTEFĂNESCU, PATRICIA MALESPINA, ANDREEA NOVELETO, LUCIANO TERRENAT, CARLA JODICE, MARIA CARAGHIN, N. AZOÎȚEI

DNA polymorphism on the Y chromosome of a 24 Romanian unrelated male sample from two regions of Romania (Maramureș and Vrancea), on the basis of the Y Alu polymorphic (YAP) element, was performed.

Both the two alleles at all investigated subjects were detected. Allele 1 of the YAP element, containing 150 bp, reaches a rate of 4.16%, while allele 2 of the YAP element, containing 450bp, was found to be the most common one, at a 95.84% rate, from the total number of investigated subjects.

### **INTRODUCTION**

The human Y chromosome is made up of two functionally distinct regions: a short pseudoautosomal region, probably responsible for the correct segregation of the sex chromosomes at meiosis (Marshall Graves 1995), and a longer one including the sex determining genes (Affara et al 1996). The two regions possess different genetic properties : the pseudoautosomal region is subject to recombination between the X and Y chromosomes, while in the male-specific region no recombination occurs. Thus, with the exception of the pseudoautosomal region, the DNA sequence of each human Y chromosome retains a unique record of the mutational events that occurred from one generation to the next.

Studies on DNA polymorphisms of the non-recombining portion of the Y chromosome were aimed at reconstructing the human migrations along the paternal line as well as the genetic history along the same line.

On the long arm of the Y chromosome, within interval 5-0 (Hammer 1994), a genetic polymorphism has been identified, consisting in the insertion of a member of the Alu family of sequences. In other words, some chromosomes have this element, called YAP, whereas others lack it.

*Figure 1*

Map showing the investigated areas: 1=Maramures; 2=Vrancea





## MATERIALS AND METHODS

The sample included 46 unrelated male subjects of Romanian nationality from two different geographical areas of Romania (Fig. 1) as follows : 27 subjects were from Maramures (47° 30' N; 24° 00' E) and 19 from Vrancea ( 46° 00' N; 27° 00' E)

The genomic DNA was extracted according to standard techniques (Sambrook et al 1989) and the polymorphic YAP element-containing region was amplified by PCR under the conditions described by Hammer and Horai (1995). PCR was performed in a total volume of 12,5 µl with an initial denaturation step at 94°C for 2 min followed by 30 cycles at 94°C for 1 min, 52°C for 45 seconds and 72°C for 1 min. Analysis of PCR amplification consisted in charging the entire aqueous phase on 2% agarose gels. YAP alleles were defined as follows : allele 1 (about 150 bp) corresponded to the absence of the YAP element while allele 2 (450 bp) corresponded to its presence.

## RESULTS AND DISCUSSION

The results obtained for the 46 male subjects from Maramures and Vrancea are listed in Table I. The data show that the YAP element was found, although at low frequency, in both Romanian regions surveyed. The difference in the incidence between the two regions was assayed by Fisher's exact test ( $P=56$  n.s.). We then pooled the two subgroups to obtain the provisional frequency for Romania of  $3/46 = 6.5\%$  for the presence of the YAP element.

Table 1

Frequencies of the YAP alleles as determined in the Romanian population

	Maramures		Vrancea		Total Romania	
	N	%	N	%	N	%
YAP1	26	96.3	17	89.5	43	93.5
YAP2	1	3.7	2	10.5	3	6.5

The frequencies determined for the Romanian population are quite close to those observed for Sardinia (YAP 1 = 92% and YAP 2 = 8%) and England (YAP 1 = 95% and YAP 2 = 5%), and lower, though not significantly, than those observed in continental Italy (YAP 1 = 80% and YAP 2 = 20%). On the contrary, they are significantly lower than those reported for Egypt (YAP 1 = 44% and YAP 2 = 56%,  $P < 0.001$ ) (Persichetti et al 1992). Additional data showed that the presence of YAP element follows a south to north cline with a frequency in Greece of 8.3% (Ciminelli et al 1995). Finally, the large collection of data by Hammer et al (1997), showed the picture of an immigration of YAP carrying chromosomes into Europe, most likely from Africa and found a frequency in a composite Greek sample of 25% for the presence of this element.

From this standpoint, the Romanian population may be included in a group of central European populations that experienced, to a lower extent, this immigration and still retain lower frequencies of marker.

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## THE HUMAN GENOME DIVERSITY [HGD] PROJECT IN ROMANIA

GH.ȘTEFANESCU, MARIA CARAGHIN, D. BOCANCEA, TH. MIRONEANU,  
N. AZOITEI, ANCA AZOITEI, C. NACIU

In 1991, Luca Cavalli-Sforza together with Allan Wilson, Charles Cantor, Bob Cook-Deegan and Mary-Claire King issued a call for a worldwide survey of human genome variation as quickly as possible, using modern techniques of genomic analysis.

HUGO [Human Genome Organisation] responded to this proposal, assuming the task of overseeing these global human genetics studies, which has come to be known as the Human Genome Diversity [HGD] Project.

The complexity of this project soon became clear, arousing the interest of biomolecular scientist, human geneticists, anthropologists, archaeologists, evolutionists, linguists and historians.

Since 1994, represented by the Biological Research Institute of Iasi, the Human Genetics team, Romania has joined the HGD Project, the investigation being initiated on the basis of a scientific research contract, supported by the European Economic Community and the Romanian Ministry of Research and Technology.

Isolated human populations from four regions of Romania [Maramures, Vrancea, Gorj and Apuseni] were proposed for the study of genomic variations at DNA level.

**Keywords:** HUGO (Human Genome Organization), HGD (Human Genome Diversity) Project, Romanian HGD Project, human genome variation, DNA markers.

### INTRODUCTION

In 1991, Luca Cavalli-Sforza, Allan Wilson, Charles Cantor, Bob Cook-Deegan and Mary-Claire King issued a call to the international scientific community, to all inhabitants of our planet, in support of global action for the protection of the genetic heritage of the human species (Cavalli-Sforza et al., 1991 a).

In this document, special stress has been laid on the urgent gathering of sufficient amounts of biological material, that should faithfully and entirely represent the ethnical and geographical diversity of our species, before it is not too late.

Some of the call's main ideas are: "Human genomes that exist today have been determined by historical population structure and dynamics..." "The populations that can tell us the most about our evolutionary past are those that have been isolated for some time, are likely to be linguistically and culturally distinct, and are often surrounded by geographic barriers"... "Population growth, famine, war, and improvements in transportation and communication are encroaching on once stable populations. It would be tragically ironic if, during the same decade that biological tools for understanding our species were created, major opportunity for applying them were squandered.

We must act now act now for the preservation of our common heritage. Preserving this historic record will entail a systematic, international effort, to select populations of special interest throughout the world, to obtain samples, to analyze DNA with current technologies, and to preserve samples for analysis in the future. Recent advances in techniques for establishing permanent cell lines and for obtaining DNA by amplification of very small samples of blood, hair, or other tissue make a collection program feasible (Cavalli - Sforza et al., 1991a)".

The Human Genome Organization (HUGO) promptly answered this call, and established an ad-hoc committee charged with the evaluation of the global and practical application of such an ambitious project ( HUGO, 1993).

It soon became clear that the special complexity of such a project requires a complete team of researchers specialized in molecular biology, human genetics, anthropology, evolutionism, archaeology, linguistics and history.

It was also unanimously accepted that the successful implementation of such a project, known from now as HGU Project (Human Genome Diversity) Project 2, would necessarily involve, besides scientists, various non-scientific both national and international groups.

Among the populations of special interest for the HGD project, worth mentioning are: the populations of Sahara, East, West and South Africa, the Etas population of Japan, Malaysia and South-East Asia islanders, ethnic minorities from China, Polynesia, Australian and Malaysia aboriginals, the kurds from East Turkey, the Caucasians, Lapons, Basques, the populations from Pyrenees, Appenines, Carpathians and Alps and the many indigenous American populations (Cavalli - Sforza et al. 1991a).

As an echo to this call, several institutions, known as financially supporting medical and biological researches all over the world, have offered their assistance for the practical realization of HGD. A special mention should be made here of UNESCO, WHO, UNIDO.

### AIMS AND SCOPES OF THE HGD PROJECT

HUGO, the role of which is to develop the HGD Project, advanced the idea of its elaboration and promotion at a planetary level (HUGO, 1993). The document issued on this matter provided a general background for the future realization of the project.

The major objectives of HGD Project have been defined as follows:

1. Identification of each gene and localization of its position on one of the human chromosomes,
2. Investigation of the human genomic variation, involving the study of the samples collected from representative populations all over the world,
3. Establishment of the relation of genetic closeness or remoteness between world's various human populations, in order to sketch the main evolutive directions of the human species,
4. The creation of a resource for the benefit of all humanity and for the scientific community worldwide existing as a collection of biological samples representative for the genetic variation of world~Tp~pulation.
5. Appropriate training and transfer of the new genetic technologies from the world's advanced countries to the developing ones.

The study of genomic variation in the various populations of the world will also provide important information for a better knowledge of the factors contributing to the occurrence and spreading of various maladies.

The identification of such biological, physical, genetic factors, along with the study of the various maladies distribution among the world's populations will permit the development of much more efficient means for the prevention and treatment of such diseases, this being only one of the practical consequences of HGD, i.e., offering of new health resources.

### THE IMPORTANCE OF THE HGD PROJECT

From a scientific point of view, the special importance of the HGD Project lies in:

1. Its special capacity of opening new insights into our understanding of human history and identity,
2. The possibility it offers of creating new resources and providing the necessary information for a better understanding of the role played by genetic factors in both predisposition and resistance to diseases;
3. The unique type of interconnection it assures between sciences and humanities, as it creates direct contacts among specialists from various countries and quite different fields of interest, such as: molecular biology, human genetics, anthropology, evolutionism, archaeology, linguistics, history;
4. Its significant contribution to the elimination of racism and xenophobia by leading to a grater understanding of the nature of differences between individuals and between human populations.

### SCIENTIFIC ASPECTS OF THE HGD PROJECT

The cells of everybody human organism contain the same about 100.000 genes, collectively known by the generic term of "human genome", which stores the information necessary for the occurrence of the vital functions characterizing Homo sapiens as a species (Cavalli - Sforza, 1991 b; HUGO, 1993 ).

However, a lot of such genes exists in more than one single form (or "allele"), so that not all human individuals possess exactly the same forms of each variable (polymorphic) gene. The identical pair of twins excepted, each of us is a unique individual.

The genetic variations from one individual to another, from a population to another, reflect the evolution of our species, which is a result of the generations succession and either maintaining or losing of the various gene forms or the natural appearance of new forms ( Bowcock et al., 1991; Cavalli - Sforza, 1992 c; Excoffier et al, 1992; Hammer, 1994; Malaspina et o/.,1990).

### STRATEGIES FOR SAMPLES COLLECTION

Using language as a criterion, there are over 5.000 distinct human populations in the world, probably different from the genetic point of view (Bowcock et al., 1991; Cavalli - Sforza, 1991 b; HUGO, 1993). At the present, the possible introduction into a study of all these populations is obviously limited, so that their selection - as based on certain priorities - becomes necessary.

In an initial stage of the HGD Project it is proposed to study genomic variation in several hundred populations which can be considered to be broadly representative of all, like:

1. Populations that may provide answer to questions concerning the processes that had a major impact on the genetic composition of the actual "ethnic groups", language groups and cultures,
2. Anthropologically unique populations, with cultural and linguistic peculiarities distinct from those characterizing their neighbors,
3. Populations representing linguistic isolates,
4. Especially informative populations for the identification of the genetic ethiology of major diseases,
5. Populations that are in danger of losing their identity as genetic units.

Up to now, several lists has been prepared, referring to the populations that may be included in the above categories; of course, several other suggestions and proposals will be welcome.

### SIZE OF THE SAMPLES

In general, samples may include as many individuals as possible from each population.

However, 25 individual samples may be satisfactory, provided that an adequate number of genetic markers are evaluated for each (e.g. markers from 100 - 200 different positions on the DNA). A norm of 150 samples is generally recommended (CEC Proposal ERB 4050PL920955).

### SAMPLE ANALYSIS

For a complete definition of the relations between populations, it was agreed that all samples collected by the researchers involved in the HGD project should be tested against an agreed core set of alleles or other genetic markers. In addition, a wide variety of other markers will eventually be studied, including those that have clinical relevance.

Selection of core markers is one of the most important objectives in the HGD's initial phase, which explains the quite various types of markers proposed by those participating in the project.

It is unanimously agreed that the markers to be considered in the HGD project should belong to the following 5 categories:

1. Classical markers, e.g. the sanguine groups in the ABO system,
2. The RFLP markers,
3. The minisatellite markers (loci consisting of tandem repeats of small units of base pairs, with lengths varying 0.5 - 30 kb),
4. Y chromosomal polymorphisms, extremely useful in establishing the genetic succession on the paternal line (Persichetti et al., 1992; Piazza, 1993; Renfrew,1993) in relation with the mtDNA markers, which provide suitable information on the maternal line,
5. Microsatellite loci, consisting of 10-30 repeats of a 1-5 bp repeat sequence.

Practical considerations make us prefer for the study the categories of markers 2 - 5, which may be converted into PCR system.

The choice of core markers applicable in the HGD project should consider a series of characteristics, such as: technical robustness (easy reproducible and clear results); easiness of processing even in technically more simple laboratories, which recommends the development of low-tech versions

for some marker systems; markers detection should be based, as much as possible, on non-radioactive working systems, such as silver-staining or color reactive ligands.

The markers informative capacity should be satisfactory: some loci are found as much too variable to be utilized in comparing some distant-related populations, however they may be applied in the differentiation of local populations groups.

### THE HGD PROJECT IN ROMANIA

In this moment, the network of the European laboratories involved in the HGD project includes 25 working teams (Fig. 1) from following countries: Italy (6 laboratories), England (3 laboratories), Ireland (1 laboratory), Germany (2 laboratories), Spain (1 laboratory), France (1 laboratory), Greece (2 laboratories), Estonia (1 laboratory), Finland (1 laboratory), Bulgaria (2 laboratories), The Czech Republic (2 laboratories), The Slovak Republic (1 laboratory), Hungary (1 laboratory) and Romania (1 laboratory). In 1994, Romania, represented by the Institute of Biological Researches from Iasi, the Human Genetic team, has been included in the HGD - Europe Project, directed by Professor Alberto Piazza from the Department of Genetics, Biology and Medical Chemistry, University of Torino, Italy.

The researches to be developed, within the HGD Project, by the Romanian team benefit of two financial sources: an external one, provided by European Economic Community and an internal one, by the Romanian Ministry of Research and Technology.

As a result of the direct consultation with Romanian specialists in the fields of anthropology, linguistics, ethnology, archaeology and history, it has been agreed that the HGD Project should take into study Romanian populations from 4 representative regions, (Fig. 2), namely Maramures, Vrancea, Gorj and Apuseni.

The short-term objectives of our team are the following:

1. Organization of the DNA sample collection, its storing into genetic banks and its processing in collaboration with external partners.
2. Formation of young researchers specialized in molecular biology and genetics by means of scholarship grants offered as part of complementary projects financed by the EEC.
1. Development of an integrated data base, describing the biological material under study.

### MAIN OBJECTIVES OF THE ROMANIAN HGD PROJECT

The year 1995 marked the beginning of a scientific cooperation between researchers of the Department of Biology, Tor Vergata University of Rome, Italy, and researchers from the Institute of Biological Researches of Iasi, involved in the field of human genetics.

The common program of research is viewed as part of the general context of the HGD Project, specific objectives being nevertheless considered, special attention being focused, as based on the common filiation of the actual Romanian and Italian populations, on the markers on chromosome Y.

The main objectives of this Italian-Romanian cooperation are:

1. To obtain a detailed description of human genetic variation of the Romanian population.
2. To evaluate the degree of genetic differentiation among geographical regions of Romania.
3. To possibly evaluate the divergence of mainland Romanian population with Romanian groups living in Republic of Moldavia, Bulgaria, Serbia and Greece.
4. To obtain information on some genetic markers in the early settlers of nowadays Romania, by studying the DNA extracted from well-dated osteological remains found in the anthropological collections.

The Y chromosome haplotype analysis of Romania DNA samples is expected to provide also the first genetic data for an inter-population comparison concerning this part of the genome with other European and non-European populations already known from this point of view.

### WORKING METHODS

The experimental procedures applied in the Romanian version of the HGD Project will include PCR amplification of fragments of the Y chromosome from various subjects, as well as analysis by agarose and polyacrylamide gel electrophoresis ( Sambrook et al., 1980 ). Genetic differences among national and between sub-national groups will be performed by Analysis of Molecular Variance (AMOVA) (Excoffier et al., 1992).

## IMPORTANCE OF ROMANIAN HGD 'Y

The objectives of the Romanian HGD Project have a special scientific importance, related to the following aspects:

1. It may provide information on the genetic relations between the Romanian populations from different regions of country, between them and those living outside the country as well as between the Romanian populations and other European populations having a common Latin filiation.
2. The HGD Romania Project will provide new genetic data on the origin and history of the Romanian people.

## CONCLUSION

The HGD Project will offer a new perspective on the manner of understanding the identity and the history of the human species. Bringing together specialists from the different countries and various branches of science (molecular biology, human genetics, anthropology, evolutionism, archaeology, linguistics, and history), the HGD Project creates a unique interconnection between science and humanities.

It will provide necessary information on the role played by genetic factors in the predisposition and resistance to diseases.

By leading to a greater understanding of the nature of differences between individuals and between human populations, the HGD Project will have a significant contribution to the eliminate of racism.

Also, the HGD Project will offer new information on the genetic relations between the various Romanian populations as well as between them and other European populations with common origin.

Last, but not least, the HGD Project will bring new data on the genesis and history of the Romanian people.

## ACKNOWLEDGMENTS

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Figure 1

HGD Europe participant laboratories network (Lab.no.23 -- Institute of Biological Research, Iasi, RO)

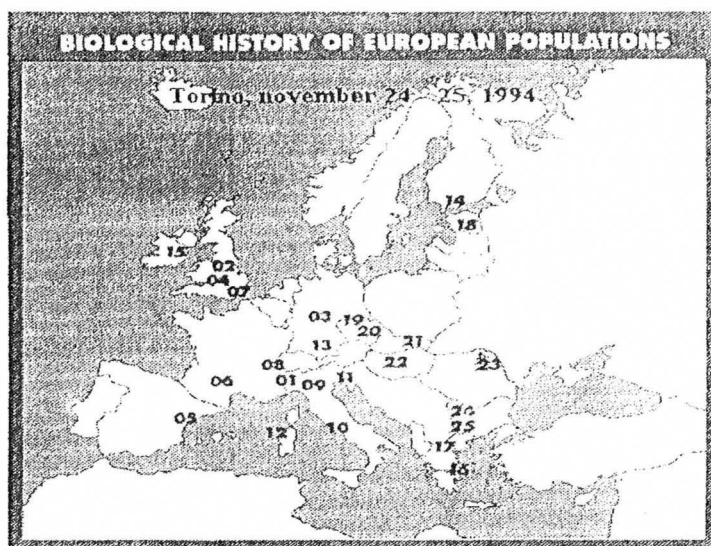
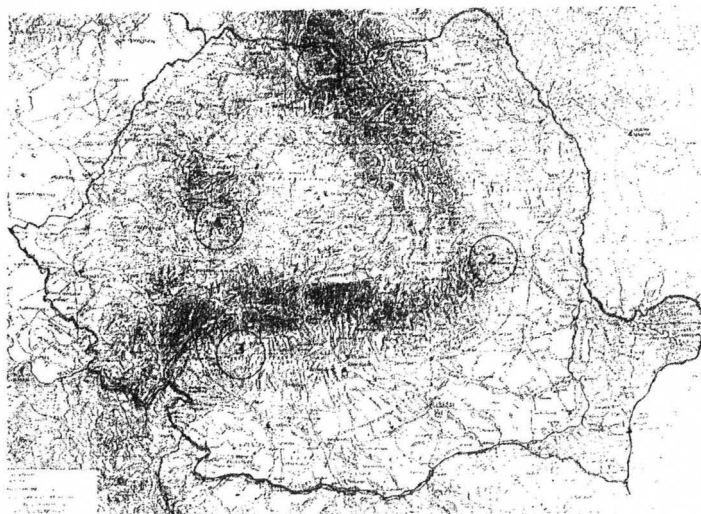


Figure 2

Romanian population proposed for study in the HGD – Romania Project  
(1. Maramures, 2. Vrancea, 3. Gorj, 4. Apuseni)





## RELEVANT ANTHROPOLOGICAL OBSERVATIONS IN RELATION TO THE HEALTH ASSESSMENT OF OUR POPULATION

CRISTIANA GLAVCE, CORINA VALENTIN, IRINA POPESCU,  
CORNELIA ENACHESCU

The present paper is an assessment proposition of the biological fund of the Romanian population by testing the biological quality of the new-born in relation with social and economic factors. Our aim is to reveal population groups with increased biological risk in order that appropriate social and medical measures will be taken. Data were collected for 5000 new-borns at term sampled by gestational age, mother's age and biological quality of the new-born. Results show that several factors are associated with increased risk at birth and are worth taking into account for assessing the population's health state. These factors are: low biological quality at birth, mother's age, mother's marital status, rural environment and ethnic affiliation. We conclude that assessing the biological quality of the newborn in relation with social and economic factors offers indication for both fetal growth and the environmental conditions in which this development takes place.

The present study is an assessment proposal of the biological fund of our population by testing the biological risk at birth in relation with biological indicators on new-born and social and economic factors expressed by carefully chosen data on mothers.

Considering that a population with a low risk at birth is the one with the best survival chances, our attention has focused on revealing newborn population groups with an increased biological risk.

Within the Romanian School of Anthropology it is considered that a periodical health evaluation of newborn is a proper indicator for the general health state of a given population. A similar position is to be found in WHO recommendations. Defining newborn populations with an increased biological risk at birth may improve focused social and medical measures meant to reduce such risk. One important goal of our study is to elaborate reference values of body measurements for the practising paediatricians and family doctors.

Data were collected from 5000 newborn and their mothers. Data relating to newborn were sampled by: sex, gestation age, birth rank and biological quality. Those relating to mothers took into account: marital status, age, origin and ethnic affiliation. The sampled population were identified in the Bucharest, Constanta, Mures and Satu Mare counties. These counties were selected because of a higher concentration level in various ethnic groups like Romanians, Hungarians and Gypsies. Within the sample, ethnic proportions observe the common national ratio. Statistic analysis was performed using Excel, SPSS and SPAD v.3.0 softwares, in order to spot newborn population groups with an increased biological risk at birth. Thus each newborn is characterised in terms of the following variables: normality degree, birth rank, biological quality and mothers age when giving birth (Tables 1,2). The degree of normality was established by taking into account the new-born's biological quality and the gestation age. It is represented as a discontinuous variable with 3 possible modes: premature, normal (at term) and post-term newborn (Table 1). New born with a gestation age included in the interval 38-40 weeks of gestation and with individual anthropometric measurements standing between  $(x-\sigma, x+\sigma)$  were recorded as fitting into a range of normality. Birth rank is also a discontinuous variable allowing for 3 possible modes: 1<sup>st</sup> rank for the first born, 2<sup>nd</sup> rank for the second and third child and 3<sup>rd</sup> rank for the fourth child and over (Table 1). Mother's age is a discontinuous variable covering 3 possible modes: under 20 years of age, between 20 and 35 and over 35 years of age. The biological quality at birth was defined by four body measurements taken at birth: birth weight, head circumference, thoracic circumference and length. Normality ranks for each indicator were taken into account following WHO's recommendations and Romanian standards. Table 3 shows descriptive statistics on these variables. Statistic evaluation was aimed at highlighting the biological quality in relation to ethnic affiliation, mother's origin, age and marital status; a biological quality profile was also determined (Tables 1,4, Charts 1,2,3).

Biological risk at birth was assessed by means of statistic evaluation. The biological risk is a discontinuous variable with 2 possible modes: CbRi-for the newborn caring a risk at birth and CbNo for the newborn free of risk (Table1). The biological risk at birth was determined in relation with: biological quality, gestation age and birth rank; risk categories were also established. Further, the biological risk at birth was evaluated in relation to data concerning mothers: age, origin (urban or rural), marital status and ethnic affiliation. A multivariate analysis was used to reduce the number of continuous variables (in birth measurements) and to emphasise the correlation between them and potential risk factors (represented by discontinuous variables such as data related to mothers). The risk factors are represented in the main factorial plan (Charts 2,3). The distance from the x,y axis to the modes of the discontinuous variable mentioned above is provided in Table 1, DIST-ORIG column. This distance rises with the remoteness of the variable from the normality range, showing the new born populations with increased risk at birth.

Results show that by the gestation age, 75% of the newborn are at term, 13% are prematures and 12% are posterm (Table 2). Considering the birth rank 60% were first born, 32,6% second child and only 7,5% stood for the third child and over. Considering the biological risk in relation to biological quality, 20% of our new born population sample are at risk due to a low biological quality (Tables1,2). Anthropometric indicators most responsible for a low biological quality were: the birth weight and the thoracic circumference both influenced by environmental conditions in which foetal growth and development take place. The mother's (origin or urban) or rural is related to the biological quality at birth and further to biological risk at birth. New born in urban areas present a better biological quality and a greater homogeneity. These are illustrated by higher average values for all anthropometric indicators taken into account as well as smaller standard deviation differencies (Table 4). An increased number of newborn from single mothers - 19,1%, and a decreased number of children per family have also been observed in urban areas (Tables1,2, Charts 1,2). Considering the ethnic affiliation, although few differences were observed between the communities taken into account, some specific biological traits, at populational level have been proved (Chart1). The Rohrer indicator showed a trend for newborn of Hungarian affiliation to be hypertrophic. A lesser number of premature births were recorded in this community, where mother age at the first birth increased to 35 and over. Hungarian newborn, as against Romanian newborn, present higher average values for birth weight, thoracic and head perimeter. Within Gypsy population under study, a low biological quality and a very young age in single mothers were frequent (Table1,2,Chart 2,3).

Our multivariate analysis of the sample of 5000 newborn discriminated three well defined groups: one central (normal) population and two populations with increased biological risk (Chart2). The two groups with increased biological risk at birth are represented by: a) premature newborn, and newborn from mothers aged less than 20; b) posterm newborns, those with mothers aged over than 35 and those with birth rank 3 and over.

The central (normal) group held the greatest share. This group is represented by the newborn with a good biological quality and a low risk at birth. Considering the biological quality within this group, the romanian population is situated between the Hungarian and the Gypsy populations. Differencies between Romanian and Hungarian newborn are lesser than between Romanian and Gypsy newborn.

A closer analysis of the central normal population makes it possible to distinguish within it a subgroup characterised by a relatively higher risk at birth on account of poor biologic quality. This population is represented by newborn from mothers aged under 20, newborn of rank1, newborn from unmarried mothers and from mothers of Gypsy affiliation.

It may be concluded that increased biological risk at birth is associated with: low biological quality, first child and children of rank higher than 3, unmarried mothers, mothers aged less than 20 rural environment and mothers of a Gypsie affiliation.

General, appart from biological risk at birth are: poor biological quality at birth, an increase in mother's age at first birth, single child family, increased risk at birth associated with ethnic affiliation in connection, we presume, with social and cultural reasons.

The present assesment of the biological risk at birth in connection with newborn's biological quality and socio-familial factors has been meant to provide information on foetal growth characteristics and on environmental conditions under which this development takes place. It may contribute to achive a more accurate evaluation of life standards in the present population. Establishing longitudinal research programs and follow up studies for the proper assesment of a child's development from birth provides useful reference for monitoring the normality of child growth as part of the health care system of every country.

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Table 1

New born associated variables related to biological risk at birth

MODES	CO-ORDINATES				
<i>Variable</i>	<i>Total</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>DIST.ORIG</i>
<b>Ethnic affiliation</b>					
Hungarian	786	-0.30	0.04	0.03	0.10
Romaniian	3597	-0.07	-0.01	-0.01	0.00
Gypsy	547	0.89	0.01	0.02	0.80
<b>Mother's origin</b>					
Rural	2016	0.08	0.03	0.02	0.01
Urban	2934	-0.05	-0.02	-0.01	0.00
<b>Mother's marital status</b>					
Married	4004	-0.21	0.00	-0.01	0.04
Unmarried	946	0.88	0.02	0.04	0.77
<b>New born's sex</b>					
Girls	2470	0.17	-0.03	0.03	0.03
Boys	2480	-0.17	0.03	-0.03	0.03
<b>New born's normality rank (by the gestational age)</b>					
Premature	643	3.82	0.76	-0.01	15.21
At term	3715	0.03	-0.32	-0.03	0.10
Post term	592	-4.32	1.16	0.22	20.03
<b>Birth rank</b>					
First child	2970	1.36	-0.07	0.09	1.87
Second and third child	1609	-1.44	-0.16	-0.17	2.12
Fourth child and over	371	-4.70	1.22	0.01	23.59
<b>Mother's age</b>					
<20 years old	761	3.54	0.62	0.06	12.92
>20 >35	3982	-0.41	-0.18	0.00	0.20
>35 years old	207	-5.11	1.11	-0.23	27.56
<b>Biological quality related to the risk at birth</b>					
At Risk	968	1.69	0.73	0.00	3.42
Normal	3982	-0.41	-0.18	0.00	0.20

These results are represented in Charts 2,3.

Table 2

New born's associated variables

<i>County</i>		<i>Total</i>	<i>%</i>
	Bucharest	1044	21.09
	Constanta	1925	38.89
	Mures	538	10.87
	Satu Mare	1443	29.15
	<b>Total</b>	<b>4950</b>	<b>100</b>
<i>Ethnic affiliation</i>			
	Hungarians	786	15.88
	Romanians	3597	72.67
	Gypsies	547	11.05
<i>Mother's origin</i>			
	Rural	2016	40.73
	Urban	2934	59.27
	<b>Total</b>	<b>4950</b>	<b>100</b>
<i>Mother's marital status</i>			
	Married	4004	80.89
	Unmarried	946	19.11
	<b>Total</b>	<b>4950</b>	<b>100</b>
<i>New born's sex</i>			
	Girls	2470	49.90
	Boys	2480	50.10
	<b>Total</b>	<b>4950</b>	<b>100</b>
<i>Birth rank</i>			
	1	2970	60.00
	2	1289	26.04
	3	320	6.46
	4	118	2.38
	5	102	2.06

Table 3

Descriptive statistics for anthropometric indicators related to new born's biological quality

<i>Biologic indicator</i>	<i>Average</i>	<i>Std. dev.</i>	<i>Min</i>	<i>Max</i>
Gest. age	38.9	2.0	24	49
Birth weight	3039.4	609.7	900	5100
Lenght	50.2	2.8	20	72
Head circ.	34.9	4.4	19	48

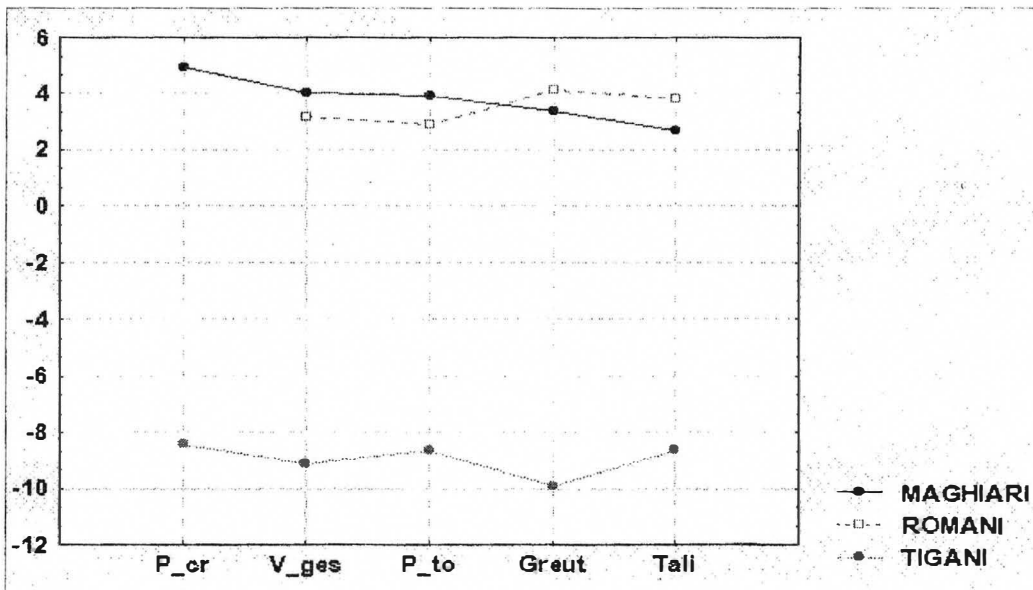
Table 4

new-borns biological quality related to mothers origin -urban/rural

<b>Urban (Total = 2934)</b>	<b>Variable</b>	<b>Average class general</b>		<b>Std. Dev class general</b>	
	Length	50.30	50.21	2.77	2.80
	Birth weight	3259.43		593.47	609.72
	Gest.age	39.00	38.95	1.94	1.99
<b>Rural (Total = 2016)</b>					
	Gest.age	38.87	38.95	2.06	1.99
	Birth	3010.13		631.48	609.72
	Length	50.07	50.21	2.85	2.80

Chart 1

New-borns biological quality related to ethnic affiliation



Legend

Maghiari	Hungarian
Romani	Romanians
Tigani	Gypsies
P_cr	Head circ.
V_ges.	Gestational age
Greut.	Birth weight
Talia	Length

Chart 2

The distribution of the new borns populational groups

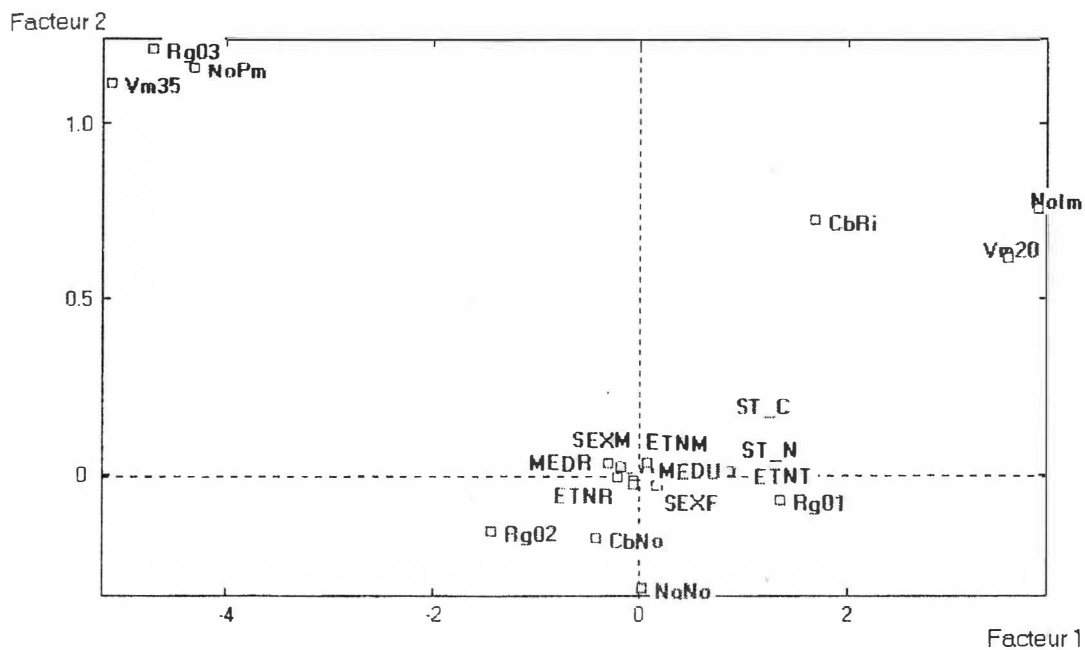
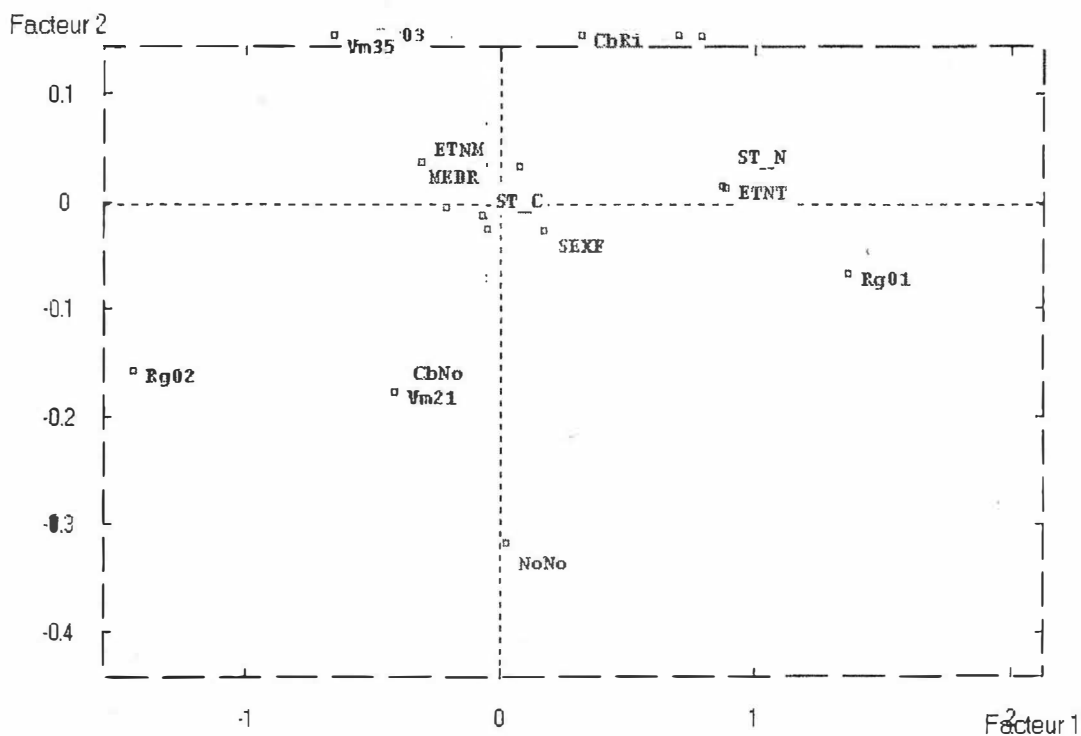


Chart 3

The distribution of the new borns populational groups - detailed representation of the central populational group





## New born associated variables related to biological risk at birth

<i>Variable</i>
<b>Ethnic affiliation</b>
ETNM- hungarian
ETNR -romanian
ETNT- gypsy
<b>Mother's origin</b>
MEDR - Rural
MEDU - Urban
<b>Mother's marital status</b>
STC-married
STN- unmarried
<b>New born's sex</b>
SEXF -girl
SEXM- boy
<b>New born's normality rank (by the gestational age)</b>
NoIm - premature
NoNo - at term
NoPm >40 weeks of gestation
<b>Birth rank</b>
Rg01 - first child
Rg02 -second and third child
Rg03 fourth child and over
<b>Mother's age</b>
Vm20 - <20 years old
Vm21- 20-35 years old
Vm35->35 years old
<b>Biological quality related to the risk at birth</b>
CbRi - At risk
CbNo - Normal

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## L'ANTHROPOLOGIE MÉDICO-LÉGALE-DÉLIMITATION, OBJECTIFS, CONNEXIONS

VIOREL PANAITESCU, MARIANA ROSU

On présente les ressemblances et les différences de deux branches de l'anthropologie-culturelle (d'intérêt archéologique) et actuelle (médico-légale) en insistant chez chacune d'elles sur les objectifs, la structure des équipes de travail, les particularités de la recherche des restes humains.

Les auteurs soulignent la contribution des archéologues pour la réalisation des exhumations d'intérêt medico-legal.

On accorde un intérêt particulier au rôle de l'anthropologie medico-legale dans l'identification des victimes d'une catastrophe.

Par ailleurs, on présente les objectifs de l'anthropologie medico-legale qui, en plus des réponses à l'anthropologie historique est appelée, par les rapports d'expertise, à fournir des données adressées aux organismes d'enquête criminelle (la nature et la raison du décès, l'existence de lésions traumatiques et leur mécanisme de réalisation, le caractère vital des modifications osseuses, etc.)

De cette manière, l'anthropologie medico-legale a des corrélations en ce qui concerne les méthodes de travail et les objectifs de la recherche, tant avec l'anthropologie historique et ses branches qu'avec la criminologie et ses domaines connexes.

A cause de maintes raisons pratiques, l'anthropologie s'est divisée en deux disciplines principales:

-l'anthropologie culturelle (préhistorique et historique) dont l'étude porte sur des questions archéologiques en plusieurs domaines - social, culturel, religieux, rituel, ethnographique - l'ensemble concernant certaines étapes dans l'histoire de l'humanité;

-l'anthropologie medico-légale (actuelle) dont le but porte sur l'étude des vestiges humains dans un contexte des impératifs de la justice, de la criminologie et de la médecine légale, et dont les expertises ont un effet social majeur et immédiat.

L'anthropologie médico-légale a pour but principal de faire des expertises d'ossements humains dont l'âge ne dépasse pas 50 ans à 70 ans. A ce moment-là commencent des études de l'anthropologie historique.

Les différences entre ces deux facultés à notre point de vue sont présentées dans l'annexe.

Les études médico-légales sont basées sur des vestiges humains aussi bien que sur des sujets. Il faut préciser que n'importe quelle expertise ne peut s'effectuer que sur les dispositions écrites de la police, du parquet ou de l'instance du tribunal. Ces autorités informent l'expert par écrit du cas à résoudre et des questions auxquelles il faut répondre dans l'expertise.

Expertises medico-légales sur des vestiges humains.

L'exhumation se fait par le médecin légiste seulement en présence du procureur qui l'a autorisée et de l'officier de la police criminelle.

Il arrive que l'expertise se passe dans des conditions moins convenables, car les vestiges recherchés peuvent se trouver au niveau du sol, dans l'eau, dans l'enceinte d'un bâtiment, dans un réseau de canalisation ou toilette, ou ailleurs.

Les vestiges peuvent être d'un cadavre ou partie de cadavre qui ont subi des changements destructifs ou conservateurs suite au passage du temps, des changements météorologiques, de l'incendie, des caustiques, de l'action des animaux ou de l'homme, ce dernier dans le but de cacher un crime.

D'ailleurs, les vestiges d'un cadavre ou d'ossements peuvent être répandus parfois sur une zone très large si le corps a été dépecé dans un but criminel, ce qui oblige l'équipe d'experts de faire leurs recherches dans un espace étendu.

L'expertise doit répondre aux questions posées par le parquet ou par la police, pour en tirer des renseignements sur des :

- questions d'anthropologie physique:
  - détermination de l'origine des os (humain ou animal);
  - détermination du nombre de personnes desquelles proviennent les vestiges;
  - détermination de la race des os;
  - détermination du sexe, de la taille, de l'âge et de la date de la mort, etc.
- questions thanatologiques:
  - mort criminelle ou pas;
  - cause de la mort;
  - modification post-mortem ou lésions traumatiques et leurs étiologie;
  - comment ces lésions se sont produites;
  - leur rôle dans la tanathogénèse;
  - informations nécessaires afin d'identifier l'agent vulnérant.

Si l'agent vulnérant est une balle, il y a des problèmes balistiques à résoudre, par exemple:

- établir les orifices d'entrée et de sortie de la balle dans le corps;
- distance et direction du tir;
- calibre de la balle, etc.

Finalement, et très souvent, les autorités du parquet ou de la police demandent des renseignements supplémentaires ostéométriques afin de comparer les vestiges examinés avec les photographies de personnes disparues.

Les expertises anthropologiques médico-légales peuvent être d'intérêt national ou international.

Les expertises d'intérêt national sont effectuées lorsqu'il s'agit de soupçons de crime ou d'un événement avec plusieurs victimes dont la résolution se trouve dans la compétence du parquet local, régional ou national.

Les expertises d'intérêt international sont effectuées lorsque les données provisoires laissent penser à des exécutions non-légales suite par exemple à la répression de conflits politiques, ethniques ou religieux.

Les experts médico-légaux sont souvent appelés afin d'identifier les victimes d'un désastre. Ces expertises concernent un grand nombre de victimes dont les vestiges peuvent être fragmentés ou qui montrent des signes de changements dus aux explosions, ou aux incendies. L'activité totale des anthropologistes, des odontologistes et médecins légistes est étroitement liée à l'activité des spécialistes de la police criminelle et de la justice, qui ont l'obligation de coordonner toutes actions.

Expertises anthropologiques cliniques.

Suivant les objectifs établis par l'ordre d'enquête, l'expertise ayant pour but d'identifier une personne s'effectue par la police criminelle ou par l'Institut Médico-Légal. Les expertises les plus souvent demandées concernent l'identité des mineurs, et de temps en temps la recherche de signes typiques du criminel ou la vérification de la provenance d'une radiographie.

Expertises afin d'identifier les mineurs.

Ces expertises sont le plus souvent demandées ces dernières années à cause du grand nombre d'enfants abandonnés en divers endroits par leurs mères et du grand nombre d'enfants errants. Ces enfants sont internés par la police dans des centres d'accueil, et ils ne peuvent présenter ni papiers d'identité ni informations sur leur famille. La police demande donc au médecin légiste d'établir l'âge et le sexe de l'enfant. Suite à notre expérience dans de nombreux cas, nous avons établi une procédure, afin d'établir l'âge, basée sur des examens anthropométriques, odontologiques et radiologiques.

### 1. Examen anthropométrique:

Cet examen comprend la mesure de taille, poids, périmètre crânien, périmètre thoracique, périmètre de l'abdomen, le calcul de l'index crânien et la longueur des parties des membres.

Parce que les enfants examinés présentent des problèmes différents de malnutrition, de rachitisme et de croissance retardée, les résultats obtenus par l'examen anthropométrique ne permettent pas d'établir avec précision l'âge de l'enfant.

Ce problème nous a donc décidé à nous servir d'encore deux méthodes de procédure.

### 2. Examen odontologique:

Cet examen cherche à établir la formation et la croissance des dents mais, parce que la croissance des dents aurait pu être dérangée par des facteurs pathologiques locaux ou généraux, nous passons au troisième examen.

**3. Examen radiologique:**

Cet examen ne se fait que dans un contexte de l'information déjà acquise et la procedure utilisée est la suivante:

- enfants âgés de 1 à 9 ans: radiographie des mains et des pieds;
- enfants âgés de 9 à 13 ans: radiographie des coudes et des genoux;
- enfants âgés de 14 à 16 ans: radiographie du pelvis et des coudes;
- enfants âgés de plus de 16 ans: radiographie suivant l'union diaphyso-épiphysaire.

Nous considérons que l'âge peut être plus facilement établi en se basant sur les données anthropologiques les plus récentes.

- recherche des signes typiques criminels.

Cet examen a été demandé dans peu de cas, et nous n'avons pas de résultats significatifs.

- établir l'appartenance d'une radiographie

Cet examen est effectué lorsqu'il y a suspicion qu'une personne aurait souffert une attaque quelconque basée sur l'évidence d'une radiographie de quelqu'un d'autre. Afin d'obtenir un résultat précis, nous proposons que la personne soit radiographiée dans les mêmes conditions que celles évidentes sur la fausse radiographie en litige.

**Expertises médico - légales anthropologiques**

1. *Expertises anthropologiques sur des vestiges humains:*

	<b>Problèmes</b>
Expertises anthropologiques d'intérêt national Expertises anthropologiques d'intérêt international Expertises médico-légales dans les catastrophes	Problèmes d'anthropologie physiques au bût d'identification des victimes; Problèmes de thanatologie et de traumatologie; Problèmes de balistique médico-légale;

2. *Expertises anthropologiques du vivant:*

Identification des mineurs (abandonnés ou errants)	Examen anthropométrique Examen odontologique Examen radiologique
L'appartenance d'une radiographie	

## Différences entre l'anthropologie culturelle et l'anthropologie médico – légale

	<b>Anthropologie culturelle</b>	<b>Anthropologie médico - légale</b>
<i>Objectifs</i>	-l'étude de l'homme aux époques historiques dans son contexte social, culturel, démographique, afin d'établir son évolution de tous points de vue; -découvrir des vestiges humains qui datent de plus de 70 ÷ 100 ans;	-l'étude de l'homme du point de vue juridique et médico-légal afin de résoudre des cas criminels ou des litiges civils; -le médecin légiste formule les premières hypothèses concernant le nombre des squelettes, les lésions traumatiques, la date de la mort; -découvrir des vestiges humains récents, pas plus âgés que 50 - à 70 ans;
<i>Structure de l'équipe</i>	-archéologues;	-policiers, criminalistes, magistrats d'Etat; -médecins légistes; -archéologues (seulement en cas de besoin);
<i>Région d'étude</i>	-régions larges et étendues;	-zones restreints (tombeaux, caves des bâtiments. etc.);
<i>Méthodologie de travail</i>	-suivant les procédures de la recherche archéologique;	-suivant les procédures de la recherche archéologique en des conditions précises, établies par le chef de l'équipe policière avec but: -répondre aux objectifs de l'expertise; -accès et déplacement dans la zone d'activité strictement contrôlés; -établir précisément les attributions de chaque membre de l'équipe;
<i>Contenu du tombeau et examens spécifiques médico - légaux</i>	-un ou plusieurs squelettes, objets de culte, vêtement d'époque, bijoux, autres objets personnels;	-les trouvailles peuvent comprendre un ou plusieurs squelettes, des restes squelettiques, des cadavres en étapes différentes de décomposition; -examiner la végétation à l'endroit de l'enterrement y compris les racines des arbres, afin de mieux établir la date de la mort; -des problèmes spécifiques aux recherches criminelles en ce qui concerne des changements subis par les trouvailles; -examen du sol au-dessous de l'endroit d'enterrement où peuvent se trouver des substances toxiques, des armes ou balles, etc.;
<i>Destination de l'information résultant de l'excavation</i>	-accroître les connaissances scientifiques au sujet de la société humaine à une certaine époque;	-toute l'information en provenance de l'enquête devient une partie intégrale de l'expertise à être présentée en justice;
<i>Méthodes pour établir la date de la mort</i>	-C radioactif (avec une marge de mille ans);	-méthode entomologique (valable seulement a foie que le processus de putréfaction soit terminé). -méthodes chimiques ( dont les résultats sont modifiés par les facteurs météo-climatiques et par le sol; -méthodes physiques;

## DERMATOGLYPHICS ANALYSIS IN THE DIAGNOSTIC OF GENETIC DISORDERS AN INDICATOR OF PRENATAL NEGATIVE FACTORS IN CHILDREN WITH DEVELOPMENTAL DISORDERS

A. RODEWALD, H. SCHEYING, P. MEINECKE, V. STOIAN

In most genetic disorders and especially in chromosomal syndromes (Trisomies 8, 13, 18 and 21 ; fra-X-Syndrome, etc.) the dermatoglyphics are sufficiently specific to be used for diagnostic purposes. Such methods are of particular interest when applied to cases with doubtful diagnosis or with chromosomal mosaicism. Discriminate methods for diagnostic purposes have been proposed in different syndromes. However, an association between dermatoglyphic abnormalities and disorders of brain development caused by chromosomal and non-chromosomal genetic syndromes. In order to answer the question whether dermatoglyphics can indicate the existence of prenatal negative factors, a sample of more than 1200 children from the Werner-Otto-Institute (1022 patients) and other clinic were investigated. All analysed groups showed significant differences in a number of dermatoglyphic characters and showed characteristic pattern combinations. Furthermore, with the help of discriminant and cluster methods we examined whether there is any relationship between the dermatoglyphic stigmata and clinical parameters, and also prenatal and perinatal factors, respectively. The results of the dermatoglyphic analysis indicate the importance of different prenatal endogenic, genetical, and exogenic factors in causing embryonal developmental defects.

The study was partly supported by the Werner-Otto-Foundation.

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All analysed groups showed significant differences in a number of dermatoglyphic characters and showed characteristic pattern combinations. Furthermore, with the help of discriminant and cluster methods we examined whether there is any relationship between the dermatoglyphic stigmata and clinical parameters, and also prenatal and perinatal factors, respectively. The results of the dermatoglyphic analysis indicate the importance of different prenatal, endogenic, genetic, and exogenic factors in causing embryonal developmental defects.

Presently dermatoglyphics are confronted with rapid advances and radical changes in the clinical, biomedical and computer sciences and finds itself in the middle of another transitional stage in sciences like clinical and medical anthropology, human genetics, (medical population) and in evolution science.

The information of dermatoglyphic analysis is relevant:

- a) to human evolution and the maintenance of variation in human populations.
  - b) It also plays a major role in diagnostic of genetic disorders,
  - c) and is also including the application of dermatoglyphics to studies of the effect of environmental toxicants and stress on biological and developmental processes (intra- and extrauterine)
- TERATOGENIC DISEASE=EMBRYOPATHIES.

\* This study was financed by the Werner-Otto-Foundation in Hamburg / German

- d) Dermatoglyphic studies have accumulated in elucidating the role of heredity and environment on dermatoglyphic traits. Significant progress has been made in understanding and observing associations of atypical ridge configurations and ridge counts with several congenital and genetic anomalies.

Dermatoglyphics are significant markers of **prenatal (embryonal and fetal) events**:

The precise configuration of **epidermal ridges**, minuties and creases is determined at a very early embryonic age, around **10 weeks** postfertilization. The critical period of primary ridge differentiation is between **11 and 17 weeks**. At **24 weeks**, the epidermal ridge system has an adult morphology.

Dermatoglyphics are:

- 1) genetic determined: polygenic, polyfactorial,
- 2) postnatal ENVIRONMENTALLY STABLE CHARACTERS,
- 3) AGE-STABLE.

Factors influencing ridge configuration:

- growth STRESS,
- compressions in the developing skin,
- volar topography (volar-pad),
- neurotrophic factors: spatial relationship between capillary / neurite pairs and dermal ridge,
- skeletal factors.

Types of investigations of dermatoglyphics:

- 1) ethnic variation,
- 2) association with genetic diseases and congenital defects,
- 3) twin studies and familial resemblance (paternity),
- 4) comparative dermatoglyphics in human and nonhuman primates provide a vehicle to approach an understanding of the complex interaction of ontogeny and phylogeny in higher primates and hominoids,
- 5) such genetics studies and comparison of interpopulational differences of dermatoglyphics should be helpful to understand the dynamic of microevolutionary factors of genetic variation within and between different ethnic populations.

In clinical genetics and medical anthropology dermatoglyphic studies are of primary importance in:

- a) chromosome aberrations (trisomies, monosomies, structural),<sup>1</sup>
- b) limb malformations,
- c) nonchromosomal, genetic syndromes (monogenic, polygenic),<sup>2</sup>
- d) deformities, single malformations (f.e.: FETAL ALCOHOL SYNDROME),<sup>3</sup>
- e) associations, dysplasias (ectodermal displasia AED.),
- f) genetically predisposed diseases of adults (diabetes, schizophrenia, Alzheimer disease, etc.) and in neurohypotrophies (f.e.: congenital CNS, neural tube defects, spina bifida).

## INTRODUCTION

The etiology of developmental disorders or handicaps in early childhood is often not known, so that possible genetic or embryopathogenic damaging factors have to be assumed. Parents of handicapped children have a rightful interest in the clarification of the causes of their child's disorder. If this is not possible, the situation can lead to agonizing self-reproaches among the parents. In addition, as long as the etiology of a number of infantile developmental disorders is not known, preventive strategies cannot be developed.

On the grounds of the known co-occurrence of developmental disorders of the brain and anomalies of the dermal patterns and creases in most chromosomal and non-chromosomal genetically caused disorders, the following study was intended to clarify whether the time of origin of an infantile developmental disorder can be more closely approximated with the help of dermatoglyphical examinations.

<sup>1</sup> Rodewald, A. et al (1977, 1979, 1982, 1981 and 1986)  
Stoian, Veronica (1993)

<sup>2</sup> Ziegler, A.-G.; Rodewald, A.; Chopra, V. et al (1993)  
Rodewald, A. et al (1994)

<sup>3</sup> Rodewald, A. (1984)



## MATERIAL AND METHODS:

1 022 children and adolescents from a random sociopediatric patient group of the Werner Otto Institute were studied. The patients consulted the institute on diverse questions of diagnostics, therapy and consultation and were introduced to at least one neuropediatrically oriented paediatrician, who had received schooling in distinctive morphological features by a human genetician. Depending on the individual requirements, a thorough medical or differential psychological test diagnosis was sometimes added. The dermatoglyphical investigations were a by-product of the study and were not connected with the measures carried out in the institute.

In a preliminary evaluation of the overall results we tried to determine whether the dermatoglyphics of the patients differed from a healthy control group by roughly dividing them into groups.

For the purpose of discrimination between the different patient-groups and the control group a modified Log. Score-Index method was applied (Rodewald et al. (1976), Z. Morphol. Anthropol. 67, 333). The qualitative dermatoglyphic variables (10 finger and 22 palmar patterns) used in calculating these Dermal-Score-Index values were restricted to patterns with low correlations. The calculations of the Log. Score-Index values for each individual are based on the relationship of the percentage incidence of patterns between the patients and control groups.

## RESULTS AND DISCUSSION:

In a first step we found that children with developmental disorders or handicaps from a sociopediatric patient group generally show statistically significant deviations in the dermatoglyphical pattern in comparison to a control group consisting of normal persons. In the second step we roughly divided the children into three groups. *Illustration 4*

Group I (n=189): Patients with diverse developmental disorders or handicaps of different degrees showing deformities or signs of dysmorphia. *Illustration 1*

Group II (n=185): Patients with serious to severe handicaps of different kind without deformities or phenotypically distinctive features. *Illustration 2*

In this group were included e.g. children with definite mental retardation, serious cerebral pareses or serious epilepsies with a total degree of handicap of at least 50%.

Group III (n=648): Children with slight to moderate developmental disorders without deformities and without phenotypically distinctive features. *Illustration 3*

In this group were included children with partial achievement disorders, learning difficulties, slight to moderate cerebral pareses with walking ability or slight, easily treatable epilepsies with a total degree of handicap of less than 50%.

*Illustration 5*

In order to clarify possible prenatal causes, the prenatal group was divided into the following 4 subgroups according to the risk factors showing the same complex effects in the spectrum of disorders:

group of exogenic toxic factors (N=104 patients) *Illustration 6*

group of endogenic, intrauterine stress (N=100 patients) *Illustration 7*

group of psychical/physical stress of mother, as well as complications during pregnancy (N=45 patients) *Illustration 8*

group of unknown causes with signs of dysmorphia (N=46)

The graphic representation in histograms of the combination of the ridge and creases patterns for the different prenatal groups through the Log.-Score Index illustrates the significant differences from the control group. An absolute segregation between the patient and the control group is achieved in 70-82% of the individuals.

As expected, the group of children with known deformations or signs of dysmorphia showed the largest deviation of the three groups from the normal population. Among the children without deformations or signs of dysmorphia the group with serious to severe handicaps showed more marked deviation than the group with slight to moderate developmental disorders. Surprisingly, the group with slighter developmental disorders showed statistically significant deviations from the control group, although the majority of these children had only minimal organically detectable disorders, e.g. of the coordination of movement next to partial achievement disorders and behavioural disorders. We take this as an indication that prenatal factors in slighter developmental disorders deserve more attention.

In the third step we formed smaller, better defined subgroups of disorders.

Children with isolated mental retardation without cerebral pareses and without fundamental motor impairment show a distinct shift to the right in the Log-Score-Index. *Illustration 9*  
In this we see a connection between the assumed prenatal cause of the mental retardation of these children and the divergences of the dermatoglyphic pattern. Children with spastic tetraparesis also showed a distinct shift to the right. *Illustration 10*

In children with spastic diparesis the dermatoglyphic divergence was less marked than in children with spastic tetraparesis. *Illustration 11*

We interpret this as a sign that among the children with spastic diparesis there were more premature births, in whom the damage was acquired in the perinatal period. Spastic diparesis is the typical perinatal damage of premature births after periventricular leucomalacia. The fact that we found deviances in the dermatoglyphic pattern of these definitely perinatally damaged children indicates additional prenatal damaging influence. This accords with the findings based on the investigations of Prechtl that perinatal brain damages often only represent final links in a longer, prenatal chain of pathogenic damages. *Illustration 12*

The group of 160 children with epilepsy is an extremely heterogeneous group from a nosological point of view with large divergence in the dermatoglyphic pattern and in the sum of the distinct shift to the right in the Log-Score-Index. *Illustration 13*

Within this group there is a subgroup of 18 children with definite postnatal acquired symptomatic epilepsy after encephalitis or traumatic brain defects. *Illustration 14*

This group does not differ significantly from the control group. A slight, statistically not significant deviant trend could be related to the fact that a genetic factor of realization is to be assumed for acquired epilepsies as well. *Illustrations 15, 16, 17 and 18*

The results achieved in this study confirm that the analysis of dermatoglyphics as a diagnostic indicator in doubtful clinical cases of dysmorphic syndromes can be used with success for the clarification of prenatal causes of disorders, as they elucidate the influence of genetic and teratogenic pre- and postnatal factors.

In the further analysis of our results we want to find out whether there are correlations between defined prenatal risk factors and certain dermatoglyphic constellations or defined developmental disorders. We also want to find out whether children who do not show deviations in their dermatoglyphic pattern differ in their type of developmental disorder or as regards their prenatal damaging factors from those developmentally damaged children with deviations in their dermatoglyphic pattern.

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## DERMATOGLYPHIC AND MEDICAL FEATURES IN A SAMPLE OF LONGEVAL PERSONS FROM RUCAR-BRAN PASS

CORNELIU VULPE, IRINA POPESCU, LUCIA GEORGESCU

Entre 1994 et 1997 nous avons étudié, du point de vue dermatoglyphique et médical, des personnes âgées de plus de 80 ans, provenant de 8 villages du Couloir Rucăr-Bran, Transylvanie. L'échantillon ainsi formé compte 109 sujets (52 hommes et 57 femmes).

Le tableau dermatoglyphique comprend les types et la fréquence des principaux modèles digitaux et palmaires, de la formule des lignes radiantes palmaires, et du triradius axial. Nous avons accordé plus d'attention au trajet et à la dimension des lignes de flexion palmaire.

L'analyse médicale a porté sur les antécédents personnels, le tableau pathologique actuel, les habitudes alimentaires et de vie. Nous avons de plus essayé d'établir un "âge biologique" pour l'ensemble de l'échantillon en utilisant des critères quantifiables, recommandés par l'Institut de Gérontologie.

Previous research in the Rucar-Bran Pass allowed us to observe that this region is characterised by a relatively large long life population. Their way of life: climate, altitude, alimentation, traditional occupations, family structure and health are the subject of a recent anthropological and medical study.

Former investigations, done by two of our colleagues – Suzana Grințescu Pop and Theodor Enăchescu – in Fundata, one of the communities we have also studied, covered features like pigmentation, anthropological dimensions and indices of 8 longeval men and 6 women.

Our present sample is much larger; we collected some genetic information (pedigrees), data concerning the way of life (diet, work and rest, life of the couple), medical data, finger- and palm prints. The material is too ample to be fully presented here, due to lack of space and time, so we will resume this paper to some considerations regarding the dermatoglyphics and the medical data.

### MATERIAL AND METHODOLOGY

Our research was completed over a period of 3 years, between 1994 and 1997, due to the extent of data we gathered and the lack of research forces. The fieldwork covered 8 villages from the Rucar – Bran pass: two of them situated in Arges County and the rest in Brasov.

The sample consists of 112 persons, 54 males and 58 females, aged between 80 and 101. The lower limit of age is 80; considering the life expectancy in rural areas of the two studied counties, which is around 70 (Arges county- 69.88; Brasov county – 69.67)\*.

The geographical distribution of our sample is the following:

- Dambovicioara:
- Podu Dambovitei:
- Fundata:
- Sirnea:
- Moeciu de Jos:
- Simon:
- Poarta – Bran:
- Sohodol:
- 13 subjects, out of which 8 M and 5 F
- 20 subjects, out of which 9 M and 11 F
- 11 subjects, out of which 6 M and 5 F
- 6 subjects, out of which 3 M and 3 F

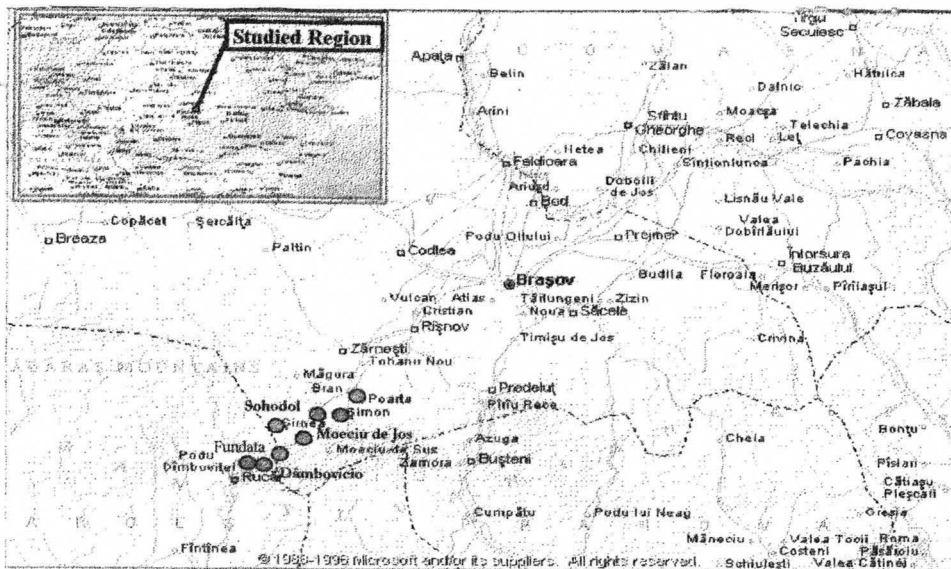
\* All national statistical data are supplied by the National Commission of Medical Statistics, and refers to the year 1997.

18 subjects, out of which 11 M and 7 F  
 8 subjects, out of which 4 M and 4 F  
 15 subjects, out of which 8 M and 7 F  
 21 subjects, out of which 5 M and 16 F  
 Total:

112 subjects, out of which 54 M and 58 F

Figure 1.

Geographical position of the studied villages



We have compared our dermatoglyphic data from longeval subjects against already published materials regarding ethnical variability of the population in the region. Those studies consider only adult subjects' aged 20 to 60 for men and 20 to 50 for women, with a local ascendance of at least 3 generations.

For the reading of the finger and palm prints we have used the notation methods of Monique de Lestrang, Gisela Meyer-Heidenhagen, Cummins and Midlo.

For the medical investigation we had to reduce the sample to 91 persons (45 M and 46F), mainly due to non-respondent subjects.

## RESULTS

### Fingerprints

The frequencies of the main fingerprints we found in the longeval sample do not surpass the variability limits of the adult population from the region.

	%	B	Lr	Lu	ΣL	W	WS	ΣW	No. of fingers
Longeval sample		5.9	3.8	59.4	63.3	19.6	11.2	30.8	1090
Sohodol		3.9	4.6	62.4	67.0	20.4	8.6	29.0	2170
Simon		5.5	4.7	56.5	61.2	22.6	10.7	33.3	2820
Moeciu de Jos		3.9	4.5	61.1	65.6	20.5	10.0	30.5	1940
Moeciu de Sus		8.9	4.8	63.8	68.6	15.5	6.9	22.4	2150
Fundata		4.6	4.3	61.2	65.5	18.2	11.7	29.9	1950
Sirnea		3.4	4.7	58.7	63.4	19.3	13.9	33.2	1440

Differences due to gender variability are also the same as in the studied adult population: more loops in women fingerprints and more whirls for the men.

Fingerprints – variability due to gender in the longeval sample

Gender	Hand	B	Lr	Lu	$\Sigma L$	W	WS	$\Sigma W$	No. of fingers
M	R n	13	9	14.6	155	61	31	92	260
	%	5.0	3.5	56.1	59.6	23.5	11.9	35.4	
	L n	13	7	164	171	49	27	76	
	%	5.0	2.7	63.1	65.8	18.8	10.4	29.2	260
	R+L n	26	16	310	326	110	58	168	520
	%	5.0	3.1	59.6	62.7	21.1	11.1	32.3	
	F	15	13	176	189	49	32	81	
	R n	15	13	176	189	49	32	81	
	%	5.3	4.5	61.7	66.3	17.2	11.2	28.4	
	L n	23	13	162	175	55	32	87	285
	%	8.1	4.5	56.8	61.4	19.3	11.2	30.5	
	R+L n	38	26	338	367	104	64	168	
	%	6.7	4.5	59.3	63.8	18.2	11.2	29.5	
M+F		64	42	648	690	214	122	336	1090
		5.9	3.8	59.4	63.3	19.6	11.2	30.8	

We must emphasise though the symmetrical aspect, meaning differences right – left, which is opposite in men as in women fingerprints. The right-left hand divergence in our longeval sample and in the adult population previously studied is shown below:

		B	Lr	Lu	$\Sigma L$	W	WS	$\Sigma W$
Adult population :	(M+F)	$l > r$	$r > l$	$l > r$	$l > r$	$r > l$	$r > l$	$r > l$
Longeval sample:	M	$l = r$	$r > l$	$l > r$	$l > r$	$r > l$	$r > l$	$r > l$
	F	$l > r$	$r \neq l$	$r > l$	$r > l$	$l > r$	$r = l$	$l > r$

Excepting bows, right – left hand differences in longeval men follows the same pattern as in the adult population studied in the region (6 villages: Sohodol, Simon, Moeciu de Jos, Moeciu de Sus, Fundata and Sirnea). However longeval women are on an opposite position when compared against the general population, and the longeval men, through the occurrence of ulnar loops (Lu) and mono-centric whirls (W) and also loop sum ( $\Sigma L$ ) and whirl sum ( $\Sigma W$ ). These differences are important not only because of the opposite disposal in men and women, but also by the significance of this divergence, as follows:

	%	B	Lr	Lu	$\Sigma L$	W	WS	$\Sigma W$	No. of fingers
M	R :	5.0	3.5	56.1	59.6	23.5	11.9	35.4	260
	L :	5.0	2.7	63.1	65.8	18.8	10.4	29.2	260
F	R :	5.3	4.5	61.7	66.3	17.2	11.2	28.4	285
	L :	8.1	4.5	56.8	61.4	19.3	11.2	30.5	285

### PALM PRINTS

Looking at the course of the principal palm radiants (A, B, C, and D) we observe that the lines C and D end generally in the same points in our sample and in the adult population previously studied. For the lines A and B the variance between right – left hand is much higher in the longeval sample as in the adult population.

The A line on the long life persons' right hand ends most frequent in 5' point, the difference from the left hand being of about 40 percents for men as for women. Such a high divergence between

the right hand (longeval men = 64.8%, longeval women = 60.3%) and the left hand (longeval men = 25.9%, longeval women = 24.1%) was noted in none of the previously studied populations.

A similar aspect can be observed for the line B, but with the highest frequency on the left hand and for 5'' ending point (long life men = 59.3%, long life women = 56.9%). Right hand values are obviously lower: long life men = 33.3%, long life women = 34.5%. Compared to the adult population the occurrence of left hand's line B ending in 5'' point is much greater in the longeval sample.

While the most frequent ending points for A and B lines are the one presented above, it is interesting to observe the situation on opposites hands of the same subject:

L	Line A				Line B			
	Men		Women		Men		Women	
	R	L	R	L	R	L	R	
3u -	- 5 = 16 times	3u -	- 5' = 14 times	5'' -	- 7 = 22 times	5'' -	- 7 = 16 times	
5' -	- 5' = 11 times	5' -	- 5' = 8 times	5'' -	- 5'' = 10 times	5'' -	- 5'' = 9 times	
4 -	- 5' = 7 times	4 -	- 5' = 9 times	5'' -	- 9 = 1 time	5'' -	- 5' = 1 time	
2 -	- 5' = 1 time	2 -	- 5' = 2 times					

We want to underline that in almost one third of the cases ending point 5' (line A) and 5'' (line B) are symmetrically disposed, meaning both hands in the same time (5'L - 5'R; 5''L - 5''R).

For the line A the predominant combination is right hand 5' - left hand 3u, appearing 16 times in men and 14 times in women. For the line B most common is the combination right hand 7 - left hand 5'', with an occurrence of 22 times in men and 16 times in women.

Besides the principal palm lines, we have also studied the disposal of the three flexing grooves of the palm.

What concerns the shape and path of these grooves, our results show that the Simian Line's rate of appearance is in the limits of variability present in the studied adult populations.

The transition type 1 (to the simian line) shows however a higher frequency in the longeval sample:

Shape of the palm grooves in the longeval population

Shape	MEN						WOMEN					
	Left		Right		L + R		Left		Right		L + R	
	n	%	n	%	n	%	n	%	n	%	n	%
Normal shape	31	57.4	41	75.9	72	66.7	36	62.1	39	67.2	75	64.6
Normal to type 1	8	14.8	4	7.4	12	11.1	7	12.1	9	15.5	16	13.8
Type 1	11	20.4	5	9.3	16	14.8	10	17.2	9	15.5	19	16.4
Type 1 to type 2	1	1.8	1	1.8	2	1.8	2	3.4	1	1.7	3	2.6
Type 2	3	5.5	3	5.5	6	5.6	1	1.7			1	0.9
Simian Line							2	3.4			2	1.7
No. of palms	54		54		108		58		58		116	

Shape and path structured the flexing groove of the thumb in five categories for the witness sample and four for the longeval sample:

Longeval sample:

	Continuos groove	Broken groove, with branches	Ulnar turned groove	Short groove	No. of palms
Men	17	28	6	3	54
	31,5%	51,8%	11,1%	5,6%	
Women	11	35	9	3	58
	18,9%	60,3%	15,5%	5,2%	

## Witness Sample

	Continuos groove	Broken groove, with branches	Ulnar turned groove	Short groove	Discontinue groove	No. of palms
Men	66	27	11	10	6	120
	55,0%	22,5%	9,2%	8,3%	5,0%	
Women	64	106	15	4	11	200
	32,0%	53,3%	7,5%	2,0%	5,5%	

In most cases the thumb groove starts in the first inter-digital space, turns around the tenar region of the palm, and ends at the base of the thumb, both for the witness as for the longeval sample. The figures above show that the longeval persons display much more frequent a broken groove with branches, because of the skin changes due to age. A shorter thumb groove is present in only 5% of both samples. The witness sample shows also 5% of discontinue thumb grooves.

## MEDICAL DATA

The age dispersal in our sample shows an almost equal number of 80 - 84 and 85- 89 subjects, both surpassing the over 90 group. However the later is well represented, with 23.08% of the total.

	80-84 years		85-89 years		over 90 years		TOTAL	
	N	%	N	%	N	%	N	%
Women	20	43.48	13	28.26	13	<b>28.26</b>	46	<b>50.55</b>
Men	20	44.44	17	37.78	8	<b>17.78</b>	45	<b>49.45</b>
TOTAL	40	<b>43.96</b>	30	<b>32.97</b>	21	<b>23.08</b>	91	

As expected, long life women outnumber men for the group 80-84 and over 90. We can observe an inversion of the figures for the group 85-89, men surpassing women by almost 10 percent. As we will see further this situation is associated with a brutal lowering of the physical status in women over 85, while men keep their physical status satisfactory. So we presume that an increased death rate of women between 85 and 89, due to the aggravation of the actual pathology, explains the situation. However, in the over 90 group, women are again more numerous than men, whose number decrease is abrupt. We can conclude that the critical point in the health status does generally arrive five years later for long life men than for women. We should highlight though, that the senior subject of the group was a 101 man, still active mentally and physically.

In order to determine the genetic impact in longevity we have investigated also the longe life relatives of the subjects. We shall emphasise that the longe life population we have studied is characterised by large families. Only three of the subjects had no brothers, and 32.97% had 1 to 4 brothers. 54.95% had 5 to 9 brothers and there are 8 subjects (8.79%) who had over 10 brothers.

As shown below, few subjects had no long life parent (18.68%), and the frequency is even lower for the over 90 group (14.29%). 81.3% of the subjects had at least one longeval parent almost half of them having both long life parents. The figure is impressive for the group over 90, 66.67% of these subjects having two long life parents.

More than a half of the subjects had one or more longe life brothers, and is rather common the situation of 3 or 4 longe life brothers in the larger families. We have encountered also a family with 6 (out of 6) longe life brothers.



		Long lifeparents			Long life brothers	
		None	Mother or Father	Mother and Father	None	One ore more
Total	N	17	32	42	37	54
	%	18.68	35.16	46.15	40.66	<b>59.34</b>
80-84 years	N	7	18	15	16	24
	%	17.50	45.00	37.50	40.00	<b>60.00</b>
85-89 years	N	7	10	13	11	19
	%	23.33	33.33	43.33	36.67	<b>63.33</b>
over 90 years	N	3	4	14	10	11
	%	14.29	19.05	<b>66.67</b>	47.62	<b>52.38</b>

Looking at this figures we shall also keep in mind that two World Wars occurred in the life time of the subjects and their families, with all the health problems they bring along (in the First World War the area was exposed to typhus and hepatitis epidemics). So we can conclude that the genetic factor is rather important in longevity, modulated of course by environmental conditions.

Alimentary habits of the region include mainly milk products, as the main occupation is the grazing (mostly sheep but also cows). Diet contains also vegetables, but not large varieties, the area being situated at high altitude with steep land lots, unfit for farming (mostly potatoes, cabbage, beans, corn). Meat is much less consumed, 1-2 times per week during the summer, more often in winter.

#### Diet by gender and age

WOMEN Diet	Total		80-84 years		85-89 years		over 90 years	
	N	%	N	%	N	%	N	%
Lactate	22	<b>47.8</b>	10	50.0	5	38.5	7	<b>53.9</b>
Lacto-vegetarian	12	<b>26.1</b>	4	20.0	4	30.8	4	<b>30.8</b>
Mixed	12	26.1	6	30.0	4	30.8	2	15.4
Total	46		20		13		13	

MEN Diet	Total		80-84 years		85-89 years		over 90 years	
	N	%	N	%	N	%	N	%
Lactate	22	<b>48.9</b>	11	55.0	6	35.3	5	<b>62.5</b>
Lacto-vegetarian	6	<b>13.3</b>	2	10.0	3	17.7	1	<b>12.5</b>
Mixed	17	<b>37.8</b>	7	35.0	8	<b>47.1</b>	2	<b>25.0</b>
Total	45		20		17		8	

Over 73% of the longeval women and over 60% of the men have a lactate and lacto-vegetarian diet. It is however impressive the fact that mixed alimentation, including meat, is more present in men (37.78%) than in women (26.09%). Also the lactate diet is almost general in the over 90 group, however 25% of the men in this group still having a mixed diet.

We have also analysed the general physical status of our longeval subjects, by gender and age, and also in correlation with the diet.

An important number of subjects have a good to satisfactory physical status: 50% of the long life women and 71.11% of the men. Generally long life men have a better health status then women. See only the 30.77 % of 84 to 89 women in bad shape compared with 5.88% men, at the same age. Despite that, women outnumber men at old ages. The seniors over 90 show a high rate of good and satisfactory physical status, especially for men (62.5%). Criteria for structuring physical status were the same for all age groups, including physical activity, capacity to take care of themselves, neurological and mental health (presence of depression, senility, Parkinson disease, etc.).

General physical status in long life persons

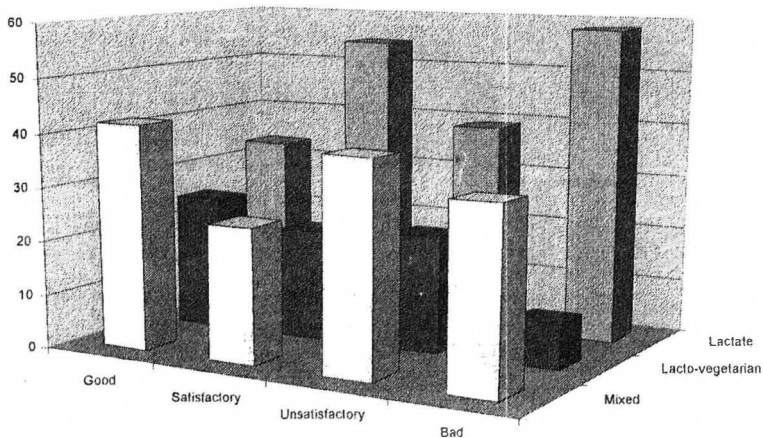
WOMEN	Total		80-84 years		85-89 years		over 90 years	
	N	%	N	%	N	%	N	%
Good	3	<b>6.5</b>	3	15.0	0	0.0	0	0.0
Satisfactory	20	<b>43.5</b>	11	55.0	4	30.8	5	<b>38.5</b>
Unsatisfactory	13	28.5	4	20.0	5	38.8	4	30.8
Bad	10	21.8	2	10.0	4	<b>30.8</b>	4	30.8
Total	46		20		13		13	

MEN	Total		80-84 years		85-89 years		over 90 years	
	N	%	N	%	N	%	N	%
Good	8	<b>17.8</b>	7	35.0	0	0.0	1	<b>12.5</b>
Satisfactory	24	<b>53.3</b>	9	45.0	11	64.7	4	<b>50.0</b>
Unsatisfactory	10	22.2	2	10.0	5	29.4	3	37.5
Bad	3	6.7	2	10.0	1	<b>5.9</b>	0	0.0
Total	45		20		17		8	

Correlation between diet and physical status is low (correlation factor 0.031), in all groups prevailing the lactate and lacto-vegetarian diet. We therefore presume that the dominance of this type of alimentation is due to local tradition and has little influence on longevity, at least in the studied sample.

Diet	Physical status							
	Good		Satisfactory		Unsatisfactory		Bad	
	N	%	N	%	N	%	N	%
Lactate	4	33.33	24	<b>54.55</b>	9	39.13	7	<b>58.33</b>
Lacto-vegetarian	3	25.00	9	<b>20.45</b>	5	21.74	1	8.33
Mixed	5	<b>41.67</b>	11	25.00	9	39.13	4	<b>33.33</b>
Total	12		44		23		12	
	12		44		23		12	

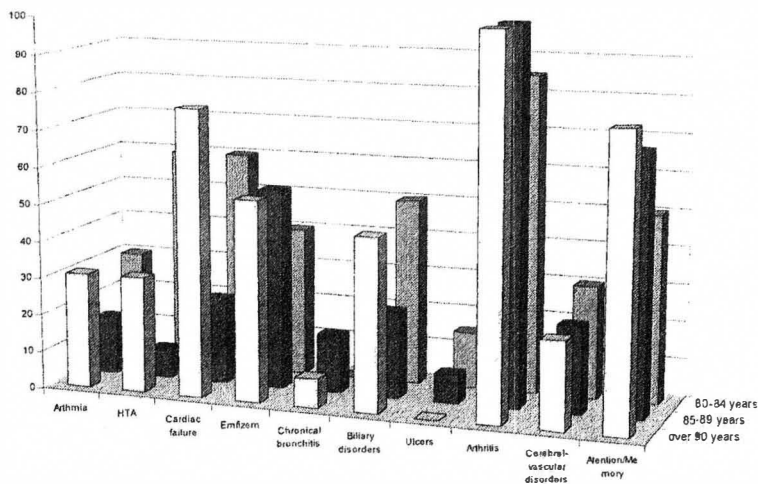
Physical status in correlation with diet



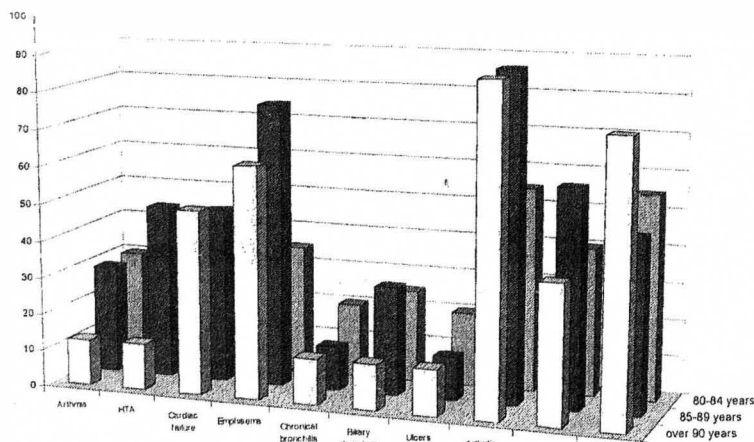
Clinical data was structured in two parts: antecedents (acute and chronic) and current pathology. We wish to emphasise that most of our longeval subjects – 83.5% – had no acute antecedents or very mild ones (mainly childhood diseases or work accidents). 38.5% of the subjects had also only mild chronic antecedents. Even in cases that presented rather severe clinical problems, these occurred only after the fifth decade of life. And this is the situation for a population that experienced wars and epidemics. Some of the long life persons we questioned had brothers and other relatives that died in the epidemics after First World War, while the subjects were not affected or had a mild form of the disease. Also some of the longeval men in the sample fought in both World Wars. This shows the importance of the biological terrain, both physiologic and psychological, in longevity.

Current pathology shows few important differences between men and women: a slightly higher frequency of hypertension and cardiac failure in the long life women sample compared to men, while emphysema, chronic bronchitis and ulcers prevail in the men sample. A more significant disparity appears for the biliary disorders and arthritis, which predominate in women. Cerebral-vascular disorders are much more frequent in men, especially at higher age groups.

Women- current pathology, by age



Men- current pathology, by age



In order to measure the main health aspects that identify our long life sample in the population we have tried to calculate a "biological age". We used a method elaborated by the Gerontology Institute in Bucharest, giving different scores for each ageing criterion by its importance and intensity. The most common, like wrinkles or baldness, have lower scores than the one that appear only at higher ages, like the gerontoxon.

We applied this method to our sample obtaining a mean "biological age" of 56.6. This corresponds to age 70-74 on the scale presenting the ageing of a larger population sample, as published by Dr. Alexandru Ciuca.

<b>56.6</b>	80-84 years	85-89 years	over 90 years	TOTAL
WOMEN	54.4	59.0	60.7	<b>57.45</b>
MEN	53.1	58.3	57.2	<b>55.77</b>

The above mentioned paper presents also three thresholds marking the ageing process: at 45-49 years, at 55-59 years and at 75. We observed in our long life sample that the abrupt increase of the biological age appears at 85 instead of 75. All this figures show once again that the ageing process is slower in long life persons.

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## APPEARANCE OF A LABIAL NOTCH IN MAXILLARY INCISORS: A POPULATION SURVEY

DAN TRAIAN IORDĂCHESCU

A labiogingival notch appearing on the enamel of maxillary central incisors seems to be a potential factor for compromised gingival and dental health. The objective of the survey was to describe the phenomenon and its prevalence in a random Romanian population. Five hundred eighty seven children with fully erupted permanent incisors were clinically examined. The appearance of the labiogingival notch on the enamel surface of the maxillary central incisors was determined. Two depth categories of the phenomenon were distinguished by probing. The possible differences in the prevalence of the labial notch appearance, between the sexes as well as between the right and left sides, were statistically evaluated. The prevalence of the labial notch on at least one incisor in the population examined was 5.3% (4.6% unilaterally and 0.7% bilaterally). No significant difference between the sexes regarding the appearance of this phenomenon was found. The shallow notch was similarly distributed between the right and left sides in both sexes. However, the deeper malformations appeared significantly more on the left side in boys ( $P < 0.04$ ) and in girls ( $P < 0.01$ ). The gingivae tended to follow the enamel contour; however, only in few cases was gingival inflammation or incipient caries diagnosed. It was concluded that the labio-gingival notch is not a rare phenomenon, and it should be given special attention to prevent possible damage to the dental and gingival tissues.

*Key Words:* Dental developmental defects, Gingival contour, Labial groove.

Kovacs (1971) in his systematic description of dental roots reported on a "fossacoronoradicular" anomaly. He noticed that in cases presenting with this feature the cemento-enamel junction "instead of showing a bend toward the crown as it generally does, was divided into two often unequal parts and showed at that place a hollow which was nearly always present in the crown and very often in the root."

The appearance of a similar coronal phenomenon was noticed by us on some maxillary central incisors when a group of school children was screened for orthodontic treatment. The irregularity appeared as a notch in the labial enamel surface near the gingival margin. The purpose of the present communication is to describe the clinical appearance of the labial gingival notch and its prevalence in a random Romanian population.

### MATERIALS AND METHODS

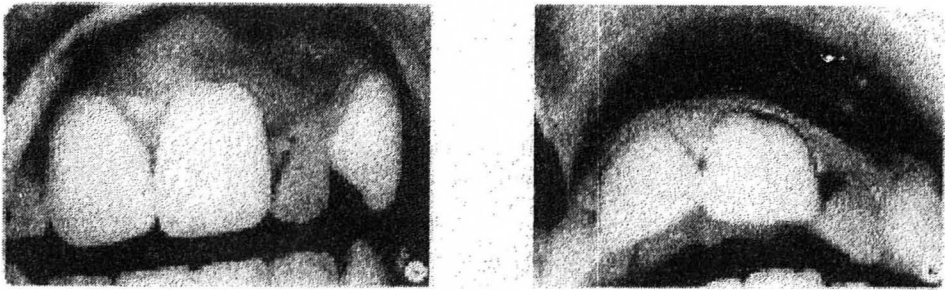
A random population of primary school children in the Bucharest school district was screened for orthodontic treatment. For the present study only children with fully erupted central permanent incisors were included. Three hundred ninety seven children with a total of 794 fully erupted permanent central incisors were examined. The examination was conducted in the classroom in normal daylight. A dental probe was used for the determination of subgingival buccal contour of the enamel. The presence of a notch was established when a depression in the buccal enamel surface at the gingival level could be detected by passing the probe from one side to the other.

Further, in borderline cases the determination regarding the presence or depth of the notch was established following examination of a second investigator. When a notch was encountered its depth was recorded as shallow or deep, as evaluated by inspection and probing.

The possible differences in the prevalence of the labial notch appearance, between the sexes and the right and left sides, were statistically evaluated. The chi-squared test and the McNemar test of symmetry were used.

Figure 1

The labial gingival notch on a left maxillary central incisor A: Frontal view B: Occlusal view



## RESULTS

The labiogingival notch appeared as a depression in the gingival area of the central maxillary incisor. Its depth varied from a shallow depression that could be identified mainly by probing to a deep groove. The gingival margin closely followed the enamel contour: it appeared almost normal in the case of the shallow notch (Fig. 1A,B), while in the case of a deep notch it acquired an irregular contour because the extension of the gingival tissue into the defect (Fig. 2). In some of the deep notches accumulation of plaque and external staining were observed. In two cases initial caries was detected in the notch.

The labial notch was found in 25 of the 397 children examined; thus the prevalence of the labial notch on at least one incisor was 6.3%. In 5.05% of those examined the notch appeared unilaterally, while in 1.25% it was bilateral (Fig. 3). The distribution of this feature according to sex is presented in Table 1. Statistical analysis utilizing the chi-squared test revealed no significant difference between the sexes regarding the appearance of this phenomenon.

The prevalence of the labial notch according to side and depth on individual teeth is presented in Table 2. The McNemar test of symmetry was applied to establish occurrence according to side (right or left) in children with unilateral notch. It was found that the incidence of the shallow notch was similar on the right and the left sides in boys and in girls. However, the deeper malformations occurred significantly more on the left side in boys ( $P < 0.05$ ) and in girls ( $P < 0.01$ ).

## DISCUSSION

Only scarce information regarding developmental groove-like irregularities on the labial aspect of the maxillary central incisors can be found in the literature. Kovacs (1971) in his chapter on dental root morphology mentioned some anomalies in the cemento-enamel junction of the maxillary central incisors. He described the coronoradicular fossa as a hollow appearing on the buccal aspect of the cemento-enamel junction, very often also noticed on the root in a more or less pronounced form.

Table 1

Prevalence of the Labial notch in the examined population according to sex

	Total	Normal	Notched
Boys	203	192	11
No.	100	92.8	5.4
Percent			
Girls	194	180	14
No.	100	92.8	7.2
Percent			
Total	397	372	25
No.	100	93.7	6.3
Percent			



Figure 2

Gingival contour in the case of a deep labiogingival notch

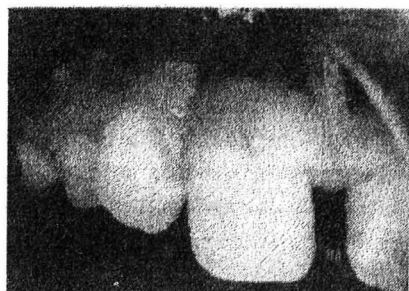


Figure 3

Bilateral appearance of a labiogingival notch



In his collection of 500 dry teeth, Kovacs found 15 (3%) teeth presenting with this phenomenon. Kogon (1986) in his description of the palatoradicular groove also mentioned the appearance of a similar groove on the labial surface of two teeth (in a collection of 1,382 extracted central incisors).

The prevalence of the labial gingival notch in our sample was higher (6.3%). This finding could be attributed to a difference in definition. The coronal appearance of the labial notch encountered in our survey was similar to that described by Kovacs (1971) and Kogon (1986). However, the radicular portion was not examined and complete similarity between the phenomena described in the literature and that described by us could not be established.

A possible genetic or ethnic factor could also affect the difference in prevalence. In our sample the children were from a Romanian population, whereas the teeth in Kogon's sample were from individuals from South Wales. The origin of the teeth described by Kovacs is unspecified. The fact that this phenomenon was not mentioned as a known feature in any of the widely used textbooks on dental anatomy may be caused by its extremely rare appearance in other populations.

When the occurrence of the labial notch was studied according to sex, no statistically significant difference was found. The previously mentioned reports did not refer to sex differences.

Comparison of the incidences on the right and left sides revealed a statistically significant preference for the left side for the deeper defects. No explanation for this finding can be offered; however, side preference has been shown for other developmental anomalies.

Table 2.

Prevalence of the labial notch according to depth, sides, and sex

	Total	Right incisor			Left incisor			Bilateral Shallow and deep
		Normal	Shallow	Deep	Normal	Shallow	Deep	
Boys	401	194	4	0	193	3	1	3+3
No.	100	48,37	0,99	0	48,12	0,74	0,24	1,49
Percent								
Girls	393	192	5	1	188	4	3	2+2
No.	100	48,37	1,27	0,25	47,83	1,01	0,76	1,01
Percent								
Total	794	386	9	1	381	7	4	10
No.	100	48,61	1,13	0,12	47,98	0,88	0,50	1,25
Percent								

No etiologic factor for this irregularity can be indicated. Trauma to the deciduous predecessor was considered as a possible etiologic factor. This, however, was looked into in a longitudinal survey of a group of children who encountered trauma to their primary incisors and who were reexamined again at the

stage of permanent dentition. No correlation was found in that study between the appearance of the labial notch and a previously encountered trauma to the deciduous dentition.

Coronal anatomy is considered as a significant factor for periodontal health; thus there could be a clinical importance to this feature: uneven enamel contour in the gingival region may increase the susceptibility to periodontal disease, while the lack of a self-cleansing effect in a subgingival notch renders this site susceptible to carious attack as well. In our clinical examination it was found that the gingival margin followed the contour of the enamel (Figs. 1-3). However, only in few cases was gingivitis or incipient caries found in the area of the notch. The low susceptibility to pathology may be explained by the young age of the examined subjects. It may well be that the incipient lesions can increase in number or become more pronounced with age if preventive measures like proper oral hygiene is not taken. It should be concluded, therefore, that when a gingival notch is encountered the patient should be taught an efficient oral hygiene technique, and regular check-ups should include this particular area, which might serve as a "locus minore resistentia" (point of least resistance).

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## MICROEVOLUȚIA ÎN ERUPȚIA DENTIȚIEI PERMANENTE

ANDREI KOZMA, CRISTIANA GLAVCE

Le phénomène de microévolution de l'éruption dentaire est mis en évidence aussi sur les populations d'enfants de notre pays.

Dans la présente étude on canalise la modification de l'âge de l'éruption dentaire définitive dans l'intervalle 1963-1992 dans les cadres de cinq lots : 1962, 1970, 1982, 1986, 1992 – qui s'encadrent dans 3 étapes de développement des conditions socio-économiques : précaires avec des tendances d'amélioration (1950-1970), bonnes (1970-1980), avec des tendances de dégradation (1985-1992).

Il a été constaté que dans le cadre de l'éruption définitive toutes les groupes de dents ne réagissent pas de la même manière. Les dents plus fortement conditionnées du point de vue génétique (les incisives centrales et latérales, les molaires de 6 ans) ne présentent pas de grandes modifications entre les côtés étudiées. Les dents avec un conditionnement mésologique plus fort (canines, premier et second prémolaire, second molaire) présentent une accélération en 1970 par rapport à 1963, qui s'amplifie en 1982 et 1986, mais en 1992 on constate une stagnation, même un léger retard.

L'influence de la baisse du niveau de vie à la fin de la huitième décennie et au début de la neuvième décennie est le mieux mise en évidence dans l'éruption dentaire définitive, par l'extension de l'étude dans le temps de la plaque d'éruption dentaire du second molaire.

Prin analiza materialului bibliografic referitor la variabilitatea erupției dentare s-a ivit posibilitatea comparării datelor obținute de la subiecții studiați de noi cu cele ale altor autori realizate pe alte populații de copii din țară și străinătate.

Au existat dificultăți de evaluare create de faptul că unii cercetători au considerat erupție momentul primei apariții a oricărei părți a coroanei dintelui din gingie, în timp ce alții au așteptat erupția întregii coroane dentare, existând astfel un interval considerabil între cele două stadii eruptive. Totuși vârsta dentară este un mod util de evaluare a maturității și este frecvent folosită în combinație cu vârsta scheletală în diverse domenii.

Erupția dentiției permanente a omului comparativ cu maimuțele superioare se realizează la vârste diferite ca o consecință a vârstei diferite de maturizare ontogenetică. Vârsta de maturizare a macacusului și a cimpanzeului este de 5 ani comparativ cu cea a omului este foarte rapidă ceea ce explică și debutul erupției la vârste mai inferioare. (tab.1A) Creșterea și copilăria întârziată a omului datorită protecției se poate corela cu erupția tardivă și durata mai lungă a vieții.

Pentru populația din țara noastră din anul 1963 față de cea nord americană din anii 1982 și 1992 fără a ține seama de sex avem o erupție dentară timpurie, la toate grupele dentare la subiecții populației din valea Bistriței, dar se încheie mai târziu. Procesul se poate explica prin condițiile diferite de viață a populațiilor de copii la care se poate adăuga o condiționare genetică mai marcată, copiii provenind dintr-o populație endogamă. (tabel 1B)

Tabel 1

Intervalele erupției dentiției permanente la om și maimuțele superioare. (date din literatura de specialitate)

A. erupția dentiției permanente (date fără specificarea sexului și arcadei)

	IC ani	IL ani	C ani	P1 ani	P2 ani	M1 ani	M2 ani	M3 ani
Macac	2.7-2.8	3.0-3.3	4.4-4.5	3.8-4.2	3.8-4.2	1.7-1.9	3.5-3.6	6.7-7.6
Cimpanz	5.2-5.5	5.3-5.4	7.7-7.9	6.0-6.4	5.6-5.8	3.0-3.1	6.2-6.5	9.9-10.8
Om am.'65	6.7-7.3	7.7-8.6	10.6-11.6	10.2-11.6	11.0-11.4	6.3-6.5	11.9-12.7	18.8-19.8

## B. erupția dentității permanente în funcție de arcadă (fără specificarea sexului),

	IC ani	IL ani	C ani	P1 ani	P2 ani	M1 ani	M2 ani	M3
Amer.L.s/92	7-8	8-9	11-12	10-11	10-12	6-7	12-13	17-22
Amer.L.i/92	6-7	7-8	9-11	10-12	11-13	6-7	12-13	17-22
Am.SB s/87	7-8	8-9	11-12	10-11	10-12	6-7	12-13	17-21
Am.SB i/87	6-7	7-8	9-10	10-12	11-12	6-7	11-13	17-21
V.Bistr.s/63	5.9-8.9	6.8-10.3	8.8-13.6	8.7-11.8	8.9-12.8	5.1-7.7	12-14	16-25
V.Bistr.i./63	5.2-9.2	6.0-9.6	8.7-13.2	8.7-12.1	8.9-13.4	4.8-7.8	10.7-14	16-25

## C. erupția dentității permanente în funcție de sex și arcadă

	IC ani	IL ani	C ani	P1 ani	P2 ani	M1 ani	M2 ani	M3
AustraBs/66	6.9-8.5	6.1-9.8	9.5-13.7	7.1-13.2	8.7-14.0	5.1-7.9	10.3-14.4	
Aust.B.i/66	5.1-7.6	6.2-8.8	8.9-12.7	8.5-13.1	9.0-14.1	5.0-7.7	9.1-13.1	
Aust.F.s./66	5.9-8.0	6.6-9.3	8.8-13.2	7.9-12.6	8.3-13.9	5.0-7.6	9.11-3.1	
Austra.Fi/66	4.1-7.2	5.8-8.4	7.10-1.4	8.0-13.0	8.6-14.3	4.1-7.2	9.4-13.7	
Buc. Bs./92	6.7-8.4	7.4-9.3	9.8-12.8	8.2-12.1	9.6-13.1	6.1-6.9	11.6-13.7	18.3
Buc. Bi./92	6.3-7.2	6.8-8.6	9.5-12.1	9.4-12.8	10-13.2	5.3-6.4	11.4-13.3	18.2
Buc. Fs./92	6.6-7.7	7.3-9.2	9.9-12.6	9.4-11.0	9.7-12.7	5.7-6.4	10.8-13.2	19.1
Buc. Fi./92	6.5-6.8	6.7-7.9	9.4-11.1	9.4-11.4	9.8-13.2	5.6-6.5	10.8-12.7	18.8

F=fete B=băieți i=arcada inferioară s=arcada superioară  
[Firu/62 Schultz/65 Gates/66 Stewart-Barker/82 Losch/92 Buc./92]

Același lucru putem constata și la compararea datelor noastre cu cele obținute din studiul efectuat asupra copiilor australieni, menționând faptul că fetele sunt și mai avansate ca băieții.(tab.I C)

La lotul nostru, comparat cu cel din Valea Bistriței, în general se constată un retard de începere a erupției dar concomitent cu o tendință de reducere a intervalului de erupție.

La dentiția secundară apare un dimorfism manifestat prin precocitatea erupției dentare a fetelor față de băieți, asemănătoare cu diferențele existente în maturizarea scheletală. Factorii ce influențază maturația scheletală și erupția dentară, sunt similari cu cei ce controlează creșterea.

În continuare am urmărit și comparat datele obținute de colectivul din Iași în 1970 și 1986, cele din Banat în 1982, comparativ cu populația de copii a municipiului București din 1992. Din punct de vedere al mediului urban / rural se pot compara datele obținute de colectivul din Iași 1970 și București luând în considerare și cel din Valea Bistriței, Banatul oferindu-ne o analiză orientativă a procesului eruptiv.

Nu s-a stabilit un tipar genetic ferm, totuși există diferențe rasiale ale erupției dentare. De asemenea există un dimorfism sexual, dinții erupând în medie cu câteva luni mai devreme la fete.

Erupția dentară la europeni și la americanii albi este mai târzie decât la indienii americani, asiatici și afro-americani. Aborigenii australieni au erupția dentară cea mai precoce, în special la nivelul molarului trei (M3) care poate să erupă de la vârsta de 13 ani, într-un procent foarte ridicat față de alte rase.

Tabel 2A.

Variabilitatea erupției dentare în funcție de sex și arcadă, comparativ cu date din literatură

BĂIEȚI		IC	IL	C	P1	P2	M1	M2	M3
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## arcada superioară

1952	Bantu	6.9	8.1	10.7	10.0	10.9	5.4	11.3	
1959	Anglia	7.5	8.6	11.7	10.5	11.4	6.5	12.6	17-25
1964	Austral.	7.1	8.2	11.4	10.3	11.0	6.3	12.1	
1964	Franța	7.1	8.4	11.8	10.6	11.3	6.3	12.5	17-25
1965	Anglia	7.3	8.4	11.3	10.3	11.2	6.2	11.9	
1971	China	7.4	8.6	11.3	9.9	10.7	6.3	12.2	
1975	Gambia	7.4	8.6	11.4	10.4	11.3	5.9	11.9	
1970	Iași antr	7.8	8.10	12.8	10.9	11.8	6.8	13.2	
1982	Banat	7.6	8.8	10.5	9.6	9.11	7.0	10.6	
1992	Buc.	7.4	8.7	11.3	10.2	11.3	6.5	12.6	18.3-

## arcada inferioară

1952	Bantu	5.8	6.9	10.3	10.2	11.0	5.4	11.2	
1959	Anglia	6.5	7.8	10.7	11.1	11.5	6.4	11.9	17-25
1964	Austral.	6.2	7.4	10.6	10.1	11.7	6.2	11.8	
1964	Franța	6.3	7.3	10.7	10.8	11.5	6.4	12.2	17-25
1965	Anglia	6.5	7.6	10.4	10.8	11.8	6.1	11.6	
1971	China	6.5	7.4	10.4	10.4	11.2	6.4	11.3	
1975	Gambia	6.2	7.5	10.6	10.7	11.4	5.7	11.6	
1970	Iași antr	6.7	8.1	11.5	11.6	12.2	6.6	12.8	
1982	Banat	7.0	7.1	10.0	9.7	9.11	7.0	10.5	
1992	Buc.	6.7	7.7	10.8	11.1	11.6	5.9	12.3	18.2-

Tabel 2 B

Variabilitatea erupției dentare în funcție de sex și arcadă, comparativ cu date din literatură

FETE	IC	IL	C	PI	P2	M1	M2	M3
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## arcada superioară

1952	Bantu	6.5	7.8	10.2	9.6	10.3	5.3	10.8	
1959	Anglia	7.1	8.2	11.0	10.1	11.1	6.4	12.1	17-25
1964	Austral.	6.1	7.9	10.8	9.10	10.8	6.1	11.9	
1964	Franța	7.0	7.8	10.5	10.1	10.7	6.3	11.9	17-25
1965	Anglia	6.9	8.4	10.7	10.4	10.9	6.1	11.7	
1971	China	7.2	8.2	10.2	9.6	10.5	6.3	11.8	
1975	Gambia	7.1	8.1	10.5	9.8	10.6	5.8	11.2	
1970	Iași antr	7.6	8.8	11.5	10.0	11.6	7.1	12.8	
1982	Banat	7.5	8.7	10.2	9.9	9.9	7.2	10.4	
1992	Buc.	7.1	8.2	11.2	10.2	11.2	6.1	12.0	19-

## arcada inferioară

1952	Bantu	5.8	6.4	9.5	9.6	10.7	5.10	10.5	
1959	Anglia	6.2	7.4	9.8	10.4	11.3	6.1	11.5	17-25
1964	Austral.	5.1	6.1	9.5	10.3	11.1	5.11	11.3	
1964	Franța	6.1	7.1	9.7	10.0	10.9	6.2	11.5	17-25
1965	Anglia	6.2	7.4	9.6	10.3	11.2	5.10	11.3	
1971	China	6.3	7.1	9.5	9.4	10.4	5.6	10.9	
1975	Gambia	6.1	7.1	9.7	9.9	10.7	5.6	10.9	
1970	Iași antr	7.2	7.9	10.3	10.1	11.7	6.1	12.0	
1982	Banat	7.0	7.6	9.1	9.9	10.0	7.1	10.2	
1992	Buc.	6.6	7.3	10.2	10.4	11.5	6.1	11.8	18.8-

Se poate constata totuși o variabilitate mică a erupției dentare pe țări, indiferent dacă este țară dezvoltată sau nu.

În urma studiului lotului analizat de noi (1992) se poate observa că modificările față de datele culese de colectivul de antropologie din Iași (1970) nu sunt mari observându-se doar o tendință de accelerație - dar trebuie menționat că perioada respectivă este inclusă în perioada de accelerație generală a creșterii și dezvoltării, care are un vârf între 1975-1980.

Față de datele mai recente din Banat (1982), culese într-o perioadă cu condiții încă bune de dezvoltare, se constată o retardare a erupției la eșantioanele noastredatorată probabil și omogenității din punct de vedere al condițiilor de mediu economico-culturale ale seriilor din Banat.

Tabel 3.

Variabilitatea erupției caninilor, premolarilor primi și secunzi și a celui de-al doilea molar permanent, în funcție de sex și arcadă, comparativ cu date din literatură.

dinți	CANINI		PREMOLAR 1		PREMOLAR 2		MOLAR 2	
	fete	băieți	fete	băieți	fete	băieți	fete	băieți

## superior

Bantu /52	10.2	10.7	9.6	10.0	10.3	10.9	10.8	11.3
Austral /64	10.8	11.7	9.10	10.3	10.8	11.0	11.9	12.1
Franța /65	10.5	11.1	10.1	10.5	10.7	11.3	11.9	12.5
Anglia /65	11.3	11.6	10.1	10.5	11.1	11.4	12.1	12.5
Anglia /65	10.7	11.3	10.4	10.3	10.9	11.1	11.7	11.9
Rio Jan. /69	10.7	11.2	10.4	11.9	11.5	11.5	12.1	12.2
Anglia /69	11.0	11.8	10.1	10.6	11.5	11.1	12.7	12.2
Franța /70	10.6	11.1	10.1	10.7	11.4	10.8	12.6	11.1
China /71	10.2	11.3	9.6	9.8	10.5	10.7	11.8	12.2
Cleveland /75	10.6	11.5	9.1	10.5	11.1	10.5	12.1	11.7
Denver /75	11.1	11.8	10.8	11.0	12.1	11.1	12.8	12.5
Gambia /75	10.5	11.4	9.8	10.3	10.6	11.3	11.2	11.9
Iași antr. /70	11.5	12.8	10.0	10.9	11.6	11.8	12.8	13.2
Banat Ro /82	10.2	10.5	9.9	9.6	9.9	9.11	10.4	10.6
Iași Ro /86	10.7	11.3	9.3	9.6	10.5	10.2	11.1	11.8
<b>Buc. Ro /92</b>	11.2	11.3	10.2	10.2	11.2	11.3	12.0	12.6

## inferior

Bantu /52	9.5	10.3	9.6	10.2	10.7	11.0	10.5	11.2
Austral /64	9.5	10.6	10.3	10.1	11.1	11.7	11.3	11.8
Franța /65	9.7	10.7	10.0	10.8	10.9	11.5	11.5	12.1
Anglia /65	9.8	10.7	10.4	11.1	11.3	11.5	11.5	11.9
Anglia /65	9.6	10.4	10.2	10.8	11.2	11.8	11.3	11.6
Rio Jan. /69	10.2	9.7	10.1	9.1	11.8	11.5	12.5	12.1
Anglia /69	10.9	9.1	11.1	10.5	11.8	11.4	12.0	11.7
Franța /70	10.8	9.8	10.9	10.0	11.6	10.1	12.0	11.6
China /71	9.5	10.4	9.4	10.4	10.5	11.2	10.9	11.3
Cleveland /75	10.9	9.7	11.0	10.1	11.1	10.1	11.1	10.1
Denver /75	10.1	10.0	11.0	10.7	12.0	11.7	12.5	11.1
Gambia /75	9.7	10.6	9.9	10.7	10.6	11.4	10.9	11.6
Iași antr. /70	10.3	11.5	10.1	11.6	11.7	12.2	12.0	12.8
Banat Ro /82	9.1	10.0	9.9	9.7	10.0	9.11	10.2	10.5
Iași Ro /86	10.3	9.6	10.0	9.7	10.9	10.6	11.5	10.1
<b>Buc. /92</b>	10.2	10.8	10.4	11.1	11.5	11.6	11.8	12.3

băieți

fete

Pentru grupele de dinți a căror erupție este influențată în mai mare măsură de condițiile de viață, retardul pentru 1992 față de Iași în 1986 se constată în special pentru băieți, totdeauna mai sensibili și care răspund primii modificărilor de mediu.

În scopul vizualizării diferențelor microevolutive în erupția dentității permanente la populațiile de copii din țara noastră, s-a recurs la compararea grafică (fig.1 - fig.4) a rezultatelor obținute de diverși autori autohtoni la date diferite.

Variabilitatea este dată de o condiționare genetică puternică care totuși respectă o ușoară direcționare spre accelerare începând de la populația de copii din Valea Bistriței spre cei din București; tendința de accelerare existând în genomul uman.

Variațiile de erupție în cadrul grupului de dinți puternic condiționați genetic (incisivii centrali, laterali și molarul de 6 ani) la eșantioanele luate în discuție este în cadrul intervalului de  $\pm 6$  luni, neremarcându-se nici accelerare nici retard. Este și motivul pentru care colectivul din Iași (1986) nu se mai ocupă de studiul

acestora, acordând o atenție sporită celorlalte grupe dentare care sunt condiționate mezologic (caninul, premolarii și molarul secund). La aceste grupe variabilitatea admisă este cuprinsă între 10-12 luni.

Ținând cont de variabilitatea normal admisă, pentru aceste grupe de dinți se constată următoarele:

- *Caninul* la băieți prezintă o marcată accelerație între 1963 și 1970 dar trebuie făcută observația că populația anului 1963 este rurală pe când cea din 1970 este urbană, fiind astfel posibil ca această diferență să fie datorată nu numai accelerației ci și condițiilor mezologice.

Între loturile de copii 1970 și 1986, ambele din mediul urban, se menține accelerația mai sus menționată în erupția caninilor. În schimb pentru lotul de copii din București (1992) se poate considera o stagnare a accelerației, pentru canin, deoarece avem aceleași valori medii ca la eșantionul 1970 Iași nemaievidențiindu-se accelerația observată la eșantionul din 1986.

- *Primul și al doilea premolar* prezintă o accelerare între 1963-1986, în timp ce lotul din București se plasează între nivelul atins în 1970 la Iași și cel din 1963 în localitățile de pe Valea Bistriței.

- *Molarul secund* are la fel aceeași eșalonare, ca celelalte grupe de dinți analizate anterior, cel mai mare retard fiind observabil pe arcada superioară. Pe arcada inferioară situația este aceeași la toate grupele dentare din categoria celor mezolabile dar, variabilitatea este mai mică.

Tabel 4

Microevoluția erupției dentiției permanente între 1963-1992

**arcada maxilară**

BĂIEȚI		IC	IL	C	P1	P2	M1	M2	M3
1970	Antr.Iași	7.8	8.10	12.8	10.9	11.8	6.8	13.2	
1963	V.Bistr.	7.4	8.5	11.2	10.3	10.9	6.4	11.0	
1982	Banat	7.6	8.8	10.5	9.6	9.11	7.0	10.6	
1986	Iași			11.3	9.6	10.2		11.8	
1992	Buc.	7.4	8.7	11.3	10.2	11.3	6.5	12.6	18.3-

**arcada mandibulară**

BĂIEȚI		IC	IL	C	P1	P2	M1	M2	M3
1970	Antr.Iași	6.7	8.10	11.5	11.6	12.2	6.6	12.8	
1963	V.Bistr.	7.2	7.8	10.10	10.4	11.2	6.3	12.4	
1982	Banat	7.0	7.1	10.0	9.7	9.11	7.0	10.5	
1986	Iași			9.6	9.7	10.6		10.1	
1992	Buc.	6.7	7.7	10.8	11.1	11.6	5.9	12.3	18.2-

**arcada maxilară**

FETE		IC	IL	C	P1	P2	M1	M2	M3
1970	Antr.Iași	7.6	8.8	11.5	10.0	11.6	7.1	12.8	
1963	V.Bistr.	7.4	8.6	11.2	10.3	10.9	6.4	11.0	
1982	Banat	7.5	8.7	10.2	9.9	9.9	7.2	10.4	
1986	Iași			10.7	9.3	10.5		11.1	
1992	Buc.	7.1	8.2	11.2	10.2	11.2	6.1	12.0	19-

**arcada mandibulară**

FETE		IC	IL	C	P1	P2	M1	M2	M3
1970	Iași antr	7.2	7.9	10.3	10.1	11.7	6.1	12.0	
1963	V.Bistr.	7.2	7.8	10.10	10.4	11.2	6.3	12.4	
1982	Banat	7.0	7.6	9.1	9.9	10.0	7.1	10.2	
1986	Iași			10.3	10.0	10.9		11.5	
1992	Buc.	6.6	7.3	10.2	10.4	11.5	6.1	11.8	18.8-



Figura 1

Microevoluția erupției dentare permanente la fete arcada maxilară

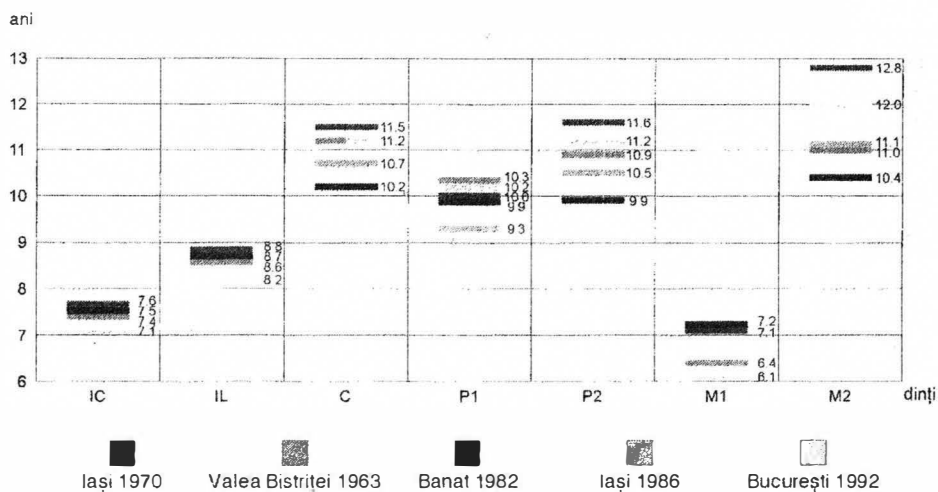


Figura 2

Microevoluția erupției dentare permanente la fete arcada mandibulară

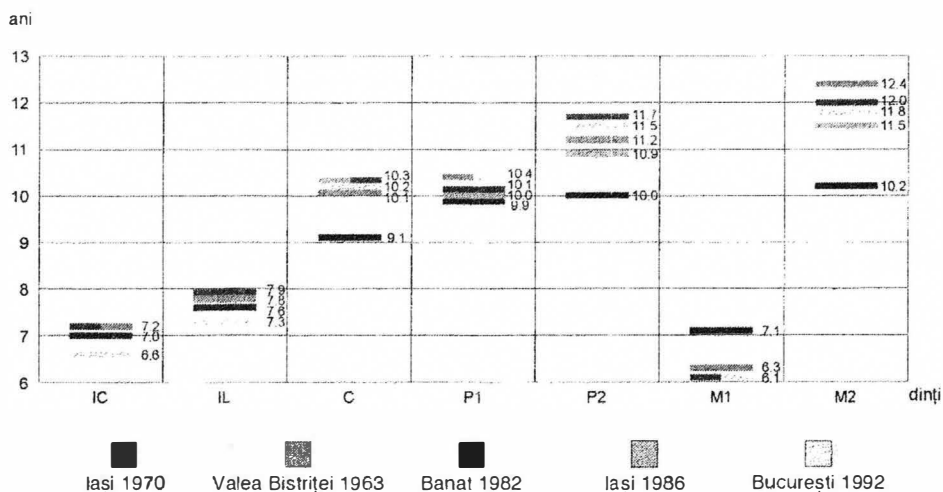
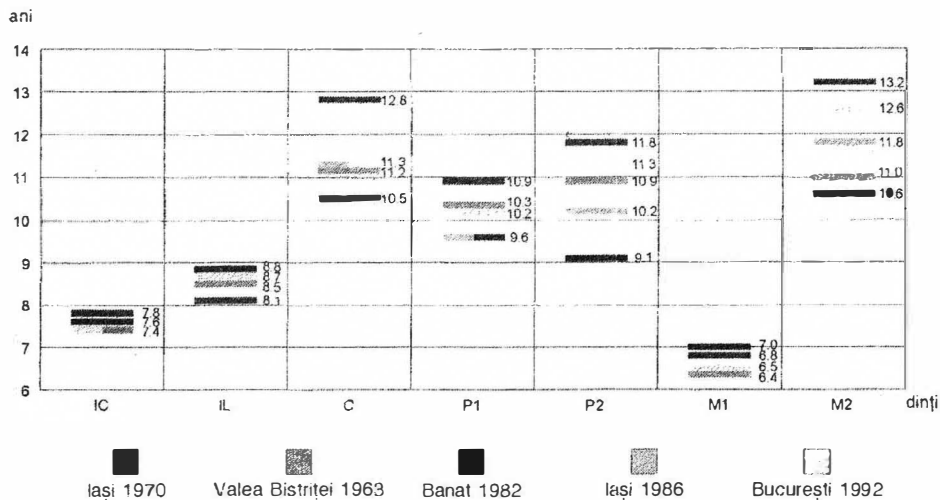


Figura 3

Microevoluția erupției dentare permanente la băieții arcada maxilară







## DECELEMENT ET CARACTERISATION ANTHROPOLOGIQUE DE MODELES SOMATIQUES EVOLUTIONNAIRES PROVENUS DU PALEOLITHIQUE SUPERIEUR DANS LA POPULATION DU TERRITOIRE D'ETHNOGENESE ROUMAINE DES CARPATHES OCCIDENTAUX DE LA ROUMANIE

CANTEMIR RISCUTIA, IRINA IOANA RISCUTIA, LUCIA PALTANEA,  
ANGELA PETRESCU, LIA IVAN

Afin de caractériser le profil anthropologique de la population roumaine des Carpathes Occidentales, ayant une continuité historique prouvée par des recherches de la Préhistoire, nous avons entrepris une investigation anthropologique intensive sur un échantillon d'environ 6.000 personnes adultes provenant de 25 communautés rurales. L'examen descriptif a été effectué à l'aide d'un registre somatoscopique de conception originale qui nous a permis d'établir des relations dimensionnelles entre les données somatométriques classiques et l'observation objective. Ces résultats de même que les informations morphologiques, généalogiques photostéréométriques (C.R. et I.R.), confirment l'homogénéité anthropologique de cette population montagnarde, relativement isolée du p.d.v. géographique, produite d'une cohabitation millénaire. Nous pouvons aussi conclure interprétant les données des analyses statistiques qu'on peut déceler quelques modèles évolutionnaires plus pertinents tels que Brünn-Predmost, Combe Cappellet et Crômagnon-Oberkassel. Ces structures morphologiques archétypales se sont imposées dans l'Histoire anthropologique de l'Europe depuis le Paléolithique Supérieur.

Notre recherche constituant une démarche taxonomique peut servir aussi comme un auxiliaire utile dans le domaine de l'identification médico-légale.

The old and recent historical conjuncture, which focuses the attention of the specialists from the historical and anthropological domains, as well as of the public opinion about the Romanian population of Transylvania, have determined a concentration of the organized anthropological researches, especially those which concern the human habitations of the Western Carpathians. It represents by its isolated characteristics, a refuge and survival zone, and gives the most valid anthropological information, able to prove the origin and continuity of that population. This topic was imposed because the West Transylvania region was the main center of the Dacian and Dacian-Roman populations (being their refuge territory in the mountainous habitat) and at the same time of ethnogenesis, ethnic continuity and also of non-interrupted conservation of a high national conscience.

The autochthonous population of the Western Carpathians was subject, during several historical periods, of repeated aggressions. These were caused by the underground resources (gold, silver), which were temptations that attracted, along millennia, foreign domination, more or less persistent, culminating with the Roman one, which was decisive for the formation and the perpetuation of the Romanian ethnos.

Our anthropological team had studied the following ethnographical areas (fig. 1):

- Aries basin, including the Mot County;
- White Cris basin, including the Zarand County;
- Black Cris basin, including the Bihor County;

We have studied about 22 communities, that means more than 6,000 people, men and female. During several anthropological expeditions in the Western Carpathians regions, we could establish the ethnic-demic effects, due to the settling of a Transylvanian demic substratum above other older autochthonous population.

For the Romanian communities studied in this paper the authors selected different anthropological and historical criteria. These were optimal, satisfying the theoretical prerequisites of independance and representativity of the subjects we have analyzed. These people were studied in accordance with an intensive anthropological programme, which included the following methods:

- somatometry;

- somatoscopy;
- fotostereotomy (photostereotomy);
- genealogical tables (individual);
- genealogical tables extracted from the archives, when they existed.

For each subject about 300 anthropological data have been taken into account.

The purpose of the somatometrical intensive research was to obtain some characteristic parameters of the population, including average values of the anthropometric data, as well as of the statistical indicators, like the correlation ratio among these somatometric dimensions.

These conclusions allowed the construction of a somatological image.

Such images are specific to each community, depending on the simultaneous presence, mathematically demonstrated, of some complexes of characters or of some certain kind of mathematical relations with the set of somatometric features of the group.

The identification of these characters (as many as possible) offers a base for the application of those analyses or discriminatory examinations (for instance the identification of descendants), where the studied characters must comply with the condition of not being correlated with the other characters involved.

The exhaustive analysis of the correlation ratios of the somatometric characters, continued with the construction of cladograms or dendrograms, ( fig.4, fig. 5) established the relationship degrees between the human communities.[5]

The cladograms configuration shows a genetical relationship among the human communities of the Western Carpathians villages. That means, there were not important foreign mixtures, which could modify the genetic composition of those populations.

Even more, the crest of the Bihor Mountains didn't genetically separate the two historical regions: on one hand the Mot County and the Zarand County, and on the other one the Bihor territory. This fact proved that the genetic influences were realized through the valleys as well as mountain roads. This allowed to establish periodical contacts among them encouraging profound human contacts.

Speaking of such contacts, we have to mention as an important factor of genetic exchange, the mixture effect due to the traditional popular ethnographic meetings from those regions, such as: "The maids' fair from the Gaina Mountain" and another traditional fair, like the "Data from Calineasa".

Even if the "genetic renews" became less significant and important in time, we must not forget that the anthropological profile of the population studied by us, is the result of a millenary mixture, assured by the repeated annual meetings, of these genetic contacts.

The anthropological aspects of those population, pleads for the persistence of some basic anthropological components, very intensely mixed.

We avoid in this context the denomination of race or anthropological type. We prefer to use the term of structural variants, which are the result of the predominance of some archaic models, to which had been added some morphological components, resulted from subsequent mixtures and evolution.

The anthropological composition of a certain population becomes a coherent picture of a structural special analysis. In this picture we can notice the markers of the historical evolution.[1] Therefore, on the territories with an efficient natural protection, we established the existence of paleoeuropid components which, in the European anthropology are called Brünn-Combe Capelle and Crô-Magnon-Oberkassel. These two structural models are the first ones actually found in the European human history. Their presence in the more protected refuge regions of the Western Carpathians, in less mixed variants, plead for the archaic features of those populations, which went back up to the Upper Paleolithic. By subsequent penetrations, they had included also other structural human components.

In order to situate the Romanian genuine population from the Western Carpathian Mountains in the anthropological structural context of the European Continent, we could draw out some anthropological structural models, which were analyzed by the table of contingency, in order to be introduced in a statistical point of view. In this way, we had statistic results for the two oldest European structures attested in the anthropological history of Europe from the Upper Paleolithic to the Mesolithic period up to the present. This two European old variants, from the historical and evolutionary point of view, are known as Brünn-Combe Capelle and Crô-Magnon-Oberkassel (and could be observed even today in the alpin regions of Europe, up to the extreme Scandinavian North).[3]

These anthropological structures predominant in the Western Carpathian and neighboring territories, certify the oldness and genuity of this population and a later affiliation of the north-mediterranean and of the alpin-dinaroid structures in various proportions.

It seems that also other European migratory populations as the Gots, or Slaves enriched the basic structure of the Brinn-Crô-Magnon with nordic components. The same process took place also through the migration of southern population like the dinaric-mediterranean forms.

We especially chose the Romanian people from the Western Carpathians for study, because they were minimally affected by the Eastern and Southern migrations at the beginning of the first millenium.

The alpine variant which is considered by the anthropologists as a result of the adaptation of the Crô-Magnid structure (fig. 2, fig. 3) to a milder climate is present in the Western Carpathians.

The dinaric variant is probably the result of a mountainous migration of population from the South Europe.

The Mediterranean variant, as a component of the Neolithic migration became stronger after the Roman colonization. Thus, in the gold centers ABRUD and ROSIA MONTANA, the Mediterranean-dinaric variants are more frequent and more characteristic.

The northern variant is a result of the migration of the Indo-European populations, Thracic-Dacians, Celtic and Germanic communities and later, of the Slavic ones.[4]

We have considered of a great heuristical interest the comparative study of the populations situated in the Central European area, that means between the Carpathians and the Central French Massive, also including Austria and South and Central Germany territory.

The ethnic-anthropological-geographical characteristics of this areal present a lot of common features. These prove the local evolution, not only similar but also, organically corresponding through the ethnic evolutions in analogical and homological circumstances.

An overview above the intra- and peri- mountainous zone of Europe, permitted us a profound observation of the typogenesis and the structural evolution of the continental European populations in spite of the linguistic barriers.

This is a fact that confirmed us once more the evolution in time and space of certain populations not very different from the anthropological point of view of the Romanian people.

## CONCLUSIONS

1. The population from the villages situated in the Ariesul Mare, Ariesul Mic and Crisul Alb basins, which were the object of the present study are characterized by an anthropological polytypy, in which are included, according with the frequency of their appearance, the following components [2 ]:

- a) The eurimorphic type, partly, or extremely gracilized (Crô-Magnon, alpine).
- b) The leptomorphic type (old, partly, or extremely gracilized (Brünn-Combe Cappelle-Trönder;
- c) The nordic leptomorphic type, reminiscence of the Neolithic populations emigrated (Danubian) or of the Indo-European populations (The "Corded" type);
- d) The mixomorphic type of South-Eastern origin (Dinaric);
- e) The mixomorphic type of North-Eastern origin (Eastern Baltic and Neodanubian) or Easteuropid;
- f) The leptomorphic or Southern origin (Mediterranean).

Sporadic features of another provenience (Central Asia or Inner Asia) are less frequent.[1 ]

2. The presence of the old eurymorphic and of the old leptomorphyc types in relatively isolated zones pleads for their local origin and continuity.

3. The presence of the mentioned forms in the regions which are far from the gold exploitations, accounts for a continuity of a very ancient population, because the Dacian ethnic group had as mentioned before main features such as two anthropological components, the robust eurimorphyc Crô-Magnid and the robust leptomorphyc local one (Brünn-Combe Cappelle).

4. The presence in the region of gold exploitation of the Dinaric and of the Mediterranean types, somatologically attested at Bucium, Carpinis, Sohodol and Bucuresci pleads for a continuity of a population with Dalmatian-Epirotic elements, collonized there by the Romans, for mining.

5. If the aboriginal population from the Western Carpathians would left their terittories retiring to the Balkanic Peninsula, together with the Roman administration, an infiltration of the Romanians during the Middle Ages, would not be able to reconstruct a geographical distribution of the anthropological variants in the different subzones of the Western Carpathians, which are in accordance both with the historical data and with the estimated distribution resulting from our data.

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Figure 1

Ethnographical areas studied in Roumanian

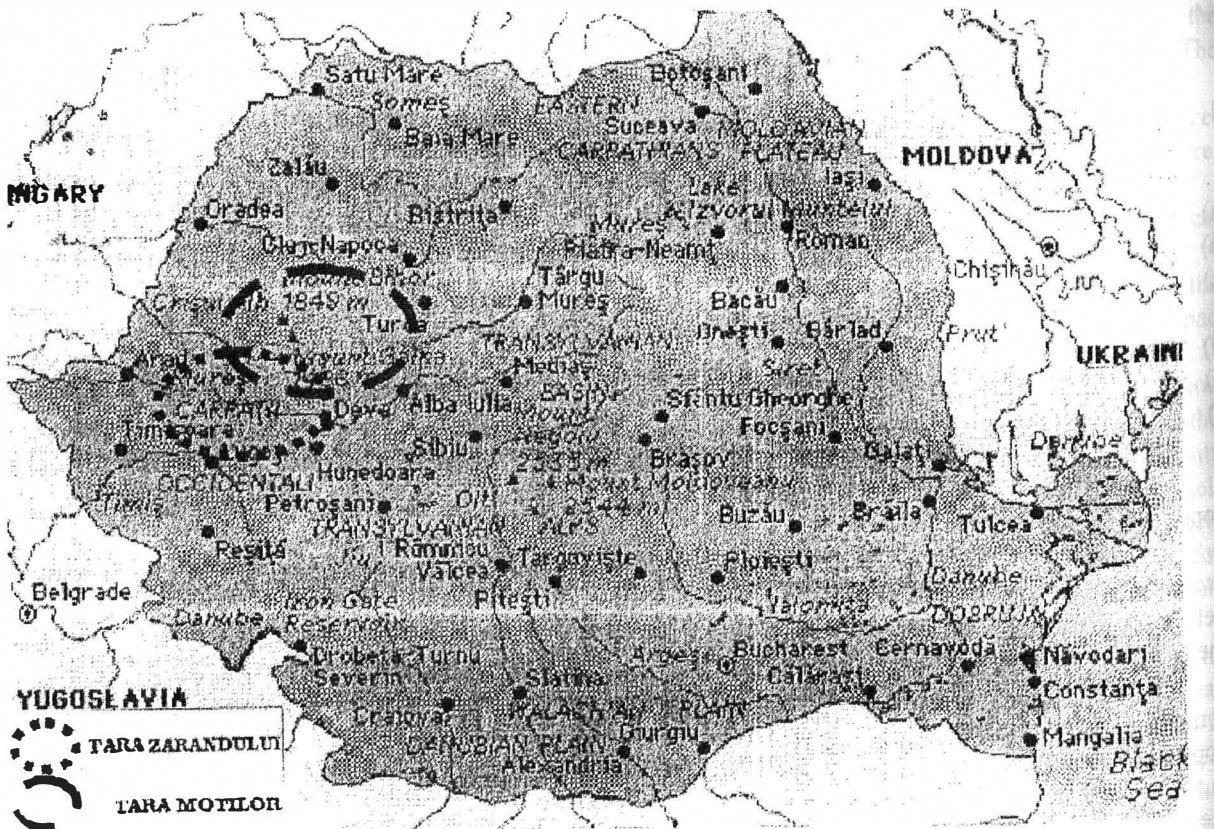




Figure 2

Characteristics of Crô + Magnit type

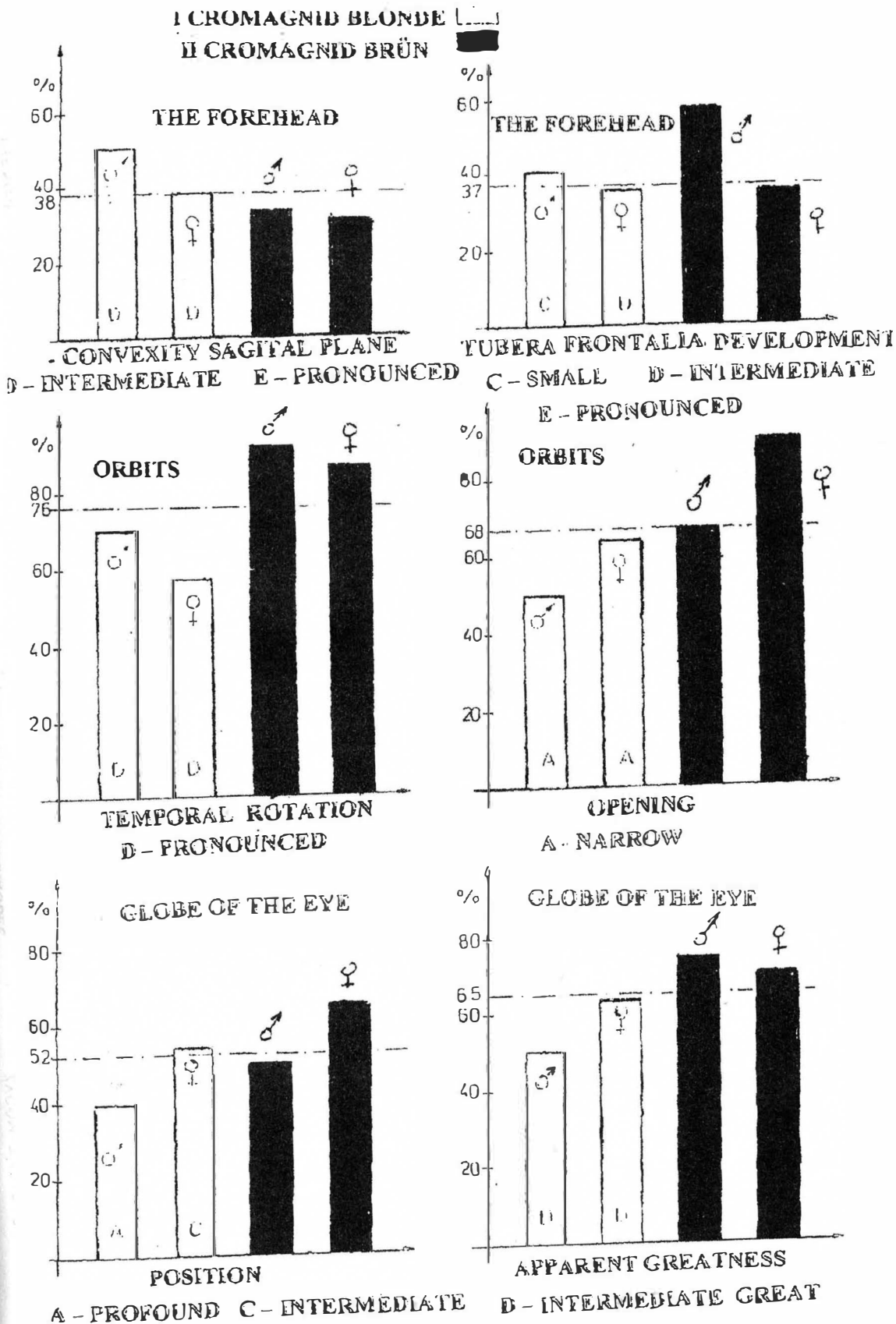


Figure 3

Characteristics of Crô + Magnid type

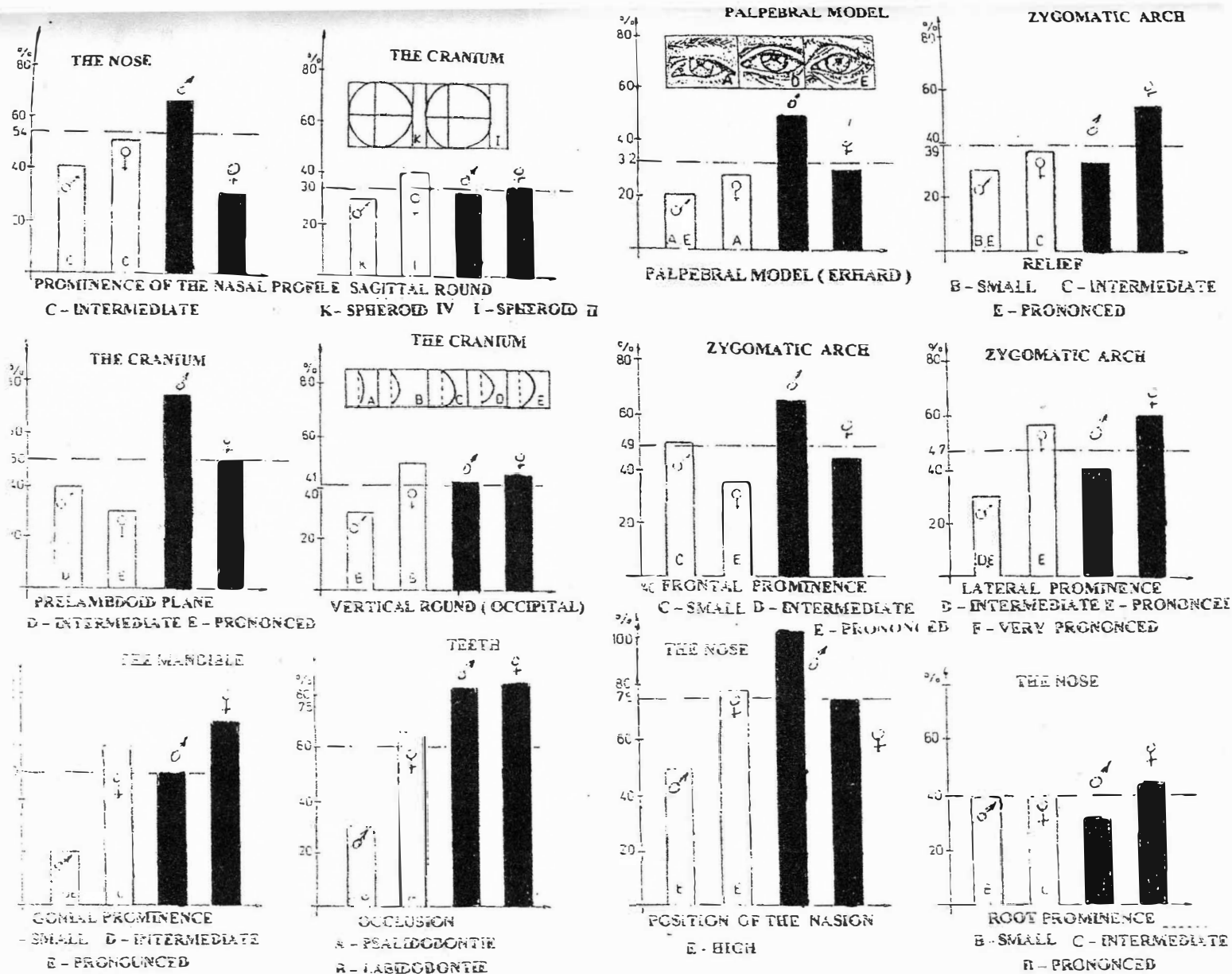


Figure 4

The cladogram of some communities in Western Transylvania (Western Carpatians region) (males)

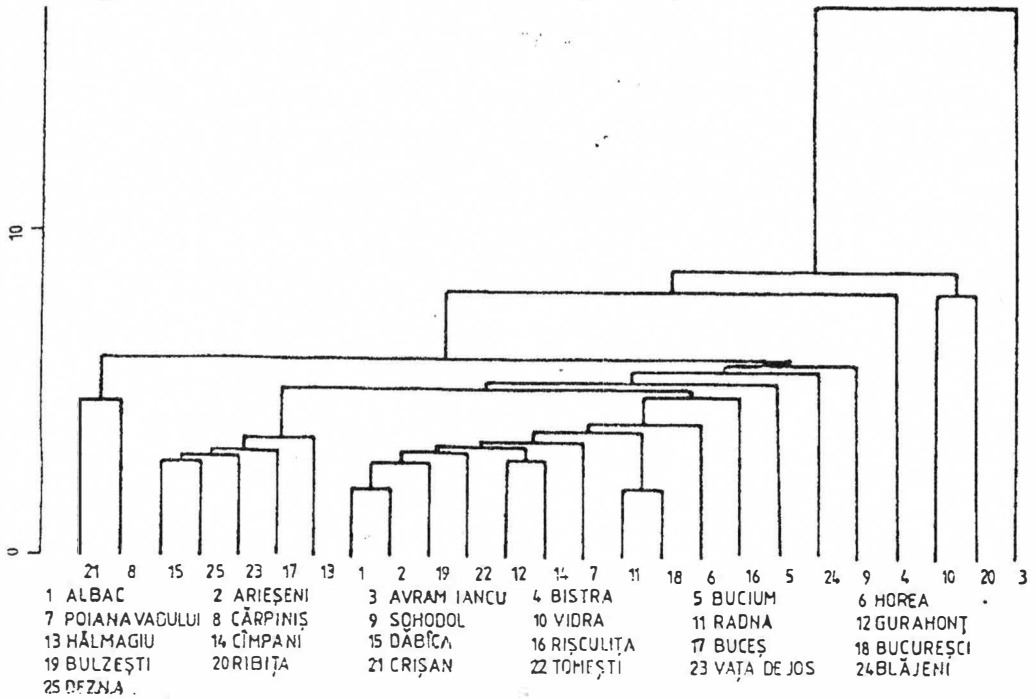
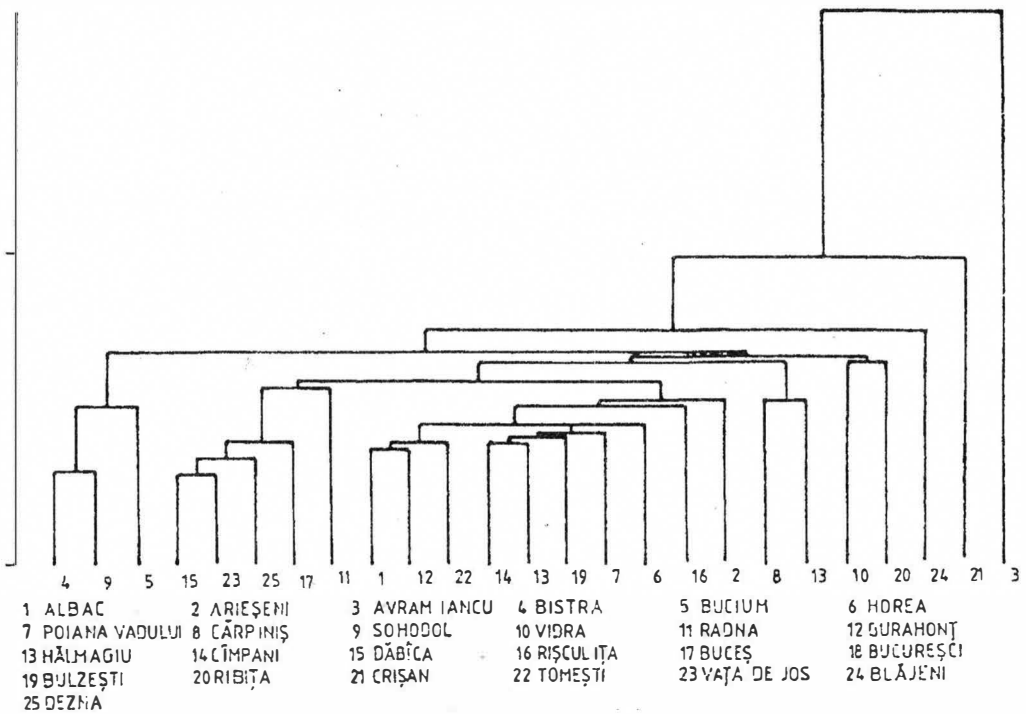


Figure 5

The cladogram of some communities in Western Transylvania (Western Carpatians region) (females)





## SECULAR TREND PHENOMENA IN SOME ROMANIAN MALE POPULATIONS

MARIA VLĂDESCU, IRINA POPESCU

Important diachronical changes can be observed in Romanian populations.

Our present study is focused on two population patterns we considered representative for the **secular trend** dynamic in Romania: Vrancea county, located in the Southeast Carpathian Mountains; and Apuseni Mountains region, placed in the western part of Romania. Our analysis is based on 20-25 **cephalic, facial, nasal and corporal characters** including dimensions and indices. Data are comparable for the two areas as for the two studied periods. We present anthropological data about 1256 males, out of which 727 examined in the first stage of the research (around 1940—1950) and 529 in the second stage (around 1970—1980).

The population of Apuseni Mountains region conserved its anthropological typology, but the present-day **Alpine** types no longer correspond to the classic description. In Vrancea county populations' the typology changed. The **Mediterranean** forms diminished leaving place to the **Dinaric** and Alpine elements.

Our study dose not demonstrates the stated positive correlation of the **stature** with the anterior-posterior diameter of the brain pan, or the negative correlation with the cephalic index. Males height increased, but also did the cephalic index (intensified brachycephaly). The dimension that obviously grew was the transversal brain pan diameter, not the anterior-posterior one. Our data show that, whatever the initial degree of brachcephaly, the rounding process of the callote continued. Still, we found one exception, which allows us to affirm that the general debrachycephalisation process started in our populations too. Present-day males sample from Ocolis (Apuseni Mountains) display a 1 i.u. diminution of the cephalic index.

Correlation between stature and cephalic index also reveals that where the tendency to debrachycephalisation appears, height increases only with 1cm. However, stature grew with 3 cm in the populations where the rounding of the brain pan continued.

### INTRODUCTION

Microevolutionary phenomena have been a major research theme for Romanian anthropologists, as for other researchers around the world.

In 1990 we finished data collection, at national level, in order to elaborate an Anthropological Atlas of Romania. With this occasion, our researches resumed to some of those populations investigated over half a century ago. The time interval (at least 25 years) and other conditions required for a study on the diachronic anthropological modifications were also fulfilled.

O. Necrasov first conducted such studies concerning dimensional and conformational phenotypic changes in Romanian populations, in collaboration with anthropologists from Bucharest and Iasi. (Necrasov et al, 1967) (Necrasov and Cristescu, 1969). The next decades other researches were published. We will quote only another three. The first analyses two generations of students from the Bucharest Medicine Faculty (Enăchescu et al, 1973). The second investigates the evolution of the population from a little community (300 habitants). The study was carried out on exhaustive basis, on families, in the succession of three generations (grandparents, parents and children) separated by a 25 years period. (Popovici-Bădărău and Vlădescu, 1981). The third investigates the evolution of the cephalic index in Romanian populations, beginning with the Feudalism (Vlădescu, 1992).

Our present study is focused on two population patterns we considered representative for the microevolution dynamic in Romania and not only.

Some of the anthropological data we used, was published before (Vlădescu, 1988,1989); other data are original and over half a century old. I. Făcăoaru, an anthropologist from Cluj, collected it in 1939. We employ them with the author's permission, granted while he was still alive.

We will analyse further the secular trend phenomena in male populations out of eight villages located in submountain areas. Four of these communities are situated in the Southeast part of the Romanian Carpathian Mountains, a zone named by ethnographers Vrancea county (Nereju, Negresti, Bârsesti, and

Tulnici). The other four are situated in the underhill zone of the Apuseni Mountains, on the valley of Aries River (Posaga, Lunca, Ocolis, and Sălciua). Both these areas are rather isolated, not only geographically but also from a social and cultural point of view. (Figure 1). The demographically closing was calculated for a part of these populations, in the interval 1900 – 1980. (Geană, 1980). Although the endogamy indices' mean values are not very high, the local elements are dominants (84.35 at Negrilesti, 70.8% at Bârsesti, 73.4% at Câmpuri). The exchange of genetic material by matrimonial traditions it is reduced to a limited mating area, concerning the nearby communities – which are also investigated in our work.

## MATERIAL AND METHODOLOGY

We present here anthropological data about 1256 males, out of which 727 examined in the first stage of the research (around 1940—1950) and 529 in the second stage (around 1970—1980).

The present-day sample, investigated personally, includes only adult subjects aged 20 to 50. They represent the native adult generation, not affected by degrading processes (due to age), which succeeded the one studied three decades ago. The age limits were chosen to eliminate the risk that one subject would be included in a previous survey. Where we had possibility we used genealogies. These precautions consent to the accurate methodology for secular trend analyses (Necrasov, 1968).

Our analysis is based on 16 cephalic, facial and nasal characters, and 3-8 body features, including dimensions and indices. Data are comparable for the two areas as for the two studied periods. For the Apuseni Mountains zone, few more anthropological features illustrate the body constitution.

Data collection and interpretation relied on the classical methodology recommended by German (Martin and Saller, 1956) and French authors (Olivier, 1960). Rigorous precautions were taken in order to avoid any errors that could appear due to disagreements between different authors.

To accomplish a characterisation of the samples we have calculated averages for each anthropological feature. The mean values are presented in tables, concurrently with the authors and periods the data were collected. The data are also represented as graphics — taxonomic morphograms (Grintescu-Pop et al., 1965). Such method was chosen to picture the values of standard classification scales in order to get a clearer image of the anthropological aspects that distinguish our samples, and their evolution.

## RESULTS AND DISCUSSIONS

### *Secular trend phenomena in Vrancea county populations'*

Detailed analysis of our up-to-date data shows that equivalent mean values for each community are very close. (Table 1). The male population in this area is characterised by a high degree of anthropological homogeneity. Many features present only a tenth of a millimetre difference between communities; others are just the same, as for the anterior-posterior diameter of the callote, at Nereju and Negrilesti, or the length of the nose at Tulnici and Bârsesti. Dissimilarities of 1-2 mm can be seen only for the cephalic height, minimum frontal diameter, and nose breadth.

Considering the similar genetic background we have calculated synthetically averages for each studied period. For a better understanding of our results we represented also this averages as taxonomic morphograms (Figure 2).

Males from Vrancea Mountains presented in the period 1984-1987 the following attributes: 1. Medium length cephalic callote with a concomitant tendency to a wide and high form; 2. A wide face at cheekbone level, medium wide at jaw level and obviously high; 3. Rather high and medium wide nose, with tendency to frequent narrow forms.

In these populations, the head shape shows: 1. Intense brachycephaly until incipient hyperbrachycephaly; 2. Metriocephaly, what concerns cephalic height as compared to breadth and hypsicephaly as compared to length; 3. Leptoprosope face (an increased facial index) and mesorhine type of nose; 4. Wide front as compared to cephalic breadth, and middle as compared to cheekbone and jaw breadth.

Stature is higher than medium in all villages varying from 168.4 cm at Tulnici to 170.1 cm at Nereju. Differences from middle value are significant, varying between 2 and 3.3 cm. We empathise that at Nereju the body shape (expressed by the cormic index) did not change in six decades, since stature and sitting height evolved proportionally in the same direction. Comparing the samples from Nereju in 1937 (Rainer, 1937) Tulnici, Bârsesti and Negrilesti in 1964 (Necrasov et al, 1964) with our up-to-date samples

we can observe that all anthropological measurements present a tendency to higher values. Such trend appears for nine features in males from Nereju and seven characteristics in male from Bârsesti and Negriilesti. The value increase is not always significant. The population from Nereju shows greatest differences between the two studied periods; here only values of the anterior-posterior diameter of the callote and the breadth of the nose remained the same. This microevolutive phenomenon can be explained by the greater interval of time passed between the two data collection for this particular village.

Analysing the evolution of the concerned measurements, we emphasise that the horizontal dimensions (such as the transversal diameter of the callote, minimum frontal diameter, jaw breadth, and the face breath at cheekbone level) present greater variation. In the same time sagital dimensions, as the cephalic height or the length of the nose, have also increased.

However, the indices, as relative values do not evolve in a positive sense as frequent and as evident as the dimensional measurements. Fluctuations appear because of the different evolution and proportionality between the compared values.

The present-day populations show an augmentation of the brachycephaly, as can be seen in figure two. The increase varies from 1.4 i.u. at Negriilesti to 3.4 i.u. at Nereju. Growth was substantial for population samples that previous recorded a lower brachycephaly. We consider that this process was completed by two principal mechanisms: 1. The concomitant but unproportional growth of the transversal and anterior-posterior diameters of the brain pan, as in the male population from Negriilesti; 2. The antagonistic evolution of this two features, with the lowering of the anterior-posterior diameter and the growing of the transversal diameter, as in the male populations from Nereju, Tulnici and Bârsesti.

Previous studies (Necrasov, 1967) stated that populations from Vrancea county had an important Mediterranean and Dinaric typological structure. Especially the latest type shows greater sensitivity to diachronic changes. This leads to a higher frequency of hypsicephalic and metriocephalic types of the brain pan, as well as a leptoprosop face and meso-leptorhine nose. We observed that round and high type of callote show a stronger correlation (expressed by "r") between transversal diameter and height than the correlation between anterior-posterior diameter and height. (Pop et al. 1968)

We consider that the lateral significant development of the callote leaded also to a higher frequency of Alpine elements. This evolution was indigenous, without an inflow of foreign genetic material since our samples were carefully selected. An important role played probably a differential fecundity associated with specific environmental conditions.

### ***Secular trend phenomena in Apuseni Mountains populations***

For this region, we dispose of a more complete group of anthropological data, eight out of twenty-five features concerning the body constitution. New data concerning these samples were collected by us in the period 1986-1990. Out of the information from 1939 were processed and published the data about the anthropological structure of the populations from Sâlcuia (Vlădescu, 1990)

Cephalic and facial aspects. No important differences appear between the microevolutive phenomena in the Apuseni Mountains area compared with the Vrancea county, as shown by the mean values presented in table 2.

The present-day populations reveal a well-expressed tendency to higher dimensional quota. The microevolutive phenomenon displayed a linear growth. Therefore, if the first generation presented mean values varying within the limits of the middle category, the present-day samples show variations over the limits of big category. (Figure 3)

We emphasise that on a basic homogenous taxonomic background (dominantly Alpine) Student test values vary from village to village. We observe that the signification of the "t" test is higher for brain pan and face features than for the nose characteristics.

Unlike the dimensions, present-day indices are most frequent lower than the previous generation ones.

The initial typological structure of these populations showed a strong tendency to hyperbrachycephaly. On this background, the callote dimensions increased both in length as in breadth. However, the anterior-posterior diameter presents a lower enlargement. This evolution determined three kinds of situations: 1. An important brachycephalisation continued in the populations from Sâlcuia and Lunca. 2. Cephalic index conserved same values in the population from Posaga. 3. The process of debrachycephalisation started in the population from Ocolis, where the cephalic index decreased with 1 i.u. What concerns this population, in given environmental conditions, the mean value of 88.6 i.u. represents probably the highest limit, genetically determined, of the cephalic index.



The typological structure of these populations did not change (hyperbrachycephaly, and tapeinocephaly what concerns the brain pan, mesoprosop face, and a mesorhine nose) but did reorganise especially in respect of the dimensions.

Body proportions. The body phenotype presents more variable diachronical changes than the brain pan and the face.

First, we emphasise that the well-known secular trend of stature growth is not generally in the populations of the Apuseni Mountains. Body height increased with almost 3 cm in populations of Sâlcium and Posaga, but did not change in rest. This phenomenon is more interesting considering the fact that the time leap between our two researches surpasses a half of a century.

Marked dynamic changes show the environmental determined features. One of these is weight. Its increases within the limits of 4.9 to 8.8 kilos are reflected in the values of the Roehrer index. The former subeutrofic population's component is now well proportioned. Cormic index values vary also within the limits of normality. In the present-day populations the chest length decreases, the shoulders are narrower in regard with the absolute values of their dimensions but also when compared with stature. In addition, the thorax perimeter increases.

We can conclude that the body constitution of the studied populations varied from a middle aspect to a longish one.

### CONCLUSIONS

Important diachronical changes can be observed in Romanian populations.

The direction of these transformations is determined by the typological structure of the sample. This structure suffered over three decades' variations more or less intense, from little dimensional changes to basic mutations.

The population of Apuseni Mountains region conserved its anthropological typology, but the present-day Alpine types no longer correspond to the classic description. We can compare this sample with other European countries (Billy, 1968). Males from the studied area present similar characteristics with ones from French Alps: wide brain pan and hyperbrachycephaly, meso/leptoprosop face, mesorhine nose, rather high stature. (Table 2)

In Vrancea county populations' the typology changed. The Mediterranean forms diminished leaving place to the Dinaric and Alpine elements. (Table 1)

Both situations are not surprising. Romanian paleoanthropologists discovered first brachycephal brain pan in the Neolithic, in Gura Baciului and Doboseni settlements (Transylvania). The moderate brachyskull from Gura Baciului-Cris Culture was considered as an Alpine type. The skull from Doboseni, obviously brachycephal and with a flat occipital bone was assigned to a Dinaric population. In the same period (Neolithic) the area limited by the Carpathians, the Danube, and the Balcans, was populated with Mediterranean elements, varying from primitive forms to the classic ones (Necrasov and Cristescu, 1967).

We should emphasise some important aspects about the most studied features: stature and cephalic index with its composing dimensions. Our study does not demonstrate the stated positive correlation of the stature with the anterior-posterior diameter of the brain pan, or the negative correlation with the cephalic index. Males height increased, but also did the cephalic index (intensified brachycephaly). The dimension that obviously grew was the transversal brain pan diameter, not the anterior-posterior one. Our data show that, whatever the initial degree of brachycephaly, the rounding process of the callote continued.

However, we found one exception, which allows us to affirm that the general debrachycephalisation process started in our populations too. Present-day males sample from Ocolis display a 1 i.u. diminution of the cephalic index. Such evolution was also recognised on two other occasions. At first in the male samples from Fundu Moldovei and Ilisesti villages – but with a decrease of the cephalic index of only 0.42 i.u. (Less meaningfully than in our case). (Necrasov and Cristescu, 1969). The second was present in male populations from the Bran Corridor, showing a 1.1 i.u. diminution of the cephalic index. (Luca et al, 1996)

Correlation between stature and cephalic index also reveals that where the tendency to debrachycephalisation appears, height increases only with 1 cm. However, stature grew with 3 cm in the populations where the rounding of the brain pan continued. To this particular situation, we can not apply the law stated by E. Pittard.

The secular trend in Romanian populations is not a constant process. Its particularities lead us to the conclusion that the problem is still open and further researches should be completed.

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Figure 1.

Location of the Studied Regions on Romania's Map

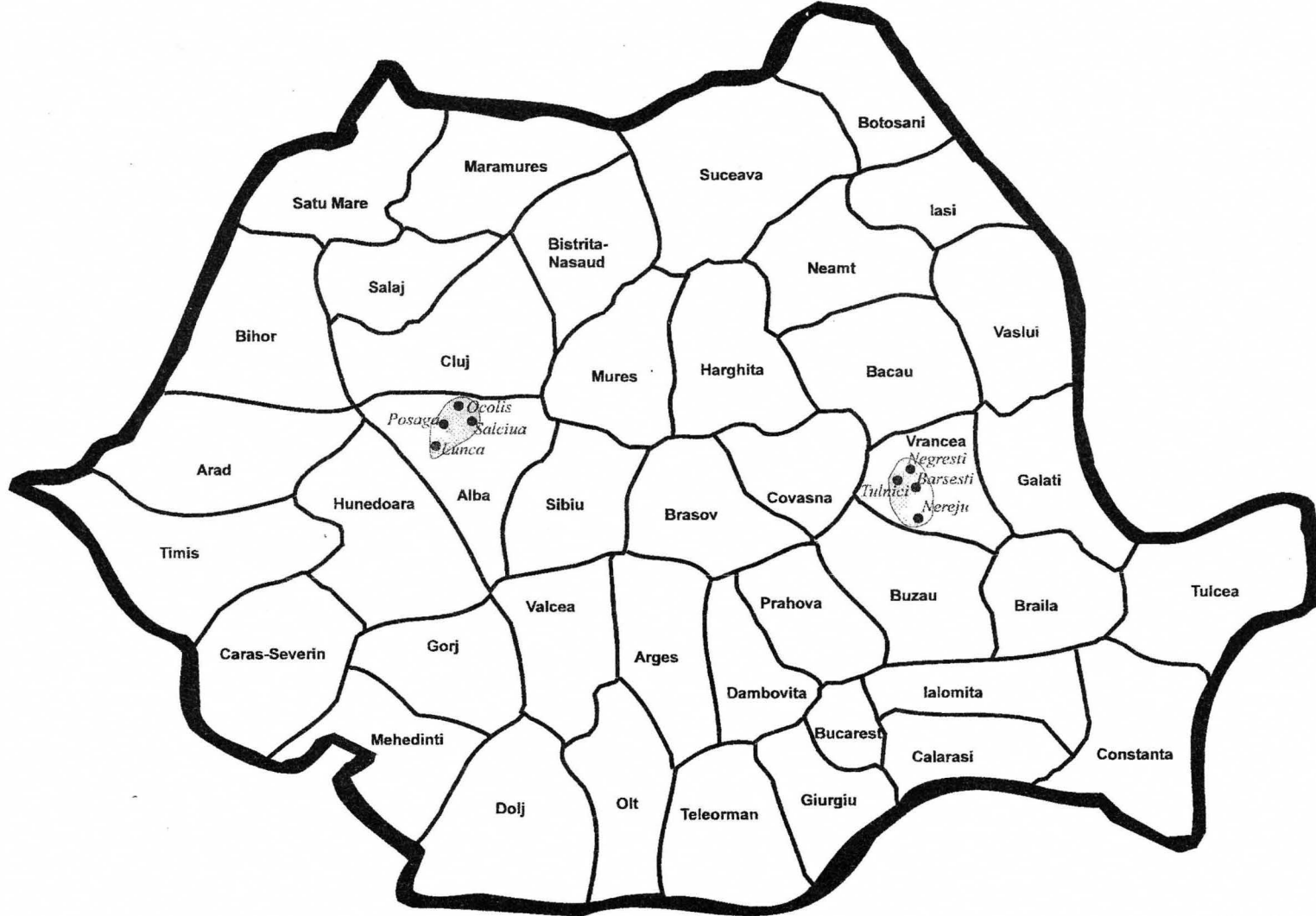


Table 1.

Diachronic changes concerning male anthropometrical features in four villages from Vrancea county

Measurements	NEREJU							TULNICI						
	Rainer 1927			Vlădescu 1987			t-test	Necrasov 1956			Vlădescu 1984			t-test
	N	Mean	SD	N	Mean	SD		N	Mean	SD	N	Mean	SD	
g-op	134	185.7	7.40	98	184.5	6.66	1.27	100	187.7	5.73	62	183.9	5.19	0.86
eu-eu	134	151.1	5.80	98	156.6	5.43	7.45	100	152.6	5.40	62	156.8	5.10	5.32
t-v	134	125.3	6.60	98	128.1	4.61	3.89	100	126.6	5.31	62	126.2	4.08	0.50
ft-ft	133	102.1	4.50	98	109.9	4.32	13.38	100	108.2	4.26	62	108.9	3.63	1.34
zy-zy	132	139.6	5.10	98	142.1	4.50	4.03	100	140.2	5.22	62	142.2	4.08	2.65
go-go	133	105.7	5.90	98	111.7	5.07	8.29	100	109.3	5.55	62	111.4	4.48	2.66
n-gn	130	121.2	6.10	98	127.8	4.94	9.25	100	126.1	7.98	61	128.1	5.40	1.77
n-sn	131	53.2	3.70	98	56.6	3.49	4.86	100	56.9	4.36	62	56.7	3.42	0.45
al-al	131	34.3	2.90	98	34.9	2.55	1.75	100	36.4	2.60	62	35.1	2.76	3.07
eu-eu / g-op	134	81.5	4.29	98	84.9	4.04	6.07	100	83.3	3.81	62	85.5	3.18	4.06
t-v / g-op	134	66.8	3.72	98	69.5	2.85	6.48	100	68.7	3.08	62	68.8	2.54	0.18
t-v / eu-eu	134	83.0	4.24	98	81.9	3.72	2.08	100	82.8	3.84	62	79.6	3.06	6.00
ft-ft / eu-eu	133	67.9	3.27	98	70.2	2.81	5.50	100	70.9	3.10	62	69.6	2.60	2.87
ft-ft / zy-zy	132	73.7	2.78	98	77.3	2.40	10.26	100	76.9	3.30	62	77.7	2.68	1.48
go-go / zy-zy	132	75.9	3.62	98	78.6	2.90	6.21	-	-	-	62	-	-	-
n-gn / zy-zy	130	86.9	4.35	98	89.9	3.88	5.56	100	89.9	4.26	62	90.3	4.14	0.50
al-al / n-sn	131	65.2	7.70	98	62.0	6.02	3.53	100	64.2	6.69	62	62.8	6.51	1.35
v-sol	133	1668.0	58.40	98	1700.7	54.61	4.35	100	1664.0	56.70	62	1684.1	61.20	2.08
v-sitt	133	880.2	33.00	98	897.0	29.97	4.01	-	-	-	-	-	-	-
i. cormic	133	52.7	1.35	98	52.8	1.14	0.02	-	-	-	-	-	-	-
Measurements	BÂRSEȘTI							NEGRILEȘTI						
	Necrasov et al. 1957			Vlădescu 1987			t-test	Necrasov et al. 1958			Vlădescu 1987			t-test
	N	Mean	SD	N	Mean	SD		N	Mean	SD	N	Mean	SD	
g-op	100	185.2	6.10	60	184.8	5.91	0.41	100	183.7	5.70	67	184.5	5.60	0.96
eu-eu	100	151.7	4.80	60	157.5	4.59	7.44	100	153.2	5.10	67	156.4	3.90	4.61
t-v	100	126.7	4.90	60	127.1	4.68	0.46	100	127.3	4.86	67	128.9	2.94	1.82
ft-ft	100	107.6	4.30	60	111.1	4.14	5.36	100	107.7	4.05	67	110.9	4.05	5.17
zy-zy	100	139.7	5.00	60	142.5	4.77	3.50	100	139.9	4.77	67	141.6	4.74	2.33
go-go	100	108.6	5.20	60	111.0	5.22	2.90	100	109.3	4.45	67	110.8	4.98	1.12
n-gn	100	126.5	6.80	60	127.7	6.45	1.11	100	126.0	6.24	67	127.1	6.48	1.05
n-sn	100	57.0	4.00	60	56.9	3.42	0.07	100	56.9	4.02	67	56.2	3.18	1.21
al-al	100	36.0	2.90	60	33.7	2.70	5.48	100	35.5	2.35	67	34.0	2.36	3.92
eu-eu / g-op	100	81.9	5.00	60	84.9	2.92	4.92	100	83.5	3.72	67	84.9	3.64	2.70
t-v / g-op	100	68.7	3.30	60	68.7	2.80	0.02	100	69.4	3.02	67	69.4	2.45	0.07
t-v / eu-eu	100	83.6	3.30	60	79.3	2.42	9.80	100	83.2	3.52	67	82.1	2.82	2.33
ft-ft / eu-eu	100	71.0	2.60	60	70.9	2.44	0.20	100	70.2	2.86	67	70.8	2.90	1.29
ft-ft / zy-zy	100	77.0	3.00	60	77.9	3.14	1.94	100	77.2	3.24	67	78.3	2.74	2.39
go-go / zy-zy	-	-	-	-	-	-	-	-	-	-	67	-	-	-
n-gn / zy-zy	100	90.5	5.70	60	89.4	4.56	1.31	100	90.1	4.92	67	90.2	4.20	0.15
al-al / n-sn	100	63.2	6.80	60	59.6	5.94	2.61	100	62.5	6.18	67	61.1	5.31	1.58
v-sol	100	1667.7	62.60	60	1698.5	60.30	3.02	100	1663.4	55.50	67	1694.5	54.90	3.53
v-sitt	-	-	-	-	-	-	-	-	-	-	-	-	-	-
i. cormic	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.

Diachronic changes concerning male anthropometrical features in four villages from Apuseni Mountains region

Measurements	SĂLCIUA							POSAGA						
	Făcăoaru 1939			Vlădescu 1986			t-test	Făcăoaru 1939			Vlădescu 1986			t-test
	N	Mean	SD	N	Mean	SD		N	Mean	SD	N	Mean	SD	
g-op	117	181.8	5.89	79	183.2	6.53	1.72	87	180.6	5.70	77	184.1	5.43	4.02
eu-eu	117	156.5	6.18	79	160.9	5.93	5.09	87	156.2	5.936	77	160.4	5.01	4.94
t-v	117	121.5	5.95	79	124.6	4.79	4.01	86	123.4	5.61	77	125.7	4.05	3.07
ft-ft	117	107.5	4.70	79	109.6	4.63	3.18	87	107.1	4.71	77	111.4	3.94	6.32
zy-zy	117	140.7	5.22	79	144.3	5.79	4.43	87	141.1	6.14	77	145.7	5.13	5.23
go-go	117	108.9	6.85	79	110.8	6.27	1.99	87	108.2	6.92	76	112.3	4.83	4.61
n-gn	117	124.8	6.59	79	125.9	5.95	1.23	87	125.4	6.61	77	125.6	5.04	0.22
n-sn	117	56.6	4.10	79	55.9	3.36	1.16	87	56.3	3.99	77	56.5	3.22	0.27
al-al	117	34.6	2.39	79	34.9	2.77	0.77	87	34.4	2.39	77	34.6	2.70	0.41
eu-eu / g-op	117	86.2	4.07	79	87.9	3.88	3.16	87	86.9	3.51	77	86.9	3.28	-
t-v / g-op	117	66.8	2.99	79	68.0	2.66	2.93	85	68.5	2.96	77	68.3	2.28	0.49
t-v / eu-eu	117	77.7	3.83	79	77.5	3.29	0.47	86	78.6	3.60	77	77.9	2.93	1.37
ft-ft / eu-eu	117	68.7	3.05	79	68.1	2.60	1.50	87	68.4	2.85	77	69.6	2.52	2.86
ft-ft / zy-zy	117	76.4	3.12	79	76.1	3.25	0.83	87	75.9	2.93	77	76.7	2.90	1.74
go-go / zy-zy	117	77.5	4.32	79	76.8	3.67	1.07	87	76.7	4.18	77	77.5	3.04	1.70
n-gn / zy-zy	117	88.8	5.31	79	87.4	4.45	2.01	87	89.0	5.22	77	86.4	4.56	3.42
al-al / n-sn	117	61.5	6.06	79	62.6	6.06	1.28	87	61.4	6.35	77	61.8	6.09	0.41
v-sol	117	1671.6	59.57	79	1700.2	67.78	3.05	87	1675.3	68.87	76	1703.6	53.40	2.95
v-sitt	117	884.3	28.47	79	883.4	37.70	0.20	87	885.1	28.04	76	890.0	35.80	0.96
weight	117	63.2	6.69	79	70.1	12.78	4.41	87	62.2	6.69	72	71.0	10.35	6.33
a-a	117	392.2	17.15	79	380.5	20.10	4.21	87	393.2	17.86	76	386.5	22.95	2.06
thorax perimeter	117	915.1	43.49	79	952.2	75.22	3.86	87	917.6	50.49	76	963.1	70.20	4.69
i. cornic	117	52.9	1.18	79	51.9	1.40	4.75	87	52.3	1.68	76	51.8	1.22	5.00
i. Roehrer	117	1.37	0.13	79	1.43	0.28	2.68	87	1.34	0.15	76	1.44	0.22	2.78
a-a / v-sol	117	23.5	0.78	79	22.4	1.06	7.71	87	23.5	0.88	75	22.9	1.04	4.00
Measurements	OCOLIS							LUNCA						
	Făcăoaru 1939			Vlădescu 1988			t-test	Făcăoaru 1939			Vlădescu 1988			t-test
	N	Mean	SD	N	Mean	SD		N	Mean	SD	N	Mean	SD	
g-op	49	178.3	5.32	52	183.6	5.52	4.91	43	180.9	6.45	34	183.4	4.16	2.07
eu-eu	49	157.9	5.67	52	160.7	4.79	2.72	43	157.1	7.55	34	161.2	4.02	3.06
t-v	49	122.2	6.21	52	125.4	4.28	3.02	43	124.2	6.32	34	124.9	4.93	0.55
ft-ft	49	110.1	5.35	52	109.1	3.99	0.93	43	109.1	4.24	34	108.4	3.26	0.82
zy-zy	49	142.5	5.08	52	144.7	5.94	2.02	43	141.4	6.13	34	145.4	4.83	3.20
go-go	49	104.9	8.40	52	111.8	5.70	4.82	43	107.7	6.37	34	111.9	4.43	3.41
n-gn	49	124.3	6.69	52	128.6	5.66	3.46	43	125.5	5.96	34	128.0	5.96	1.84
n-sn	49	55.9	3.13	52	58.5	3.59	3.88	43	56.5	4.00	34	57.7	3.48	1.41
al-al	49	34.6	2.03	52	35.6	2.77	2.27	43	34.7	2.81	34	35.1	2.58	0.65
eu-eu / g-op	49	88.6	3.57	52	87.6	3.28	1.47	43	86.9	3.96	34	87.9	2.75	0.51
t-v / g-op	49	68.6	3.86	52	68.4	2.66	0.30	43	68.7	3.09	34	68.1	2.64	0.91
t-v / eu-eu	49	77.5	3.99	52	78.1	2.55	0.90	43	79.2	3.99	34	77.6	3.53	1.86
ft-ft / eu-eu	49	69.7	2.82	52	67.9	2.75	3.27	43	69.6	3.19	34	67.3	2.20	3.71
ft-ft / zy-zy	49	77.3	3.35	52	75.5	3.11	2.81	43	77.2	2.82	34	74.6	2.63	4.19
go-go / zy-zy	49	73.6	5.69	52	77.3	3.16	3.91	43	76.2	3.48	34	76.9	2.56	1.01
n-gn / zy-zy	49	87.3	3.99	52	88.9	3.84	2.07	43	88.8	4.04	34	88.1	3.86	0.78
al-al / n-sn	49	62.0	5.30	52	61.2	5.74	0.64	43	61.7	6.00	34	61.0	4.81	0.57
v-sol	49	1690.2	57.98	52	1699.3	62.83	0.76	43	1689.8	58.56	34	1692.9	63.11	0.22
v-sitt	49	886.9	26.11	52	891.9	29.24	0.91	43	893.4	30.23	34	888.4	33.08	0.68
weight	49	61.5	7.21	52	70.3	10.02	6.24	43	62.5	7.28	34	67.4	9.22	2.54
a-a	49	394.5	17.54	52	390.2	23.32	1.05	43	389.6	14.78	34	381.5	18.84	2.06
thorax perimeter	49	908.3	48.02	52	948.9	68.88	3.88	43	911.0	49.19	34	929.4	56.16	1.48
i. cornic	49	52.5	1.26	52	52.5	1.26	-	43	52.9	1.74	34	52.5	0.96	1.25
i. Roehrer	49	1.29	0.15	52	1.44	0.19	3.75	43	1.30	0.11	34	1.40	0.16	17.50
a-a / v-sol	49	23.3	0.81	52	22.9	1.22	2.00	43	23.1	0.67	34	22.6	1.06	2.50

Figure 2.

Taxonomic Morphogram - Vrancea county

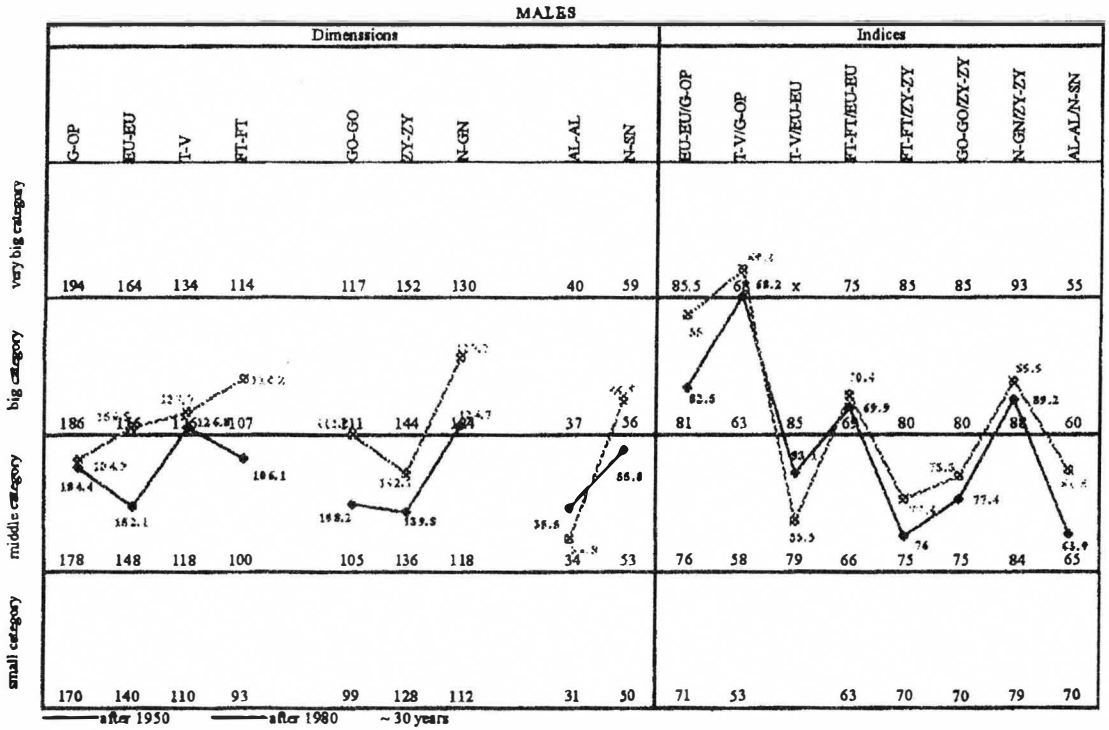
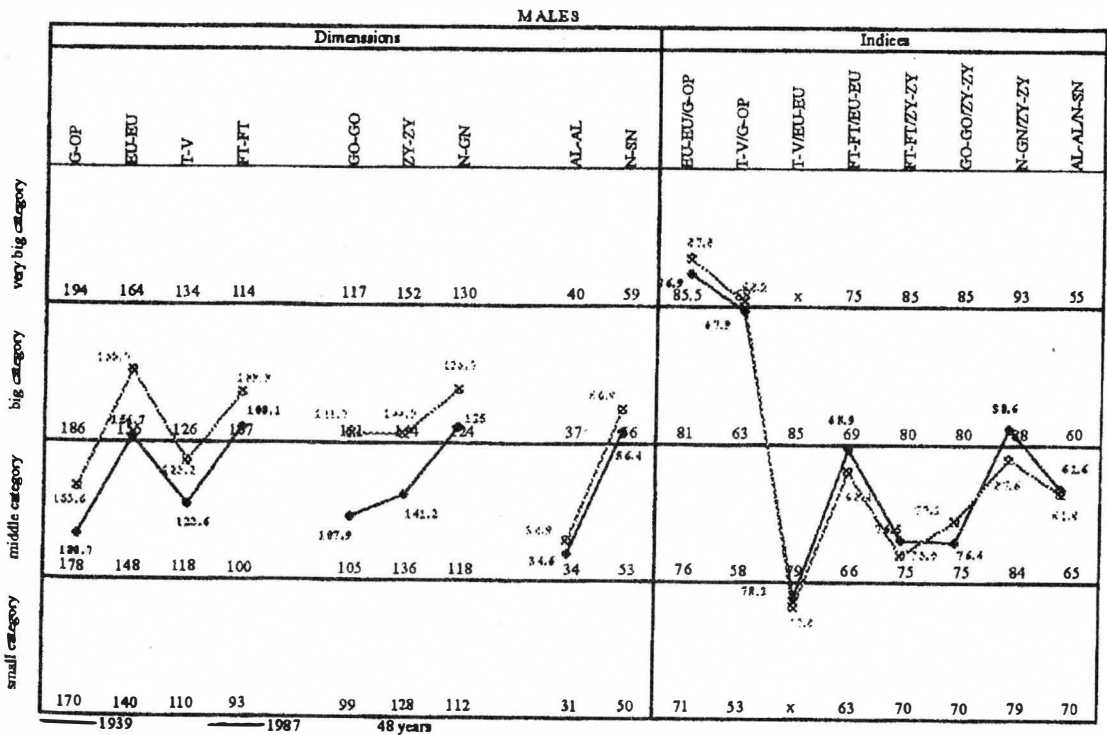


Figure 3.

Taxonomic Morphogram – Apuseni Mountains Region







## CORELATIA UNOR INDICI ANTROPOMETRICI CU VARSTA SI SEXUL, LA O POPULATIE SCOLARA

BRIGHITA VLAICU, SALOMEIA PUTNOKY

**Obiectiv** – Antropometria este metoda cea mai bună pentru aprecierea dezvoltării fizice, iar nivelul dezvoltării somatice este indicatorul direct de prim rang al sănătății copiilor și adolescenților. Ne-am propus să apreciem nivelul dezvoltării fizice la o populație școlară.

**Material și metodă** . Populația școlară timișoreană a cuprins grupe de peste 200 de subiecți pentru fiecare vârstă și cele două sexe, aparținând intervalului 7- 18 ani. Prin măsurături directe s-au determinat talia și greutatea.

**Rezultate**. In intervalul de 7 – 18 ani talia și greutatea la băieți și fete se caracterizează prin curbe continuu ascendente. Talia băieților a crescut cu 47.10%, mai mult comparativ cu cea a fetelor de 43,72%. Si greutatea a crescut mai mult la băieți, cu 191,45%, față de fete cu 161.31%. Graficele de corelație ale taliei și greutății cu vârsta la cele două sexe, se încrucișează între 10 – 11 ani și 14 – 15 ani. Inainte de prima încrucișare, când mediile corespunzătoare băieților sunt mai mari decât cele corespunzătoare fetelor, creșterea taliei și greutății este foarte apropiată între cele două sexe : 13.71% la băieți și 13.70% la fete, pentru talie ; 36.32% la băieți și 38.70% la fete, pentru greutate. Intre cele două încrucișări, când mediile fetelor devin superioare, talia și greutatea cresc cel mai accentuat la fete : 20.92% la fete și 19.18% la băieți, pentru talie; 83.48% la fete și 77.78% la băieți, pentru greutate. După a doua încrucișare când mediile băieților sunt din nou superioare creșterea este mai scăzută față de faza precedentă, dar mai mare față de prima fază : 14.20% la băieți și 9.10% la fete pentru talie; 77.35% la băieți și 39.13% la fete, pentru greutate.

**Concluzie**. Corelația taliei și greutății cu vârsta și sexul este o oglindă a perioadei peripuberală, cu componenta prepuberală, a pubertății propriu-zise și a postpubertății.

### 1. INTRODUCERE

Antropometria este o metodă universal aplicabilă, neinvazivă și ușor de aplicat la toate vârstele. Metoda permite evaluarea corpulenței, proporțiilor și a compoziției corpului uman.

Indicatorii antropometrici reflectă direct starea de sănătate și de nutriție în momentul măsurărilor, dar au și valoare prognostică.

În prezent, OMS recomandă o reorientare a politicilor naționale de sănătate publică, în sensul creșterii preocupărilor pentru antropometrie, insuficient valorificată.

Prezenta lucrare prezintă rezultatele unui studiu al nivelului dezvoltării fizice la o populație școlară care reunește copii și adolescenți din învățământul primar, gimnazial și liceal.

### 2. MATERIAL SI METODA

#### 2.1. Material

S-a luat în studiu o populație școlară din mai multe școli timișorene, formată din grupe de vârstă și sexe cu cel puțin 200 de subiecți fiecare.

#### 2.2. Metodă

S-a recurs la metoda antropometrică pentru determinarea a doi indicatori somatometrici principali: talia și greutatea.

Datele măsurărilor individuale s-au prelucrat statistic pe calculator, în funcție de indicatorul antropometric măsurat, după criteriul vârstă și sex. S-a calculat media aritmetică ponderată ( $\bar{X}_p$ ) și sigma ( $\sigma$ ).

Valorile medii ale taliei și greutății, calculate pentru populația luată în studiu, s-au comparat cu valorile medii orientative pentru România, mediul urban, 1992.

### 3. REZULTATE SI DISCUTII

#### 3.1. NIVELUL DEZVOLTARII FIZICE (TABELUL 1 SI 2)

Tabel 1.

*Nivelul mediu de dezvoltare fizică la băieți*

Vârsta (ani)	Talía		Greutatea	
	$\bar{X}_p$	$\square$	$\bar{X}_p$	$\square$
7	122.5	3.9	23.4	3.0
8	127.9	4.2	26.0	3.0
9	132.7	4.7	28.9	3.4
10	139.3	5.1	31.9	4.1
11	144.5	5.7	34.9	4.6
12	148.8	5.9	38.5	4.5
13	156.9	6.2	43.8	5.0
14	162.8	6.3	50.1	6.2
15	170.2	6.8	56.2	6.8
16	175.6	7.6	62.6	6.9
17	179.8	7.5	64.9	6.8
18	180.2	7.4	68.2	6.8

Tabel 2.

*Nivelul mediu de dezvoltare fizică la fete*

Vârsta (ani)	Talía		Greutatea	
	$\bar{X}_p$	$\square$	$\bar{X}_p$	$\square$
7	121.9	4.8	23.0	2.8
8	126.9	5.0	25.1	3.3
9	132.6	5.6	28.1	4.0
10	138.6	6.1	31.9	6.1
11	146.8	6.5	35.2	6.5
12	149.9	7.3	40.3	6.3
13	157.6	7.4	45.0	6.0
14	164.1	5.8	51.1	6.3
15	167.0	6.0	53.6	6.5
16	171.2	6.7	56.8	6.2
17	173.6	6.8	59.0	6.4
18	175.2	6.5	60.1	6.4

În intervalul de vârstă studiat, 7-18 ani, talia și greutatea, la ambele sexe, se caracterizează printr-o creștere continuă.

La 7 ani, mediile taliei și greutateii sunt superioare la băieți, comparativ cu fetele, diferențele fiind mici: 0.6 cm pentru talie și 0.4 kg pentru greutate.

La 18 ani, tot băieții prezintă valori medii superioare la talie și greutate, față de fete, dar și diferențele sunt mai mari: 5.0 cm pentru talie și 8.1 kg pentru greutate.

### 3.2 CORELATIA VALORILOR MEDII ALE TALIEIE SI GREUTATII CU VARSTA SI SEXUL (TABELUL 3)

Tabel 3.

Distribuția diferenței procentuale între valorile medii ale taliei și greutateii la băieți și fete, pe grupe de vârstă

Vârsta (ani)	Diferența procentuală pentru talie băieți-fete (%)	Diferența procentuală pentru greutate băieți-fete (%)
7	+0.5	+1.7
8	+0.8	+3.5
9	+0.1	+2.8
10	+0.5	0
11	-1.4	-0.9
12	-0.8	-4.5
13	-0.5	-2.7
14	-0.8	-2.0
15	+2.0	+4.8
16	+2.5	+10.2
17	+3.5	+10.0
18	+3.8	+13.5

Pentru compararea mediilor taliei și greutateii corespunzătoare băieților și fetelor s-a calculat diferența procentuală a acestora după formula:

$$100 \cdot \left( \frac{\text{talie}(\text{greutatea})\text{baieti}}{\text{talie}(\text{greutatea})\text{fete}} - 1 \right)$$

Între 7-10 ani, diferențele procentuale sunt pozitive pentru băieți: băieții au nivelul mediu de creștere superior, comparativ cu fetele.

Între 10-11 ani, atât pentru talie cât și pentru greutate, diferențele procentuale se negativează: curbele de corelație ale taliei și greutateii la băieți și fete se încrucișează. De la această vârstă, fetele prezintă un nivel mediu de creștere superior față de băieți.

Între 14-15 ani, pentru ambii indicatori, diferențele procentuale se pozitivează din nou. Are loc a doua încrucișare a curbelor de corelație ale mediilor cu vârsta și sexul. Începând cu vârsta de 15 ani, băieții au un nivel al creșterii superior, comparativ cu fetele, până la 18 ani inclusiv.

### 3.3 RITMUL CREȘTERII TALIEI SI GREUTATII LA BAIETI SI FETE (TABELUL 4)

Tabel 4.

Creșterea procentuală a valorilor medii ale taliei și greutateii băieților și fetelor, în funcție de criteriul vârstă.

Vârsta (ani)	Creșterea procentuală a mediilor taliei (%)		Creșterea procentuală a mediilor greutateii (%)	
	Băieți	Fete	Băieți	Fete
7-10 ani	13.71	13.70	36.32	38.70
11-14 ani	19.18	20.92	77.78	83.48
15-18 ani	14.20	9.10	77.35	39.13
7-18 ani	47.10	43.72	191.45	161.31

La 10 ani, înaintea încrucișării curbelor de corelație ale taliei și greutateii cu vârsta, la băieți și fete se constată:

- creșterea taliei, față de 7 ani, cu 13.71 procente la băieți și 13.70 procente la fete;
- creșterea greutateii, față de 7 ani, cu 36.32 procente la băieți și 38.70 procente la fete;
- creșteri apropiate pentru cele două sexe.

Între 11-14 ani, corespunzător intervalului de vârstă în care mediile fetelor sunt superioare mediilor băieților și care este delimitat de cele două încrucișări ale curbelor, au loc creșteri mai importante față de intervalul precedent:

- pentru talie, creștere de 19.18% la băieți și 20.92% la fete;
- pentru greutate creștere de 77.78% la băieți și 83.48% la fete;
- creșteri mai mari la fete față de băieți.

Între 15-18 ani, interval cu valori medii superioare la băieți, creșterea este mai redusă față de perioada 11-14 ani, exceptând greutatea băieților care crește la fel de mult:

- pentru talie, 14.20% la băieți și 9.10% la fete;
- pentru greutate, 77.35% la băieți și 39.13% la fete;
- creștere mai importantă la băieți.

Creșterea procentuală a taliei și greutății pentru intervalul studiat prezintă următoarele valori:

- 47.10% la băieți și 43.72% la fete, pentru talie;
- 191.45% la băieți și 161.31% la fete, pentru greutate;
- creștere mai mare la băieți, mai ales pentru greutate.

### 3.4 COMPARAREA NIVELULUI MEDIU DE CREȘTERE LA POPULAȚIA STUDIATĂ, CU MEDIILE ORIENTATIVE PENTRU ROMÂNIA, MEDIUL URBAN, 1992 (TABELUL 5)

Tabel 5.

Distribuția diferenței procentuale între valorile medii ale taliei și greutății la lotul cercetat, comparativ cu mediile orientative pentru România, mediul urban 1992, după crierul vârstă și sex.

Vârsta (ani)	Diferențe procentuale ale mediilor			
	taliei		greutății	
	Băieți	Fete	Băieți	Fete
7	+0.90	+0.95	+2.53	+2.80
8	+1.35	+1.20	+3.60	+2.90
9	+0.90	+1.20	+3.30	+2.70
10	+2.15	+1.90	+3.60	+6.20
11	+2.15	+3.00	+3.60	+3.50
12	+1.20	+2.00	+2.70	+2.50
13	+2.20	+3.60	+3.40	+1.90
14	+1.20	+4.00	+3.10	+5.00
15	+1.60	+5.00	+2.60	+4.95
16	+1.90	+6.80	+4.20	+5.00
17	+2.75	+7.80	+2.60	+7.70
18	+2.20	+7.20	+3.30	+7.40

Pentru ambii indicatori antropometrici cercetați, la toate vârstele și la ambele sexe, mediile calculate sunt superioare față de cele orientative, exprimând realitatea "secular trend"-ului.

## 4. CONCLUZII

- Cronologia creșterii diferă de la un copil sănătos la altul mai ales din considerente genetice.
- Variabilitatea creșterii fizice într-o populație este determinată genetic și de către mediul ambiant în care trăiește populația și care permite exprimarea totală a genotipului. Dacă factorii de mediu limitează această exprimare, creșterea, observată fenotipic, va reflecta mai pregnant influența mediului. Totodată, este dificil de determinat în ce măsură nivelul creșterii este influențat de factorii de mediu, cât și momentul intervenției lor.
- Supravegherea creșterii la copii și tineri, de tip transversal și la interval de 6 luni, poate aduce informații deosebit de valoroase despre starea de sănătate.

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## **ASPECTS DE L'ACCELERATION DE LA CROISSANCE CHEZ LES ADOLESCENTS DU DEPARTEMENT DE BRASOV**

PAVAL DANUSIA

Cette étude se réfère à l'accélération de la croissance et du développement physique des adolescents du département de Brasov sur un lot de 554 sujets (291 garçons et 263 jeunes filles) étudié en 1997, rapporté aux séries étudiées en 1966.

Des analyses comparées de ces séries montrent qu'en ces 30 dernières années le processus d'accélération est présent et se manifeste tant au point de vue somatique qu'au point de vue de l'âge de la puberté chez les filles.

In lucrarea de fata ne-am propus sa evidentiem modificarile care au aparut in ultimii 30 de ani in cresterea si dezvoltarea fizica a adolescentilor din municipiul Brasov. A fost efectuata analiza unui lot de subiecti studiati in 1997 (octombrie) comparativ cu un lot studiat de Dr. Maria Cristescu in 1966. S-a pornit de la faptul, bine cunoscut in literatura de specialitate, ca procesul de acceleratie a cresterii si dezvoltarii se desfasoara atat la intervale de decenii, cat si la intervale mai mici de timp (3-5 ani).

### **MATERIAL SI METODA**

Materialul de studiu este reprezentat de un numar de 554 subiecti (291 baieti si 263 fete) in varsta de 11-15 ani, din orasul Brasov. S-a efectuat prelucrarea statistica pe sexe si pe clase de varsta. Parametrii luati in studiu sunt statura, sezanda, a-a, ic-ic, greutatea, perimetrele toracic, al bratului si al coapsei, precum si indicii de proportionalitate corespunzatori, la care se adauga si varsta pubertara la fete.

### **REZULTATE OBTINUTE**

Analizand datele din tabelul nr. 1, se constata valori medii ale staturii mai crescute la seriile din 1997 fata de cele din 1966, atat la fete cat si la baieti, la toate clasele de varsta analizate (exceptii fac baieti de 14 ani, probabil din cauza unui defect de esantionaj).

Puseele de crestere a staturii, la ambele sexe, sunt mai puternice in 1966 decat in 1997. La fete acest puseu are loc in acelasi interval (12-13 ani) atat in seriile actuale cat si in cele din urma cu trei decenii, dar viteza de crestere a staturii se mentine in urmatoarele doua intervale mai crescuta in 1997 decat in 1966.

Sporurile totale ale staturii, intre 11-15 ani, raman si in 1997 superioare la seriile de baieti, fata de fete. Aceste sporuri sunt in sa mai mari la grupele actuale, decat la cele din 1966 (cu 1,84 cm la baieti si cu 1,72 cm la fete).

Ratele de acceleratie a staturii sunt variabile atat in functie de varsta, cat si in functie de sex, amplitudinea lor fiind cuprinsa intre 0,43 cm si 3 cm la fete si intre 0,49 cm si 2,47 cm la baieti. Procesul de acceleratie a staturii se manifesta, la mabele sexe., inca de la varsta de 11 ani, dar, ca si la 15 ani rata de accelerare este mai pronuntata la fete decat la baieti. Acest lucru era de asteptat, intrucat se stie ca baietii prezinta o ecosensibilitate mai mare decat fetele, iar dupa cum este cunoscut, tara noastra a trecut in ultimele decenii printr-o recesiune socio-economica destul de pronuntata.

Fenomenul de acceleratie se manifesta si la nivelul lungimii trunchiului (sezanda), fiind de asemenea mai accentuat la seriile de fete decat la cele de baieti, la toate varstele analizate. Acest lucru poate fi si in concordanta cu faptul ca la fete pubertatea se realizeaza mai timpuriu decat la baieti, deci cresterea in inaltime a primelor pe seama trunchiului se realizeaza mai devreme decat la ultimii. Acceleratia cresterii sezandei se manifesta totodata si prin valori mai ridicate ale sporului total mediu absolut in 1997 fata de 1966 (cu 1,14 cm la fete si cu 1,8 cm la baieti). Spre deosebire de cele doua dimensiuni longitudinale analizate anterior, la nivelul celor doua diametre transverse ale corpului (a-a si



ic-ic) nu au aparut modificari la fel de insemnate in ultimele trei decenii. Valorile medii absolute ale diametrului bicristal, la mabele sexe, sunt practic egale la seriile din 1966 si 1997, la aproape toate clasele de varsta. Diametrul biacromian inasa, este superior la baietii actuali, rata de acceleratie a sa ajungand pana la 2,05 cm (la 12 ani). In schimb, la fete acest parametru ofera valori medii absolute mai scazute in 1997, la ultimele trei clase de varsta.

Acceleratia greutatii este mai evidenta la fete decat la baieti, la fel ca si in cazul staturii si al sezandei. Fenomenul este prezent de la 11 ani la ambele sexe. Intervalul de varsta in care are loc puseul de crestere a greutatii este acelasi la seriile din 1966 si la cele din 1997 (12-13 ani la fete si 13-14 ani la baieti). Sporul total mediu al acestui caracter este inasa usor mai redus la seriile actuale (in special la fete - cu 1,29 kg).

Analiza valorilor medii absolute ale perimetrului toracic evidentiaza cain ultimii 30 de ani s-a realizat o usoara crestere a acestei dimensiuni, atat la seriile feminine cat si la cele masculine, rata de accelerare cea mai pronuntata inregistrandu-se la fetele de 14 ani (1,52 cm) si la baietii de 12 ani (1,62 cm). Amploarea acceleratiei nu prezinta diferente notabile intre cele doua sexe, pentru acest caracter.

Perimetrul bratului este caracterul de troficitate care a suferit cele mai accentuate modificari intre 1966 si 1997, in special la seriile de baieti. Astfel, valorile medii absolute sunt superioare la toate clasele de varsta actuale, cea mai ridicata diferenta in favoarea perimetrului bratului baietilor din 1997 fiind de 3,03 cm (la 15 ani). Acceleratia acestui caracter este prezenta si la seriile de fete, dar cu rate care variaza intre 0,7 si 1,13 cm.

Pentru perimetrul coapsei, mediile absolute sunt mai reduse in 1997 decat 1966, ambele la fete (diferentele ajung pana la 2,2 cm la 15 ani). Baietii actuali au si acestia perimetrul coapsei mai mic decat cei din 1966, dar intr-o masura mai redusa decat fetele.

Valorile medii ale indicilor de proportionalitate sunt inscrise in tabelul nr.2. Din analiza acestora am constatat ca, exceptand clasa de 11 ani de baieti, seriile din 1966 erau mai macroskelice decat cele actuale. Faptul era previzibil, mai ales la fete, avand in vedere realizarea in medie mai devreme a pubertatii in 1997. Diferentele intre mediile indicelui skelic al celor doua generatii sunt mai pronuntate la seriile feminine decat la cele masculine.

Raportul staturo-ponderal, exprimat prin indicele Rohrer, in general nu se diferentiaza semnificativ la seria noastra fata de seria din 1966. Subliniem totusi ca, daca intre 11 si 14 ani, valorile acestui indice sunt usor superioare la fetele din seria noastra fata de seria de comparatie, in schimb baietii actuali de 12 ani si 13 ani prezinta o usoara insuficienta ponderala in raport cu cei din 1966.

De asemenea, se observa ca, in ceea ce priveste dimensiunile transversale in valoare relativa, fetele din 1997 prezinta umeri usor mai ingusti decat cele din 1966, iar baietii actuali au, dimpotriva, largimea umerilor mai mare. Valorile medii ale indicelui de largime a bazinului nu se diferentiaza, in general, semnificativ fata de valorile seriei din 1966, la ambele sexe.

Trunchiul baietilor studiatii in 1997 apare mai trapezoidal decat al celor din seria de referinta, inasa la fetele actuale valorile indicelui acromio-iliac, dimpotriva, trunchiuri mai dreptunghiulare decat la cele din 1966.

Se poate observa totodata, ca fenomenul acceleratiei in seria noastra implica si o dezvoltare in general mai buna a perimetrului bratului (in valoare relativa) la baieti, precum si grosimi mai mici ale coapselor la fetele si baietii din 1997.

Referitor la accelerarea varstei pubertare, s-a constatat ca varsta medie puberala a fetelor studiate in 1997 este de 12 ani si 7 luni, in timp ce la seria din 1966 era de 13 ani. Rezulta, astfel, o accelerare a varstei medii puberale a fetelor cu numai 5 luni in ultimii 30 de ani.

In seria noastra, toate fetele din clasa de varsta de 15 ani studiate sunt pubere, cele care au avut menarha instalata la 12 ani, 13 si la 11 ani detinand procentele cele mai ridicate (34,14 %, 25,61 % si 20,73 %).

## CONCLUZII

Din analiza comparativa a datelor obtinute rezulta ca procesul acceleratiei este prezent in orasul Brasov in intervalul 1966-1997 si se manifesta atat pe plan somatic cat si in planul maturizarii sexuale la fete. (fig 1 si 2).

Ratele de acceleratie, la nivelul cresterii somatice, sunt in general mai ample la seriile de fete decat la cele de baieti, fenomenul fiind explicabil prin sensibilitatea mai mare a baietilor la conditiile defavorabile de mediu. De altfel, acceleratia mai pronuntata a cresterii fetelor, face ca in intervalul 1966-

1997 sa nu apara modificari ale momentului in care baietii depasesc fetele prin diferite dimensiuni, incrucisarea curbelor avand loc, in ambele etape, la nivelul clasei de varsta de 14 ani. Aceasta denota implicit o accelerare a pubertatii baietilor mai putin intensa sub aspect somatic decat a fetelor.

In general, modificarile cele mai ample legate de fenomenul acceleratiei au aparut la nivelul dimensiunilor longitudinale si al caracterelor de troficitate, incluzand nu doar cresterea valorilor medii, ci si marirea sporurilor totale de crestere pentru mare parte din caracterele analizate. Raportul staturo-ponderal nu reflecta insa o mai buna troficitate in perioada peripuberala a seriilor din 1997.

Din cele aratate rezulta deci, ca desi in ultimele decenii, in tara noastra s-a inregistrat o pronuntata scadere a nivelului de trai, totusi fenomenul accelerarii cresterii adolescentilor a continuat. Factorii care s-au reflectat favorabil in dezvoltarea fizica a acestora pot fi cautati in progresele civilizatiei si ale igienei sanitare, preocuparile crescute ale copiilor pentru activitatile sportive extrascolare, reducerea numarului de copii in familie, etc.

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## CARACTERUL ARMONIC AL DEZVOLTĂRII FIZICE ȘI MATURIZAREA PUBERTARĂ ÎN ADOLESCENȚĂ

BRIGITHA VLAICU, EMILIA GLUHOVSCHI, DOINA ȘOȘDEAN,  
SALOMEIA PUTNOKY, GABRIELA DARANY

### 1. INTRODUCERE

Adolescența, situată între 10-19 ani, începe cu primele semne de dezvoltare ale caracterelor sexuale secundare și se continuă până când modificările morfologice și psihologice se apropie de vârsta adultă, spre 20 de ani.

Creșterea și maturizarea sunt procese continue, fără tranziție brutală între copilărie și adolescență, între adolescență și perioada de adult. În adolescență se produc modificări rapide în creșterea fizică, în maturizarea pubertară și psihosocială. Este perioada modificărilor cu semnificație unică, cu dobândirea unor trăsături definitorii pentru adult.

Antropometria are o importanță particulară în adolescență. Ea permite supravegherea și evaluarea modificărilor de origine hormonală ale creșterii și maturizării care au loc în această perioadă. Creșterea fiind influențată sensibil de deficitul sau excesul nutrițional, antropometria în adolescență oferă indicii și asupra stării nutriționale. Astfel, investigarea acestei perioade de modificări rapide este, în aceeași măsură, importantă, dar și dificilă.

Ne-am propus un studiu al dezvoltării fizice și al maturizării pubertare la adolescenți

### 2. MATERIAL SI METODA

#### 2.1. Material (Tabelul 1)

Tabel 1.

*Distribuția elevilor de 11-18 ani în funcție de vârstă și sex*

vârsta (ani)	Total		Băieți		Fete	
	nr.	%	nr.	%	nr.	%
11	113	11.92	55	13.03	58	11.03
12	164	17.20	47	11.14	117	22.24
13	90	9.49	54	12.80	36	6.84
14	98	10.34	51	12.09	47	8.94
vârstele 11-14 ani (gimnaziu)	465	49.05	207	49.05	258	50.95
15	133	14.03	62	14.69	71	13.50
16	118	12.45	50	11.85	68	12.93
17	129	13.61	6	14.45	68	12.93
18	103	10.86	142	9.95	61	11.60
vârstele 15-18 ani (liceu)	483	50.95	215	50.95	268	49.05
Toate vârstele	948	100.00	422	44.51	526	55.49

Populația școlară formată din 948 de elevi cu vârsta între 11-18 ani, 55,49% fete și 44,51% băieți, provin din patru localități urbane bănățene, capitale de județ: Timișoara, Arad, Deva și Hunedoara, cu limite între 23,21-27,21% / localitate.

Grupele de vârstă s-au încadrat între 9,49-17,20%.

49,05% dintre elevi frecventează gimnaziul, iar 50,95% liceul.

## 2.2 Metodă

Măsurarea directă a indicatorilor somatometrici talie și greutate pentru fiecare subiect, permite diagnosticul de dezvoltare fizică armonică (metoda corelativă).

Examenul medical general stă la baza încadrării fiecărui elev într-unul dintre cele cinci stadii de dezvoltare pubertară Tanner.

Datele individuale s-au prelucrat statistic pe calculator.

## 3. REZULTATE SI DISCUTII

### 3.1. Dezvoltarea fizică armonică / disarmonică

Din punct de vedere al indicilor de dezvoltare fizică, se constată (Tabel 2):

Tabel 2.

Dezvoltarea fizică la elevii de 11-18 ani

Caracterul dezvoltării fizice	Specificare	Total		Băieți		Fete	
		nr.	%	nr.	%	nr.	%
Armonic	foarte mic și mic	79	10.42	31	9.37	48	11.24
	mijlociu	542	71.50	216	65.26	329	75.65
	mare și foarte mare	137	18.07	84	25.37	56	13.11
Disarmonic	supra-ponderal	82	43.16	52	57.14	30	30.30
	sub-ponderal	108	56.84	39	42.86	69	69.70
Total armonici		758	79.96	331	78.44	427	81.18
Total disarmonici		190	20.04	91	21.56	99	18.82
Total		948	100.00	422	44.51	526	55.49

79,96% dintre elevi sunt armonici: 78,44% dintre băieți și 81,18% dintre fete.

Pe primul loc se află armonicii cu indici mijlocii, 71,50%, mai frecvent fete cu 10,39 procente. Urmează armonicii cu indici mari și foarte mari, 18,07%, mai frecvent băieți cu 12,26 procente. Pe locul al treilea sunt armonicii cu indici mici și foarte mici, 10,42%, mai frecvent fete cu 1,07 procente.

20,04% dintre elevi sunt disarmonici: 21,56% băieți și 18,82% fete.

Disarmonicii subponderali sunt mai numeroși, 56,84%, mai frecvent fete cu 26,84 procente. Disarmonicii supraponderali dețin un procentaj de 43,16%, mai frecvent fete cu 26,84 procente.

După criteriul vârstă, distribuția elevilor armonici și disarmonici poate fi caracterizată astfel (Tabel 3):

Pe grupe de vârstă și sex, proporția armonicilor:

- descrește, de la 11 ani (87,28% la băieți și 79,31% la fete), atingând cele mai mici valori la 13 și 14 ani (52,78% la fetele de 13 ani, 50,98% la băieții de 14 ani);

- crește la 15 ani (peste 85% la ambele sexe) și la 16-17-18 ani (peste 90%).

Tabel 3.

Distribuția elevilor armonici și disarmonici de 11-18 ani după criteriul vârstă și sex

Vârsta (ani)	Sexul	Total		Armonici		Disarmonici	
		nr.	%	nr.	%	nr.	%
11	B	55	100.00	48	87.27	7	17.72
	F	58	100.00	46	79.31	12	20.69
12	B	47	100.00	27	69.23	20	42.55
	F	117	100.00	81	66.67	36	30.77
13	B	54	100.00	36	52.78	18	33.33
	F	36	100.00	19	50.98	17	47.22
14	B	51	100.00	26	68.09	25	50.02
	F	47	100.00	32	87.10	15	31.91
15	B	62	100.00	54	85.92	8	12.90
	F	71	100.00	61	90.00	10	14.08
16	B	50	100.00	45	94.12	5	10.00
	F	68	100.00	64	91.80	4	5.88
17	B	61	100.00	56	92.65	5	8.20
	F	68	100.00	63	92.86	5	7.35
18	B	42	100.00	39	92.86	3	7.14
	F	61	100.00	61	100.00	-	-
Toate Vârstele	B	442	100.00	331	74.89	91	25.11
	F	526	100.00	427	81.18	99	18.82
	B și F	948	100.00	758	79.96	190	20.04

## 3.2. Dezvoltarea pubertară (Tabelul 4)

Tabel 4.

Distribuția elevilor de 11-18 ani în funcție de gradul de dezvoltare pubertară, după criteriul vârstă și sex

Vârsta (ani)	Sex	Total		Stadii de dezvoltare pubertară									
		nr.	%	Stadiul I		Stadiul II		Stadiul III		Stadiul IV		Stadiul V	
				nr.	%	nr.	%	nr.	%	nr.	%	nr.	%
11	B	55	100.00	4	7.27	48	87.27	3	5.45	-	-	-	-
	F	58	100.00	4	6.90	12	20.70	15	25.86	27	46.55	-	-
12	B	47	100.00	-	-	30	63.83	12	25.53	5	10.64	-	-
	F	117	100.00	-	-	-	-	16	13.68	60	51.28	41	35.04
13	B	54	100.00	-	-	8	14.81	12	22.22	30	55.55	4	7.41
	F	36	100.00	-	-	-	-	4	11.11	8	22.22	24	66.67
14	B	51	100.00	-	-	-	-	20	39.22	24	47.06	7	13.73
	F	47	100.00	-	-	-	-	-	-	-	-	47	100.00
Vârste 11-14 ani	B	207	100.00	4	1.93	86	41.55	47	22.71	59	28.50	11	5.31
	F	258	100.00	4	1.55	12	4.65	35	13.57	95	36.82	112	43.41
	BșiF	465	100.00	8	1.72	98	21.08	82	17.63	154	33.12	123	26.45
15	B	62	100.00	-	-	-	-	7	11.29	22	35.48	33	53.23
	F	71	100.00	-	-	-	-	-	-	-	-	71	100.00
16	B	50	100.00	-	-	-	-	-	-	8	16.00	42	84.00
	F	68	100.00	-	-	-	-	-	-	-	-	68	100.00
17	B	61	100.00	-	-	-	-	-	-	-	-	61	100.00
	F	68	100.00	-	-	-	-	-	-	-	-	68	100.00
18	B	42	100.00	-	-	-	-	-	-	-	-	42	100.00
	F	61	100.00	-	-	-	-	-	-	-	-	61	100.00
Vârste 15-18 ani	B	215	100.00	-	-	-	-	7	3.26	30	13.95	178	82.79
	F	268	100.00	-	-	-	-	-	-	-	-	268	100.00
	BșiF	483	100.00	-	-	-	-	7	1.45	30	6.21	446	92.34

În gimnaziu:

26,45% dintre elevii de 11-14 ani sunt puberi: 43,41 dintre fete și 5,31% dintre băieți. Primele fete pubere au 12 ani: 35,04%. Toate fetele de 14 ani sunt pubere. Primii băieți puberi au 13 ani: 7,41%. La 14 ani, 13,73% dintre băieți sunt puberi.

În liceu:

92,34% dintre liceeni sunt puberi: 100,00 % dintre fete și 82,79% dintre băieți. Toate fetele de 15-18 ani sunt pubere. Începând cu vârsta de 17 ani toți băieții sunt puberi.

Atât în ciclul gimnazial cât și în cel liceal fetele prezintă o maturizare puberală mai precoce și mai avansată, comparativ cu băieții.

### 3.3 Corelații între dezvoltarea fizică și dezvoltarea pubertară (Tabel 5)

Tabel 5.

*Dezvoltarea fizică și dezvoltarea pubertară la elevii de 11-18 ani*

Caracterul dezvoltării fizice	Prepuberi		Puberi	
	Nr. cazuri	Prevalența	Nr. cazuri	Prevalența
Armonic	255	67.28	503	88.40
Disarmonic	124	32.72	66	11.60

Și la elevii puberi și la elevii prepuberi, întâietate au cei cu dezvoltare fizică armonică: 88,40%, respectiv 67,28%. Armonia se asociază mai frecvent cu pubertatea și postpubertatea, cu 21,12% mai mult față de asocierea armoniei în dezvoltarea fizică cu prepubertatea.

Disarmonici ocupă locul al doilea și la puberi, 11,60% și la prepuberi, 32,72%. Disarmonia se asociază cu prepubertatea într-un procentaj superior, de 21,12%, față de asocierea cu pubertatea și postpubertatea.

## 4. CONCLUZII

Modificările rapide care survin în adolescență stau sub semnul maturizării și cuprind:

- saltul de creștere somatică, definit prin "creștere";
- apariția concomitentă a caracterelor sexuale secundare, a primei menstruații / ejaculării, definite prin "maturizare".

Într-o populație de adolescenți, variabilitatea cronologică a maturizării depinde de: factori individuali (genetici, mai ales, denutriție prelungită, boli cronice), factori de mediu (nutriția, nivelul socio-economic, nivelul industrializării și urbanizării, caracteristicile locului de rezidență) și asistența medicală.

Tocmai marea variabilitate individuală a creșterii și maturizării în adolescență determină o rezervă a cercetătorilor, rezervă ce trebuie însă depășită în planul cunoașterii mai profunde a perioadei care precede starea de adult.

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## NORMALITATE FIZICĂ ȘI NEUROPSIHICĂ ÎN PRAJMA ȘCOLARIZĂRII

BRIGITHA VLAICU, SALOMEIA PUTNOKY, EMILIA GLUHOVSHI,  
DOINA ȘOȘDEAN, GABRIELA DARANY, TATIANA DUMITRAȘCU

### 1. INTRODUCERE

Începerea școlii în condiții optime, fără fenomene de inadaptare, se bazează, în principal, pe o dezvoltare fizică și neuropsihică normală.

Bilanțul stadiului de dezvoltare fizică și neuropsihică trebuie efectuat periodic, pornind de la următoarele considerente:

Omul este rezultatul unui proces formativ condiționat de factori interni, mai ales genetici și de factori ecologici.

Omul social, începând cu zestrea biologică, se formează prin educație, în contact permanent cu mediul material și spiritual.

Procesele de creștere și de maturizare se petrec în dinamică și corelativ, unele componente fiind prioritare și maxime pentru o perioadă ontogenetică dată.

Stimularea dezvoltării fizice și neuropsihice în cadrul familiei și a instituțiilor organizate pentru ocrotirea și educarea copiilor (creșe, grădinițe, școli) are rol covârșitor, de necontestat, pentru formarea adultului sănătos.

În lucrarea de față ne-am propus să apreciem nivelul dezvoltării fizice și neuropsihice în preajma școlarizării, cu stabilirea dezvoltării fizice armonice și a normalității neuropsihice, ca indicatori direcți ai stării de sănătate a copiilor dintr-o colectivitate de preșcolari mari.

### 2. MATERIAL ȘI METODĂ

#### 2.1. Material

Pentru realizarea scopului propus, s-a investigat o colectivitate timișoreană de preșcolari mari cu vârsta de 6 ani, totalizând 76 de copii, 42 de băieți și 33 de fete (Tabelul 1).

Tabel 1.

Repartiția lotului de preșcolari

Vârsta (ani)	Total		Băieți		Fete	
	Nr.	%	Nr.	%	Nr.	%
6	75	100.00	42	56.00	33	44.00

#### 2.2. Metodă

##### 2.2.1. Antropometria, ca metodă de apreciere a dezvoltării fizice

Prin măsurători directe s-au deteminat: talia, cu ajutorul antropometrului Martin, în cm și mm; greutatea, cu cântarul de persoane, în kg și sute de grame.

Datele măsurătorilor individuale s-au prelucrat matematico-statistic, calculându-se indicatorii de sinteză: media aritmetică ponderată ( $\bar{X}_p$ ) și deviație standard ( $\sigma$ ).

Prin metoda claselor sigmale s-a urmărit încadrarea taliei și greutății fiecărui subiect examinat, pentru vârsta și sexul său, în clasa indicilor mijlocii, mari și foarte mari, mici și foarte mici.

Prin metoda corelativă, s-a apreciat dacă talia și greutatea fiecărui subiect aparțin sau nu aceluiași clase sigmale.

##### 2.2.2. Testarea psihologică, ca metodă de apreciere a dezvoltării neuropsihice

S-a investigat comportamentul cognitiv sub forma gândirii verbale (test Irasek).

Copilul testat a fost chestionat sub formă verbală.

Testul conține 20 de întrebări, în dreptul fiecărei întrebări fiind specificate punctajele realizabile.

Se totalizează punctajele la cele 20 de întrebări și se compară cu valorile orientative:

- categoria 1 - cel puțin +24 puncte = nivel înalt al gândirii verbale;
- categoria 2 - între +14 și +23 puncte = nivel al gândirii verbale peste medie;
- categoria 3 - între 0 și +13 puncte = nivel mediu al gândirii verbale;
- categoria 4 - între -1 și -10 puncte = nivel al gândirii verbale sub medie;
- categoria 5 - cel mult -11 puncte = nivel minim al gândirii verbale.

Pentru vârsta de 6 ani, primele trei categorii sunt optime.

Copiii aparținând categoriilor suboptimale (4 și 5), vor fi îndrumați la examen neuropsihiatric și psihologic.

### 3. REZULTATE ȘI DISCUȚII

#### 3.1. Dezvoltarea fizică a preșcolărilor de 6 ani

##### 3.1.1. Nivelul dezvoltării fizice (Tabelul 2).

Tabel 2.

Nivelul mediu de dezvoltare la băieții și fetele de 6 ani

Vârsta (ani)	Sexul	Talia		Greutatea	
		$\bar{X}_p$	$\sigma$	$\bar{X}_p$	$\sigma$
6	B	120	7.09	21.28	5.99
	F	117.6	8.74	18.9	5.53

Comparând nivelul mediu al taliei și greutateii la băieți și fete, rezultă valori superioare la băieți: cu 2,4 cm pentru talie și cu 2,30 kg pentru greutate.

##### 3.1.2. Diagnosticul de dezvoltare fizică (Tabelul 3, 4, 5)

S-au delimitat cele cinci clase sigmale pentru talie și greutate, separat pentru băieți și fete (Tabel 3,4).

Tabel 3.

Indicii de variabilitate ai taliei la copiii de 6 ani

Vârsta (ani)	Sex	Media (cm)	Sigma (cm)	Indici					
				foarte mici	mici	mijlocii	mari	foarte mari	
				$\bar{X}_p - 3\sigma$	$\bar{X}_p - 2\sigma$	$\bar{X}_p - \sigma$	$\bar{X}_p + \sigma$	$\bar{X}_p + 2\sigma$	$\bar{X}_p + 3\sigma$
6	B	120.00	7.09	98.73	105.82	112.91	127.09	134.18	141.28
	F	117.60	8.74	91.38	100.12	108.86	126.34	135.08	143.82

Tabel 4.

Indicii de variabilitate ai greutateii la copii de 6 ani

Vârsta (ani)	Sex	Media (cm)	Sigma (cm)	Indici					
				foarte mici	mici	mijlocii	mari	foarte mari	
				$\bar{X}_p - 3\sigma$	$\bar{X}_p - 2\sigma$	$\bar{X}_p - \sigma$	$\bar{X}_p + \sigma$	$\bar{X}_p + 2\sigma$	$\bar{X}_p + 3\sigma$
6	B	21.28	5.99	3.31	9.30	15.29	27.27	33.26	39.25
	F	18.90	5.53	2.31	7.84	13.37	24.43	29.96	35.49

Urmărind încadrarea taliei și greutateii fiecărui subiect în clasele sigmale delimitate, dezvoltarea fizică este armonică dacă ambii indicatori somatometrici aparțin aceleiași clase sigmale (Tabel 5).

Tabel 5.

## Dezvoltarea fizică a copiilor de 6 ani

Caracterul dezvoltării fizice	Specificare	Total		Băieți		Fete	
		Nr.	%	Nr.	%	Nr.	%
Armonic	foarte mic	-	-	-	-	-	-
	mic	1	1.7	-	-	1	3.4
	mijlociu	51	86.4	26	86.7	25	86.2
	mare	5	8.5	3	10.0	2	6.9
	foarte mare	2	3.4	1	3.3	1	3.4
Disarmonic	supraponderal	9	56.3	6	50.0	3	75.0
	subponderal	7	43.7	6	50.0	1	25.0
Total armonici		59	78.7	30	71.4	29	87.9
Total disarmonici		16	21.3	12	18.6	4	12.1

78,7% dintre copiii de 6 ani prezintă armonie în dezvoltarea fizică: 71,4% dintre băieți și 87,9% dintre fete.

Predomină armonicii cu indici mijlocii, 86,4%, în procente sensibil egale băieți și fete. Urmează armonicii cu indici mari și foarte mari, cu 12 procente, mai frecvent băieți, comparativ cu fetele. Pe locul al treilea sunt copiii cu indici mici, 1,7%, exclusiv fete.

21,3% dintre copiii de 6 ani sunt disarmonici, mai frecvent băieți și disarmonici supraponderali.

## 3.2. Dezvoltarea neuropsihică a preșcolarilor de 6 ani (Tabel 6)

Tabel 6.

## Distribuția copiilor de 6 ani în funcție de nivelul gândirii verbale

Vârsta	Sexul	Total		Nivelul gândirii verbale									
				înalt		peste medie		mediu		submediu		minim	
		Nr	%	Nr	%	Nr	%	Nr	%	Nr	%	Nr	%
6	B	42	100.0	3	7.1	3	7.1	24	57.1	9	21.4	3	7.1
	F	33	100.0	-	-	6	18.2	21	63.6	6	18.2	-	-
	B și F	75	100.0	3	4.0	9	12.0	45	60.0	15	20.0	3	4.0
6	B	30	71.4	<b>Optim</b>									
	F	27	81.8										
	B și F	57	76.0										
6	B	12	28.6	<b>Suboptim</b>									
	F	6	18.2										
	B și F	18	24.0										

76,0% dintre copiii de 6 ani prezintă un nivel optim al gândirii verbale, mai frecvent fete, comparativ cu băieții, cu următoarea repartitie procentuală:

- 4%, un nivel înalt al gândirii verbale, exclusiv băieți;
- 12%, un nivel peste medie al gândirii verbale, mai frecvent fete;
- 60%, un nivel mediu al gândirii verbale, mai frecvent fete;

24% dintre copiii de 6 ani prezintă un nivel suboptim al gândirii verbale, mai frecvent băieți, cu repartitia procentuală de:

- 20%, un nivel sub medie al gândirii verbale, mai frecvent băieți;
- 4%, un nivel minim al gândirii verbale, exclusiv băieți.

Nu s-au diagnosticat cazuri patologice în rândul copiilor cu un nivel suboptim cognitiv.

## 3.3. Corelații între dezvoltarea fizică și dezvoltarea neuropsihică la copiii de 6 ani (Tabel 7,8)

Tabel 7.

Dezvoltarea fizică armonică și dezvoltarea neuropsihică la copiii de 6 ani

Vârsta	Sexul	Total		Gândire verbală			
				Nivelul optim		Nivel suboptim	
		Nr.	%	Nr.	Prevalența %	Nr.	Prevalența %
6	B	30	100.0	26	86.7	4	13.3
	F	29	100.0	23	79.3	6	20.7
	B și F	59	100.0	49	83.1	10	16.9

Tabel 8.

Dezvoltarea fizică disarmonică și dezvoltarea neuropsihică la copiii de 6 ani

Vârsta	Sexul	Total		Gândire verbală			
				Nivelul optim		Nivel suboptim	
		Nr.	%	Nr.	Prevalența %	Nr.	Prevalența %
6	B	12	100.0	4	33.3	8	66.7
	F	4	100.0	4	100.0	-	-
	B și F	16	100.0	8	50.0	8	50.0

La copiii de 6 ani cu dezvoltare fizică armonică predomină nivelul optim al gândirii verbale, la:

- lotul întreg, 83.1%;
- la băieți, 86.7%;
- la fete, 79.3%.

La copii de 6 ani cu dezvoltare fizică disarmonică se constată:

- nivelul suboptim al gândirii verbale egalează nivelul optim, prevalența fiind de 50%, pentru cele două categorii de maturizare neuropsihică;
- nivelul suboptim este de două ori mai frecvent față de nivelul optim al gândirii verbale, la băieții dizarmonici;
- toate fetele dizarmonice prezintă un nivel optim al gândirii verbale.

## 5. CONCLUZII

Aplicarea criteriilor de normalitate fizică și neuropsihică pentru vârste date, permite:

- aprecierea directă a stării de sănătate individuală și a colectivităților de copii;
- depistarea timpurie a unor tulburări;
- prescrierea de măsuri corectoare și recuperatorii, unele educative, altele medicale, pentru evitarea accentuării deficiențelor și mai ales pentru preîntâmpinarea ajungerii unor preșcolari în școli speciale pentru handicapați mintali; unele deficiențe se pot accentua în loc să se reducă.

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## L'ADOLESCENCE - ENTRE NORMALITE ET PATHOLOGIE

ELENA RADU, BRÂNDUȘA ORĂȘANU

Pour un commentaire analytique sur notre étude - en cours de déroulement - concernant les adolescents (voir "Aspects de la recherche anthropologique sur l'adolescence", dans Ann. Roum. Anthropol. 34, 1997), on a jugé utile de faire une incursion dans la recherche scientifique de cette problématique.

Si on peut dire que l'adolescence est le temps le plus romantique de la vie, on a la certitude qu'elle est aussi une période dramatique, disharmonique, contradictoire et critique de l'existence.

L'accomplissement de l'harmonie physique de la fin de l'adolescence n'est pas tranquille mais passe par des déséquilibres plus ou moins importantes qui affectent le système nerveux, le système endocrinien et les organes internes.

C'est une période ingrate par les conflits qui suivent les changements de la personnalité, quand la réactivité et le déploiement de l'instinct sexuel vont de pair avec l'augmentation des intérêts sociales et professionnels, avec l'enrichissement de la vie affective, avec le surgissement du désir de liberté et d'indépendance, avec une plus intime découverte de l'être humaine.

La capacité de procréation est atteinte pendant l'adolescence, ultérieurement à la capacité d'établir des relations érotiques-affectives mais avant la maturation psychique et l'intégration sociale.

Pendant l'adolescence, l'entrelacement des facteurs somatiques, psychiques et sociales dans l'étiopathogenèse d'un grand nombre des troubles est très serré.

Par exemple, beaucoup d'états névrotiques sont déclenchés par les sollicitations et les conflits scolaires, et dans une acception plus large, on peut parler de incluant des maladies psychogènes et des troubles psychosociaux (H. Dössler, 1967).

Les névroses de l'adolescence se caractérisent par une expression accentuée de la composante végétative - réactions hystériques, plaintes hypocondriaques, syndromes d'angoisse et phobiques, hyperkinésies et somnambulisme, idées dysmorphobiques avec anorexie mentale.

L'adolescent est torturé par l'idée d'être disharmonique, par l'idée de son imperfection physique qui peut avoir pour effet diverses réactions psychiques, ripostes ou compensations, fuite du monde, orientation vers la mise en valeur des qualités spirituelles ou du pouvoir physique.

Il n'y a plus de doute sur le fait que les vécus de l'enfance exercent une influence déterminante sur l'adolescence.

Les vécus de l'enfance, dit Karen Horney, prennent part directement aux vécus de l'adulte. La somme de ces vécus prend la forme d'une structure de caractère ou plutôt oriente le développement de la dernière.

Nous insisterons plus sur les études analytiques de l'adolescence, qui passent de la phase purement descriptive à la phase d'explication des mécanismes inconscients de l'adolescence.

L'étude psychanalytique de l'adolescence commence en 1905 avec le chapitre sur la sexualité, dans "Trois essais sur la sexualité" de Freud.

Si, avant celui-ci, l'adolescence paraît tirer son importance majeure de son rôle de commencement de la vie sexuelle de l'individu, Freud montre que l'adolescence pourrait être considérée comme l'époque où surviennent des modifications qui donnent à la sexualité infantile sa forme finale, le statut de l'adolescence étant réduit au celui d'une période de transformations définitives, de transitions entre la sexualité infantile diffuse et celle adulte génitale.

En 1922, Ernest Jones (Londre) publie son travail "Aspects sur l'adolescence", avec l'idée centrale de la corrélation entre l'adolescence et l'enfance.

A partir de l'affirmation de Freud dans "Trois essais sur la sexualité" que la phase du développement correspondante à l'âge de 2 - 5 ans doit être vue comme un important précurseur de l'organisation psychique finale, Jones montre en détail que "l'individu récapitule et développe, pendant sa deuxième décennie de la vie, son évolution durant les premières cinq années" et propose comme loi générale le fait que "l'adolescence récapitule l'enfance et la manière exacte dont telle personne parcourt le

stade du développement de l'adolescence est déterminée, dans une très grande mesure, par son développement pendant sa première enfance".

Ces stades sont traversés sur des plans différents pendant les deux périodes, enfance et adolescence, mais d'une même manière chez le même individu.

En 1923, Siegfried Bernfeld (Vienne) motivait les processus d'élaboration chez l'adolescent normal par l'impact des frustrations internes ou externes et des contraintes du milieu.

Anna Freud publie en 1936 deux articles, "Le moi et le ça pendant la puberté" et "L'angoisse instinctuelle pendant la puberté", où elle montre que les problèmes de l'adolescent dérivent de l'effort du moi pour tolérer les tensions et les contraintes produites par les dérivées instinctuelles, effort qui conduit dans des conditions normales aux formations réactionnelles et dans des conditions pathologiques aux symptômes névrotiques.

Anna Freud nous dit que, pendant l'adolescence, plus que pendant n'importe quelle autre période de la vie, on trouve une image instructive sur des conflits typiques exprimant le jeu entre le danger interne, l'angoisse, l'activité de défense, la formation de symptômes transitoires ou permanents.

La recherche de l'adolescent du point de vue psychanalytique se heurte de deux difficultés majeures: d'une part, la reconstruction de l'adolescence dans l'analyse de l'adulte ne parvient pas à obtenir un plein vécu des expériences de l'adolescence; d'autre part, l'analyse directe de l'adolescent est accompagnée par une trop grande charge affective du sujet.

Pourquoi l'adolescent représente un problème pour ses parents, ses éducateurs, ses médecins, pour soi-même?

D'après Anna Freud, les troubles de l'adolescent sont inévitables et, la plupart du temps, imprédictibles.

La structure caractéristique de l'enfant, résultat des conflits prolongés entre le ça et le moi, offre à l'enfant un équilibre interne mais celui-ci est préliminaire et précaire.

Cet équilibre ne permet pas la croissance quantitative de l'activité pulsionnelle ni les modifications pulsionnelles qualitatives. Il doit être donc abandonné afin d'obtenir l'intégration de la sexualité adulte dans la personnalité de l'individu.

On sait maintenant que les adolescents qui ne présentent aucune signe de trouble interne, qui restent pendant cette période des enfants sages, protégés dans la famille, attachés de leur mère, dociles par rapport à leur père, en accord avec l'atmosphère sociale, expriment un retard du développement normal et il s'agit d'un signal d'alarme. Ce sont des enfants qui se sont construits des défenses excessives contre l'activité pulsionnelle et qui sont maintenant contraints par leur effets qui fonctionnent comme barrières contre les processus normaux de maturation.

Une forte fixation à l'égard de la mère, datant du temps de l'attachement oedipien ou préoedipien, conduit à une adolescence difficile.

Mais les recherches sur les enfants orphelins montrent que le manque d'une relation à une figure maternelle stable pendant les premières années constitue un danger pour la cohérence interne de la personnalité, leur adolescence étant caractérisée par la recherche frénétique d'une figure maternelle.

La possession interne et l'investissement d'une telle image sont essentiels pour le déclenchement du processus normal de détachement de la libido et de son transfert sur des nouveaux objets, c'est à dire sur des partenaires sexuels.

Avec l'étude analytique sur des adolescents jumeaux on a découvert que la "révolte" contre les objets d'amour de l'enfance demande non seulement la séparation par rapport à la mère mais aussi la séparation par rapport au jumeau.

L'amour infantile pour les parents s'oppose à l'installation de la phase de développement pendant l'adolescence.

## LA PATHOLOGIE DE L'ADOLESCENCE

Du point de vue de la signification clinique et théorique concernant l'adolescence, nous nous heurtons à la difficulté d'établir la limite entre normalité et pathologie.

L'adolescence représente par définition une interruption de la croissance calme, tranquille, ressemblant par sa détérioration de l'équilibre psychique à une variété d'autres troubles émotionnels et structurales. Les manifestations de l'adolescent se rapprochent des symptômes névrotiques, psychotiques ou antisociaux et fusionnent imperceptiblement avec les états borderline, comme avec les formes initiales, masquées ou évidentes, de presque toute maladie mentale.



A partir d'une riche expérience, Anna Freud soutient que le déséquilibre de l'adolescent prend la forme d'une névrose si la situation pathogène de danger est placée dans le surmoi, l'angoisse étant ressentie comme culpabilité; et qu'il prend la forme d'une psychose si le danger consiste en l'augmentation de la poussée du ça qui menace l'intégrité du moi.

Le fait qu'un adolescent nous paraît comme obsessionnel, phobique, hystérique, ascétique, schizoïde, paranoïde, suicidal dépend, d'une part, de la qualité et de la quantité des contenus du ça qui assiegent le moi et, d'autre part, de la sélection des mécanismes de défense utilisés par le dernier.

Pendant l'adolescence surgissent des pulsions tenant aux phases pré-génitales et des mécanismes de défense des plusieurs niveaux de complexité et les résultats pathologiques - même si identiques comme structure - sont plus variés et plus instables que pendant autres moments de la vie.

Malgré ces similitudes aux autres troubles, les perturbations de l'adolescence ont leur nature spécifique: le danger est perçu comme localisé non seulement dans les pulsions du ça et dans les fantasmes mais aussi dans l'existence des objets d'amour du passé oedipien et pré-oedipien de l'individu.

L'anxiété qui résulte est orientée vers l'élimination des objets infantiles, c'est à dire vers la rupture des liaisons avec eux.

Le conflit typique qui conduit à l'anxiété est donc celui entre la dépendance aux parents (accentuée par le sentiment d'isolement) et l'hostilité envers eux.

Karen Horney trouve une connexion causale entre l'anxiété et l'hostilité jusqu'à l'agressivité.

Francis Halbwachs a mis en évidence un "effet de réciprocité" entre l'anxiété et l'hostilité, une sorte de "causalité circulaire".

Cet effet de réciprocité entre anxiété et hostilité explique pourquoi nous trouvons dans les névroses tant d'hostilité qui constitue également la raison de l'évolution de la névrose, sans une difficulté visible au niveau de l'ambiance.

Karen Horney affirme que l'hostilité typique pur l'adolescence pourrait être produite par plusieurs moyens: le manque du respect des parents à l'égard des enfants; des exigences et des interdictions exagérées; des injustices; des affirmations douteuses; la répression de la critique; une attitude dominatrice des parents; la brutalité envers les enfants pour le prestige ou autres buts ambitieux; l'intimidation grossière ou subtile qui fait l'enfant sentir que toute expression d'hostilité menace sa sécurité. Alors l'existence des pulsions agressives ne peut conduire qu'à l'anxiété.

Un des moyens de réduire cette anxiété est l'attachement à un parent d'une manière qui rassure et qui est facile à être confondue à l'amour.

Mais il s'agit ici, nous dit Karen Horney, d'un besoin névrotique d'affection conditionné par l'anxiété; ce type d'attachement se constitue comme manifestation précoce des conflits névrotiques.

Karen Horney suggère que les tendances dont les forces sont soutenues par la recherche de la sécurité soient nommées tendances névrotiques seulement le cas où le sentiment de sécurité du névrotique est fondé sur l'agressivité - or l'adolescence même paraît avoir une dimension agressive.

Ces manifestations ne constituent pas une névrose proprement dite mais elles représentent le "terrain" sur lequel la névrose peut se développer, puisque leur combinaison donne naissance au sentiment fondamental d'impuissance devant un monde virtuellement dangereux.

Les types des problèmes apparus dans les névroses ne sont pas essentiellement différents de ceux de l'individu de notre société; celui-ci a des tendances contradictoires concernant la compétition et l'affection, l'égoïsme et la solidarité, la mégalomanie et le sentiment d'infériorité.

La différence est que ces tendances contradictoires augmentent et deviennent impératives chez le névrotique, comme résultat de son anxiété inconsciente, de telle manière qu'il est incapable d'y trouver des solutions satisfaisantes.

C'est pourquoi, à la différence de Freud, dans la recherche de l'inconscient comme système de la vie psychique, chez Karen Horney le rôle le plus important est joué par l'analyse de l'anxiété manifeste - expression perceptible de l'anxiété fondamentale (basic anxiety) devant le fait que le milieu est menaçant dans son ensemble puisqu'il est ressenti comme inconstant, trompeur, ingrat, insincère, injuste, jaloux et cruel.

Ainsi, chez l'adolescent il y a la possibilité d'une évolution névrotique qui a sa source dans le sentiment d'aliénation, d'hostilité, dans la peur et la diminution de la confiance en soi.

Nous allons nous poser le problème de la réaction de l'adolescent à l'anxiété produite par l'attachement envers les objets infantiles.



Anny Katan (1937), citée par Anna Freud, a écrit sur un type de défense qui cherche le changement des personnes et de la scène du conflit en utilisant le terme de "déménagement", son résultat étant décisif pour la réussite ou l'échec des autres moyens défensifs contre les pulsions.

Beaucoup d'adolescents, d'après Anna Freud, réagissent par la fuite à cette anxiété produite par l'attachement aux objets infantiles - à la place d'une séparation graduelle des parents il y a un retrait brusque et complet.

Ceci laisse les adolescents avec un souhait passionné pour un partenariat en dehors de la famille où l'attachement est transféré sur des substituts des parents, diamétralement opposés aux parents - ils se dirigent vers des "leaders" qui représentent leurs idéaux ou vers des liaisons passionnées avec les contemporains: amis ou groupes d'adolescents (bandes). Ces exemples, avec ce caractère brusque du changement, représentent une anticipation hâtée de la croissance normale et non un processus normal de développement - les idéaux du leader ou de la bande sont assumés sans discernement et il y a ici le danger de la déviance de la normalité.

Certains adolescents s'enfuient afin de se libérer des situations objectives intolérables mais d'autres le font en exprimant ainsi, symboliquement, un conflit inconscient (et dans ce cas nous avons à faire à un symptôme névrotique - il s'agit d'un conflit entre la dépendance et l'indépendance; le désir de dépendance est vu par l'adolescent comme honteuse, dangereuse ou impossible d'accomplir, donc son apparition induit une panique dont il essaie de se débarrasser par la sortie de la situation douloureuse, par la démonstration de l'autosuffisance mais aussi par la recherche d'une aide extérieure à la famille); la fuite représente une fuite de quelque chose (de l'objet qui a déçu) et, dans le même temps, une fuite vers quelque chose (vers l'objet qui gratifie); la fuite de la maison est aussi un équivalent de la dépression (Meeks, 1975).

Puisque les adolescents préfèrent être considérés plutôt comme précoces, impertinents et immoraux que comme effrayés, infantiles et soumis à une conscience rigide, il y a souvent chez eux une fausse sexualité, c'est à dire un comportement pseudosexuel équivalent à un symptôme.

Un autre type de défense, d'après Anna Freud, est "l'inversion de l'affect", quand l'adolescent n'arrive pas à se détacher de ses parents et se défend en transformant ses sentiments en leur opposé: l'amour devient haine, la dépendance devient révolte, le respect et l'admiration deviennent dédain et dérision. En dépit du fait que l'adolescent imagine qu'il est libre, il ne trouve pas les moyens d'obtenir une vraie indépendance de l'action ou de croissance.

L'opposition compulsive à l'égard des parents s'avère aussi contraignante que la soumission compulsive.

Tant que l'anxiété et la culpabilité restent non diminuées il faut renforcer en permanence les défenses qui consistent en une dénégation des sentiments positifs; il en résulte une attitude grossière et méprisante - terrain propice pour la pathologie.

Si l'agression est attribuée aux parents qui devient ainsi des persécuteurs, cliniquement l'adolescent apparaît d'abord soupçonneux et, si la projection s'accroît, il devient paranoïde.

La dénégation de la réalité interne (instinctuelle) et externe conduit à la névrose. Par exemple, Berta Bornstein montre que chez le préadolescent survient une réaction dépressive au moment de la prise de conscience des imperfections des parents; si le sujet refuse de descendre ses parents de leur piédestal justement afin d'éviter la dépression, il y a la possibilité qu'il développe, par exemple, une tendance vers la délinquance pendant l'adolescence.

L'hostilité et l'agressivité peuvent être, par contre, orientées vers soi, l'adolescent manifestant une dépression intense, cas où nous nous trouvons vers l'augmentation de la pathologie.

Si l'anxiété et les inhibitions bloquent la voie vers des nouveaux objets en dehors de la famille, le libido reste à l'intérieur du self et peut être utilisé dans l'investissement exagéré du moi et du surmoi, ce qui signifie cliniquement des idées de grandeur, des fantasmes du pouvoir illimité, de réalisations majeures, ou l'investissement peut être centré sur le corps de l'adolescent, produisant des sensations hypocondriaques et de modification corporelle connues cliniquement des études initiales des maladies psychotiques.

D'après Eissler, le conflit pathogène de base se constitue pendant l'enfance mais la forme clinique de manifestation chez l'adulte se décide pendant l'adolescence. Comme formes principales de pathologie nous avons: névrotique, perverse, de délinquance, psychotique et leurs équivalents caractériels. En fait il existe deux situations: 1) la psychopathologie se dessine dès l'enfance (par exemple, chez l'enfant apparaît une phobie qui se transforme pendant la période de latence dans une névrose compulsive, pour devenir à l'adolescence une névrose mixte qui reste dans cette forme tout au long de la vie adulte); 2) le plus

souvent, la psychopathologie persistante se constitue pendant l'adolescence. De toute manière, nous pouvons affirmer qu'une forme de pathologie peut être finale seulement chez l'adulte. Au cours de l'adolescence il y a une "fluidisation" de la structure psychique et la libération des forces qui se lieront dans des nouvelles structures par des nouvelles identifications et par l'investissement des nouveaux objets.

Certainement, l'adolescence se caractérise par une augmentation de l'agressivité. Il y a des spécialistes qui soutiennent qu'il s'agit de l'intensification de la pulsion agressive; d'autres soulignent le caractère défensif et adaptatif de l'agressivité chez l'adolescent. Son comportement agressif est favorisé par la fuite devant la pssivité régressive, par le sentiment d'omnipotence, par le relâchement du contrôle du surmoi et par la surcharge de la capacité adaptative du moi.

L'étude d'Anna Freud "L'adolescence", publié en 1958 à Londres, aborde finalement le concept psychanalytique de normalité à l'adolescence même si, nous dit l'auteur, c'est plus facile à décrire les manifestations pathologiques que les processus normaux.

A. Freud fait deux affirmations concernant cela: la première, que l'adolescence est par sa nature un interruption de l'équilibre et, la deuxième, que le maintien d'un équilibre stable au cours de l'adolescence est anormal.

Il faut donc accepter que la dysharmonie de la structure psychique de l'adolescent est un fait, que les combats entre le ça et le moi sont des essais bénéfiques de réinstauration de l'harmonie et de la paix. Ainsi (dit Anna Freud), c'est normal pour un adolescent:

- de se comporter longtemps d'une manière imprévisible et inconsistante;
- de lutter contre ses pulsions et de les accepter;
- de les vaincre et d'être envahi par elles;
- d'aimer ses parents et de les haïr;
- de se révolter contre eux et d'être dépendant d'eux;
- de se sentir honteux quand sa mère paraît imprtante pour lui et, d'autres fois, de chercher lui parler confidentiellement;
- d'imiter et de s'identifier aux autres ou de chercher sa propre identité;
- d'être plus idéaliste, plus artiste, plus généreux que jamais mais aussi l'opposé: égoïste et calculateur.

De telles fluctuations extrêmes seraient anormales pendant toute autre période de la vie.

Maintenant elles ne signifient que l'accomplissement de la structure adulte de la personnalité dure longtemps, que le moi de l'individu n'arrête pas d'expérimenter et ne se précipite pas à limiter ses possibilités.

Il faut ajouter la chose suivante: la crise de l'adolescence a un important volet intergénérationnel et interactif, produisant un ensemble de phénomènes psychiques au niveau des parents, parmi lesquels certains liés à la séparation, avec des points problématiques dans la mesure où ils touchent l'adolescence problématique des parents mêmes.

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## PERSONALITY TENDENCIES IN A SAMPLE OF YOUNG WOMEN (18 – 25 YEARS) FROM AN URBAN MILIEU

EMIL PÂRVU, CRISTIANA GLAVCE, EMILIA IANCU

Les 105 jeunes femmes (20-25 ans) provenant du milieu urbain (Ploiesti), ont constitué un lot inclus dans une étude d'anthropologie physique. Les sujets ont subi un examen psychologique qui a mis en évidence le degré des tendances d'extraversion, le nevrotisme et le psychoticisme qui, dans l'opinion des auteurs, dans le contexte montre le type de personnalité.

La stabilité émotionnelle, comme pendant du nevrotisme marque 8,5% du lot. Les personnalités introverties représentent 26,7% du lot, le reste des sujets manifestant une personnalité ambivertie. Le pourcentage relativement réduit de personnalités extraverties et de personnalités présentant une tendance à l'extra ...représente environ 26%.

Le résultat relativement le même rencontré dans des études similaires chez nous, souligne un trait qui s'avère comme "normalité" pour les jeunes femmes qui traversent ce laps de temps en Roumanie.

In order to find the possible correlation among some anthropometrical data and the features or tendencies of personality at the subjects included in an anthropological multi-disciplinary study, two personality tests were applied.

The first one, Eysenck personality test, measures basic features of personality: extraversion, neurosis and psychotics, which, in authors' opinion are organized in a more general structure, defining the type of personality. From the three basic features, considered axes of human nature, the extraversion – introversion dimension is the most accepted today.

The Romanian version of the test (1) measures this dimension and another basic feature, the neurosis. The test includes also a scale of social sincerity or dissimulation scale, in fact a key of sincerity of responses provided by the subjects. Those scores exceeding the highest limit of 9, till the sincerity degree is considered tolerable, are entirely invalidated.

The first result achieved by the sample, which included 105 subjects, refers to the high degree of sincerity; none of the subjects did accumulate the score 9 which could disqualify on the criteria of social sincerity.

As concerns stability, the pendant of neurosis, only 9 subjects (8.5%) from the total sample presented this feature, the rest of the subjects manifesting neurotically tendencies, amounting over 10 scores, considered a minimal threshold for the existence of this feature.

Because of the big percentage of the light neurotically tendencies, typical for the whole group, we consider that the neurosis degree could be interpreted as normality, especially for the studied group. Such conclusion verifies once more the statement of some specialists accepted as classical, according to which each of us is marked by a certain degree of neurosis. Moreover, as the major part of the subjects were included in the limits of light tendencies, we consider this reality as sustaining the opinion according to which the subjects may be accepted as quite normal, even the authors of the Romanian version agreeing to this point of view.

A synthesis of the various different interpretations of neurosis underlines as defining features: the more obvious propensity of neurotic person to express its claims; a more possessive nature than the similar; a higher degree of jealousy; as a variant of the previous possessive nature; accompanied by some disorders in the love relations of the person. The neurotic person responds with difficulty to the needs assumed by a lasting social relation, by the harmony of the work or family milieu. To establish and maintain suitable interpersonal relations is difficult for a neurotic subject. In a psychoanalytic perspective, we could consider that a neurotic person was very probably the victim of a wrong education during its childhood, a casual defeat in confronting its ideas on a certain reality, especially on a social one.

With respect to the subjects' typology, 29 persons (27.7%) are introverted, the other 76 (72.3%) being in the limits of ambivert or equivert personality. It is to be noted that none of the subjects reached the extreme limit of extraversion.

According to some modern interpretations, the ambiverts which gathered 11-13 scores could be considered ambiverts with introversion tendencies. In the research group they amounted 49, thus increasing the number of persons in this category to 78, namely about 74% of the group. In other words, only 27 (26%) of the subjects remain in the limit of extraversion. Consequently, only about a quarter of the total group has a more objective point of view, is less dedicated to reflection, displaying aptitudes for practical activities, has less control on itself and is more impulsive and aggressive. At the same time, the subjects belonging to this group have a higher adaptability to various realities, are more spontaneous and even more sophisticated comparatively to the introvert personalities.

More inclined towards the self, the introverts are less concerned to what happens around them, ignoring the outer world and the social environment.

It is to point out that the large percentage of subjects with ambivert personality makes less obvious the dichotomy introversion-extraversion, frequently manifest to other studied groups.

The second test, Woodworth personality inventory, emphasized the temperamental tendencies of the person through the answers to the 76 questions included. According to interpretative techniques, we accepted as significant the answers exceeding in percentage the predicted limits for the light tendencies or being close or exceeding the limit preset for the strong tendencies.

From the total sample of 97 subjects which participated in the test, a number of them presented stressed trends to the eight measured dimensions as follows:

- common emotivity	8	(8.2%)
- obsessive psychastenia	3	(3.1%)
- schizoid trends	9	(9.3%)
- paranoide trends	8	(8.2%)
- depression and hypochondria	12	(12.4%)
- impulsivity	5	(5.2%)
- psychic instability	18	(18.6%)
- antisocial trends	2	(2.1%)

The rest of the subjects were in the limits of normality. Those with depressive tendencies and psychic instability call a special attention, by their high comparatively percentages.

In the comparative sample, including women students of different specialties, from the four high degree institutes, from another research with similar objectives, the values achieved are below the level of ours, regarding the psycho-neurotic dimension with strong tendencies. In this way, while the subjects with high tendencies of depression and hypochondria represent 12.4%, in our sample, the same trend reach the high risk level only for 6.3% in the student sample, for high psychic instability the percentages are more similar: 18.6% vs. 16.1% in the comparative sample. The other tendencies are closer to normal values.

It is worth to emphasize here that 77 (73.0%) from the subjects have sustained an entrance examination in a post-school, after they failed the university entrance exam.

This recent personal failure could explain the high level of depression and hypochondria tendencies generally manifest in our sample.

The findings revealed in our research could be complement and support background for similar studies initiated by us about in the same period, the fact pleading for assuming these personality tendencies as representing a "normality state" for the young women who traverse the so called transition and post-transition period characterizing our country today.

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## ANTHROPOLOGICAL EXPRESSION IN INTERHUMAN COMMUNICATION

IOAN OPRESCU

A person's appearance, primarily the face, but the entire physical build as well, constitutes the clear individual mark which is accessible to everyone. It is the genetic code available to all and it plays a practical role. Based on an individual's physiognomy people recognize their membership in an ethnic group, a clan, or a family. It is the means whereby partners have always attracted or repelled one another, couples have formed, etc.

The foundation of physical expression is biological. There also exists a purely cultural expression: the anthroponomical expression. Physical expression changes due to biological factors and events (including pathological ones) on one hand, and as a result of pressure from cultural factors on the other hand. In this way, over time bio-cultural intertwining produces a unit: the anthropological expression. The anthropological expression of a person participates in interhuman communication. One expression conveys one message; another expression means another message.

From birth until death the anthropological expression continues to change. There is an evolution that escapes human control (i.e.: whether a person is tall or short) and a deliberate, controlled and directed evolution which is geared toward very different goals: beautification or mutilation, for example (the custom of purposeful maiming of children who are chosen to become beggars).

Our researches have evidenced the exceptional capacities as well as the desire which human beings have for changing their expression. These are connected with a person's individual aspirations and undoubtedly belong to human nature. As examples of the human ability for self-transformation we mention here transsexuality as well as transraciality.

A point to be emphasized is that the anthropological expression is an important zone of contact and competition between the biological and the cultural domains, and that the human imagination plays a central role in the dynamics of the anthropological expression. Man is an imaginative being who engages in continual self-creation by resorting to artifice. The leading motivation would be perfecting communication, bettering and reaffirming one's identity and, last but not least, the need for security, self-worth, "self esteem".

One's physical appearance, particularly the face, but also the entire physical build, is the clear individual mark accessible for every one to read. It is in a way a "bio-cultural genetic code" that is available to all and it has a practical role. Through this code one can recognize the belonging to an ethnic group, a clan or a family (for example in this later case it is the resemblance between children and parents, grand children and grand parents that is recognized). It is the means by which partners have always attracted each other or repelled each other.

The basic physical expression is biological. There is moreover a purely cultural aspect (although the roots could be biological as well) which is the anthroponomical expression.

Physical expression changes partly because of biological factors and events, including pathological ones, and on the other hand due to pressure from cultural factors. In this way, in time the intertwining of biological and cultural aspects leads to what we call the **anthropological expression**.

The anthropological expression participates in interhuman communication, one expression transmits one message and another one means another message.

From birth until death the human being communicates with all the others primarily through what we have called the anthropological expression. In all this time, that is the entire life span, this expression changes continually. Between the tragic, tortured expression, accompanied by screams, grimaces of pain and tears with which the new born comes into the world and to the superior and detached smile, slightly mysterious or enigmatic with fine nuances of satisfaction that we see on mortuary masks, there is the fabulous human adventure. The change of the expression over the human life span has been insufficiently observed and analyzed in its anthropological significance. This has been the object of ample



interdisciplinary researches from which the biological, pathological, cultural or mixed factors have not been excluded. All these factors have participated in one way or in other, to the ontogenetic evolution of expression. The concern here is not with height, weight, Roehrer index, cephalic or body measurements. This study is about the anthropological expression as it was built -up or re-built through time under pressure or various events, which constantly accompany and influence humans.

Events constantly influence people, some times spontaneously and other times they are brought about with a particular purpose endangering even the health balance of the entire body. These events are biological, pathological, cultural or mixed.

A preliminary observation is necessary: there is an **exceptional capacity of human being for changing their expression**. The range of changes is very broad and very variant, from small changes to very radical changes, as we will see further. The desire to correct nature, which includes denying its power at times is so powerful that we can state that altering one's expression is a rule of behavior in man. This purposeful capacity for changes is an essential aspect of human nature.

The research we have carried out, a clinical study with expression and its relationships with biological, pathological, cultural and mixed factors have revealed the great diversity of circumstances that generate changes of expression as well as techniques that require great creativity and innovativeness regarding changes of expression.

Women change their expression the most to become more attractive (ethological explanation), sometimes confronting any risk to do so. We have countless examples: from the tweezing of eyebrows to the foot-binding that were required in the past of Chinese girls who belonged to a particular social class, or the plastic surgery that removes fat (lipo-suction) to correct the female figure. We should also note here the contemporary practices of "body building".

The messages that are transmitted by means of expression are not always the same. That is why expression must be changed. To communicate a useful message and a feminine message at a more advanced age, there are corrections that can be made using "lifting", hair implants, dental prosthesis, contact lenses (which are not only used to help vision without eyeglasses, but also to give a different color of the eyes), there are surgical interventions in the most intimate parts of the body as well as weight-loss diets, and so forth. To transmit a message of pity and compassion the bodies of some children destined to become beggars are purposefully crippled. This act is surprising, as it institutes a handicap and is exactly opposed to that of correcting an infirmity to achieve normality again. Thus the expression of the mutilated or handicapped child is more powerful than a verbal message and it causes a response that is also nonverbal, expressed through a material contribution.

The remodeling of the face is practiced either after a weight loss diet or to achieve a new identity after the old identity has been compromised or found inadequate.

Transsexuality or other special cases of sexual change appear as an extreme of morphological transformations that involve very complex processes. But here is one unusual case, a case of transraciality. This is the case of pop star Michael Jackson who desired to escape his racial condition. He went through an identity crisis and in order to resolve it or to overcome it he resorted to complicated and dangerous hormonal treatment by which the pigmentation of his teguments lost color. He also subjected himself to surgical interventions, changes in his nose and lips to escape or to remove certain racial characteristics. Teams of doctors and specialists have elaborated and applied complex programs and treatments for number of years to achieve these changes.

The frequency of modification extended from his own person to his wife Lisa Marie Presley, whom he asked to submit herself to plastic surgery to resemble Liz Taylor.

This modification of the **anthropological expression** coming from one's individual ambitions and aspirations and sustained by exceptional capacities for self modeling is a **part of human nature** and manifests itself in the desire to change one's appearance. It is a form of **cultural adaptation**.

Biological adaptation is a process of modification in living organisms, which lead to a correlation between morphological structures and physiological functions of living creatures in response to environmental factors. Natural selection is the mechanism of evolution through adaptation. Cultural adaptation (concerning the anthropological expression) also aims at the correlation of morphological structures with cultural factors, which include, of course, social factors.

Biological and cultural adaptation of the human being is continuous, relentless and unimaginably diverse, and is marked by multiple needs and motivations at the personal level. Its roots are in a need for security and safety. Security can not be achieved without satisfying other needs which are intimate and as powerful, such as **self respect** and **self esteem**; the highest motive, the highest human necessity at the top



of the pyramid of human needs is the need for self realization and the need for fulfillment of the human being sustains Abraham Maslow. Self-respect is translated in every individual's feeling that in some way he is **center of the world**. This personal reality must be communicated to others as well.

On the same level and in relationship to the self-respect is **identity**. This represents an important cause of expression modification. Identity crisis takes place when the integrity of a person's self image is threatened, dismembered or destroyed, situation which usually comes from a conflict of aspirations.

Identity crisis are characteristic to adolescents and early youth. However this can also be encountered later, as we have seen; Michael Jackson's case illustrates this desire to transform oneself.

From an ethological perspective it is known that women give great importance to enhancing the power of attraction, one of the primary purposes and functions of the female being to attract, to stimulate and to maintain the interest of males for women, her primary motivation being procreation. (Note: Fashion represents another complementary means of anthropological expression, a cultural factor that contributes to the morphology (shape) of "attraction". Today and maybe always, fashion dresses in order to undress and enhance in fact the anthropological expression. The debates regarding fashion in contemporary times and the powerful impact it has are, for the moment, beyond the scope of this study).

It is worth pointing out the fact that a small group of women who are specialized in looking good are responsible for maintaining the interest of males for women, or at least, to signal the existence of females by overstating the attributes of femininity. Another group, clearly the majority of women have the primary role of procreating and perpetuating the species.

We are witnessing an informational distribution of the key elements that ensure the continuity of human species and, in a way the evolution of humanity. We note here that an anthropological meaning results from the complete picture which includes women that inject silicon in their breasts or take out their ribs and the teeth to become more attractive, as well the women who nourish themselves without restrictions in natural manner and have healthy children, carrying for the world or humanity forth in this way.

If we look at the dangerous procedures mentioned earlier from this perspective, they may not seem abnormal. In this equation there is also, of course, a role for men, but we will not go into any further detail at this time.

Possibly the most human factor that is at the root of a significant number of morphological changes and which offers a dynamic nature to the anthropological expression is the imagination. Man is an imaginative being. He is his own manager of his shape and appearance. He is his own creation. No other beings have an imagination comparable to that of humans. They are the way they are, natural, whereas human beings turn to artificial means. This artificial dimension originates in and relates to that which is in one's mind. The inner fantasies of each person invade the human world, which fills up with cultural artifice, or his own creation. The creativity of each person as in significant is that person may appear, begins and ends for most beings with the work we carry out upon ourselves, upon our morphology (shape), completed and sustained through cultural means, the result being the anthropological expression. Imagination and artifice are both present early on in anthropogenesis. Later on in his development the human being experiments upon one's own person with the power of imagination, and "cultural artifice".

In the end I would like to stress the idea that the anthropological expression is possibly one of the most important areas of contact and competition too, between biological and cultural forces, a primary area of the manifestation of artifice in human existence.

The invasion of artifice and excessive artificial interventions serve in the end the human biology and its fundamental laws. In other words the entire human nature is essentially a giant and complex medium, the ultimate purpose of which is the sustenance of life itself.



## FACTEURS PSYCHOLOGIQUES DE LA COMMUNICATIVITE

DOINA-ȘTEFANA SAUCAN

D'abord, il nous semble utile de préciser le sens du mot communicativité.

Donc, la communicativité se réfère à la capacité d'être communicatif et communicative est une personne qui établit sans difficulté des relations avec les autres, qui aime ces relations, établit rapidement une liaison avec ses semblables, quelqu'un ayant une compétence sociale développée. Il y a des auteurs (A.Cosmovici et D.Mihai, 1973) pour lesquels la communicativité "serait l'habileté et le plaisir de parler, de communiquer". La communicativité est extrêmement complexe, pouvant être le résultat de la convergence de plusieurs facteurs. C.Levy-Leboyer (1963)

observe que, en ce qui concerne la communication et l'efficacité de l'intervention dans une conversation, on a affaire à "la trilogie ardeur-combativité-équilibre". Le psychologue français dit encore que la personne capable d'établir des contacts rapides ne réussit pas toujours de déterminer leur durabilité, s'agissant dans ce cas du manque d'une coïncidence entre la communicativité et l'affinité sociale (désir d'être dans la société qui n'a pas la même intensité chez tous les gens).

Selon nous, lorsqu'on parle de l'habileté dans la communication, on pense à un entrelacement harmonieux de la capacité linguistique (se réfère au plus haut niveau de l'habileté linguistique propre à une personne, reflétée dans la formulation initiale du message) avec celle sociale-communicationnelle (le degré dans lequel les gens tiennent compte des caractéristiques de ceux auxquels ils s'adressent, produisant le message ainsi qu'il soit compris conformément à l'intention). La compétence communicationnelle ne se réfère pas à la perfection ou à la réalisation d'une qualité supérieure. Il nous semble plutôt que ce type de compétence relève de la capacité d'éviter les pièges relationnelles, de la capacité de "réparer en marche" lorsque les tactiques d'éviter manquent leur coup. Il s'agit au fond d'une efficacité de la communication pouvant être entièrement comprise à un niveau relationnel et dans les termes de certains patterns de comportements interlocuteurs servant à définir une relation comme un type spécifique de système. Encore quelques mots de la liaison personnalité-communication. La personnalité d'un individu peut avoir une influence plus grande dans la communication que le message par lui-même (c'est à dire "comment l'on communique" est plus important que "ce que l'on communique"). Vasile Pavelcu (1975) montrait que "quoi qu'il soit l'acte de communication humaine, il y a un coefficient correspondant au sens thématique et expérientiel conféré à la communication par la personnalité. Car le langage d'une personne peut nous révéler sa psychologie ainsi comme la connaissance de la structure psychique de quelqu'un peut aider au décodage, à la compréhension de son message.

Notre démarche s'inscrit dans l'effort de démontrer de quelle manière les traits de personnalité mettent leur empreinte sur l'organisation des moyens d'expression, sur l'efficacité de la communication.

**L'objectif** de notre recherche est de nature théorique, consistant dans la démonstration de l'importance de certains facteurs psychologiques dans la communicativité, mais aussi méthodologique, visant une action de pretester ces facteurs sur un lot de sujets attestés pour la préparation dans le domaine de la communication et des relations publiques.

Dans **l'hypothèse** nous affirmons que l'aptitude de communiquer s'appuie sur des traits de personnalité comme: la capacité de communication affective, la capacité d'observation et de contrôle sur l'autoprésentation verbale et nonverbale (le self-monitoring), l'extraversion, l'empathie, l'équilibre affectif, la sociabilité.

## METHODE

Pour soutenir l'hypothèse, on a eu recours à une série de questionnaires : le test Friedman (1980) de communication affective qui peut mettre en évidence l'expressivité dans la communication; le test SMS élaboré par Mark Snyder (1974) qui met en évidence la capacité d'observer et de contrôler

l'autoprésentation verbale et nonverbale (monitoriser le self); l'auteur a suppose qu'une personne qui a un bon contrôle sur sa propre présentation et sur son comportement expressif est préoccupée d'agir d'une manière adéquate dans des situations sociales diverses, peut jouer plusieurs rôles, apprend sans difficulté ce qui est plus convenable dans des situations nouvelles, peut employer cette habillée dont elle dispose pour créer l'impression qu'elle désire et pour influencer; le test de personnalité Eysenck pour mettre en évidence l'équilibre émotionnel et la dimension extraversion-introversion; test d'empathie émotionnelle Mehrabian-Epstein (1974) pour mettre en évidence le comportement empathique de type émotionnel, l'empathie étant considérée comme un processus de communication nonverbale réalisée d'une manière implicite; le test Cattell "16 PF" qui permet obtenir une information complète sur les traits de personnalité et qui se propose de couvrir systématiquement les aspects différentiels réels. Après l'application des questionnaires et l'analyse des résultats, on a employé des méthodes statistiques (Bravais-Pearson) pour mettre en évidence les corrélations, l'analyse factorielle pour mettre en relief certains facteurs qui soutiennent notre hypothèse et la distribution dans des classes et catégories pour vérifier la structure de la communicativité.

**Lot investigué:** nous avons choisi 36 sujets de la première année d'étude au Département de communication et Relations Publiques de l'Université de Bucarest. Le groupe est homogène, sélectionné à la suite d'un examen d'admission difficile et consistant, le niveau d'âge est approximativement le même, celui de culture et d'aspirations (au moins sous l'aspect de la profession) presque identique. On considère que ce lot s'offre comme une hypostase préliminaire de la compétence communicationnelle, une compétence en cours d'accomplissement.

### DISCUSSION SUR LES RÉSULTATS

- En ce qui concerne la variable extraversion versus introversion le groupe se présente comme il suit: du total de 36 sujets, 5 sont extraverts (13,88%), 25 sont ambiverts (69,45%) et 6 sujets sont introverts (16,67%). La moyenne est 13,08, c'est à dire au niveau ambivert.

- Pour l'empathie, les résultats sont les suivants : 3 sujets sont bons empathiques (8,33%), 16 sujets sont situés au niveau moyen empathique (44,45%) et 17 sujets se placent au niveau faible empathique (47,22%); la moyenne est 31,25, donc au niveau faible vers moyen empathique.

- Au self-monitoring : 12 sujets ont un niveau bon sur cette échelle (33,33%), 20 sujets sont au niveau moyen (55,56%) et 4 sujets au niveau bas (11,11%), la moyenne du groupe est 13,20, donc au niveau moyen.

- Pour la communication affective, 12 sujets (33,33%) se placent au niveau bon, 21 sujets (58,33%) au niveau moyen et seulement 3 sujets sont au niveau bas (8,34%) ; la moyenne pour cette variable est 71,02, donc un niveau moyen.

- Variables du questionnaire "16 PF" : sur l'ensemble, les sujets investigués sont ouverts vers les autres, ont une tendance vers la coopération, une faible tendance vers la domination, sont plus ou moins enthousiastes et audacieux; mais ils sont aussi sensibles, ont une faible tendance vers la frustration, hésitent entre une sorte d'opportunisme et de sérieux, entre sincérité, naïveté et habillée, avertisation sociale; ils ont une stabilité émotionnelle moyenne, mais ils ne présentent pas un très bon contrôle de soi.

En ce qui concerne les intercorrélations (établies à l'aide de la méthode Bravais-Pearson), on remarque qu'il y a des corrélations très significatives entre les variables que nous considérons comme soutenant la structure de communicativité :entre la capacité de communication affective et le selfmonitoring, la tendance vers l'extraversion, l'enthousiasme, l'audace et la sociabilité.

En accord avec l'objectif de notre recherche et le prolongement de l'analyse de type corrélationnel sur la relation entre les éléments de communicativité et les traits de personnalité nous avons considéré qu'elle peut être examinée d'une manière plus nuancée par l'analyse factorielle. On a suppose que la relation en discussion, sous le rapport typologique et structurel-dynamique, influence ou est influencée dans les co-actions avec d'autres traits de personnalité (par exemple, l'équilibre émotionnel, le degré d'avertisation sociale, la tendance vers radicalisme etc.). Dans ce sens, les résultats aux tests d'empathie émotionnelle, de communication affective, de self-monitoring et Eysenck ont été mis en connexion avec les résultats au test "16 PF". Les facteurs extraits ont un degré de généralité résulté de la covariance des variables complexes et la zone explicative favorisée par cette solution factorielle se situe au-delà d'une simple mise en évidence d'une configuration. On a obtenu trois facteurs :

- *Facteur I* constitue de la coaction de 10 variables, 5 impliquant la réactivité émotionnelle (l'équilibre, l'émotivité, l'harmonie calme, inclination imaginative noncontingente, la détente) et 5

variables étant de type comportemental (empathie faible, tendance de domination, audace, relationnement directe, mais natif, esprit innovateur). Les saturations des variables sont entre .70 et .43. Nous avons défini ce premier facteur par la syntagme *potentialité relationnelle-emotionnelle*.

- *Facteur 2*: résultat de la covariance de l'extraversion (.72), de la capacité de communication affective (.72), de la tendance de coopération (.57), de l'esprit de domination (.37), de l'expansivité (.63), de l'esprit hypothétique (.60). Il s'agit donc d'une liaison forte entre l'implication enthousiaste, l'attitude problematisante, la spontanéité et les variables relevant exclusivement d'un style communicationnel explicite, fait qui nous autorise de donner à ce facteur l'attribut de communicativité, ou conduite communicationnelle-explicite.

- *Facteur 3*: peut être qualifié comme un facteur tendance à cause du pourcentage de variance relativement bas (10% par rapport à 23 % au premier facteur et 17% au second). Il apparaît comme une inclination-détermination vers l'esprit critique, l'opportunisme, l'impulsivité, la frustration. Pour nous, il s'agit d'un facteur de la faible intégration.

Les résultats de la solution factorielle présentée peuvent être considérés des prémisses d'investigation ultérieure justement dans la perspective de la variabilité des profils de compétence communicationnelle, tenant compte de l'hypothèse conformément à laquelle dans certaines professions (professeurs, médecins, managers, négociateurs etc.) la performance s'appuie aussi sur les habiletés communicationnelles spécifiques.

Pour la fin de notre démarche, nous avons considéré nécessaire une vérification de la structure de communicativité. Dans cette phase, on a analysé les indicateurs relevant pour la communicativité selon les résultats de l'analyse factorielle: extraversion, selfmonitoring, communication affective, tendance vers la coopération, capacité d'être ouvert vers les autres, émotivité, expansivité, audace, esprit hypothétique. Nous avons départagé les résultats à ces indicateurs, en les notant avec S (supérieur) pour extraversion, grande capacité de contrôle de l'autoprésentation (entre 17 et 25), grande capacité de communication affective (91-117) et les variables de "16 PF" ayant des notes standard entre 7 et 10; avec M (moyen) l'ambiversion, la capacité moyenne de communication affective (52-78), la capacité moyenne de monitoriser le self (9-16), les variables de "16 PF" ayant des notes standard entre 4 et 6; avec I (intérieur) l'introversion, la capacité réduite de contrôle de l'autoprésentation (0-8), la capacité réduite de communication affective (13-39) et les résultats pour les variables de "16 PF" qui se placent aux notes standard dans l'intervalle 0-3. Pour chaque sujet, on a fixé les suivantes catégories possibles : 0 - pour les réponses identiques à toutes les variables prises en discussion (seulement supérieur, ou moyen, ou inférieur); 1 - pour les réponses voisines comme valeur (supérieur+moyen, ou moyen+inférieur); 2 - pour les réponses contradictoires (supérieur+moyen+inférieur).

Dans la catégorie 0 il n'y a aucun sujet, dans la catégorie I, il y a 23 sujets (64%), 17 avec des réponses cotées avec S et M, et 6 sujets qui ont des réponses dans les classes M et I; dans la catégorie 2 apparaissent 13 sujets (36%).

Nous avons calculé la signification de la différence entre les pourcentages (64% par rapport à 36%) et on a obtenu  $t = 2,37$ , donc  $p < .05$ . Donc les sujets majoritaires présentent une structure de communicativité relativement unitaire (soit à un niveau supérieur, soit à un niveau inférieur) et, implicitement, les items choisis se structurent dans ce que nous appelons capacité communicationnelle.

À noter, que dans le cas des sujets appartenant à la catégorie I, la structure de la communicativité de niveau supérieur (des réponses placées dans les sous-classes supérieure et moyenne) caractérisant 73,9% du groupe de 29 sujets est significativement majoritaire par rapport à la structure faible de la communicativité (des réponses placées dans les sous-classes M et I) qui apparaît à 26,1% sujets de ce groupe:  $t = 3,25$ ,  $p < .01$ , ce qui veut dire qu'aux futurs spécialistes dans le domaine de la communication et des relations publiques, la structure de niveau supérieur de la communicativité se présente comme spécifique.

Quelques mots encore sur la variable de l'empathie que nous avons prise en calcul dans l'hypothèse comme étant l'un des traits de personnalité sur lesquels s'appuie la structure de communicativité. Le fait que dans l'analyse factorielle, l'empathie a dans le facteur I une saturation grande, mais négative (-.65), et dans le facteur 2 une saturation positive, mais petite (.13), nous conduit à la supposition que dans la structure de la communicativité pour le lot investigué, ce trait de personnalité ne joue pas un rôle important. La moyenne du lot pour l'empathie est 31,25, donc un niveau faible vers moyen empathique. Pour élucider la fonctionnalité de l'empathie (qui est au fond une forme de communication implicite) dans la structure de la communicativité, on a recours au type d'analyse suivant : nous avons départagé les sujets de la catégorie I (des réponses voisines comme valeur) dans deux groupes

:sujets avec une structure de communicativité supérieure (réponses dans les sous-classes supérieure et moyenne) et sujets ayant une structure de communicativité inférieure (réponses dans les sous-classes moyenne et inférieure), investiguant ensuite leur niveau d'empathie. Les résultats probes par la formule statistique Mann Whitney sont les suivants : S-M / M-I / Empathie (17-6 sujets) la moyenne est 27,1 (niveau faible empathique) - 49,8 (niveau moyen empathique) ;  $u = 18,5, .05 < p < .02$  (significatif).

Il en résulte que les sujets ayant une structure de communicativité supérieure ont un niveau empathique significativement plus bas que ceux ayant une structure de communicativité inférieure. Une possible explication que nous y avançons est qu'on a affaire à une fonction compensatoire de l'empathie (comme modalité de communication implicite) chez les sujets du second groupe, par rapport à ceux du premier groupe auxquels la modalité de communication explicite est suffisante dans le processus de l'adaptation sociale, la capacité de communication affective étant vue par certains auteurs (voir Friedman) comme suppléant l'empathie.

En essence, notre démarche expérimentale a démontré que, chez les sujets investigués sélectionnés et préparés pour une carrière professionnelle dans le domaine de la communication et des relations publiques, est mis en évidence un facteur spécifique de communicativité et un complexe de traits de personnalité qui le soutient.

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## INFLUENCES DE LA SITUATION DANS LA COMMUNICATION EMPATHIQUE

RUXANDRA GHERGHINESCU

Cette recherche a abordé d'une part le concept de *conduite empathique*, comme modalité de communication implicite qui complète et augmente l'efficacité de la communication explicite, et d'autre part, celui de *situation*, comme interaction des facteurs objectifs et subjectifs à la confluence desquels on construit et on reconstruit les éléments de la réalité sociale. On a essayé d'analyser *la conduite empathique dans une situation* pluri-ethnique marquée par le discours nationaliste.

L'empathie est définie comme "un phénomène psychique par lequel on revivie les états, les pensées et les actions d'autrui, par une transposition psychologique dans un modèle objectif de comportement humain, qui permet la compréhension de la modalité dont l'autrui interprète le monde." (S. Marcus, 1997, p. 38)<sup>2</sup>

En passant au niveau des relations entre groupes on peut considérer l'empathie comme "un transport imaginaire dans la modalité de penser, sentir, agir d'un groupe, autre que celui dont le sujet qui empathise appartient (empathie entre groupes), ou de son propre groupe (empathie en groupe), avec le but de prendre leur perspective en revivant une séquence existentielle" (R. Gherghinescu, 1998)<sup>3</sup>.

On sait que l'empathie, trait commun de la personnalité, favorise un acte volontaire ou non de communication, acte délibéré ou spontané d'une manière non-verbale implicite. La communication empathique, qui contient des éléments de quelque type de communication, se distingue aussi par des aspects spécifiques, caractéristiques à la transposition du "moi" dans la psychologie de l'autrui. Dans ce contexte on peut signaler la relation non-verbale aussi que sa caractéristique d'être implicite. De la même manière on peut affirmer non seulement le caractère actif, mais surtout le caractère interactif de la communication empathique qui reflète les relations entre les personnes ou les groupes qui empathisent (S.Marcus, 1997)<sup>4</sup>. Il s'agit d'une attitude double alternative qui représente en fait la base explicative de l'empathie interactive (T.Slama-Cazacu, 1968)<sup>5</sup>. L'empathie ne remplace pas la communication; mais elle la complète et augmente son efficacité. Elle se trouve au centre du processus de l'interaction humaine, partout dans la vie quotidienne, soit-elle privée ou publique et joue un rôle extrêmement important pour la compréhension et l'anticipation des comportements des autres. Vue elle-même comme une communication et comme une adaptation à la réalité de l'autrui, l'empathie peut devenir ainsi, comme J.F. Held et J.Maucorps<sup>6</sup> (1971, p.122) ont affirmé, une garantie de l'efficacité dans la pratique sociale.

Le terme de "situation" est certainement insuffisant tant qu'il se réfère exclusivement aux conditions extérieures, en faisant oublier le monde intérieur des sujets. Le terme est également insuffisant quand il comporte sur la réalité objective en négligeant la réalité "construite" par le sujet. On peut ainsi considérer que la situation se trouve au niveau des interactions entre le sujet et son monde (P.Popescu-Neveanu, 1994)<sup>7</sup>. Cela suppose une superposition des plans où le plan explicatif est celui qui est construit (le vécu subjectif). De cette manière, la situation dérive d'une transaction entre les structures profondes subjectives et les facteurs externes de pression et d'influence. "La situation", conçue comme un ensemble mobile d'interactions n'appartient pas à la vie en général, mais à la vie de quelqu'un (individu ou groupe).

Dans ce contexte on peut considérer que l'empathie elle-même comporte un double conditionnement: un conditionnement d'ordre interne qui reproduit le mécanisme psychologique du phénomène et un autre d'ordre externe, circonstanciel, qui dépend des différents facteurs. C'est en fait le problème des conditions favorisantes et aussi des obstacles qui peuvent conditionner les manifestations empathiques, parce que tout cela dépend de la concurrence des raisons qui nous déterminent de chercher ou non "l'autrui" et des différents obstacles qui s'opposent.

<sup>1</sup>MARCUS, S., (1997), *Empatie și personalitate*, .Atos, București;

<sup>2</sup>GHERGHINESCU, R., (1997), *Empatia și eroarea de atribuire. Rolul și locul empatiei inter- și intra-grupale și al atribuirii în structura competenței didactice*, Teză de doctorat, Institutul de Psihologie "Mihai Ralea", București;

<sup>3</sup>MARCUS, S., (1997), *Ibidem*

<sup>4</sup>SLAMA-CAZACU, Tatiana (1968), *Introducere în psiholingvistică*, București, Editura Stiințifică;

<sup>5</sup>HELD, J.F.; MAUCORPS, J., (1971), *Je et les autres: essai sur l'empathie quotidienne*, Paris, Payot, p.122, 162;

<sup>6</sup>POPESCU-NEVEANU, Paul., (1994), *Introducere la S.Marcus, D.Săucan, Empatia și literatura* București, Editura Academiei Române;



La recherche en question est un essai de montrer un facteur qui peut bloquer la communication empathique dans la situation, précisément la présence du discours nationaliste dans un espace de cohabitation pluriethnique.

L'hypothèse: Dans des situations caractérisées par la présence du discours de type nationaliste on constate une réduction de la précision des communications empathiques entre groupes.

Au début de l'année 1995 on a eu l'opportunité de vérifier cette hypothèse comme résultat du fait qu'en 1994 la Transylvanie a connu une période de forte présence des discours de type nationaliste de la part des Roumains aussi que des Hongrois. L'attitude nationaliste a été mise en évidence par la présence de quelques grands thèmes. Il s'agit, par exemple, du thème intitulé: "On nous prépare quelque chose" quand une partie des événements déroulés en Roumanie a été interprétée par les Hongrois comme des actions qui préparent le terrain pour des événements pareils à ceux de Târgu-Mures. Cela suggère un état d'anxiété permanente. Dans les articles roumains, le mythe de la "Conspiration" apparaît chaque fois quand il s'agit des Hongrois et de la Hongrie. Un autre thème est celui des conflits interpersonnels présentes comme des conflits inter-ethniques. Les quotidiens roumains accusent les Hongrois d'avoir lésé les droits des Roumains et aussi les quotidiens hongrois accusent les Roumains de la même chose. On peut ajouter le thème intitulé "la consolidation du sentiment minoritaire" qui n'est qu'une autre modalité de créer anxiété parmi les Hongrois à cause de la consolidation de leurs propres sentiments de minoritaires. Il s'agit d'une minorité qui est soumise à la volonté de la majorité. De l'autre côté apparaît le thème de la "majorité persécutée par la minorité". Ce sont des articles centrés sur le sentiment minoritaire de la majorité, en exprimant l'idée que la majorité doit être protégée légalement des abus de la minorité. De la même manière, le thème "des plaintes historiques" apparaît très fréquemment etc. (Haller Istvan, 1995).<sup>8</sup>

On a considéré que ces discours de type nationaliste vont influencer plus ou moins l'implication de la population roumaine et hongroise de la Transylvanie dans l'identité ethnique, les découpages faits par ceux-ci dans la réalité sociale et aussi la précision de la communication empathique.

Méthodes: Pour la vérification de l'hypothèse on a employé une épreuve d'empathie, une épreuve pour mesurer le degré d'identification avec le groupe ethnique et une autre épreuve pour évaluer le degré de représentation pour le groupe ethnique d'appartenance (le groupe objectif) et pour un groupe surordonné, (le groupe subjectif, de référence).

On a utilisé une variante du test de R. Dymond<sup>9</sup>, adaptée pour mesurer la communication empathique entre groupes. Dans cette épreuve on a demandé aux sujets qui appartiennent aux différentes ethnies de faire des évaluations et de prédictions en se basant sur 10 critères bipolaires<sup>10</sup> sur une échelle de 1 à 5: A. Une auto évaluation du propre groupe ethnique d'appartenance; B<sub>(1,2)</sub> Une évaluation des autres deux groupes ethniques de non-appartenance; C<sub>(1,2)</sub> Une prédiction sur la manière dont les autres deux groupes ethniques de non-appartenance s'évalueraient; D<sub>(1,2)</sub> Une prédiction concernant la modalité dont les membres des deux autres ethnies apprécient le groupe d'appartenance des sujets. Pour mesurer le niveau de la communication empathique on compare les prédictions faites par les sujets (réponses aux problèmes C et D) avec les évaluations et les auto évaluations des partenaires (les réponses des partenaires pour les problèmes A et B). Le résultat est établi tenant compte du nombre de points auxquels les sujets se trompent dans les prédictions. On doit noter que plus le score est petit plus le niveau empathique est grand. Dans ce design expérimental chaque ethnie parle d'elle-même et des autres deux ethnies.

Pour mesurer le degré d'identification avec le groupe ethnique on a pris en considération le degré dont les sujets perçoivent des différences entre leur groupe ethnique et les autres groupes de non appartenance, l'importance accordée à l'identité ethnique parmi des autres identités possibles et les réponses aux problèmes d'identité croisés ou on a utilisé des catégories ethniques et socioprofessionnelles, en mettant l'identité ethnique en concurrence avec d'autres identités.

Le degré de représentativité a été mesuré par le degré de correspondance entre l'image de soi et l'image du groupe ethnique d'appartenance et du groupe surordonné.

Les trois épreuves ont été appliquées deux fois (avant et après la période de discours nationaliste), à un groupe de 231 sujets dont 89 Roumains, 77 Hongrois et 65 Allemands qui ont constitué un échantillon de contrôle, parce qu'ils n'ont été ni source ni cibles des discours nationalistes.

<sup>7</sup>HALLER ISTVAN, (1995), *Semne de naționalism în presa locală Târgu-Mureșeană în perioada 1 iulie 1994 - 1 februarie 1995*, în Press Monitor, nr. 1

<sup>8</sup>DYMOND, R.F., (1966) *A scale for the measurement of empathic ability* în A. Paul-Hare, Edgar F. Borgotta, R.F. Bales (red.), *Small groups studies in social interaction*, Alfred A. Knopf, New York, p. 197-206;

<sup>9</sup>sociable - pas sociable, cultivé - pas cultivé, sans xénophobie - xénophobe, poli - impoli, périlleux - inoffensif, tolérant - intolérant, peureux - courageux, chaleureux - froid, on peut avoir confiance en eux - on ne peut pas avoir confiance en eux, extrémiste - modéré

## RÉSULTATS

**Le degré d'identification avec le groupe ethnique.**

A ce niveau on a poursuivi les potentielles réactions d'identité, en faisant la comparaison des données obtenues au premier sondage avec celles recueillies ultérieurement, concernant le niveau d'identification avec le groupe ethnique.

Tableau 1

Les moyennes des indices d'identification au groupe ethnique chez les Roumains, Hongrois et Allemands, avant et après la période des discours nationalistes.

	Roumains	Hongrois	Allemands
1-er sondage	2,70	3,20	3,40
2 ème sondage	3,20	3,80	3,50

Ainsi, en ce qui concerne les Roumains et les Hongrois, la réaction d'identité est similaire. Il s'agit d'une augmentation du degré d'identification au groupe ethnique d'appartenance (Roumains:  $z = 2,55$ ;  $p < .02$ ; Hongrois:  $z = 2,82$ ;  $p < .01$ ). Par contre, les Allemands ne présentent pas une augmentation significative du point de vue statistique du degré d'identification avec le groupe ethnique ( $z = 0,89$ ;  $p > .10$ ).

On a continué avec une analyse au niveau de la répartition du pourcentage des sujets dans les catégories "fortement identifiés" avec le groupe ethnique (F.I.), "moyennement identifiés" avec le groupe ethnique (M.I.) et "faiblement identifiés" avec le groupe ethnique (f.I.), conformément au  $\delta$  du premier sondage.

Tableau 2.

Les répartitions exprimées en pourcentage des sujets roumains, hongrois et allemands dans les catégories fortement, moyennement et faiblement identifiées avec le groupe ethnique d'appartenance, avant et après la période des discours nationalistes.

	1-er Sondage			2-ème sondage		
	Roumains n =	Hongrois n =	Allemands n =	Roumains n =	Hongrois n =	Allemands n =
	50	50	50	39	27	15
FI	12%	22%	30	28,2%	44,4%	46,7%
MI	58%	56%	58%	61,5%	55,5%	46,7%
fl	30%	12%	12%	10,3%	0%	6,6%

Pour les sujets roumains il n'y a pas des différences significantes en ce qui concerne les sujets F.I. ( $t = 1,84$ ;  $p > .10$ ), mais il y a des différences significantes en ce qui concerne les sujets f.I. ( $t = 2,1$ ;  $.02 < p < .05$ , ce qui représente une diminution significative au deuxième sondage). En ce qui concerne les sujets hongrois, on peut remarquer aussi des différences entre le premier et le deuxième sondage (F.I:  $t = 2$ ;  $.02 < p < .05$ ; fI:  $t = 1,95$ ;  $.05 < p < .10$  ce qui constitue une tendance vers signification). Si on considère les répartitions obtenues aux sujets allemands, on ne constate aucun changement important des pourcentages pour les sujets encadrés dans les catégories FI et fI entre les deux sondages (FI:  $t = 1,20$ ;  $p > .10$ ; fI:  $t = 0,62$ ;  $p > .10$ ).

A la suite de cette analyse, les sujets allemands semblent avoir une conduite différente que les Roumains et les Hongrois, conduite qui peut s'expliquer par le fait que les Allemands n'ont pas été touchés par les discours nationalistes.

**Le degré de représentativité pour des groupes objectifs et subjectifs d'appartenance.**

Cette partie de l'étude est centrée sur l'analyse des données concernant l'autoperception du degré de représentativité pour le groupe ethnique d'appartenance (groupe objectif), mais aussi pour un potentiel

groupe sur ordonné (groupe subjectif ou groupe de référence). Ce groupe de référence a été intitulé pour les sujets roumains, hongrois et allemands comme "les habitants de l'arc carpatique".

Tableau 3.

Les moyennes de l'indice de représentativité pour les deux groupes d'appartenance chez les Roumains, Hongrois et Allemands, avant et après les discours nationalistes.

	1-er Sondage			2-ème sondage		
	Roumains n = 50	Hongrois n = 50	Allemands n = 50	Roumains n = 39	Hongrois n = 27	Allemands n = 15
propre ethnie	3,3	4	4,5	4,4	4,9	4,9
arc carpatique	5,1	3,9	4,3	4	2,7	4,6

En ce qui concerne la population roumaine, les modifications sont significatives du point de vue statistique (la représentativité pour la propre ethnie augmente:  $z = 2,65$ ;  $p < .01$  et la représentativité pour "l'arc carpatique" se diminue:  $z = 2,03$ ;  $.02 < p < .05$ ). On peut aussi signaler une augmentation du degré de représentativité pour son propre groupe d'appartenance à la population hongroise ( $z = 2,05$ ;  $.02 < p < .05$ ). Cette augmentation significative statistiquement, est accompagnée d'une diminution de représentativité significative aussi pour le groupe sur ordonné ( $z = 2,13$ ;  $.02 < p < .05$ ).

Quant à la population allemande, il n'y a aucune différence significative concernant la représentativité pour sa propre ethnie ( $z = 0,62$ ;  $p > .10$ ) et la représentativité pour "les habitants de l'arc carpatique" ( $z = 0,58$ ;  $p > .10$ ) entre le premier et le deuxième sondage.

On a procédé ensuite à l'analyse du pourcentage des sujets compris dans les catégories "fortement représentatifs", "moyennement représentatifs" et "faiblement représentatifs" pour les deux groupes d'appartenance, au premier et au deuxième sondage qui confirme les résultats obtenus par l'analyse de la signification des moyennes. Par conséquent, chez les sujets roumains et hongrois, qui semblent être affectés par les discours nationalistes, on doit souligner deux types de transformation de la perception de la représentativité: 1. une augmentation du degré de représentativité pour le groupe d'appartenance objectif; 2. une diminution significative du degré de représentativité pour le groupe d'appartenance subjectif, précisément "les habitants de l'arc carpatique".

Si au premier sondage la catégorisation prégnante se référait à un "Nous" centré sur le groupe non officiel d'appartenance, au deuxième sondage, à cause des influences des discours nationalistes, pour les Roumains et les Hongrois, cette catégorisation change de sens, et se fait remplacée par un découpage dans la réalité sociale qui sépare "Nous" des "Autres" du point de vue ethnique, en s'accordant ainsi avec les groupes ethniques officiels.

Mais, quand il s'agit de la population allemande, il n'y a pas de changements de la manière de catégorisation sur le plan mental; et il n'existe pas de changements en ce qui concerne la représentativité pour aucun des groupes mis en question.

### L'empathie entre groupes

Au sujet de l'empathie entre groupes, l'hypothèse fait des prédictions sur la diminution de la précision de celle-ci, aussi bien chez les Roumains que chez les Hongrois, cela comme conséquence tout d'abord de la séparation sur le plan mental entre "Nous" et "les Autres", et puis de l'augmentation du degré d'identification avec le groupe d'appartenance.

Tableau 4.

La moyenne des performances obtenues à l'épreuve d'empathie entre groupes pour les Roumains, Hongrois et Allemands avant et après les discours nationalistes.

	Roumains	Hongrois	Allemands
premier sondage	16,9	17,9	19,3
deuxième sondage	17,8	18,6	19,6

Sans tenir compte du partenaire de relation empathique on ne peut pas mettre en évidence des modifications significatives entre le premier et le deuxième sondage tant pour les Roumains ( $z = 1,01$ ;  $p > .10$ ) que pour les Hongrois ( $z = 0,96$ ;  $p > .10$ ) et pour les Allemands ( $z = 0,31$ ;  $p > .10$ ).

Si on détaille davantage, en analysant les relations empathiques que chaque ethnie entretient avec les deux autres séparément, les données montreront des différences précises entre le comportement empathique des Roumains et Hongrois d'une part et celui des Allemands d'autre part.

Tableau 5.

Les moyennes des performances des Roumains, Hongrois et Allemands à l'épreuve d'empathie entre groupes (détaillé).

	Roumains - Hongrois	Roumains - Allemands	Hongrois - Roumains	Hongrois - Allemands	Allemands - Roumains	Allemands - Hongrois
premier sondage	17,9	15,9	18,2	17,7	19,4	19,2
deuxième sondage	19,8	15,7	20,4	16,9	19,7	19,5

Ainsi, la précision empathique des sujets roumains pour les Hongrois connaît une diminution significative entre le premier et le deuxième sondage ( $z = 2,05$ ;  $p < .05$ ), pendant que la précision de l'empathie envers les Allemands reste la même ( $z = 0,86$ ;  $p > .02$ ). On peut remarquer aussi une diminution significative de la précision de l'empathie des Hongrois à l'égard des Roumains ( $z = 2,42$ ;  $p < .02$ ), pendant qu'envers les allemands les relations ne changent pas du point de vue de la précision empathique ( $z = 0,46$ ;  $p > .10$ ).

En ce qui concerne les Allemands, ceux-ci ne présentent pas des modifications de précision dans les relations empathiques entre groupes, face aux Roumains ( $z = 0,05$ ;  $p > .10$ ) et aux Hongrois ( $z = 0,37$ ;  $p > .10$ ).

En conclusion, les données relèvent que la précision de l'empathie ne change pas entre le premier et le deuxième sondage que dans le cas des groupes impliqués dans le discours nationaliste (donc, les populations roumaines et hongroises). Dans ces cas-là, la diminution de l'empathie se manifeste exclusivement par rapport au groupe qui représente la source ou la cible de ces discours (les Roumains pour les Hongrois et les Hongrois pour les Roumains). Le groupe qui ne représente ni la source ni la cible de ce type de discours (précisément les Allemands) ne change pas du tout son comportement empathique à l'égard des autres deux groupes qui vivent dans cet espace de cohabitation.

La répartition en pourcentage des sujets roumains, hongrois et allemands dans les catégories "fortement empathique", "moyennement empathique" et "faiblement empathique", dans l'épreuve d'empathie entre groupes au premier et au deuxième sondage, nous conduit vers la même conclusion.

On peut constater encore une fois que les changements observés à cette analyse du pourcentage des sujets encadrés dans les catégories BE qui se diminuent et FE qui augmentent ne sont valables que pour les groupes impliqués dans les discours nationalistes. Donc, ces données suggèrent de nouveau la liaison entre ces discours nationalistes et le niveau plus bas de la précision empathique.

## CONCLUSIONS

1. A la suite d'une période marquée par des discours nationalistes qui ont eu lieu dans un espace de cohabitation, on peut signaler des changements significatifs aussi en ce qui concerne le degré d'identification avec le groupe ethnique et le degré de représentativité pour des différents groupes d'appartenance objectifs ou subjectifs, qu'en ce qui concerne la précision de la communication empathique entre groupes. Ces changements-là ont apparu exclusivement aux sujets qui appartiennent aux groupes impliqués dans les discours nationalistes (les Roumains et les Hongrois).

On a constaté ainsi une augmentation importante du degré d'identification avec le groupe ethnique, augmentation qui peut s'expliquer par le sentiment de risque et d'insécurité que le discours nationaliste provoque. L'analyse des termes de l'épreuve d'identification avec le groupe ethnique démontre la manière dans laquelle les différences entre ethniques se sont devenues de plus en plus intenses, pendant que les similitudes ont commencé à perdre leur importance. L'identité ethnique est redevenue le centre de l'attention et son importance parmi les autres possibles identités s'amplifie jour par jour. Plus que cela, on

a pu observer des accroissements des catégorisations en termes des groupes ethniques. Il semble qu'il s'agit d'un nouveau rapprochement, d'un retour à son propre groupe d'appartenance ethnique, retour mis en évidence par cette augmentation de l'attachement à sa propre identité ethnique.

L'augmentation du degré de représentativité pour le groupe d'appartenance objectif et particulièrement la diminution assez considérable du degré de représentativité pour le groupe d'appartenance subjectif "les habitants de l'arc carpatique", représente une sorte de "retraite" dans le plan mental, retraite orientée de l'espace de cohabitation (l'espace de Nous pluri-ethnique) vers les groupes d'appartenance officiels. Ce phénomène-là reflète une discrimination entre "Nous" et "Les autres". En s'appuyant sur le groupe objectif d'appartenance, les sujets semblent se renvoyer réciproquement d'une manière symbolique de l'espace de cohabitation, ils ne se reconnaissent plus, en devenant comme deux étrangers prisonniers dans un jeu où la victoire de l'un signifie la perte pour l'autre.

La diminution significative de la précision de la communication empathique entre groupes semble refléter la rupture dans la communication apparue aussi dans les discours nationalistes qui font penser à l'idée de variation situationnelle de la conduite empathique.

2. On a pu remarquer que les changements les plus accentués sont survenus chez la population hongroise. Une potentielle explication peut résulter du fait que les données ont été recueillies des régions où la population hongroise est minoritaire et les transformations survenues dans le degré de représentativité pour leur propre ethnie étaient destinées à garder le spécifique d'identité. Par conséquent, on peut supposer que si les données avaient été recueillies des régions où la population hongroise aurait été majoritaire, alors, les résultats auraient été autres.

Puisque dans tous les cas déjà analysés les deux groupes représentaient en même temps des sources et des cibles des discours de type nationaliste, on ne peut pas dire clairement laquelle des deux hypostases a eu une influence plus grande sur les modifications survenues.

3. En ce qui concerne les Allemands, toutes les dimensions mises en discussion (le degré d'identification avec le propre groupe, le degré de représentativité pour le groupe objectif et celui subjectif, la précision de l'empathie) restent les mêmes et nous montrent un groupe ethnique qui continue à vivre dans cet espace de cohabitation ou les autres restent "Nous". La cause de ce problème peut être le fait qu'aucun enjeu ethnique n'est pas devenu trop saillant pour eux, comme il est devenu pour les Roumains et les Hongrois. Bien que leur comportement reste toujours le même du point de vue des dimensions analysées, les Allemands possèdent quelques qualités qui les distinguent par rapport aux Roumains et aux Hongrois. Il s'agit du degré considérable d'identification avec le groupe ethnique d'appartenance, la grande représentativité pour sa propre ethnie, l'empathie entre groupes plus diminuée que chez les autres. Ces particularités peuvent être tributaires à un certain spécifique culturel et elles ne peuvent pas être reprochées aux discours nationalistes à cause de leur caractère constant d'un sondage à l'autre.

La conclusion qu'on peut tirer est que les variations de précision de la communication empathique peuvent être mises en évidence si on surprend une transformation dans la catégorisation sociale au long du temps, précisément quand une partie de "Nous" devient "Les Autres" en attirant après soi des caractéristiques de l'empathie entre groupes, c'est à dire une précision diminuée. Il semble que l'empathie est plus précise par rapport à "Nous" favorisant l'accès à une connaissance, compréhension, communication plus efficaces que par rapport à "l'Autrui". Cela rend important le fait d'être catégorisé dans l'une ou l'autre de ces catégories. Une situation caractérisée donc par la présence du discours nationaliste ne produit pas directement des transformations du comportement empathique mais par l'intermédiaire des processus de catégorisation et au-delà de ces changements on peut trouver des enjeux d'identité.

On pense qu'on peut attribuer à l'empathie le qualificatif de "sociale" parce qu'elle est influencée par les relations entre des partenaires qui appartiennent aux différents groupes sociaux, qui sont importantes pour eux, et qui les déterminent à se conduire d'une certaine manière.

## LA COMMUNICATION POUR LA MÉTAPHORE - IMPLICATIONS DE TYPE THÉRAPEUTIQUE

CARMEN POPOVICI

It could be said that the whole scientific psychology, from its linguistic roots till its most sophisticated and modern application, is "impregnated with metaphors" (Matte Bianco 1975).

Communication is a process of information transmission about ideas or feelings.

The human who communicates is not only a mirror, which reflects reality, but a constructor of reality.

The relationship in therapy between client and therapist is a constructed psychological reality based on a particular type of communication.

In therapeutically communication metaphors could be used in various forms like:

- metaphorical affirmations by therapist or client
- metaphorical productions of patient's imagination methodically provoked by the therapist
- metaphorical actions and rituals
- stories with a metaphorical content.

The use of metaphors is intended to operate therapeutic changes with positive effects.

The paper presents 5 metaphors of *self trust*, a concept which proved to be relevant in our practice.

La communication représente un processus par lequel les gens donnent aux autres des informations sur leurs idées et leurs sentiments.

La personne qui communique n'est pas seulement un miroir qui reflète la réalité, mais elle est plutôt son constructeur infatigable.

Les relations qui existent dans les processus thérapeutiques entre le thérapeute et le patient les deux "partenaires" de cette relation, ou "le patient réclame l'aide psychologique et le thérapeute la donne" (Irina Holdevici, 1996) - constitue une réalité psychologique construite, qui se base sur un type spécial de communication.

Dans le cadre de la communication thérapeutique on peut utiliser la métaphore sous diverses formes, pour obtenir un changement thérapeutique positif.

### MÉTAPHORE ET MÉTAPHORE THÉRAPEUTIQUE.

Au niveau verbal, la communication se réalise par l'intermédiaire du langage qui peut être considéré un système de symboles utilisés dans la construction des messages verbaux et un système de sens.

**Les sens - processus actifs qui se déroulent entre la source et le récepteur se trouvent dans les gens (pas dans les mots); on utilise les mots pour approximer le sens qu'on doit communiquer. Les sens se changent et cela met en évidence leurs dimensions affectives; elles ont besoin de références (on se rapporte au monde extérieur).**

Suivant ces implications des sens qu'on utilise en communication, on comprend plus facilement l'apparition et l'importance des métaphores.

En général, le langage représente plus qu'on communique par des mots, et les mots qui sont des métaphores représentent plus qu'une simple référence aux objets, idées, relations - dit J. Thompson (J. Zeig, 1990).

L'interprétation de la métaphore a lieu au niveau de l'expérience du sujet et la métaphore est "une intuition nouvelle qui a le point de départ dans l'imagination et qui arrive dans l'imagination" (I. Mânzat, 1992).

Dans la rhétorique classique, la métaphore signifie une figure de style, un procédé oratoire par lequel on remplace un mot avec un autre.



Cette définition est un peu étroite par rapport à la notion actuelle qu'on donne à la métaphore et qui inclut aussi les allégories, les fables, les analogies.

Les acceptions modernes du mot "métaphore" sont très claires, dérivées d'une série de "glissements" à partir de la signification traditionnelle et on peut dire que la métaphore représente toutes les liaisons associatives entre les mots ou les concepts qui se basent sur une similitude ou une analogie.

Quelques psychologues considèrent que les métaphores thérapeutiques ne sont pas tellement des "métaphores" décrites par les linguistes; elles sont, dans la grande majorité des cas, des récits plus ou moins complexes.

"Même lorsque le symbole que l'on cherche à faire fonctionner se ramène à la simplicité d'une métaphore élémentaire, il faut ordinairement un récit plus ou moins long pour que cette métaphore fonctionne effectivement" (J. Petot, 1994).

Donc, les métaphores thérapeutiques ne sont pas toujours seulement celles qui suivent strictement la définition donnée par la théorie littéraire; elle se trouve en psychothérapie sous diverses formes: d'affirmations métaphoriques faites par le patient ou le thérapeute, des images métaphoriques, des rituels métaphoriques jusqu'aux récits métaphoriques.

Dans la littérature de spécialité il y a de nombreuses classifications des métaphores thérapeutiques et, dans la majorité des cas, les récits métaphoriques occupent un lieu très important, en rendant compte de leur relevance dans la communication thérapeutique.

### LES RECITS - METAPHORES THERAPEUTIQUES DANS LA COMMUNICATION THERAPEUTIQUE.

Quand les récits sont relatés avec l'intention d'apprendre ou de conseiller l'écouteur ils deviennent pour lui une métaphore (parce qu'une nouvelle sorte d'interprétation d'une situation est mise en évidence).

Il est connu le fait que le lieu de l'intuition et de la fantaisie se trouve dans l'hémisphère droite, où la compréhension s'unifie avec les perspectives métaphoriques et émotionnelles, avec les associations libres. Dans ce cas, l'utilisation des récits en psychothérapie a une nouvelle valeur: l'intention de changement de perspective qui apparaît pour que l'intuition et la fantaisie soient laissées libres. Celles-ci deviennent importantes du point de vue thérapeutique alors que la motivation et la rationalité, seules, ne peuvent pas aider à dépasser les problèmes. Watzlawick croit que pénétrer dans la fantaisie et apprendre penser dans les images verbales des narrateurs représente un gain (pendant la thérapie).

L'utilisation des récits thérapeutiques a pour premier but de faire le patient comprendre qu'il a plusieurs options.

L'action des récits se réalise sur plusieurs niveaux - conscient, inconscient, superficiel ou profond. Dans n'importe quel de ces cas, la métaphore thérapeutique est un outil qui s'ajoute aux autres méthodes et techniques de thérapie en ne les diminuant pas, mais en les enrichissant.

Les récits métaphoriques utilisés dans le contexte thérapeutique réalisent la motivation des personnes et les déterminent embrasser de nouvelles idées qui leur fournissent d'autres perspectives sur la vie.

"Sans faire trop d'effort, l'écouteur du récit gagne un changement de perspective qui commence avec une surprise, que déclenche la réaction de "Aha!" (Peseschkian, 1986).

Quand le thérapeute relate un récit il doit examiner la position du patient de deux ou plusieurs perspectives; puis il peut démontrer que l'attitude manifestée par le patient a des conséquences bonnes ou mauvaises. Ce procédé est possible parce que les récits représentent un cas particulier de communication humaine ou les concepts sont changés.

Suivant cette démarche, le patient peut examiner ses propres attitudes et se sent encouragé d'une autre manière (que jusqu'alors). Il acquiert une capacité de compréhension élevée pour construire la relation entre l'attitude et le comportement et cela le prépare pour le changement de son attitude.

Les récits métaphoriques interviennent efficacement dans la communication thérapeutique; ils aident le thérapeute se connecter affectivement avec le patient. "Quand les sujets sont sceptiques dans la compréhension de la thérapie ou s'ils ne collaborent pas, ils peuvent écouter avec un plus de plaisir un récit ou ils s'identifient immédiatement avec la situation" (S. Lankton et S. Lankton, 1990).

Les récits thérapeutiques peuvent aider le patient à collaborer plus facilement avec le thérapeute. Par l'association avec un récit, le patient parle de soi, de ses conflits, de ses désirs" (Peseschkian, 1986).



## IMPLICATIONS THERAPEUTIQUES

La communication thérapeutique est complexe et efficace surtout quand elle opère sur plusieurs niveaux de la réalité.

Nous tous savons que la réalité d'une page lue d'un livre diffère de la réalité de la personne qui la lit. Les réalités supposées se réfèrent aux sentiments et expériences qui sont représentés sur plusieurs niveaux de significations (que nous nous imaginions un tableau, où il y a un autre tableau, etc.). Cela signifie que les hommes se représentent sur plusieurs niveaux de réalité leurs sentiments, tous avec le même degré de vérité. Cette équivalence des représentations fait que la métaphore soit un mode très efficace dans le changement thérapeutique.

Pendant la communication thérapeutique, quand on relate un récit, trois réalités au minimum se superposent: la réalité de la conversation thérapeute patient, dans l'espace où le programme thérapeutique se déroule; la réalité dans laquelle le patient se représente son problème; la réalité de la métaphore qui représente le problème du patient.

Si l'on parle d'une personne qui se trouve dans une situation très semblable (ou similaire) avec la situation-problème qui lui est relatée, on peut observer comment elle va appliquer la solution de la métaphore directement dans sa vie.

Voilà un exemple de superposition de la réalité et son efficacité (dans une relation de récit).

La situation: la famille X rend visite à madame Y. L'épouse est institutrice et elle ne sait pas que madame sait cela. Après qu'elle entre dans la maison, l'épouse dit à son mari: "tu pourras laisser le manteau" et continue avec un ton dur et un peu ironique: "je parie que tu n'a pas su ça". Le mari, qui écoute toujours son épouse, et ils se comprennent, est irrité du fait qu'il faut suivre la commande de son épouse et ainsi se déclenche une querelle entre les deux époux. Personne ne réalise comment ils sont arrivés au conflit et comment dans leur relation l'épouse a pris le rôle de direction du comportement de son mari.

La situation problème - est relatée par madame Y après une courte période de temps depuis l'incident. Celle-ci raconte d'une de ses amies, institutrice, qui travaille beaucoup et passionnément avec les enfants; elle parle plusieurs fois avec les adultes comment s'ils étaient des enfants et elle ne s'en rend pas compte.

La superposition de la réalité et son efficacité: après la relation de madame Y, l'épouse venue en visite avec son mari, dit: "Et moi, je suis institutrice et je crois que je fait la même chose". A partir de ce moment-ci, les deux époux réalisent d'où provient leur querelle et se rendent compte qu'il ne s'agit ni du "désir" de l'épouse de dominer, ni de la "nécessité" du mari d'écouter.

Cet exemple, comme d'autres, qui suivent le même schéma, peut être utilisé avec succès tant dans la thérapie de famille, que dans la thérapie individuelle.

Le travail avec des (petits) récits est une superposition de réalités: on superpose a) la réalité de la conversation du thérapeute avec le sujet; b) la réalité de la similitude du récit avec le problème du sujet; c) la réalité du récit relaté directement au sujet; d) la réalité des représentations internes des autres réalités énoncées (a, b, c) dans la sagesse du sujet. Celle-ci donne l'effet thérapeutique positif escompté.

Les récits métaphoriques ont beaucoup de fonctions thérapeutiques précisées par Peseschkian comme: la fonction de modèle (les récits sont des modèles pour résoudre les problèmes du sujet); la fonction de médiateur (les récits sont "un intermédiaire" entre le patient et le thérapeute); la fonction de répertoire, de "dépôt" (les récits deviennent des connaissances utilisables au moment où le patient a besoin); la fonction de changement de la perspective.

Voici un exemple que reflète seulement quelques unes de ces fonctions.

On parle d'un père qui a deux fils qu'il aime beaucoup. Il les prie un jour de l'aider à faire quelque chose de très important pour lui. L'un de ces deux fils lui dit carrément qu'il ne l'aide pas, puis il regrette son comportement et il va aider son père. L'autre fils dit au commencement à son père qu'il l'aidera, puis il ne le fait pas. Selon ces événements, le père pense à ses fils et il se rend compte qu'au fond, seulement l'un des ses deux fils a répondu à son appel en l'aidant vraiment.

Ce récit peut accomplir la fonction de modèle, parce qu'il donne la possibilité au patient de rejouer une situation pour choisir la bonne piste (et ainsi il peut offrir au patient un changement de perspective). La fonction de "dépôt" se manifeste par la possibilité qu'a le sujet d'acquérir de ce récit des éléments qu'il utilisera plus tard dans sa vie - en devenant indépendant du thérapeute.

On peut dire que les récits métaphoriques déterminent les changements thérapeutiques désirés. Quelques fois seulement de petits changements se réalisent, mais certes et au bénéfice du patient, et "le petit changement conduira à des changements majeurs" (Walter et Peller, 1992).

En conclusion, les récits thérapeutiques constituent des métaphores par lesquelles une communication efficace se réalise entre les deux protagonistes de la relation thérapeutique ayant des implications positives incontestables.

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## IMAGISTIC HORIZONS IN FOLK ART

CONSTANTIN PRUT

## HORSE AND HORSEMAN

The horse-horseman representation marks the apparition of a new mythological species that is neither the outcome of an aggregation of spiritual and physical attributes, nor the consequence of the exacerbation of the symbolic values of any of the component parts. My say is that the pressure of the pattern inaugurated in the real world at a certain moment (the moment of the horse's taming) triggers on the passage from an indeterminable age to one in which experience has a straight course along an irreversible, unique route – present, past, future.

The man-horse synthesis accounts for the dramatic intention of the historical event into an existence governed by different rules according to which, going back in time, re-experiencing (not repeating) some primeval actions are not only necessary but possible, too. Everyday life, pastured by urgent needs, its horizon permanently menaced by agents devastating (or at least shatter) tradition, cultural and national patrimony, calls, at the representation level, for the most pertinent image of danger and, by reflection, for the image enabled to stifle this danger: the man and the horse.

The image of the horseman-hero can no longer belong to the apotropaic or exorcising program, and this incapacity of operating by mythical excursus on the beneficial and healing action having taken place *in illo tempore*, may be considered the first sign of the pressure of history – setting up a temporal order where current events acquire special consequence.

Before penetrating the horseman-hero composition, before reaching the stage of communicating with historical imperatives, the image of the man as well as that of the horse have both experienced a long, intricate and meaningful career. The representation of the horse in the Romanian folk art is the topic to be dealt with for the present. Many of the morphological and stylistic aspects, as well as the symbolic interpretations of the image of the horse, along the vast lapse of time that passed until the impact with historical events (invasions etc.), would survive, present in both visual and literary folk art.

As far back as the time when it was an ordinary game, the horse would have had a privileged place in the dreams of those who had the capacity of following its fantastic ride. While it may seem true that its silhouette was drawn on the cave walls, as a sort of magic practised by man to master the horse, anyway, the appearance of its image in the very order or proximity of the abode proves highly significant. The evidence of this prestige of the horse is traced back deep into prehistory, surging up as unexpectedly as naturally, as was the case with the wall-paintings in the cave of Cuciulat, on the Somes Valley, that add up the imagery preserved by the Uralian and Franco-Cantabrian pictures<sup>1</sup>. When the artist of those remote times resorts to artistic means of expression, the medium chosen is more often than not the horse bone – a material promising various connotations. One of the oldest artistic creations of the Carpathian-Danubian-Pontic spaces is an Equidae's phalanx anthropomorphised by the ornamental coating<sup>2</sup>. Under these circumstances, the horse became, in a natural way, one of the means man could resort to in order to bridge the gap that separates him from its originally background, the horse is a quick, accessible animal, closer to man's dimensions, creatures vehicles of the travelling spirit (the bird, for instance).

The transportation functions of the horse (the initial psycho-pompous role breaded its capacity of crossing, back and forth, the border of times and the world's frontiers and later on, at the gates of history, it shared the destiny of the civilizing and horse as compared to the other totemic representations of ancient times.

The most sticking form, directly adding up to a magic action, a purely apotropaic proceeding, is placing the horse's heads atop the poles of the house fences, of the pasture enclosures, on dried-up tree-

<sup>1</sup> The Cuciulat cave revealed "several drawings, noteworthy being the well-contoured silhouette, of a horse and the more poorly preserved figure of a feline. the horse is represented in motion, as realistically drawn as the feline that is splendidly sketched in an impressive leap." Cf. Marin Cărciumaru, *Contemporanul*, Bucharest, June 6, 1980.

<sup>2</sup> Vladimir Dumitrescu, *Arta preistorică în România* (Romanian Pre-historical Art). Bucharest 1974, op. 10-16, fig. 2.

trunks. This practice obviously goes into considerably old times if we take into consideration that resort is made to the very substance of the totem-animal, to an identity laudably natural, while rejecting a figurative double-sided aspect of the concrete, an artifact. Picking up the skull, haphazardly, from this or that isolated place, where the horse's death might have occurred, or from some special spots where horse remains were dumped, man places it at the pole top, at tangential points of his yard or plot of land with the surrounding space, with an area out of his control yet and menaced by the unforeseen, by the presence of evil beings and forces. He does not merely place a horse at the border between his household and can rebuild the physiognomy and behavior of the whole, man chooses as protector of his property a dead horse, coming from a different time. Sunk in the unimaginable void of the past, this horse is contemporary with the mythical ancestor, decipherable in the very texture of the original act which ordained the protection of the horse skull cures headaches, sick men and beasts alike, and keeps away mice and rats<sup>3</sup>. In the Banat and in some parts neighboring Yugoslavia, the horse skulls atop the garden poles are expressly meant to protect yards and fields against moles.

The same horse that draws existence from the past, a horse that is both *witness* of and *participant* in the efficient action undertaken for the first time *in illo tempore*, becomes indispensable to the fairy-tale hero to perform exceptional deeds, capable to ensure the continuity of the good old principles of human communities. Eager to be the first to safeguard the kingdom, to find the Moon and the Sun, to kill the dragon or the devastating ogre, to bring the bride from remote horizons (observing the rules of the taboo), to get the golden apple, etc., the hero's elder brothers fail since they got stuck in the contingency, in the luring stir and glitter of reality. Moreover, their very characters have gone too much astray from the moral pattern of that kingdom's founder-ancestor; they prove incapable of coping with the new, turning impervious towards tradition and consequently towards new experiences. The good-fortune of the youngest brother – or of the offspring of the poor, of the soon born after unnaturally long expectations long expectations, generally the one coming out victorious as rebuilders or revigorators of the kingdom – is actually embodied by the wonder horse, the horse endowed with fantastic abilities, the horse coming from old times, from the long-gone youth of his father, able to communicate with those past times when the heroic thought and deed were first experienced. The old age and physical decay of this unique horse, picked up from an otherwise thoroughbred herd, stands for its existence in a different temporal system, deep in the past or in death, where the hero's being has to immerse in order to earn the ability of stirring to action the gear of the mythical script. For it to become able to carry the hero to a victory that is achieved at the end of a journey across “nine seas and nine countries”, “the nether world”, “the realm beyond” – the whole initiatory journey actually recalling of the human experience – this horse is to be placed into special relationship with the world's substance: a creature fed on embers, fire, light, even on the sacred Sun. The accessories of the journey to be undertaken by the hero (the horse's harness, the clothes, the sword of the martel, piled up in attics, among age-old things), having belonged to the father (to the ancestor, to the mythical forefather), are thus fitting the event that occurred once and is to be re-experienced by the hero.

In a ballad, a mother searching for her son “portrays” him appealing to the hyperbolized image of the horse: “His horsey dear / Son of dragon's fear, / His saddle gull / The dragon's skull. / His girth unfair, / Black adder pair, / Mouth to mouth enclenched, / Of braid-tail amatched, / That's the girth he gets. / And his bridle rests / Like two yellow dragons, / Mouth to mouth enclenched, / Of braid-tails amatched, / etc.”<sup>4</sup> The gates of life open for the wonder horse and the hero in both directions: the paths may slide down into the precipice or climb up to the peaks of the mountains, either beyond the cold and dark chthonian horizon or up to the sky's heights, to the bright, perpetually moving realm of the Sun.

Experiencing, the same as his brothers, the same erosion of the character triggered by his place on Earth under circumstances of existential urgent needs, the Savior, the hero, might not have found either the way to the wonder horse, to this essential ally, had not his destiny known a different penetration of the past. Stepping over the threshold of childhood, at the start of his initiatory journey, he met an *old woman* which imparted him the secret of the “magic” horse, clothes and weapons. As only but natural, the old woman knew the secret since she belonged to their times, being the very embodiment of those long forgotten times in search of a new dawn.

The way followed by the hero outside his father's kingdom, we could say, therefore, outside the everyday environment, is obviously a trapped path, a tripe in the maze, a descent in the realm of death.

<sup>3</sup> Elena Niculiță-Voronca, *Datinile și credințele poporului român* (Romanians' Customs and Beliefs), Cernăuți, 1953, pp. 776.

<sup>4</sup> The ballad “*Maica bătrână*” (“Old Mom”) in *Antologie de literatură populară* (Anthology of Folk Literature), I Vol., Bucharest, 1953, pp. 237-246.

Without insisting upon the adventures experienced along his labyrinthine journey, attention should nevertheless be drawn upon the nature of things and events awaiting the hero, by presenting the first obstacle met at the very boundary of the kingdom – the remotest spot that can still be reached by the father's declining power – more exactly, the last spot that his forefather's cognitive will could reach. As soon as he gets near the bridge beyond which lies the world that the hero has to face, all sorts of dangers start springing up from the unknown, from the wilderness, being staged at the beginning of the journey by his own father dressed up in a bear's fur (a bear that he – and his ancestor – were once able to defeat). As a participant in the mythical killing of the animal, as a repository of life experience, as a witness of the cultural insertion into nature, the horse finds it proper to share its spiritual dowry with the hero, enlightening his way and amplifying his effort of penetration into the world. Bestowed with the ability of communicating with the mythical ancestor, favored by his possession of a cultural perspective of reality, the hero can be neither discouraged nor defeated as was the case of his less initiated brothers. The wilderness, the adversities of the not yet humanized, cannot prevent him from going on, from achieving the essential and significant journey of his destiny.

In a different existential hypostasis, in death, the hero has to cross back the boundary between death and life, in order to keep the promise made to his mother. His coffin turns into a horse that take him back to the living world, bringing along his sister from the remote country where she had followed her husband. At the end of this journey in the living realm, he regains his grave, finally finding his peace and quiet that he has been denied so far by the once-made promise.<sup>5</sup> This coffin-horse connection brought about, in the Caucasian cultural space, the apparition of horse-shaped Askos jars used in burial rituals.<sup>6</sup> Anyhow, the departure in the "great journey" currently figures the horse's company.<sup>7</sup>

Deeply submerged "in history", in a reality whose concretion and social and moral urgent needs assail him, the hero happens to lose the archetypal solidarity with the horse. While lonesome, Toma Alimoș, "outlaw of southern country", prepares his wine flask for libation chanting: "I would drink the health, but, lo / There's nobody to see and woe, / I would drink to my dark bay, / But he has nothing for me to say, / He's all eyes and ears my bay, / But has no words in his mouth to say." Equally dull are the weapons, nothing else but "cold irons / Stuck in dried-up wooden sheaths." However, the hero's alienation while experiencing life is not complete, the old mythical complex surviving through the still present communion with the trees that answers his toast: "The forest was stirring / Elms and fir trees / Were shaking, / Beech and maple trees / Were bending, / His brow / To cool, / His hand to kiss." What is even more interesting is that, in the same ballad, at the point of deep tragism when the wounded hero agonizes, the mythical communion is restored. In order to enable his master to perform a final and essential heroic death, the horse shakes off its role of "dumb animal" and regains its archetypal condition. It starts speaking all of a sudden, offering itself "unharnessed", that is, in its mythical purity: "Leave the saddle, up with you, / Hold my mane, don't let it do, / Let me show them poor old braid, / How as a youth I in full paid".<sup>8</sup>

The horse's image provided by Christian carols is that of a "good", plurivalent animal, essentially connected to the vital energies: "Worthy horsey, / Good to break, / Tilt ant trot / In grove to graze," etc.<sup>9</sup>

Set up by old magic practices and fundamental mythical scenarios, the horse's representation lingers on in various form of folk art.

Along this line, special significance seems to be attached to those images in which the horse finds itself able to communicate with water. A wooden or metal horse head placed at the bow of a boat or ship becomes the symbol of the vehicle swinging between the abyss and the heights, between the darkness and the light, preserving, in an unequivocal figuration, the direction of the journey in the realms of life and death. Uprooted from the earthly plains, the horse imagined as such can only be seen in a symbolical system in which time and space are ritually recovered. It legitimately belongs to the aquatic environment – each and every river or water-pool is faithful to the primordial waters, to this environment between worlds, between cosmic fields, between ages. Sometimes, as is the case of the fairy-tales of the vast areas in the Euro-Asiatic steppes, the hero finds the delivering horse in these selfsame waters. With the assistance of the same old woman, emerging from outside the life's boundaries, from death, even

<sup>5</sup> The hero, Constantine, re-experiences, backwards, the transcendence rite, the objects around accompanying him according to their initial pre-destinations. Cf. the ballad "Voichița", in *Antologie de literatură populară...* (Anthology of Folk Literature...), p. 564-572.

<sup>6</sup> Melliné Paladian Ghenea, *Arta preistorică și antică din regiunea caucaziană* (The Caucasian Ancient and Pre-historical Art), Bucharest, 1980, p. 401, fig. 100.

<sup>7</sup> The mourning chant "Zorile" (The Dawn), in *Antologia de literatură populară* (Anthology of Folk Literature), p. 186.

<sup>8</sup> The ballad "Toma Alimoș" in *Antologie de literatură populară* (Anthology of Folk Literature), pp. 289-296.

<sup>9</sup> Petru Caraman, *Literatură populară* (Folk Literature), Iași, 1982, p. 31.

embodying – “the old-woman Iaga, a typical donor”, remarks Propp<sup>10</sup> – death, a necessary link in the cyclic chain-remade by the initiatory journey, the horse is found in deserted moors, on the lake bottom, in the depths of the sea or following the way of some genuine “tests”, in the deceitful brightness of everyday life.

A typical situation, testifying for the old age of this representation since it lies at the very foundation of human settlement, is “the horse-fountain” – a symbolical entity that now and again spotlights a peculiarity of the Carpathian-Danubian-Pontic culture<sup>11</sup>. The horse heads, represented on both sides of the spring that is thereby captured and turned handy for inhabitants and travelers, attach a particular anonymous or, here, quasi-anonymous tinge to the already established offering-foundation. The horse is also present at the crossroads of earthly paths and abyssal paths, marking the border where the realm of light and life opens into the night and death, and where the realm of night and death, yields up to the supremacy of the Sun. Its apotropaic role is obvious; it is to protect the source of life, and, if necessary, to help the hero along the way of restoring the right course of events. The fountain – this gate between realms – may spring up to light dragons or other beings that embody the unknown and nature’s blind forces. The monster’s ritual sacrifice usually takes place near a fountain, along a path crossed by the inseparable hero and his magic horse.

The same situation of the image of the horse is also featured by the way the water wooden ladle is carved. Its handle most often ends up in the shape of a horse head, that is never added up, but carved in the very piece of wood the ladle is made of. The horse-water relation follows on the course of the mythical scenario, which, this time, goes steadily on beyond the fountain, for the whole duration of the man-water co-existence.

Quite interesting is also the image of the horse – chiefly its head in the composition of the abode. The horse head as such is to be found on the spikes of the roof-ridge<sup>12</sup> and, more frequently, on the resistance beams of the roof, more exactly, as endings of these beams. Multiplied, a row is achieved, that goes the whole length of the cornice or eaves. The striking element of each of these images – whether they either enjoy the privilege of the unique expression or assume the tension of the modular reiteration – is their exhibition in that architectonic area where they can reach the sky, and particularly where occurs the impact with the water falling from the heights, on its way down towards subterranean spaces, while restlessly pendulating between light and darkness. “Above” and “under” the symbolic being of the eaves,<sup>13</sup> there lie, vast and profound, the nadiral and zenithal plains where the horse pursues its mythical journeys. Water itself is represented in the Uranian-solar spaces by the sky’s horses – that became, after a long evolution, part of Saint Ilie’s fire team – and is then released to get into the earth, into the “shadowless” spaces.

Given the abilities it enjoyed – particularly the swiftness with which he used to show up and then disappear in a minute beyond the horizon, leaving behind the bewildered hunter – we think that the horse could have been granted anyway, the same as the bird, a durable place in the mythical faun, especially in scenarios of initiatory journeys and transcendence rites. Getting imaginary associated with the horse, man became able to transcend his immediate condition. The high expectations attached to such a vehicle were however granted durability only after the horse was broken, a palpable meaning getting substance only after the horse is imagined as the bearer of the hero. This achievement – though also giving evidence of its limited physical abilities – could but amplify the horse’s movement in the space – in the of mythical journeys. The man-horse representation – only fancied possible till now – turns into a reality of the terrestrial landscape.

The hero’s new image enables us to identify, even though fabulously extended beyond the strict formal aspect, the mythological veins surfaced by the elements of the composition – man and horse – while the pressure of the event turns overwhelming. The mechanism of this plunge into history, is hard to determine both in point of cultural area and time location. The fact that is quite clearly perceived is that the representation of the hero astride (of the horseman, of the knight) witnesses a remarkable diffusion in the Thracian-Getic world, in the ever stirring world of the North-Pontic steppes as well as in the

<sup>10</sup> V.I. Propp, *Morfologia basmului* (Morphology of the Fairy-tale), Romanian edition, Bucharest, 1970, p. 117.

<sup>11</sup> P. Petrescu, *Motive decorative celebre* (Famous Decorative Motifs), Bucharest, 1971, p. 17.

<sup>12</sup> *Arta populară de pe Valea Bistriței* (Folk Art in Bistrița Valley), Bucharest, 1969, p. 218.

<sup>13</sup> According to popular beliefs, “the souls of the dead hover over the caves of the house and, if refused charity they depart in anger.” Cf. Cornel Irimie, *Țara Birsei*, II Vol., Bucharest, 1974, p. 220.



Hellenistic and Roman world in the Balkan areas, at the precise moment when the night of prehistory is swept off by the dawn of history.

For several centuries, starting with the second half of the 1<sup>st</sup> millennium, B.C., the heroic deed has been on the Lower Danube, glorified and celebrated by Knight – a deity rooting into the classic pantheon while also integrating numerous local mythological elements, boasting actual abilities of recalling realities of social and individual destinies. Figured up at the point where the sacred and the profane merge, where, in fact, the old mythical structures open towards the stir of reality, the image of the knight is to be found on an impressive number of objects, dominating or even wholly covering the figurative field of a series of relief with various functions and destinations, pre-eminently meant for funeral, votive and worship purposes: edicules, stars, tablets, medallions. The relief of the knight's image will further be present on the adornments of the parade attire (helmet, genouillère, phalera, pendant) and on coins, thus shifting its symbolic load from the divine and celestial towards the concrete and terrestrial.

The oldest representations of the knight that have so far been disclosed by archeological research on Romanian territory are the ones belonging to the Agighiol treasure, evidence of the cultural horizon of the 5<sup>th</sup> – 4<sup>th</sup> centuries B.C.<sup>14</sup>

Primarily outlined against the Thracian background, circumstantiated by various cultural influences that, to all appearances, ran both ways, from the North-Pontic steppes and Celtic world to the micro-Asian regions, the motif of the *Thracian Knight* appears, as far back as the period illustrated by the Agighiol hoard, as iconographically stable, even though the images present us with different hypostases of this mythical entity. The knight is represented in various moments of the hunting (throwing the spear – on the helmet cheek-pieces; stretching his bow – on one of the genouillères) or making libations (in the lower part of the genouillère portraying the knight).

The exploits that the knight carries out in such scenes, which are dedicated to him, attach an exemplary value to both battle actions and his aspiration to establish communication with the divine forces. The scenario of his interference with the order of things, of his ritual approaches, may bring into the composition a sacrifice scene, figures of deities or acolytes, the enemy himself, the hunting hawk, items of ritual landscape – the shrine, the tree and the snake –, the refectory for the mystical feast etc.

Irrespective of hypostasis, the horseman is a heroic character, the hero himself. His virtues, the actions he embarks upon, as well as the symbolic environment in which he evolves, are emphasized through plastic means.

In the epigraphic comment – the great western and southern cultures that co-exist stylistically and morphologically in this Carpathian-Balkan space express themselves in writing as well – the knight is simply and unequivocally named *the Hero* (*Heroe* in Greek; *Heron* – in Latin). The inscription is sometimes completed by specifications of the hero's virtues: *dominus* (master of the quick), *katathonios* (master of the dead), *ktistas* (the founder), *katoikadios* (protector of the house and family), *invictus* (the unvanquishable), *aeternus* (the immortal), *sanctus* (the divine).

While the functioning of the hero's image had remained for several centuries, unaltered in its essence, the resistance put up by local traditions proves particularly interesting. A persistent conservatory energy caused some of the knight's representations – those commonly known as *the Danubian knights* – to have a distinct evolution, sensibly estranging them from the usual image of the Thracian knight. The images reveal an effort to occupy a certain place in the cosmic order and, at the same time, in the order of the human world – the primordial order from which, in time, we have become more and more estranged and to which we could sometime come back, rediscovering, through initiation, through the act of recovering tradition, the meaning of the "lost path", of those vestiges sparkling from the palimpsest dross of symbolic shapes. From far off horizons come the effigies of the Sun and the Moon, other astral signs, the solar car, the feminine deities and the male character that officiates the initiation, the offering of the ram, the killing of the snake, the use of the double axe – the *labrys* that guarded the entrance into the secret subterranean galleries of the royal palace in Cnosos, and which, as we have already mentioned before, could ever give its name to the labyrinth. Confined within the religious rigors of the mystery, such representations of the knight are anepigraphic, refusing to become explicit through inscription, thus conditioning the access to the significance of the image.

<sup>14</sup> D. Berciu dates the Thracian grave at Agighiol at the end of the 5<sup>th</sup> century and beginning of the 4<sup>th</sup> century B.C., *Arta traco-getică* (Thraco-Getical Art), 1969, pp. 33-76. P. Alexandrescu dates it at the middle of the 4<sup>th</sup> century B.C., *Agighiol, Studii și cercetări de istorie veche* (Studies and Researches of Old History), Bucharest. No. 22, 1972, pp. 655-662.



The way they are introduced to us by most of the examples provided by the archeological treasure<sup>15</sup>, the Danubian knights seem to particularly “people” the world of the first centuries A.D., and, we do not find strange their being mistaken for the Thracian knight, first, and later, for other mythical identities – among which the Mithraic ones prevail – if we take into consideration the spiritual experience of those who interfere with the cultural destiny of the Roman province. Having undergone contaminating cultural experiences, or coming straight from the eastern Mediterranean, from the micro-Asian regions, the Roman that reached the lower Danube proved sensitive towards the iconography of the Thracian knight of that of the Danubian knight. They are already worshipers of a hero’s cult, a cult dominated in its latest manifestations by Mithraic visions, but still reminding of earlier mythical-ritual scenarios.

More conservative, probably, than other communications ways (writing, for instance), the system of visual communication has been exhibiting its almost unaltered signs for long lapses of time. In the long run, ever since the first representations that were still marked by the vanishing vapors of antiquity, the image of the knight has essentially preserved its formal coherence and significance, even though the “staging” entails a number of interpretations, additions or eliminations of symbolic substance. The *criobolium* and *taurobolium* are obviously able to communicate, despite the fact that the ram and the bull seem to insert different mythological ages in the texture of representation. We can evidently attach the same votive aim to the shrine and the refectory, present in the earlier representations of the Thracian knight (or of the Danubian knights, since we are faced with a split personality of the hero – in a sacred space). What seems to be actually significant is that the animal’s sacrifice along with the other votive acts, each time enables the hero to directly communicate with the deity – an ability that gains priority in his quest, beyond the diversity of tribulations in Uranian or chthonian spaces, beyond even the variety of the realities of the tangible world into which he could merge. The elements of the funeral and votive representation are seemingly frozen by the prestige of tradition, but they ultimately succeed in acquiring a shade of experience. Elements such as the sacred feast, the tree and the snake, the *labrys* (*bipenna*), the stars, etc., obviously bear, up to a certain rigidity, ancient mythical loads. Fact is that, within their selfsame configuration, in their proximity and in their relationships, signs show the pressure of recent historical and spiritual trends. Among the stars, the sun purifies his symbolical values, aiming at gaining worship virtues. The snake may leave its acknowledged place in the tree to creep under the horse’s hooves, in the hypostasis of the telluric, of the defeated darkness; some other time, it is placed at the point of the spear, thus shifting the act of subduing the chthonian forces into the fantastic being of the Dacian dragon, meant to impose, by means specific to the flag, a resurgence of the heroic yearning.

The image of the hero, such as it was inherited from the early centuries of history<sup>16</sup>, is soon enriched by the evocative tasks and canons of the knight urged on by Christian ideals. The older heroizing programmes is reiterated in characters that maintain the ritual meeting between man and horse. When we do not witness intrusions of the deities into the earthly and human order when miracles do not happen, the mission of defeating the evil is entrusted to riding saints (George, Demeter, Theodore), who obviously communicate with the old ritual accessories, evoking at the same time the events of the hot space of immediate history. The most frequent and the most prestigious representation of a saint-knight is significantly one that perpetuates most of the Thracian hero’s moral and physical features. Thus, the image of Saint George killing the dragon may integrate – to an extent varying from one region to another, from one school to another – symbolic elements subordinated to the hero’s myth: the libation, the well, the maiden, the sun, etc. While the hero’s former features and abilities are insistently preserved, place is also secured for insertions of actual experience. The apparent rigidity of the iconographic development softens now and then, making possible a back-coming to reality. The cavalcades of myths and legends may suddenly acquire the rhythms and colours of an event acknowledged by history, such as, for instance, the representation of the defence of the Byzantine Empire. In the Moldavian medieval frescos, the older Persian attacks is subordinated to a more recent event – the siege set up the Turks – that kept on shaking the consciousness of the time.<sup>17</sup> The phenomenon seems to have a vast extension, identified in Transylvanian painting by Ecaterina Cinchesa-Buculei: “The saint soldiers, painted on horseback, are directly involved in a warlike event and acquire the same symbolical value as the military saints depicted

<sup>15</sup> D. Tudor, “Corpus Monumentarum Religionis Equitum Danubiorum”, 3 volumes, Amsterdam, 1968.

<sup>16</sup> The phenomenon is dwelt upon in Răzvan Theodorescu’s works *Bizani, Balcani și Occident* (Byzantium, Balkans and West), Bucharest, 1974, *Un mileniu de artă la Dunărea de Jos* (A Millennium of Art at the Lower Danube), Bucharest, 1976.

<sup>17</sup> Petru Comarnescu, *Îndreptar artistic al monumentelor din nordul Moldovei* (Artistic Guide to North-Moldavian Monuments), Suceava, 1961; Sorin Ulea, *Originea și semnificația ideologică a picturii exterioare moldovenești* (The Origin and Ideological Significance of the Moldavian Outdoor wall painting), I-II, *Studii și cercetări de istoria artei* (Studies and Researches on the History of Art), X, 1965, pp. 57-94, XIX, 1972, pp. 17-54; Vasile Drăguț, *Artă românească* (Romanian Art), Bucharest, 1978, pp. 260-304.

on the Byzantine flags. George, Demeter and Theodore, also riding on horseback, are leading the celestial army to help Christians during the siege of Antioch, or riding in the front rows of the cavalcade led by Emperor Constantine".<sup>18</sup>

The immersion in history appears as an irreversible phenomenon even though, most often, the quotation of the concrete seem to be dully circumscribed to an effort to transcend reality, by engaging a dialogue with the divinity. Basically anonymous, or better said trapped by the generality of his abstraction, the hero-Knight may acquire a certain individuality, going as far as identifying himself with a character having a real existence, with a biography registered as such by the progress of time. The general rigors of the image are sometimes observed, search being made only for the absorption of a number of elements belonging to reality.

In Transylvania, some mural painted by Romanian masters are populated by the figures of some saints-kings – Stephen, Ladislaw, Emery – featured by the legends telling of the struggle against the migratory paganism.<sup>19</sup> According to Sorin Ulea, the hero's hypostasis is that chosen by Toma of Suceava to make his self-portrait. The painter represents himself as one of the knights present in *the Siege of Constantinople* at the Humor Monastery.<sup>20</sup> The self-representation opens the way to the cultivated art, and here, in the frescos of Byzantine trend, it is but a purifying form of transcendence, use being made of the freshly opened door of the sacred history.

Once inaugurated, the process of absorbing history into the symbolic language also affects the "popular" areas of the image. a glass icon, painted last century at Nicula, depicts a Saint Theodore borrowing Michael the Brave's features, attitude and princely attire.<sup>21</sup> Following this same way, the irruption of reality – meaning the recent past in a broader manners, partly assimilated to legend, partly still "controlled" by memories of the old – comes to govern the central field of the composition, without relating anymore to a particular iconographical structure.

In spaces sanctioned by tradition, the composition of some carpets, or decorative towels sometimes includes equestrian images of certain personalities powerfully settled in the popular consciousness, melting their being into the ancient stock of heroic hypostases. The figure signalled above in the repertoire of textile and glass-icons is paralleled in the Oltenian textile by that of Tudor Vladimirescu, leader of the 1821 revolution, as well as by a series of portraits belonging to certain social types and categories, such as, for instance, the Oltenian elite cavalry that participated into the 1877-1878 Independence War.<sup>22</sup> All these hypostases do not necessarily aim at the implantation of the deity in everyday life, but rather at the promotion of the exceptional human fact up the scale of the sacred.

<sup>18</sup> Ecaterina Cincheza-Buculei, *Implicații sociale și politice în iconografia picturii medievale românești din Transilvania - secolele XIV-XV. Sfinții militari* (Social and Political Implications in the Iconography of the Romanian Medieval Painting of Transylvania – 14<sup>th</sup>-15<sup>th</sup> centuries. Military Saints), SCIA, XXVIII, 2, pp. 3-24.

<sup>19</sup> Vasile Drăguț, *Pictura medievală din Transilvania (sec. XIV-XV)* (Transylvanian Mural Painting – 14<sup>th</sup>-15<sup>th</sup> centuries), Bucharest, 1970.

<sup>20</sup> Sorin Ulea, *Originea și semnificația...* (The Origin and Ideological Significance...), pp. 72-73.

<sup>21</sup> Cornel Irimie, Marcela Focșa, *Îcônes sur verre de Roumanie*, Bucharest, 1969, pp. 51-52.

<sup>22</sup> On Oltenian carpets, in the centre of the composition, "instead of Arabian princes, one can see horseman in Oltenian Cavalry attire, infantry men with pointed pistols on the fire-line, and on the side are featured full-dressed couples of petty bourgeois displaying toppers and sticks, the woman wearing crinolines and parasols". P. Petrescu, *Creație plastică țărănească* (Peasant Art Creation), Bucharest, 1976, p. 26.



## LA CONSTELLATION DES PLEIADES ASPECTS ETHNOASTRONOMIQUES

FLORIN STĂNESCU

L'ouvrage fait partie d'un projet de recherches plus ample, visant entre autres la création de grandes bases de données, de connaissances utilisables aussi pour d'autres analyses ethno-culturelles comparées. L'accès sur Internet est envisagé dès cette année

Cette première partie présentée ici, se propose de mettre en évidence certains aspects liés à la présence de la constellation dans l'ethnoastronomie des Roumains, des Lituaniens, des Bulgares et des Russes; dans l'avenir prochain la base de données sera chargée de nouveaux éléments concernant les ethnoastronomies d'autres peuples, des plus anciens temps jusqu'à présent.

### DESCRIPTION DE LA CONSTELLATION. ASPECTS ASTRONOMIQUES

**La nuée stellaire** des Pléiades, - la plus facile à observer visuellement parmi les **nuées stellaires** ouvertes de l'hémisphère Nord, avec un diamètre apparent de 20' - est située dans la constellation du Taureau, ayant une ascension droite de 3h 45m et une déclinaison de 24 degrés.

Elle comprend environ 100 étoiles dont 7, parfois 9, sont visibles à l'oeil nu. La plus importante, Alcyone, une étoile de 3ème grandeur, dont le nom signifie paix, (*Temennu* - "La pierre angulaire" chez les Babyloniens ou *Amba*, "La Mère" chez les Hindous), a été considérée par certains astronomes antiques et modernes comme un soleil central de notre galaxie. Les autres étoiles ont les noms suivants: **Pleione, Atlas, Electra, Celaeno, Taygeta, Maya, Asterope et Merope**. Les Pléiades modifient leurs coordonnées équatoriales suite à la précession. Ainsi, prenant comme repère l'an 1000 av. J. Ch., donc pendant les derniers 3000 ans, la déclinaison du centre de la constellation a varié d'environ 13 degrés, fait qui a eu des conséquences particulières sur l'azimut du point du lever. Les phénomènes hélicaux (tant les levers, que les couchers) des étoiles sont bien connus et pratiquement utilisés des plus anciens temps. Nous pouvons considérer les levers hélicaux beaucoup plus importants que l'enseigne calendaire. Celui-ci est un moment du matin, lorsque, immédiatement avant le lever du soleil, l'étoile ou la constellation se lève aussi, moment où les hommes se préparent pour la journée de travail. Les étoiles qui se lèvent et se couchent à une latitude donnée, ont une période d'invisibilité.

C'est le temps quand l'ascension droite du Soleil devient la même et ensuite dépasse celle des étoiles. La période d'invisibilité varie. Pour les Pléiades, cette période est plus longue de deux semaines à une latitude de 55 degrés, par rapport à la latitude de 42-43 degrés. Les calculs qui utilisent les algorithmes de Schaefer (1985) ont été créés pour une brillance intégrale des Pléiades de 1.5 mag. Nous devons utiliser avec soin de pareils calculs, compte tenant des incertitudes des conditions initiales, notamment de celles du passé lointain. De plus, la magnitude intégrale des Pléiades est précisément 1.5, mais la lumière perçue de ces 12-13 étoiles diffère de celle des étoiles de 1.5 mag. La perception est individuelle et plutôt difficile à prédire. Toutefois, l'expérience de l'observation correspond assez bien à l'estimation théorique. *Hésiode* (800 I.Ch.) écrivait dans son ouvrage "**Travaux et journées**" (rang 385) que les Pléiades restent cachées pendant 40 jours et nuits. Les estimations indiquent la période d'invisibilité à une latitude de 39 grade (**Béotie**) était de 37-38 jours à cette époque-là. Maintenant, cette période est de 5-6 jours plus courte. Les conditions détériorées d'observation peuvent prolonger la période d'invisibilité avec plus d'un mois. Il est à noter le déplacement d'environ un mois des données des phénomènes hélicaux, à chaque intervalle de 2.000 ans.

### COURT HISTORIQUE DE LA CONSTELLATION

Selon **Flammarion**, dans « *Les Etoiles* », avant la connaissance de l'année solaire, les premiers peuples réglait leur calendrier d'après les étoiles.

L'année commençait par le lever à l'aube des Pléiades au printemps, ce qui expliquait, paraît-il, l'importance astrologique de la constellation.

Le nom de la première maison (ou **Xiu**, division) du zodiaque lunaire chinois est **Mao**, les *Pléiades*. En Polynésie, tout comme au Pérou, l'année commençait le jour où cette constellation paraissait

de nouveau à l'horizon. Dans ces deux régions du monde, tout comme dans la Grèce antique, ce groupe d'étoiles est, (ou était) considéré comme veillant sur l'agriculture.

La constellation des Pléiades jouait un rôle de premier rang dans le système cosmogonique-religieux des Incas. Divinisées en vertu de leur connexion avec le cycle agraire, elles étaient fêtées au mois de juin, lorsque leur apparition coïncidait avec le Nouvel An, et on leur offrait des sacrifices humains – les victimes de ces sacrifices se jetaient de bon gré dans un précipice. Elles étaient considérées les gardiennes des récoltes, protectrices du mûrissage des fruits et veillant sur le maïs, qu'elles protégeaient contre la sécheresse. Toujours dans l'ancien Pérou, le père François d'Avila note que les Indiens Yunca observaient avec soin l'apparition de cette constellation : si les étoiles apparaissaient un peu plus grandes, ils considéraient que l'année sera riche, si par contre elles étaient petites, c'était un signe de pauvreté. Les anciens Egyptiens donnent au mois de Novembre le nom d'*Athar-Aye*, le mois des Pléiades ou *Athor* ; les Assyriens la nommaient *Kitmu* ou « **la Famille** » ; les Hébreux et les Arabes *Kimah*, l'amas, le sceau respectivement.

Les aborigènes australiens les considèrent des filles saintes qui dansent à l'occasion des fêtes nocturnes appelées *corroborées* ; pour les Indiens d'Amérique elles sont des danseuses sacrées, pour les Lapons un groupe de vierges.

La même division se retrouve chez les sauvages polynésiens : une moitié de l'année est nommée *Matarii I nia*, les Pléiades en haut, et l'autre moitié *Matarii I raro*, les Pléiades en bas, respectivement.

Chez les anciens Grecs, **Hésiode** établit le travail aux champs selon les Pléiades, qui symbolisaient les sept filles ou sept colombes d'Aphrodite ; chez les anciens Latins elles se nommaient *Vergiliae*, les astres du printemps.

Les légendes où les Pléiades sont liées aux 7 frères expliquent d'une manière ou d'une autre pourquoi une étoile (Mérope) est la plus petite de la nuée. On sait qu'il y a une liaison entre Mérope et les sept filles du titan Atlas et de l'océanide Pléione, dans la mythologie grecque. On explique aussi que les 6 filles se sont mariées avec des dieux, seule Mérope s'est mariée au mortel Sisyphus. C'est pour cela qu'elle se cache aux yeux des humains.

La dénomination grecque « Pléiades » peut être expliquée de diverses manières- comme « les filles de Pléione (une des Océanides), comme mot dérivé de l'ancienne notion grecque pour « *colombes sauvages* » ; l'ancienne tradition astrologique considère les Pléiades comme étant de mauvais augure.

Les annales de l'astronomie chinoise ont gardé une observation de ce groupe d'étoiles, faite en l'an 2357 avant notre ère, comme marquant l'équinoxe de printemps.

Le fait correspond au calcul rétrospectif effectué par les méthodes de nos jours et est dû à la précession des équinoxes.

Le nom de la constellation est lui aussi très ancien. Les Romains la nommaient *Palilicium*, parce que les Palies étaient fêtées en fixant leur époque d'après le lever de ces étoiles. Il y a neuf siècles les Arabes la nommaient *Dageea al-sama ma banatihi*, à savoir *La Couveuse céleste avec ses poussins*.

La population mandjia de l'Est du Soudan est d'avis que dans les Pléiades se trouve la place où vont les femmes belles après leur mort, selon d'autres traditions, les Pléiades sont des vierges désirées par le héros civilisateur Séto (l'araignée *mygale*) représenté dans le ciel par la constellation Orion. Par extension, les Pléiades désignent un groupe de sept personnes sages, belles ou illustres.

Les paysans français nomment aussi ce groupe d'étoiles *La Couveuse au Poussins*, tout comme les nôtres, mais l'appellent aussi *La Grappe de raisins*.

## LA CONSTELLATION DES PLEIADES CHEZ LE PAYSAN ROUMAIN.

### I. LA TRANSYLVANIE.

En 1932 et en 1934, Ion I. Ionica effectuée, dans le cadre de l'Institut de Sciences Sociales de Roumanie, une recherche concernant certaines manifestations spirituelles du paysan roumain de Transylvanie, à Dragus, un village de la zone de Fagaras.

La monographie sociologique est publiée en 1944, dans la « Bibliothèque de Sociologie Etique et Politique » dirigée par D.Gusti sous le titre Dragus, un village du Pays de l'Olt. Représentation du ciel, et comprend aussi, en dehors des éléments de physique céleste descriptive ou la descriptions des grands cadres spatiaux et temporels, la représentation du groupe social concernant les constellations agricoles et pastorales. Une place privilégiée est occupée ici, au village, par la constellation des Pléiades. .

La Poule ou la Poulette, plus rarement rencontrée sous le nom de La Couveuse aux poussins, est identifiée par tous les informateurs comme étant la plus familière constellation parmi celle connues à Dragus. Le nom de la constellation est très ancien. « ...c'est ainsi que nous l'avons hérité de nos ancêtres... »

#### *Description :*

La description de la constellation varie en fonction de l'observateur et premièrement de l'acuité visuelle : « **plusieurs étoiles rassemblées** » ; ou « **sept-huit étoiles environ, toutes rassemblées** » ; ou « **La poule a sept étoiles** » et « **elle ressemble à la Couveuse aux poussins, la couveuse est plus grande au milieu ; n'importe qui la voit la nomme ainsi !** » D'autres en voient plus : « **Elles sont si nombreuses qu'on ne peut pas les compter, elles sont au moins trente** ». Ou, enfin : "- Il y a des étoiles plus bas. Je ne le sais pas : cinq étoiles y a-t-il ? Si vous me croyez, je ne les ai pas comptées, seulement qu'elles ont la forme de la poule.

#### *Légendes et croyances:*

Relativement au phénomène de la présence ou de la disparition de la constellation du ciel, fait bien observé par les villageois, il existe la légende suivante :

«...St. George l'a vendue pour un char de foin et St. Pierre l'a rachetée pour dix chars...»

Au village il existe encore la croyance que celui qui voit la Poule se levant, est bon devant Dieu : «...Les hommes qui sont bons voient la Poule le lendemain après le Dimanche de Pâques, mais les autres, il en passe une semaine et ne la voient pas encore. Les travailleurs qui la voient après le Dimanche de Pâques sont bons auprès de Dieu. Mais ils sont tous des pêcheurs parce qu'il y a tout le temps des nuages. S'ils seraient travailleurs, ils la verraient...»

Un autre observateur relate :

«...Lorsque les moutons montent sur la montagne, les pasteurs se lèvent pour voir la Poule se lever et s'il est bon devant Dieu il la voit. Sinon, il s'assoupit juste au moment où elle se lève et elle s'en va. Pendant deux ou trois matins les pasteurs veillent. S'ils la voient, c'est un signe qu'ils sont bons devant Dieu...»

#### *Le mouvement de la constellation:*

Plus concrètement, le phénomène de la disparition de la constellation du circuit nocturne avec la croissance de la journée vers l'été, est très bien observé :

«...de St. George jusqu'à Saint Pierre il n'y a pas de Poule...» ou :

«...de Mars environ jusqu'au Dimanche de Pâques la Poule ne se voit plus...» et :

«...la Poule se voit jusqu'au soir de St. George, ensuite elle ne se voit plus jusqu'au Dimanche de Pâques, lorsqu'elle se lève...» ou :

«...depuis le Dimanche de Pâques elle continue de croître et elle s'en va et seulement après cela elle se couche et s'en va par là, sous la terre...»

En même temps la constellation est utilisée comme calendrier, marquant et déclenchant certaines activités :

«...lorsque la Poule arrive à midi je sais que c'est le jour d'Octobre. Après qu'Octobre, Décembre passe, la Poule s'en va par là se couche et après le jour se lève. Je sais quand nous devons abattre les porcs parce que nous disons allons abattre les porcs puisque la Poule s'est couchée !

#### *Effets magiques :*

La Poule, être stellaire mais aussi mythique, influence, dans les croyances locales, la croissance du maïs; elle mange le ver à la racine du maïs.

«... Alors, le Dimanche de Pâques, le maïs s'élève aussi, parce qu'il voit la Poule. Après que tu le bêches pour la première fois, maintenant il s'élève, se réjouit d'avoir vu la Poule...

A mesure que la Poule s'élève, le maïs s'élève lui aussi ! Immédiatement après que le Dimanche de Pâques passe.

A partir de la Foire d'Arpas on voit la Poule. C'est ce que je crois, moi. Ma mère disait : une fois la Foire d'Arpas arrivée, la Poule arrive et le maïs la voit et s'élève. Et à partir de ce moment, ni les vers ne le rongent plus ! On dit qu'après le lever de la Poule, les vers n'ont plus le droit de manger le maïs ! On dit que la Poule mange le ver... c'est quelque chose comme un conte; mais le ver n'a plus la force de ronger le maïs à la racine... »

## II. LA VALACHIE ET LA MOLDAVIE.

En 1907, le professeur I. Otescu fait une communication à l'Académie Roumaine sous le titre *Les croyances du paysan roumain concernant le ciel et les étoiles*, à la suite d'une enquête sociologique déroulée à l'aide des maîtres d'école et des prêtres des villages des deux provinces roumaines.

Nommées en général *La Couveuse aux poussins*, ou *La Poule* (Arges, Prahova) ou bien *La Poulette* (Botosani, Neamt, Dorohoi), les Pléiades forment une constellation particulière pour le paysan roumain et dans ces provinces.

La ressemblance avec certaines coutumes et croyances de Transylvanie est frappante, allant jusqu'à l'identité.

### *La description de la constellation:*

C'est pratiquement identique à celle de Transylvanie :

**"Ces sept étoiles amassées se nomment La Poulette. Après celle-là vient « Le Porcher aux porcs »** (la dénomination des *Hyades* dans la région de Neamt) ou **« Les Verrats »** (Arges). (Ensuite)... **"deux étoiles rapprochées"** (évidemment Castor et Pollux)

### *Légendes et croyances :*

Nous relatons selon Otescu : **"Certains paysans pensent que celui qui verra le premier le lever de la Couveuse aux poussins le Dimanche de Pâques (Arges), surtout celui qui la verra le premier, aura grande chance.**

**Et celui qui se lève chaque matin pendant le jeûne de Saint Pierre pour voir la Couveuse se lever, celui-là ne manquera de rien, le temps lui étant propice pour faire tous ses travaux (Botosani)".**

### *Effets magiques:*

Nous rencontrons ici les mêmes croyances qu'à Dragus :

**"Lorsque la Couveuse apparaît dans le ciel à la Dragaica (24 Juin, grande fête solsticiale d'été du paysan roumain), elle a le pouvoir de faire croître le « papusoi », c'est à dire le maïs (ou le « coucourouz » de Dragus), de manière à le voir pousser sous ses yeux (Neamt).**

### *Le mouvement de la constellation :*

En fonction du mouvement et de ses observateurs, la constellation est tour à tour tantôt agricole, tantôt pastorale. **"Parfois les Pléiades sont appelées aussi « les Etoiles du Pasteur », car les pasteurs observent le printemps lorsque ces étoiles se couchent au crépuscule (en fait un coucher hélical de la constellation), et alors ils disent que les moutons peuvent se nourrir d'herbe (Neamt).**

D'ailleurs les villageois disent aussi : **Lorsque la nuit tombe et la Poulette est à la cloche (c'est à dire à la hauteur du Soleil lorsque la cloche appelle le soir à la messe), alors les hommes savent décidément que le mouton se rassassie d'herbe (Neamt)".**

## LES PLEIADES DANS L'ASTRONOMIE LITUANIENNE

### *Description de la constellation :*

Nommée souvent par les Lituaniens *Sytynas*, avec de multiples variantes phonétiques (*Sytinis*, *Setynas*, *Satynas*), à savoir **Le Candélabre**, la constellation a aussi une dénomination plus ancienne, *Sietas*, c'est à dire *'Le Tamis'*, celle-ci aussi avec beaucoup de variantes phonétiques (*Sietis*, *Seitas*, etc). Visuellement, elles sont considérées une 'colline', un 'pré', un 'amas' d'étoiles.

Certains soutiennent que cet amas est rond, rappelant un tamis fin pour tamiser la farine, d'autres soutiennent que c'est un carré rappelant une charrue. En fait les sept étoiles qui peuvent être aperçues à l'oeil nu rappellent un rectangle irrégulier.

### *Le mouvement de la constellation :*

Selon **I. Vaikunas**, les populations baltiques ont observé que pendant les nuits de Novembre, avant l'Avent, le mouvement des Pléiades rassemble au mouvement du Soleil pendant l'été. On dit que : **"Sietynas s'en va comme le Soleil en été, sur le même chemin".**



En partant de cette idée, les hommes déterminaient les heures de la nuit d'après le mouvement des Pléiades, tout comme ils les établissant pendant la journée, selon le mouvement du Soleil : **"les hommes devinent le temps d'après l'étoile Seitas, elle se déplace sur le même chemin, seulement que le Soleil pendant la journée et Le Tamis la nuit"** ; **"... Sietynas s'en allait comme le Soleil, sur les mêmes chevaux"**. Le mouvement de la constellation est comparé aussi avec le mouvement de la Lune : **"Sytynas"...va comme la Lune"**; **"...elles semblent se mouvoir comme la Lune"**. Leur position est d'habitude définie en tenant compte des points cardinaux; en parlant de la culmination des Pléiades ont dit que : elles sont **"au milieu du ciel"**, **"au dessus de la tête"** ou tout simplement **"en haut"**.

Parfois la position de la constellation se rapportait aux objets du ménage : **"Setynas est sur la remise, allons nous coucher"** ; **"Setynas et Grapula ratai (le Grand Char) sont sur la grange, nous devons nous lever"**. En Septembre, lorsque les Pléiades apparaissaient – c'était le soir ; si les Pléiades sont au Sus-Ouest – c'est 8-9 h P.M. ; si les Pléiades sont au Sud – c'est 2-3 h A.M ; les Pléiades se couchent, c'est 7—8 h A.M. En Décembre, près du Noël, la culmination des Pléiades (2-3 heures avant minuit) c'était un signal pour les enfants pour aller se coucher.

#### *Effets magiques:*

Les matériels ethnographiques prouvent que la position des Pléiades dans le ciel établissait le début de la saison de travail à la ferme. On savait que le plus bas apparaissaient les Pléiades, le plus proche était le printemps. On disait : **"le tamis d'étoiles est en haut, le printemps est loin"** ; **le tamis disparaît et le coucou a commencé de chanter"**. Il y a une connexion entre le coucher héliac des Pléiades et le jour de la St.Georges, parce qu'à partir de ce jour-là, les Pléiades ne se voient plus que pendant deux mois. Seulement dans la deuxième décade de Juillet elles apparaissent pour peu de temps, à l'Est.

Le moment important du solstice d'hiver était marqué lui aussi : **"lorsque Sietynas descendait/se couchait avant Noël, le jour commençait déjà à se prolonger"**.

Une autre position significative des Pléiades était leur culmination avant le lever du Soleil, ce qui indiquait la moitié de l'automne pour semer ; au XVII-ème siècle, M.Pretorijus écrivait qu'une certaine position des Pléiades était considérée un bon signe pour les Lituaniens, pour commencer l'ensemencement.

Les hommes disaient que Dieu avait placé les Pléiades dans le ciel pour que les hommes sachent quand c'était le moment de semer le seigle. En même temps, lorsque la constellation paraissait au Sud-Ouest, avant le coucher du Soleil, c'était la fin de Septembre et les hommes cueillaient les pommes de terre.

L'hiver, pendant le Noël, les hommes devinaient la récolte de l'année prochaine, ainsi que les dépenses qu'ils auraient à faire : **"...si Sietynas suit des étoiles brillantes, la famille aura des dépenses..."**

La coïncidence entre le lever hélial des Pléiades et le calendrier populaire du jour **"des sept frères dormant"**, permettait la détermination des quantités de précipitations pour une moitié de l'été.

#### *Légendes et croyances :*

Les chercheurs soutiennent que les légendes sur les Pléiades ont leur origine dans des temps pré-chrétiens. Selon leur opinion, les personnages de ces légendes ont acquis l'image d'aujourd'hui beaucoup plus tard, lorsque leur nom et leurs caractéristiques se sont modifiés sous l'influence de la religion chrétienne. Avant, les personnages aujourd'hui christianisés de la légende devaient correspondre aux créatures mythologiques des légendes lituaniennes : Marie correspond à **Laume**, le Diable au pré-chrétien **Velnias** (un homme fort, géant).

L'origine des Pléiades dans les légendes étiologiques lituaniennes, enregistrées notamment dans la quatrième décade du XX-ème siècle, est liée à l'image de Sainte Marie. Cette constellation est décrite comme un petit tamis. Nous avons ici une légende typique : **"Marie avait un tamis à tamiser la farine. Mais une fois ce tamis a disparu. Elle a appris que les diables l'avaient volé et elle a envoyé St.Marc pour la rapporter. Mais les diables n'ont pas voulu rendre le tamis et Saint Marc a dû lutter (c'est pour cela qu'on dit de quelqu'un qu'il frappe comme Marc en enfer [lorsque quelqu'un fait beaucoup de bruit]). Pendant qu'ils luttaient, ils ont abîmé le tamis et Sainte Marie n'a plus pu l'utiliser. Ainsi, elle l'a accroché au ciel. Maintenant nous pouvons le voir et nous l'appelons Sietynas."** Il existe quatre variantes de cette légende expliquant d'où détenait Marie ce tamis. L'une d'elles dit que les pasteurs avaient apportés des oeufs dedans à la naissance de Jésus. La deuxième légende dit qu'il avait été

apporté par les trois Mages. Un seul aspects est commun dans toutes les légendes : le tamis a été volé par les diables. Plus tard, Marie trouve elle-même le tamis abîmé ou envoie quelqu'un le rapporter (Sainte Elie y est mentionné à côté de Saint Marc). Une autre légende dit que Jésus demande à Saint Mathieu de rapporter le tamis volé par les diables. Le dieu du tonnerre, Perkunas, était celui qui avait repris le tamis des diables. Une variante de la légende a survécu, la légende qui mentionnait que Perkunas a rapporté le tamis. La signification d'un instrument ménager n'est pas accidentelle. Et si le dieu du tonnerre – Perkunas lutte pour ce tamis, alors il s'agit certainement d'un instrument important du ménage.

Certaines des légendes lituanienes qui expliquent l'origine des Pléiades décrivent les étoiles des Pléiades comme étant sept frères. Une des légendes enregistrées en 1890 dit que sept hommes ont décidé de vivre en amis, comme des frères, et ont construit pendant six ans une église. Lorsque ils ont fini la construction, la voix de Dieu leur a dit d'aller se reposer dans le sous-sol de la nouvelle église. Ainsi, ils y sont allés et sont tombés dans le sommeil éternel. C'est seulement le cadet, *Danasas*, que Dieu a laissé parmi les hommes pour se sentir bien. Il a passé toute l'année en allant d'un bistrot à l'autre. Seulement après un an est – il rentré chez ses frères pour leur demander pardon. Ceux ont eu pitié de lui et l'ont laissé s'allonger au pied du lit. Et dès lors, une nuée d'étoiles s'est levé dans le ciel, et les hommes l'ont nommée **Sietynas**.

Comme nous avons déjà vu, la légende lituanienne sur les Pléiades en tant que sept frères parle du cadet, *Danasas*, séparément. L'autre légende lituanienne nous dit que le dieu le plus fort a puni la déesse **Laume** à cause de ses aventures amoureuses avec un jeune mortel, et le fruit de leur amour, le fils **Meilus**, a été jeté aux cieux, parmi les étoiles de la Pléiade...

C'est seulement le cadet qui est séparé des frères, car il est de Perkunas. Celui-ci passe bien toutes les épreuves et après sa renaissance il est mandaté de régner sur les changements naturels, y compris sur la pluie.

Les Pléiades qui apparaissent dans les actions mythologiques à côté des personnages du mythe principal, Perkunas, Laume, Velnis, les sept frères, ont une raison/sont en droit de se prétendre des personnages du code astral de ce mythe. Probablement que dans la tradition baltique il a existé une action mythologique où les Pléiades étaient perçues en tant que sept frères ravis ou exilés dans le souterrain pendant le coucher hélical de la constellation. Le lever hélical des Pléiades pourrait être lié à la victoire de Perkunas sur Velnia (le diable).

Selon le mythe principal, toute la fortune volée est rendue lorsque Perkunas remporte sa victoire sur le Diable, et la pluie commence. L'événement correspond au lever hélical des Pléiades lié à la période pluvieuse de l'été.

## LES PLEIADES DANS L' ETHNOASTRONOMIE BULGARE

### *Description et dénomination de la constellation :*

Dans la littérature bulgare ancienne, les Pléiades étaient connues dès le XIX-ème siècle, du "Hexameron" de Ioannes Exarch. L'étude de la culture populaire bulgare a commencé au milieu du XIX-ème siècle, après une longue domination turque.

L'ethnologue bulgare de la fin du XIX-ème siècle, Dimiter Marinov, notait que: "**celle-ci est l'une des plus connues constellation parmi nos hommes**".

Selon Kolev, Kaloyanov et Koleva, la tradition bulgare connaît les Pléiades sous les dénominations suivantes:

- 1) [**Kvachka (s pilentsa)**]; [**Kokoshka**] = une couveuse (à poussins); une poule.
- 2) [**Vlassi; Vlashkovi; Vlastsi**] – intraduisible.
- 3) (**Haidouti**)= haidouks; rebelles, plus rarement utilisé.

**Marinov (1981)**, écrivait: "**Tout le monde connaît ce nid d'étoiles: au milieu – une étoile plus brillante, la couveuse, entourée par des étoiles plus petites**". De toute façon, la ressemblance avec une poule a une signification mythologique beaucoup plus profonde, qui sera discutée ci-après.

Le modèle onomastique "**Couveuse/Poule**" est assez ancien et habituel dans les langues Sud-slaves. L'image des Pléiades en tant que couveuse à poussins noirs peut être trouvée dans l'astronomie « populaire »

Il a été soutenu que seulement la première partie du mot "Vlasse" est liée aux Pléiades, tandis que la deuxième, "**zhelishta(i)**" est attribuée à la constellation L'Ourse Majeure (La Grande Ourse).

D'après la ressemblance figurative entre les Pléiades et la Grande ourse et grâce au transfert mythologique de ce mot aux Pléiades, il est possible de les reconnaître comme *"un lieu des âmes mortes"* dans l'ancienne tradition bulgare chamanistique (Kaloyanov 1995).

L'explication de la base *"Vlass"* du théonime Vlakh, Vlass, Veles - le dieu slave de l'abondance et des bovidés - est entièrement acceptée. Ainsi, nous avons les noms bulgare *"Vlassi"* de même que les serbes et slovènes pour les Pléiades : *"Vlassichi"*, *"Vlashichi"* ainsi que les nombreuses variantes ukrainiennes, tandis que le nom bulgare *"Vlashkovi"* peut être considéré un patronyme "fils de Vlakh".

D'autre part, Kolev, Kaloyanov et Koleva, soutiennent qu'il n'y a pas d'autres exemples typologiques européens de noms de constellations données basées sur des théonymes, et que la liaison avec le mot *"vols-"*(pieu) est celle concluante.

C'est pour cela, les auteurs mentionnés soutiennent, que la relation avec le théonyme *"Vlass"* *"Volos"* ainsi qu'avec ethnonyme *"vlakh"* (romain), est secondaire. La ressemblance du nom du dieu avec le mot slave pour pieu, *"volos"*, *"vlas"*, est trop peu accidentelle. On doit retenir le fait que la racine proto-slave *"vlas"* (pl. *"vlasi"*), signifie **"éleveur nomade de bétail"** et explique aussi l'ethnonyme *"vlakh"*.

Le mot bulgare (et russe) *"Stozha(e)r"* (pl. -l) signifie **"un pieu central dans la meule de foin"**. Le nom de **"Sept pieux"** est évidemment lié au nombre d'étoiles observé dans l'asterisme le plus fréquent, sept jusqu'à huit.

#### *Légendes:*

Les auteurs cités relatent ensuite: avec les constellations **Ralitsa** (La Charrue-Orion) et **Kolata** (Le Char- La Grande Ourse), les Pléiades servent comme **"un signe de Dieu qui dit aux hommes comment gagner leur pain"**. Une légende dit qu'une fois Dieu s'était décidé d'aider une veuve pauvre qui avait beaucoup d'enfants et lui avait raconté du déluge qui allait suivre. Il lui a demandé de partir avec ses enfants et leur seul bien, une couveuse avec ses poussins, sans regarder en arrière ! La femme curieuse ne s'est pas pu empêcher de jeter un regard en arrière est s'est transformée, avec ses enfants en pierre. Seule la couveuse et les poussins ont été sauvés parce que Dieu les a posés dans le ciel en tant que groupe d'étoiles. Selon une autre variante, la femme elle-même a été transformée en couveuse céleste. La troisième variante dit que la veuve a emporté la couveuse et les poussins dans un tamis, dans sa main. Les motifs bibliques de cette légende sont évidents.

#### *Le mouvement de la constellation:*

La croyance dit que **"La Couveuse ne se voit plus parce qu'elle couve les oeufs jusqu'en été, le jour de St.Théodore, le huit Juin. Ce jour, la couveuse, entourée par ses poussins, se montre de nouveau"**.

La tradition populaire établit avec exactitude la période de visibilité de la constellation : **"La Couveuse avec ses poussins peut être aperçue pendant tout l'été, l'automne, l'hiver, brillant jusqu'au jour de St.Georges"**; **"Elle brille jusqu'au jour de St.Georges et disparaît jusqu'au jour de St.Théodore"**.

#### *Effets magiques:*

Tout comme ailleurs sur le continent, la place de la Poule dans la pratique bulgare du rituel de la récolte est étroitement liée aux mêmes croyances. L'analogie est à double intention : **"champ de maïs-Poule"** et **"maïs-oeuf"**. Les deux étapes de la naissance d'un poussin - la ponte de l'oeuf et la couvaison - sont semblables aux deux étapes de croissance du maïs- la formation de l'épi et le mûrissage. L'analogie peut continuer avec le temps où la Couveuse céleste se **"cache"** (le jour de St.Georges) le temps où le maïs devient épi dans toute la Bulgarie. L'apparition de la Couveuse sur le ciel (le jour de St.Théodore, en été) coïncide avec le temps du mûrissage du maïs. Selon certains auteurs bulgares, il existe une ressemblance sémantique même entre la relation "oeuf-maïs" et divers rituels de Pâques, tels que les oeufs rougis de Pâques (le maïs mûr ?), les pains rituels décorés avec des oeufs et le rituel des oeufs enterrés/cachés sur le champ. La fin de **"l'incubation cosmique"**, près du moment du commencement de la récolte, semble exprimer **"un désir de synchronisation, un mode magique d'éveiller/stimuler la ressemblance/similitude - lorsque la poule donne naissance, que le champ 'donne naissance' aussi"**.

Toutefois, la Couveuse est aussi la source d'un grand danger pour les paysans. Les éleveurs de bétail observent avec crainte son apparition dans le ciel, à cause de la croyance qu'à ce moment, la

Couveuse apporte avec soi des maladies au bovidés, aux moutons et aux chèvres. Les maladies proviennent de la Couveuse céleste qui secoue ses plumes pleines de poux, qui tombent sur les animaux.

Une autre croyance, qui persiste encore, dit que: **“...les moutons de doivent pas être laissés regarder le lever du Soleil le jour de St. Constantin, le 21 Mai”**. C’est intéressant que cette dernière croyance mentionne le lever du Soleil, et son insertion dans le texte, concernant la culture actuelle populaire, est significative : le Soleil a la même longitude que les Pléiades autour de cette date.

Le mois de Novembre est la saison de la culmination nocturne des Pléiades, qui a un sens calendaire. Le voyageur turc **Evliya Cheleby**, vers la moitié du XVII-ème siècle, s’est documenté sur la croyance concernant les Pléiades descendues du ciel par les “sages”. Pendant qu’il habitait dans un village bulgare, il a été visité par une sorcière ébouriffée, avec sept petits enfants. Elle a transformé les enfants en poussins et elle-même en couveuse. Le voyageur a noté que les miracles se passent chaque année, ce qui peut être expliqué par la relation magique entre cette pratique magique et le cycle annuel des Pléiades.

Toujours en relation aux Pléiades, nous trouvons les racines de l’ancien chamanisme bulgare, qui a adopté les Pléiades comme un substitut saisonnier pour le **“pieu doré”**, le chemin vers les Cieux. Dans le folklore bulgare, nous voyons les Pléiades dans le rôle des **“Pieux”** ou des **“Sept pieux”**. Le sacré du Nord et le centre du ciel dans la pratique chamaniste et, en général, dans le rituel païen, est transféré à la notation calendaire annuelle – **Les Pieux** (Pillars).

Les voyages célestes du chaman à côté des âmes de ses amis de la tribus morts, a besoin d’un pieu, d’un piquet, pour soutenir le ciel et pour servir d’échelle pour monter/descendre. Ceci conduit vers une ritualisation de certains insignes célestes telles que les Pléiades, comme on peut déduire des graffitis médiévaux de la pierre située près du village bulgare de Karaguy, district Pleven (**Kaloyanov 1995**).

Il existe trois légendes sur le Grand Char, à savoir **“Le Char”** et une sur les **“Haidouks”**. Cette légende dit que les “haidouks” avaient enlevé un fils de pasteur (**“vlakhche”**) et s’étaient enfuis, poursuivis par les pasteurs, **“Vlassi”**. Selon ses informations, **“Vlassi”** ce sont les Pléiades ou même le Taureau, et il ajoute sur la Couveuse : “La même constellation est nommée aussi ‘haidouks’ et la légende dit qu’ils ont enlevé un vlakhche et les ‘Vlassi’ las ont poursuivis pour sauver l’enfant”. La participation des Pléiades aux rituels d’enlèvement est bien connue dans toute la zone ethnique turco-mongole, et le thème de l’enlèvement (y compris celui rituel) l’est dans la mythologie. C’est intéressant que l’opposition entre le dieu slave Perun et le ‘dieu des bovidés’ **Veless** correspond à ce concept.

## LA CONSTELLATION DES PLEIADES DANS L’ETHNOASTRONOMIE DES RUSSES ET D’UNE PART DE LA ZONE SUD-SIBERIENNE

### *Description et dénomination de la constellation:*

On suppose que le nom des Pléiades signifier aussi un groupe de femmes pour quelques nations slaves. Par exemple le nom **Âîëîñ** des Pléiades dérivé du russe **Âîëñæàôû**. Certains chercheurs sont prédisposés de le dériver du nom du dieu slave **Ââëâñ** (qui correspond au dieu lituanien Velinas).

L’investigateur de l’astronomie serbe, N. Janchovitch, explique la dénomination serbe des Pléiades **Âëàòèhè** (extrêmement rare) ainsi que la forme de pluriel du dérivatif patronymique du nom de dieu. Il croit que le nom de cette constellation devait être compris comme le s fils du dieu. En même temps il existe une relation entre les Pléiades et les sept frères dans le folklore serbe. Mêmes les noms des sept frères en sont mentionnés. Il est aussi intéressant d’admettre/reconnaître que le sens de l’ancien nom russe des Pléiades, Picorant, pourrait être expliqué comme : **‘paikas oras’ = ‘mauvais temps’**.

### *Mythes et effets magiques:*

Les scientifiques russes **V. Ivanov** si **V. Toporov** ont reconstruit le mythe essentiel du dieu du tonnerre, **Perkunas**, sur la base des matériels appartenant aux peuples baltes, slaves et balkaniques. Le mythe parle de **Perkunas** qui a puni sa femme (qui pourrait être **Laume**) à cause de son adultère avec le dieu chthonien **Velinas**, en l’exilant avec ses sept ou neuf fils, des cieux sur la terre.

Chez les peuples turcs de l’Asie centrale, l’apparition des Pléiades annonce l’arrivée de l’hiver. Les Yakouts et beaucoup d’autres peuples altaïques disent qu’au centre de cette constellation il y a un trou qui perce la voûte céleste ; c’est par cette brisure qu’arrive le froid.

Les concepts populaires bulgares sur le “*pieu doré*” et le “*sol en cuivre*” sont à l’unisson avec les traditions des peuples asiatiques. L’Etoile Polaire est un pieu doré (ou en fer) et les **Chevaux célestes** (ou les Elans) en font le tour. Ainsi:

- pour la tribu sud-sibérienne des **Khakassians**, le Pôle Nord est une “*cheminée céleste*” ou, plus significatif, “*le nombril céleste*”.
- pour la tribu des **Kettes**, pour laquelle le Grand Char est un élan, nomme l’Etoile Polaire “*le nombril des étoiles*” et “*la mère des étoiles*”.
- la tribu des **Evenks** voit l’entière scène sur la région circumpolaire du ciel où “l’Ours-chasseur” céleste court après “l’**Elan Saint**” (les actuelles Ursa Major et Ursa Minor).

La majorité des peuples nordiques - **Chukchee**, **Nivkhs** et **Nanays**, respecte particulièrement le pôle, le nommant “**le plus haut Point**”, “le centre du Monde”, “**Le Nombriil du ciel**”. Les traditions des tribus turques **Kumyc** et **Nogay** du présent Dagestan nous offrent un autre exemple. Pour le premier, l’Etoile Polaire est “**Temir kaazyk**”= “le piquet de fer” et la deuxième tribu a une longue pratique dans l’observation des Pléiades par l’ouverture centrale de leurs yourtes. En général, la région circumpolaire du ciel semble être “**une zone sacrée au plus haut niveau**”.

\* \* \*

L’unité des Pléiades en tant que phénomène ethno-culturel “céleste” est confirmée par sa grande popularité dans le monde entier. L’étude de certaines traditions européennes (romaines, lituaniennes, russes bulgares), ou d’autres asiatiques (pour la plupart des tribus de steppe, turques et mongoles) est particulièrement importante pour le chercheur de nos jours. En même temps, la comparaison avec les traditions éloignées dans le temps ou dans l’espace géographique, donc développées indépendamment, peut être très importante dans l’identification des tendances communes et des processus d’établissement et clarification de certaines cultures.

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## SUR LA SOLIDARITE ANTHROPOCOSMIQUE DANS LA CULTURE POPULAIRE ROUMAINE

NICOLETA COATU

Nous analysons une structure symbolique – le marquage astral corporels et vestimentaire : le soleil poitrine, la lune sur dos et les deux étoiles sur épaules – qui signifie l'idée d'une appartenance cosmique exemplaire.

Descendant sur la verticale de la dyacronie culturelle vers le niveau des cultures archaïques, on peut constater l'existence des certaines structure imaginaires qui attestent la communication sa crée entre l'homme et le cosmos, en langage plastique. Le mecanisme d'assimilation magique, en expression plastique, est souligne par le tatouage archaïque, inclus en ensemble des symboles d'identification.

Passant vers les cultures traditionnelles, les textes folkloriques, rituels et nonrituels, relèvent les deux variantes du marquage: épidermique et vestimentaire, en relation d'équivalence (le vêtement double l'épiderme). la poésie rituelle d'incantation, avec une fonction érotique, met en évidence le mécanisme magique d'assimilation qualitative par rapport au modèle sacré, archétypal. Dans les contes populaires, le héros solaire est parfois marqué astral, représentant un modèle humain supérieur, pour la mentalité collective.

La souveraineté comme une position exceptionnelle dans l'hierarchie sociale a une dimension transhumaine, étant marquée par les signes symboliques cosmiques. Les legendes historiques et les noëls développent le motif d'élection du monarque après les signes astrals corporels – signes révélateurs de la personnalité.

Au niveau de la valeur absolue, les vêtements de Dieu, avec des signes astrals mettent en évidence – dans les noëls – l'essence éternelle et universelle de la divinité.

Descendant sur la verticale de la diachronie culturelle vers le niveau des cultures archaïques, on peut constater l'existence de certaines structures imaginaires qui attestent la communication sacrée entre l'homme et le cosmos, en langage plastique.

Les ensembles picturaux rupestres nord-méditerranéens<sup>1</sup>, néolithiques ou même épipaléolithiques – d'après les opinions des spécialistes - incluent des images qui relèvent l'existence du culte solaire. Dans l'espace culturel roumain, les images rupestres découvertes dans les Carpates Méridionales et commentées par l'archéologue C.Nicolaescu-Plopsor, mettent en évidence le processus d'homologation anthropocosmique, en expression plastique symbolique. Les chercheurs archéologues roumains<sup>2</sup> ont estimé que les peintures rupestres, semblables aux ensembles picturaux schématiques nord - méditerranéens, datent de l'époque historique des métaux.

Il y a un complexe d'images plastiques, reflétant un possible culte solaire, qui représentent l'homme devant le soleil, dans une attitude de prière. Un autre groupe d'images suggère un processus d'identification symbolique magique, par la superposition des images: astrale et humaine.

Le mécanisme d'assimilation magique, en expression plastique aussi, est souligné par le tatouage archaïque. Inclus dans un ensemble de symboles d'identification, le tatouage confirme l'ascendance des objets astraux, dans le processus de la connaissance et dans les rapports axiologiques. Le tatouage exprime le désir humain d'assimilation des vertus kratophaniques des astres.

L'hypothèse de Constantin Daicoviciu<sup>3</sup> sur la présence du tatouage dans certaines catégories sociales tribales parait être confirmée par les recherches archéologiques roumaines qui attestent la découverte des quelques figurines d'argile (de l'époque néolithique), représentant des hommes et des femmes avec leurs corps partiellement ou intégralement tatoués. Entre les documents archéologiques, une

<sup>1</sup>René Grosso, *Un aspect du culte solaire dans l'art schématique nord-méditerranéen*, dans „Travaux de l'Institut d'art Préhistorique”, vol. X, 1968.

<sup>2</sup>Marin Cărciumaru, *Mărturii ale artei rupestre preistorice în România*, Editura Sport-Turism, București, 1987, p. 19.

<sup>3</sup>Constantin Daicoviciu, *Istoria României*, I, 1960, p.268.



figurine d'argile (la culture Vinca) atteste l'existence des symboles géométriques solaires appliqués sur le corps humain (sur la poitrine, le dos et les épaules)<sup>4</sup>

Les textes antiques<sup>5</sup> apportent des suggestions très importantes relativement à la pratique du tatouage. Par exemple, les commentaires de Plutarque se réfèrent surtout au tatouage des femmes thraces, comme un signe de noblesse; Artemidor de Dalis (170 a.Ch.) remarque le tatouage des enfants nobles thraces et Herodote souligne l'aspect emblématique social du tatouage qui signifie le statut supérieur des individus dans l'hierarchie sociale.

Passant plus loin, vers les cultures folkloriques, le marquage astral du corps humain (avec la variante prédominante: le soleil sur la poitrine, la lune sur le dos et les deux étoiles sur les épaules) relèvent une structure symbolique, qui signifie l'idée d'une appartenance cosmique exemplaire. Les textes folkloriques rituels et nonrituels incluent deux variantes essentielles de la constante symbolique: la variante du marquage astral corporel et la variante du marquage vestimentaire. Ces deux variantes fondamentales sont en relation d'équivalence, suite au processus mental imaginatif d'homologation du corps et du vêtement; le vêtement double l'épiderme. Les deux variantes, épidermique et vestimentaire, relèvent le même rapport symbolique avec la personnalité humaine, signifiant les correspondances entre micro- et macrocosme, et le statut exceptionnel de certains individus avec une position remarquable dans l'hierarchie sociale et politique.

L'homologation entre l'homme et le cosmos implique une projection imaginaire en double sens : humain  $\longleftrightarrow$  astral.

Quelques images qui représentent l'astre anthropomorphisé sont en relation avec le culte solaire, ayant des significations sacrées - mythiques. À côté de ces images, il y a les autres qui attestent le marquage solaire du corps humain avec des connotations magiques.

La poésie rituelle d'incantation avec une fonction érotique met en évidence le mécanisme magique d'assimilation qualitative par rapport au modèle sacré, archétypal. Le texte magique est une invocation du Saint Soleil à obtenir l'embellissement de la fille pour son mariage. Le texte poétique est soutenu par la force des actes rituels, dans la manifestation syncrétique des langages symboliques magiques. Après le déjeuner de Pâques, la fille qui veut se marier sort de la maison, fait trois pas à partir du seuil, ouvre un peu sa chemise et puis la ferme, invoquant le Soleil; regardant vers le Soleil, elle dit: *Saint Soleil,/ Saint Seigneur,/ Je ne lève le vent/ De la terre,/ Mais ton cercle/ Dans ma tête,/ Tes rayons/ Dans mes cils;/ Deux rayons/ Dans mes sourcils/ Et deux rayons/ Sur ma face./ Je veux paraître/ Au jeunes hommes/ Comme un cerisier fleuri/ Clôturé avec des diamants*<sup>6</sup>.

La relation entre le texte magique et les éléments de la pratique rituelle - cérémonielle, à l'occasion des Pâques, relève le syncrétisme entre l'image préchrétienne du Saint Soleil et la représentation du Jésus - Christ, *la lumière du monde*. L'embellissement de la fille par la lumière signifie l'union avec le modèle sacré exemplaire au niveau spirituel, dans un contexte (Les Pâques) qui facilite la renaissance par rapport à l'archétype.

L'hypostase du héros qui symbolise l'union des forces célestes et telluriques est, naturellement, impliquée dans le mécanisme d'homologation humain - astral. Le héros signifie le conflit spécifique de la structure psychique humaine, affirmant l'élan évolutif comme une aspiration fondamentale. Le héros à l'attribut solaire, la lumière étant un symbole du triomphe de la vie sur les ténèbres de la mort. Dans les contes populaires qui mettent en évidence la confrontation des contrastes et la solution finale de la victoire du bien sur le mal, le héros solaire (le protagoniste de l'aventure fantastique) est marqué parfois avec des astres: le soleil sur sa poitrine - la lune sur son dos - les deux étoiles sur ses épaules. Ainsi le héros représente un modèle humain supérieur, par homologation cosmique.

La présence du héros est située, généralement - selon l'opinion de H.Bergson, dans „Les deux sources de la morale et de la religion” - dans le centre de la morale ouverte, et représente spirituellement le moteur de l'évolution créatrice. Au sens psychanalytique symbolique, le héros est identifié par C.G. Jung avec le pouvoir de l'esprit<sup>7</sup>.

La première victoire du héros, particulièrement du héros du conte populaire, est le triomphe sur lui-même, par le passage des épreuves qui soulignent ses vertus. Dans la logique narrative fantastique, le

<sup>4</sup> Radu Florescu, Hadrian Daicoviciu, Lucian Roșu, *Dictionar enciclopedic de artă veche a României*, Editura Științifică și Enciclopedică, București, 1980, p. 363.

<sup>5</sup> Izvoare privind istoria României. I, București, 1964, p. 91, 123.

<sup>6</sup> Simion-Florea Marian, *Sărbătorile la români*, II, *Cincizecimea*, ediție îngrijită și introdusă de Iordan Datcu, Editura Fundației Culturale Române, București, 1994, p. 193.

<sup>7</sup> Jean Chevalier, Alain Gheerbrandt, *Dictionar de simboluri*, Editura Artemis, II, București, 1995, p. 27.

héros este le représentant idéalisé de la force combative, le symbole de la victoire de l'âme humaine sur ses propres obstacles et faiblesses.

Les deux épreuves - variantes, l'action du héros de deviner les emblèmes astrales corporelles de la fille d'empereur et celle d'apporter une robe avec des signes cosmiques pour sa future épouse, relèvent les statuts exceptionnels des deux membres du couple marital, dans le contexte spécifique du conte populaire.

Le niveau qualitatif supérieur de l'actant féminin mis en valeur par ce marquage symbolique cosmique, corporel et vestimentaire, correspond au niveau de l'actant masculin, déterminé par le passage des épreuves. Ces représentations avec leurs relations et significations spécifiques dans les différents contextes des contes populaires sont très répandues dans l'espace culturel européen.

Les variantes des contes présentent alternativement les actants (masculin - féminin) comme protagonistes d'aventure héroïque. Quand le facteur actif est l'actant féminin, sa qualité exceptionnelle est soulignée par sa promesse de naître des enfants marqués astralement, après son mariage avec le fils d'empereur/roi. Le mécanisme interne, compensatoire du conte populaire implique l'équivalence des statuts au niveau du couple, suggérant l'image idéale, exemplaire de l'unité familiale. Si quelques contes mettent en évidence la qualité du facteur héréditaire maternel, les autres relèvent l'importance du facteur paternel en transmission génétique des signes astraux, qui confèrent l'unicité et l'ascendance.

Au niveau de la mentalité mythique, la souveraineté est sacralisée par le mécanisme d'identification symbolique du souverain avec la divinité astrale. Une telle synthèse peut être illustrée par des exemples de l'antiquité romaine: Auguste jouait le rôle d'Apollon, Constantin avait les caractéristiques du dieu Soleil; le nom sacré de Varius Avitus, un autre empereur romain, a été Elagabalus, avec la variante Heliogabalus<sup>8</sup>, parce que le peuple reconnaissait sa descendance solaire.

La souveraineté comme une position exceptionnelle dans l'hierarchie sociale a une dimension transhumaine, marquée symboliquement par les emblèmes cosmiques. Les légendes historiques roumaines sur la personnalité de Mircea Ciobanul<sup>9</sup> incluent le motif d'élection du monarque d'après les signes astraux corporels. Les Noël's (type 131- conformément à la typologie des Noël's roumains<sup>10</sup>, auteur Monica Bratulescu) attestent une sélection semblable pour le statut de chef militaire. Le marquage cosmique corporel ou vestimentaire représente l'indice de la conscience de la valeur, étant un signe révélateur de la personnalité.

La tétrade astrale (le couple soleil-lune et les deux astres) symbolise la totalité cosmique. Le numéro **quatre**, symbole de la plénitude, souligne le principe intégral d'organisation cosmique. Le numéro **deux** signifie l'ambivalence et le dédoublement, la loi cosmique, par excellence. La relation complémentaire des termes opposés (soleil - lune), qui relève le contraste et simultanément la solidarité des images symboliques de la lumière diurne et nocturne, inclut les parts du corps humain, aussi; le symbole nocturne, de la lune est, généralement, un emblème du dos, mais le symbole diurne, du soleil, est un signe cosmique de la poitrine ou du front, étant homologué aux deux centres vitaux fondamentaux: le coeur et la tête.

Au niveau de la valeur absolue, les vêtements de Dieu, avec des signes astraux, mettent en évidence - dans les Noël's populaires roumains type 26 (conformément à la typologie mentionnée antérieurement)<sup>11</sup> - l'essence kratophanique éternelle et universelle de la divinité. L'image du Fils Divin, son corps humain couvert de vêtements avec des emblèmes cosmiques (soleil - lune - étoiles) signifie la nature duale de Jésus - Christ, la symbiose humain-divin. Cette image de Jésus (son corps humain et ses vêtements, qui le doublent) symbolise l'unification des niveaux cosmiques, terrestre et céleste, et en même temps, leur éloignement qui met en valeur le statut sacré, exemplaire de Christ. Les emblèmes astrales vestimentaires, en relation avec l'archétype de la lumière, signifient la révélation suprême de la divinité, de Dieu et Jésus Christ comme lumière et illumination.

<sup>8</sup> John Ferguson, *The Religious of the Roman Empire*, Thames and Huston, 1971, p. 90.

<sup>9</sup> Constantin Radulescu - Codin, *Din trecutul nostru. Legende, traditii si amintiri istorice*, Editura „Cartea româneasca”, Bucuresti, f.a., p. 77.

<sup>10</sup> Monica Bratulescu, *Colinda româneasca*. Editura Minerva, Bucuresti, 1981, p. 251.

<sup>11</sup> *Ibidem*, p. 180



## THE FUNERAL SYMBOLISM OF WATER IN THE ROMANIAN POPULAR TRADITION

ȘTEFAN DORONDEL

Outre les valeurs de fertilité et de fécondité de l'eau, l'eau présente aussi un autre aspect symbolique: la valeur funéraire. Employée à des buts rituels sur tout le territoire de la Roumanie, mais aussi par les Roumains de Bessarabie et par les Macédo-roumains, l'eau apparaît dans les rituels funéraires dès que la mort s'installe (le verre d'eau assis au coin de la chambre, l'aspersion du mourant, la toilette du mort, etc.) jusqu'à la fin du cérémonial d'enterrement (on casse un vase d'eau, on asperge le tombeau etc.).

Le symbolisme funéraire de l'eau a influence l'imaginaire paysan, l'eau étant présente dans le culte des morts et dans les narrations populaires.

Beginning from ancient times, water was religiously valorised as a primordial element indispensable to life.

Even from the Neolithic age, when people discovered agriculture, water had an important place in the "symbolical complex" (see Mircea Eliade). It was the symbol of fertility in the symbolical complex woman-agriculture-land-water, born in Neolithic, preserved as an "ethnographical relic" in the mentality and in the customs of the traditional village even in the 20<sup>th</sup> century (after archaeologists like M. Grimbutas; ethnologists like Maria Boșe, Ion Ghinoiu etc; historians of religions like M. Eliade and J. Maringer). Water is the main element in the rituals of rain invocation (Caloianul, Paparudele), in the fertility rituals (the coronet or the mace "watering, the fields sprinkling before" ploughing etc) and other fecundity rituals (I. Chelcea, 1971).

There is another symbolic aspect of water, noticed by Simion Florea Marian and Theodor T. Burada who wrote detailed monographs on the Romanian funeral customs. Other researches as M. Eliade (M. Eliade, 1992, p. 191, sq), Ov. Bîrlea (O. Bârlea, 1973, idem, 1976, p. 9), T. Papahagi (1979, p 56) were interested in the symbolism of water, too.

As a funeral symbol in the dead ones' cult water is used in the integration rituals of the deceased in the "dead community", in that "other world".

This paper treats about water in the funeral rituals from the first death signs up to the funeral ceremony itself.

In order to make the death easier, the dying man is sprinkled with a bunch of basil tied by a thread of red cotton and soaked in fresh water; it is done before the dawn. At noon, the family waters the middle of the house and the sunset – the threshold (S. Fl. Marian, p. 28). These gestures symbolise the "way of the soul" (the way on which the soul must go and the psychopomp role of the sun. The funeral symbolism of the sun came from Neolithic, when most of the dead were buried face to East (cf. Gh. Cantacuzino, 1969, p. 46). Same thing in the Romanian traditional village where the burial takes place in the afternoon, because "the relatives want to send the soul to its aim together with the sun who is going to rest". (S. Fl. Marian, p. 163).

In Oltenia, when someone is on the verge of dying, a pitcher with water and a candle are put in the corner of the house; the pitcher is kept up to the obsequies (informer: Brîncuși Elena, Gorj district).

In other regions, in the place where somebody died, a "toiag"/ = "staff" (a candle which will burn three days) is put together with a pitcher with water and a "hîrb"/ = "crock" with incense. The pitcher with water, the candle and the knot-shaped bread are named "paus" in Moldavia. In Năsăud and Abrud, the "paus" represents the water given as alms at the funeral or the pitchers with water put near the roads where there are no fountains. In Bucovina, the "paus" means watering or sprinkling with wine the deceased before the burial. In all the regions, the "paus" implies the ritualistic use of water.

In Basarabia, a pitcher with water is put at the door of the room where the dead stays or besides the house mourning (informer: Giudea Maria Toader). At Macedo-Romanians, immediately after death, the water is poured out the pots and the pots are put upside down. In some Macedo-Romanian villages this

this ritual takes place after the washing and the preparation of the dead. As well as the Romanians from Banat, the Macedo-Romanians keep a candle, a pot with water and some food in the place where somebody died (cf. V. Vaseva, 1992, p. 105).

The next step after someone dies is washing the dead body by four men, if the deceased is a man, or by four women, if the deceased is a woman (informant: Alcesuja Floare, Socorod, Arad district). This practice – the washing of the dead body – is almost universally spread: we can find it in the ancient age of the antique Greece: one of the most important duties of a woman in a family was to wash the body of the dead. Persons who knew that were on the verge of dying, used to take themselves a final ritual bath (cf. D. C. Kurtz & John Bordman, 1971, p. 149). For example, Socrates, before taking the poison, washed himself in a ritual bath, not to give “women a corpse to wash” (Plato, *Phaeton*, 115 a).

In the Romanian traditional culture, the water for the dead washing must be a little warmed (A. Lambrior, 1876, p. 151) and afterwards, the tub is turned upside down. This water is thrown in “a protected place”, and nobody is allowed to step on it, especially in Moldavia, it is thrown at a fruit tree. We are not going to stay longer on this ritual, but we can notice a paradox: although the dead is considered to be impure – the women who washed him are not allowed to take part in the knot-shaped bread and food preparation-however “the water from the dead seemed to have fertilising qualities.

After washing and dressing the dead, almost everywhere in the country, people prepare the “tree” or the “fir-tree”. In Moldavia and Bucovina, it is put in a pot or pitcher with pure water. A headkerchief is knotted in the tree and on the pat’s ear. In our popular culture headkerchief is an aquatic symbol; for example, in the fairy-tales, a headkerchief is thrown back, in order to stop the enemy (the dragon, The Forest Witch etc.) and it changes into an endless sea. With the same headkerchief you can baptise a “moroi” (a child who died unbaptized and who changed himself into a ghost after death) who asks for christening (cf. D. Grigore, 1996, p. 50). The headkerchief, named also “nâframa/ = sash” is used in the ritual “slobozirea apelor/ = the release of the waters” (a funeral ritual linked with water a sort of water alms) (S. Fl. Marian, 1995, p. 254).

Back to the fir-tree preparation, it is “decorated” with fruits, cakes, knot-shaped breads and a pot with water. After burial, the tree is planted at the dead’s head (Oltenia, Banat) or it is thrown in a river or in a fountain (ibidem, p. 115). In the peasant’s mentality this fir-tree symbolises the “passage” between the two worlds (life and death – the living ones’ world and the dead ones’ world) the “fairies’ fir-tree” from the songs for “accompanying” the dead (in Banat) or from the “Dawn’s Song”. Sung by three, seven or nine women, before the dawn, in both of the mornings when the dead one stays at home, the Dawn’s Song” (as like as the laments and the funeral songs) is used to lead the dead on his long way to the dead ones’ community (V. Crețu, 1968, p. 270); the “fairies’ fir-tree” appears in the “Dawn’s Song”:

“In the seas’ waters  
Where is the fairies’ fir-tree?  
The waters’ passage  
The Soul remained praying:  
Fir-tree, fir-tree!  
Be my brother,  
Hold out, hold out,  
Your branches  
For me to catch them  
To pass by them  
To cross the great sea  
To the outside world” (O. Buhociu, 1979, p. 26).

The fir-tree put at the dead’s head in the pot with water seems to represent a limit between the two worlds, the tree as a “bridge on the sea” for “the soul to pass”, to cross it. (cf. S. Manguica, 1881, p. 123).

Everywhere in the Romanian ethnographical regions, before taking out the coffin, a pot with or without water is broken and the family speaks “The same way this pot is broken, the misfortunes of this house to be broken” (A. Iana, 1889, p.435). The pot is broken in the place where the coffin was, at the house door or at the tomb.

A pot or a pitcher is broken, not a dish or a plate, because the water is kept in pots or pitchers.

The custom has prehistoric roots; the skeletons in the Neolithic tombs were found on a bed of shards, or near shards. Sometimes in this Neolithic tomb, we can also find unbroken pots usually placed near the head of the dead one. The practice of pots breaking at tombs is a generalized ritual in the Neo-

Neolithic in the Balkans-Danubian region and it is preserved late in the Middle Ages, first period (E. Comșa, 1960, I. Hica-Cîmpeanu, 1979).

In Muntenia, after taking the coffin out of the house, the pot in which the water for washing the dead was brought, is filled with water and it is broken in the middle of the house (S. Fl. Marian, p. 174). In Muntenia, between the moment when the dead one is taken out of the house and the burial, nobody is allowed to drink water at home (only after the burial is finished they are allowed to drink): the water of this time is considered to be "dead water" (ibidem, p. 180).

Last century there was a custom, especially in Transylvania, to accompany the coffin (in front of it) by a pot with water and a new wooden spoon (= "căuc") used to give water as alms to poor people on the way (M. Besan, 1866, no page number). The soul's travelling to the outside world and with the thirst the dead one feels on this way links this custom. The idea is also linked with the "alms with water" and with the "release of the springs", rituals made six weeks after death. The way to the cemetery has halts: "stages" or "bridges". The first stage (halts or "pillars" or "prohoade" symbolising customs to be paid for the other world) is in the yard, where alms over the coffin are given: money, little knot-shaped breads, and clothes a black hen or a cock and a pitcher with water. In some regions, the cock or the hen, the sheep or the rams are given as alms at the cemetery, over the tomb, before burial. Before this, the animals for sacrifice are washed or at least sprinkled with water (informer: Brîncuși Elena – Calotă -, Hobița, and Gorj district).

The "bridges" are strips of white cloth put in front of the funeral procession when it passes over ditches, fords, bridges, rivers or crossroads. In Dorna region, when passing water, every child is given with a coin (S. Fl. Marian, p. 196). All over Romania, at the crossroads, coins are thrown over the head. In Basarabia, there are twenty-four "bridges" where a towel and a glass of water are given as alms (the bucket from which the water was taken will be also given as alms at the tomb (informer: Pisari Leonte).

The "stages" and the "bridges" are very old in the popular pattern. The cock and the sheep are, like in other cultures, psychopomp animals, they lead the soul to the other world (even the devil cannot shape himself in a sheep, a cock or a bee – cf. Gh. Ciaușanu, 1914, p. 223).

In a Gaelic myth there are two herds, one black and the other one white, separated by a river; whenever a white sheep bleated, a black sheep crossed the river and became white and vice versa. The river symbolises here the border between the two worlds and the two herds are the living ones and the dead ones (J. Chevalier, A. Gheerbrant, 1994, p. 107 sq.).

If the pitcher with water and the "water alms" must be linked with the "dead's thirst" (M. Eliade, 1992, p. 191 sq) the bridges and the money throwing at the crossroads must refer to the imaginary topography of the other world. Before reaching the dead ones' world, the soul has to cross rivers and deep fords which are the seven, nine, twelve, twenty-four, or even ninety-nine customs (informer: Androșeac Magdalena). The soul must pay the "mite of Charon" to pass this customs, or else it will stray on the riverbanks, never reaching the dead ones' world to which it belongs now. These "thresholds" are aquatic in the Romanian popular culture: the soul crosses "the great sea" and it stops at "the cold springs" (M. Coman, 1996, p. 147).

After finishing the funerals, all the people present must wash themselves or at least sprinkle themselves with water taken from a river or a fountain (Th. T. Burada, 1887, p. 42-43). In Oltenia, the Godmother of the dead one brings a jug with water for the gravediggers to wash their hands and their tools; the ritual takes place over the tomb (A. Iana, p. 436).

All these rituals and interdictions concerning water begin from the first signs of death and finish after the burial. They have the role to prepare the dead one for his new "stage", to create a new identity for him, to integrate him easier in the dead ones' world (M. Eliade, 1997, p. 51). As any change of ontological status, in the traditional society, death needs some "passage rites" (A. Van Gennep).

Water, which is together with fire, a primordial element, is used to purify and to initiate the deceased for the great voyage to the other world and to quench the "soul's thirst" on the long way. If in the ancient Greece the vessel with water was put in front of the door to warn about the "miasma" (etymologically it means both mourning and stain, stench – cf. Chassang, 1872, p. 606), in Romania, after a well preserved pre-Christian tradition, the same ritual signified the "dead's thirst".

The funeral symbolism of water is important in the dead ones' cult, too, at the alms for the "Moși/= forefathers" during the year. In the popular imaginary pattern, two big rivers cross both heaven and hell: the Saturday's Water and the Sunday's Water (I. Mușlea, Oct. Birlea, 1970, p. 219). The other world is seen as a hazy space, full of gods and fairies, crossed by valleys and deep waters (E. Bernea, 1985, p. 88 sq.). This world is similar to the one from the fairy-tales, where the border between the two



worlds is a big water (the sea from the "Dawn's Song" in the middle of which there is the "fairies' fir-tree"). The big river also separates the people's land from the dragons' land (L. Șăineanu, 1978, p. 288 sq.).

Reflected in the peasant imaginary pattern, in believes, fairy-tales and customs, the funeral symbolism of water contains gestures, texts and interdictions. Anthropology of death based on many facts and Romanian folklore documents could certainly enrich the world spiritual patrimony.

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## People who provided the information (informers):

1. ANDROSEAC MAGDALENA, 58 years old, Mitoc Village, Mitocul Dragomirnei, dep. Of. Suceava, research made on the 26<sup>th</sup> of August 1997
2. ALECSUȚA FLOARE, 76 years old, Socodor village, Arad district, research made on the 27<sup>th</sup> of June, 1997.
3. BRÂNCUȘI ELENA (CALOTĂ), 75 years old, Hobița village, Peștișani commune, Gorj district, research made on the 25<sup>th</sup> of April, 1997.
4. GÎIDEA MARIA TOADER, 65 years old, Vărzărești village, Nisporeni commune (villages reunion Basarabia), found and collected by A. Movileanu, July, 1992.
5. PISARI LEONTE, 79 years old, Ciorăști village, Nisporeni commune, Basarabia, found and collected by A. Movileanu, July 1992.



## LE "VILLAGE DE L'AU-DELÀ" DANS LA COMMUNAUTE SUD-TRANSYLVAINNE

CORNELIA GANGOLEA

La mémoire collective de la communauté rurale traditionnelle redouble l'image de son habitat tout en le percevant - spatialement et temporellement - comme une communauté de vivants à côté de laquelle il coexiste "le village de l'au-delà", qui se confond avec son cimetière.

La motivation du phénomène remonte au culte immémorial des ancêtres et se prolonge au-delà de l'an I par le biais des dogmes de la religion chrétienne qui soutient, elle, avec ferveur, la croyance en la vie de l'au-delà.

Disposé, en règle générale, autour de l'édifice de culte, le cimetière se constitue en une véritable réplique fidèle du village des vivants, tandis que les groupements de tombes disséminés "dans les terres", groupées par "lignages", en un reflet en miroir des noyaux familiaux des isolats humains éparpillés aux flancs des hauts côteaux sous les signes des croix ou des piliers tombaux, opérant ainsi la translation, dans le respect de l'ordre hiérarchique social de la vie communautaire sud-transylvainne.

En fut-il toujours ainsi?

Le processus évolutif de ce "patrimoine immobilier" de l'église chrétienne est malaisé à reconstituer, les hiatus créés par la carence de toute source de renseignements stimulant, peut-être un peu trop la pensée spéculative. La lumière qu'y ont jetée les derniers siècles de notre millénaire est, elle aussi, souvent, insuffisante.

Des problèmes qui valent d'être approchées offre également le processus de désacralisation du cimetière. Que tend à devenir le rituel de l'inhumation (et, implicitement, l'espace qui lui est consacré), perdant de sa profonde gravité ontologique en faveur d'un spectacle funéraire, phénomène moins remarqué dans le milieu rural roumain encore ancré dans un traditionalisme de bon aloi de ce point de vue ?

Voilà quelques idées que notre contribution essaie de tirer au clair.

La relation binaire "le monde d'ici-bas", "le monde de l'au-delà", accueillie par le mental archaïque aussi bien que par le moderne<sup>1</sup>, se retrouve également au niveau de la sphère de l'habitat où, par la "logique" d'un renversement en miroir d'une image archifamiliale: le village (perçu comme communauté de vie), on obtient, symétriquement, en réplique, le cimetière de la communauté.

Cependant, l'extension de cette élaboration duale n'engendre guère l'appellation "le village des morts" du lieu destiné à l'inhumation<sup>2</sup> quoique l'idée en puisse être retrouvée, explicitement, dans le langage poétique des chants funèbres: "*Il est temps de s'en aller/ En la terre d'habiter*"<sup>3</sup>

Les rites fondateurs, tels le "traçage du sillon", qui établissent l'emplacement des futurs habitats, peuvent se retrouver pratiqués aussi dans le cas des périmètres sépulcraux, l'analogie la plus fréquente s'établissant quant à l'acte de consécration de l'espace désigné<sup>4</sup>.

La séparation du profane des espaces consacrés comme sont censés être les cimetières, se fera au commencement par distanciation, puis, dans une étape ultérieure, par la clôturation. Il y a ici l'idée de délimitation symbolique de deux entités opposées: le "village" et "le lieu d'ensevelissement" (leurs habitants relevant, les uns du monde des vivants, les autres du monde des "livides voyageurs")<sup>5</sup> mais aussi bien de délimitation pratique, les cimetières "sans enclos" étant abandonnés,<sup>6</sup> la religion chrétienne, par les

<sup>1</sup> La motivation en est le désir de l'individu d'exister" encore au-delà de la mort.

<sup>2</sup> Le plus souvent apparaît la fixation notionnelle en termes spatiaux (le cimetière d'au-delà des vergers, le "cimetière de la colline", "le cimetière des champs") ou temporels ("l'ancien cimetière", "le nouveau cimetière"), ou encore ethniques: "le cimetière saxon", le "cimetière tzigane".

<sup>3</sup> Dans les chants funèbres est évoquée également l'image du monde de l'au-delà où, suite à la perte de l'identité, le village est "innommable" et le sentier du retour "irretrouvable".

<sup>4</sup> Voir à ce titre: P.Procopoviciu, *Le Cérémonial de la liturgie de consécration du cimetière*, Chisinau, 1942.

<sup>5</sup> Le désir de délimitation exprime, sans doute, le réflexe de la peur des disparus et, implicitement, des lieux où ceux-ci sont inhumés.

<sup>6</sup> Voir à ce titre: Archives de la Métropole de Transylvanie, les INVENTAIRES des Paroisses de l'Archidiocèse de l'Éparchie de Sighisoara éco-orientale ... de la date du 5 août, Nos.Consistoriaux 580 et 154 pour l'année 1854: "*Lieu d'ensevelissement des morts, non enclos, non employé. Il a été ordonné de l'enclore*" (Sas-Daiq,dépt. Sibiu), "*Le cimetière, lieu d'ensevelissement des morts, sur une colline. lieu infertile, est non enclos et non employé.*" (Archita,dépt.Mures).

dogmes qu'elle prône, n'admettant pas la profanation de ceux-ci par des "intrus" (personnes d'une autre croyance ou animaux non surveillés). Dans ce sens sont stipulées des interdictions d'inhumation dans le cimetière des enfants non baptisés, des hérétiques ou des suicidaires<sup>7</sup>, la zone de démarcation acquérant une valeur positive.

Si les zones périphériques échoient aux catégories marginales de la société (aux catégories évoquées ci-dessus venant se joindre celles des rroma et des membres des diverses sectes au cas où ceux-ci n'ont pas de cimetières propres)<sup>8</sup>, qui est-ce donc qui bénéficiera d'une position privilégiée? La réponse qu'offre l'analyse en parallèle des deux "villages", révèle l'existence d'une stratification hiérarchique des membres de ceux-ci en fonction de leur prestige social, moral, religieux etc.

La stratification, créatrice de status inégaux, est celle qui veillera encore au respect des normes (ne fussent-elles imposées - dans le cas des communautés traditionnelles - que par le droit consuetudinal), définissant avec précision la position de la maison dans le village et du lieu d'ensevelissement dans le cimetière. En conséquence, la configuration du premier se verra reproduite, à moindre échelle, au niveau du cimetière.<sup>9</sup>

Menée encore plus loin, l'analogie s'établit aussi entre les demeures bâties, il est vrai, certaines pour un temps seulement, les autres pour toujours (*A coups d'aissette et de truelle/ Je te ferai demeure éternelle*). Mais, tandis que les premières permettent, par leur construction, la communication, avec le monde alentour, de ceux qui les habitent, les dernières rendent vaine cette possibilité. Là on ne peut plus mettre le signe de l'égalité, quoique les "fenêtres de l'âme" pratiquées dans les parois du cercueil semblent servir précisément ce but.<sup>10</sup>

La coupure des relations avec les membres de la communauté, causée par l'absence du dialogue, détermine la dépersonnalisation du défunt et réduit le rôle de la demeure souterraine à celui de simple abri (*La tombe est pour l'homme demeure / Et tout le bien qui lui demeure*) et le désir d'exorciser la mort la transforme en un "lieu de repos", attribut transféré au cimetière en son entier<sup>11</sup>. L'individualité acquise par le fait de l'habitation, de la maison du village, se transmet-elle à sa variante archétypale? Il semble que la marque du tombeau, à côté d'autres fonctions (rituelle, de marquage du lieu de l'ensevelissement, esthétique) a aussi celle de "personnaliser" celui-ci. Par leur type morphologique, mais aussi bien par les inscriptions, les croix et les piliers tombaux parviennent à différencier les "lieux éternels" tout en les individualisant, les inscriptions funéraires ayant pour fonction la fixation dans la mémoire collective du souvenir des trépassés.

L'abandon définitif d'un microcosme familial et l'entrée dans une post-existence incertaine s'accomplit de manière rituelle, par l'équipement de la nouvelle demeure de celui qui s'en va d'un inventaire d'objets minimal (peigne, aiguille, fil à coudre, ustensiles divers et, parfois, dans le cas des jeunes mères, de poupées dans le même nombre que celui de la famille et demeurés désormais orphelins<sup>12</sup>) tout dans l'intention évidente d'assurer la continuité de la vie au-delà de la mort.

Cette tentative d'établir, par de telles pratiques, des similitudes entre les deux univers, remonte beaucoup plus loin que le christianisme, et est apparue en conséquence de la peur de l'inconnu, modérée par ces pratiques.

<sup>7</sup> Quant à ceux-ci, la communauté d'un village du Pays de Fogaras (Cârtisoare, dépt. Sibiu) pratique, consciemment, le non respect des canons, simulant, lors de l'enterrement, la pénétration par la force dans l'enceinte de l'enclos en brisant quelques palis de l'enclos la bière du proscrit étant passée par le trou et mise en terre à la périphérie du cimetière. On considère de cette manière que l'on n'a pas enfreint l'interdiction de l'église car la bière ne passe pas par-dessus le seuil (chargé de profondes significations mythico-religieuses) de la porte d'entrée dans le cimetière.

<sup>8</sup> Dans la structure des habitats, l'isolement des groupes ethniques minoritaires (voir le cas des rroma) est fréquente, le phénomène se reflétant aussi dans la modalité d'organisation des cimetières.

<sup>9</sup> Au cours des dernières décennies, les interférences des collectivités rurales avec des milieux sociaux plus larges a déterminé une dynamique des phénomènes menant à des modifications dans la structure et dans le fonctionnement des facteurs qui définissent l'espace de l'habitat.

<sup>10</sup> M. Kahane, L. Georgescu-Stanculeanu, *Cântecul Zorilor si Bradului / Chants de l'Aube et du Sapin*, Editura Muzicala, Bucuresti, 1988, p. 663:

*Les ouvriers, qu'est-ce qu'ils faisaient?*

*Sa demeure menuisaient*

*Demeure à neuf larges baies.*

*Pour qu'à travers lui parvienne,*

*De sa bonne maman la peine;*

*Par la seconde lui vienne,*

*La peine de son bon père;*

*Par la troisième lui vienne.*

*La peine de ses bons frères:*

<sup>11</sup> D'ailleurs, on a établi que l'étymon du mot "cimitir"/cimetière est le mot grec *koimeterion*, qui signifie lieu où l'on dort (chambre nuptiale), d'où l'idée que ceux qui y sont inhumés (symboliquement assimilés aux graines cachées sous la terre) après un temps d'attente, décidé par les grands cycles de la nature, pourraient retourner à la vie. "*C'est bien pour cela que ce lieu s'appelle cimetière, pour que l'on sache que les trépassés qui y sont déposés ne sont point morts, mais sont couchés et ils dorment!*" (Saint Jean Chrisostome, *Homélie du nom du cimetière et de la Sainte Croix*, in I. P. G., t. XLIX, col. 393)

<sup>12</sup> On essaie, dramatiquement, de cette manière encore, la définition par les objets de la personnalité perdue du défunt.

Indifféremment de l'évolution des modèles culturels, la manière dont la communauté apprécie "l'image" de l'espace habité mène à la conservation (à la perte ou à l'acquisition) du prestige de ses membres. Dans le contexte de l'analyse proposée, le tombeau ne saurait faire exception, les références qui s'y rapportent s'articulent sur le déroulement du scénario rituel. Le rituel funèbre, conservateur, admet avec difficulté des déviations par rapport à la norme et, pourtant, l'aspect du cimetière traditionnel ne pâtit guère par la monotonie.

Amorçant un virage vers la simplification et le cérémonial, les pratiques rituelles se sont modifiées ces derniers temps. Les innovations de type urbain pénètrent dans l'espace du cimetière le modelant comme un hybride destiné à payer souvent son tribut au kitsch. Les tombeaux et les marques de ceux-ci, érigés ostensiblement et bâtis en matériaux coûteux (marbre, ciment, profilés métalliques qui se substituent à la chaleur et à la plasticité du bois ou à la sobriété sévère de la pierre) sont le plus souvent un simple transfert dans le cimetière du désir d'opulence de la communauté villageoise. La demeure du lieu du repos éternel doit s'élever au niveau des autres dans les ruelles du village.

L'uniformisation des cimetières, résultat de la tendance à l'imitation, en anéantit implicitement la personnalité, l'expressivité de l'art funéraire traditionnel cédant devant l'impulsion de copier, jusqu'à la banalisation, le même type constructif censé être "dans le vent".

Qu'en est-il des cimetières constitués, dans les hameaux isolés où chaque famille ensevelit ses morts dans le champ situé dans le périmètre de sa ferme?

Dans ces cas, la singularisation des tombeaux appartenant à une famille n'engendre pas les réactions que l'on a pu remarquer dans le cas du cimetière communautaire.<sup>13</sup> Les morts sont plus tôt oubliés, les tombeaux et les symboles plus simples respectant strictement la tradition, la communion des deux mondes trouvant solution précisément par la proximité des maisons d'habitation, le tout se trouvant souvent protégés par le même enclos. La mort est perçue comme une chose dans l'ordre de la nature, n'effrayant guère.

Les autorités ont essayé et essaient encore une translation "vers la vallée" (où se trouvent normalement le noyau central d'habitation, avec l'église et le cimetière communautaire) de ces tombes familiales. Mais les distances appréciables empêchent le transport (surtout en saison hivernale). Un compromis vient d'être réalisé par la constitution de "cimetières de voisinage" de petites dimensions, groupant les morts des fermes voisines ( le cas des hameaux des villages Loman ou Purcareti, dépt. Alba).

Reconnues comme des structures organisatrices, les traditions du cérémonial (funèbre) sont, en grande partie, responsables de l'image de "l'autre village"<sup>14</sup> mais la sanction des pratiques rituelles se fait différemment. Le mental collectif demeure tributaire du système (et, faisant sien le système de référence de celui-ci, accepte le "modèle" de lieu d'ensevelissement rural), alors que le mental individuel, à travers des "innovations", tend à faire éclater les moules. Est évident ici le *besoin* de "s'aligner sur le monde" (la solidarité de la communauté étant induite précisément par le rituel) et le *désir* de s'en distancier, d'épater<sup>15</sup>, les relations entre l'individu et la collectivité se restructurant en permanence.

Cependant, le problème fondamental demeure la relation *vie-mort*; c'est bien de là qu'idéalement on procède à l'analyse des entités corrélées: *le village et le cimetière* .

Quel est le reflet de la perception par la communauté rurale du fonctionnement de la dualité? En sera-t-il un objectif, dans les conditions où l'on se rapporte, perpétuellement, à la mort de l'autre (ne faisant qu'affleurer notre propre passage d'un monde dans un autre)?

Un proverbe ancien énonce: *La mort et la vie sont dans le pouvoir de la langue* <sup>16</sup>. Nous tenant dans la même sphère, la perspective éthique offre un verdict exclusiviste préférant: *Celui qui m'a sorti de mon village/ Qu'il n'aie pas où se faire enterrer* <sup>17</sup>. La perspective religieuse exhorte à l'obéissance (inconditionnelle) devant le sort: *Dieu règle et la maison du village et le lieu du cimetière*<sup>18</sup>.

<sup>13</sup> *Le fait de n'avoir pas de cimetières du village ouvre une perspective vers l'âme de ces gens où persistent encore des siècles depuis longtemps écoulés de notre nation. Il nous les révèle très intégrés dans la nature et peu enclins à la réflexion. Les cimetières sont le produit de l'individualisation urbaine et de l'éloignement de la nature.* (Le Village chez les Momârlans, in Sociologia Românească, an II, No. 11-12, novembre-décembre 1937, p.571)

<sup>14</sup> En vertu des mêmes coutumes, la communauté rurale a fait option, pendant très longtemps, de certains types architecturaux, dans la construction de la maison.

<sup>15</sup> Souhaitant se faire remarquer, en concurrence avec les autres, l'individu amplifie, pas toujours dans un sens positif, les séquences cérémoniales. La grandeur exagérée de certains monuments funéraires, leur surcharge baroque d'ornements, l'abondance des repas commémoratifs, les exagérations dans le respect du deuil etc., voilà autant d'expressions concrètes de cette tendance.

<sup>16</sup> *l'eau passe, les pierres demeurent. Proverbes roumains.* EPL, 1966 (5035)

<sup>17</sup> Informatrice, Vetuta Bera, 58 ans, Mândra, BV.

<sup>18</sup> Idem.

*La mort hante le village/ Mais n'a pas trouvé d'abri*<sup>19</sup>. Transféré dans le cimetière, la demeure se réduit, du point de vue des dimensions, au minimum: *Pas plus grand que ce que mesurent tes bras/ Que la largeur de tes épaules.*<sup>20</sup> De là jusqu'au *Nu tu es venu/Nu tu t'en vas/ Avec toi d'ici rien tu n'emporteras*<sup>21</sup> il n'y a qu'un pas!

Et, de quelque façon que la société puisse évoluer (le tournant, dans les coutumes, vers le cérémonial, la désacralisation du lieu destiné à l'inhumation etc.), la tentative d'identification des deux mondes est conséquence du besoin de structuration des relations entre ceux qui s'en sont allés et ceux qui demeurent.

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<sup>19</sup> Voir supra, note 10, p.646

<sup>20</sup> Voir supra, note 10, p.647

<sup>21</sup> Voir supra, note 16, (2829)

## UNE ETHNOLOGIE NOUVELLE POUR UN FOLKLORE NOUVEAU. LA SOCIALISATION MAGIQUE URBAINE.

RADU RĂUTU, FLORICA ELENA LAURENȚIU

Notre démarche est orientée vers la captation difficile d'un magique observé et relaté par des personnages du milieu urbain, de notre tout proche voisinage. Ce magique s'affirme par des formes de socialisation, issues des structures traditionnelles – voisinage, parenté, etc –, qu'il produit, et par des modalités spécifiques (visites réciproques des voisines, afin de raconter les rêves de la nuit précédente, ou de boire un café, occasion divinatoire).

L'appel aux solutions qu'il offre est pressant et plus angoissant que dans le milieu rural. La nécessité des réponses-solutions par la sollicitation du *magique* est plus individualisée, parce que l'individu même est plus isolé, plus exposé à des intégrations socioculturelles discontinues. **L'identité** de la personne dans le milieu urbain est plus complexe, plus vulnérable. Elle n'est plus engendrée d'une manière naturelle, comme dans le microcosme du village qui lui assurait toutes les valences nécessaires d'un statut ontologique réfléchi dans et par la communauté.

Le voisinage et les relations de parenté dans le milieu urbain sont souvent le résultat des situations *locatives*, dont la production est trop peu influencée par la famille, et l'individu. Le recours au *magique* supplée, même si non pas fondamentalement, l'absence de ces critères traditionnels. Le rapport se fait au *magique* commun, pratiqué *spontanément* mais *systématiquement*. Par cette modalité de pratique, la sollicitation du magique **tend à la ritualisation**, dans un cadre domestique, cumulant des traits relativement stables, un vocabulaire spécifique, des gestes caractéristiques.

Les composantes principales de ce *magique* se retrouvent dans l'onirique, dans la divination, dans des actions d'annihilation du mal. Le registre onirique fait la liaison entre le fond archaïque et les modalités pratiques spécifiques de celui-ci. Cependant, une correspondance de la signification des symboles actualisés aux symboles traditionnellement invoqués n'est pas toujours apparente. La tendance actuelle est de dissociation, par l'absence des représentations majeures du panthéon populaire. Un autre aspect souligné est la combinaison des pratiques *magiques* aux pratiques *religieuses*.

Toutes ces formes de magie populaire urbaine (raconter les rêves, la divination dans les cartes ou dans le café) constituent des formes de thérapie individuelle psychologique, mais aussi bien des formes d'adaptabilité au contexte stressant de la période de transition de la société roumaine contemporaine. Il s'agit de la pratique généralisée, dans des modalités semblantes, de ces formes simples de *socialisation magique*, par les locataires de sexe féminin des bâtiments bucarestois.

De l'analyse du mode de pratique et des occasions de performance (sessions de divination ou rencontres de décryptage de l'onirique), il ressort que l'imaginaire collectif actuel semble tendre vers un virtuel unidimensionnel, incompatible avec la réalité socioculturelle intégrable de l'individu, des groupes ou des communautés.

Nous tentons ici un bref aperçu d'une *magie* pratiquée et interprétée par des gens de notre voisinage, condition qui favorise l'amitié, la confiance, tout en permettant la reconnaissance mutuelle du fait culturel.

Cette magie citadine semble avoir emprunté des modalités de socialisation spécifiques du village traditionnel: parenté, voisinage, etc. On y trouve, toutefois, certaines modifications susceptibles de produire un ensemble considérablement éloigné du modèle (gestes, attitudes, concepts, syntagmes). Ici, l'appel magique est plus individualisé, plus personnel. Les questions qu'on pose, les solutions, les réponses attendues revêtent un aspect plus pratique, se veulent d'une efficacité accentuée, alors que la communication avec *la réalité magique* est plus simple.

Dans le milieu urbain l'individu est plus isolé. Il est aussi plus vulnérable, exposé à une intégration socioculturelle discontinue, ce qui peut affecter sérieusement son identité. Il ne bénéficie plus d'une identité « cohérente », telle que le microcosme du village traditionnel lui offrait, avec tous les attributs d'un statut ontologique par lui assumé et sans cesse confirmé par la communauté.

Dans le milieu urbain roumain les structures de voisinage sont, le plus souvent, le résultat d'une politique « locative », situation imposée de manière arbitraire. L'industrialisation forcée eut comme conséquence une urbanisation qui créa le habitat dans des HLM, dans tous les pays communistes. La famille, l'individu n'ayant aucun rôle dans le choix de l'habitat (ville, quartier, immeuble, même appartement).

Il est difficile de dire dans quelle mesure l'appel à la magie (scruter ce registre mystérieux qui se laisse explorer, qui offre des signes, des réponses, voire des solutions, perçu comme réalité indéniable et en même temps ineffable) peut suppléer pour les individus et pour les groupes, l'absence des structures traditionnelles de la vie sociale. C'est justement par le caractère abstrait de la sollicitation de l'imaginaire, cet appel se présente comme une modalité plus libre d'agir. Il opère avec des *réalités* où le concret perd la prépondérance et se soumet à une pré-connaissance qui, à son tour, fournit des garanties de mouvement existentiel. En ce sens, l'appel au magique affirme son potentiel thérapeutique préventif. Les composantes principales de cet appel magique se retrouvent dans l'onirique, dans la divination, dans des pratiques d'exorcisme. Dans le dernier cas, il faut signaler l'association de la pratique magique aux croyances et aux pratiques religieuses.

C'est ainsi que *le plan onirique* semble détenir le rôle le plus important dans la configuration d'une épistémologie implicite que représente la sollicitation du magique. La *narration du rêve* est omniprésente dans le processus de socialisation magique. Pour la plupart, la narration est mutuelle. En aucun cas elle n'est programmée, motif d'une visite ou rencontre. Il apparaît comme un fait naturel, spontané, ce qui atteste le liant émotionnel profond qu'il institue. *L'interprétation du rêve* est faite d'habitude par celui qui a rêvé, une diathèse réflexive y étant ainsi intégrée, ce qui approche l'acte de raconter le rêve à une sorte d'ensorcelerie. Raconter le rêve n'est pas une narration proprement dite, mais cela réitère le contexte où apparaissent les éléments essentiels qui demandent d'être lus. La narration demande une assistance participante, qui, éventuellement, contribue à la confirmation des données et à leur interprétation la plus exacte.

C'est toujours le rêve celui qui engendre bon nombre d'actes sociaux concrets, même s'il ne les gouverne pas si concrètement que la tradition, les croyances, etc. Le rêve n'est pas encadré dans la catégorie des superstitions, il n'est pas traité ainsi. Les actes à caractère d'offrande sont fréquents, liés au culte des morts, ou bien, plus rarement, afin de remédier à certaines fautes ou péchés personnels. Le rêve offre ainsi un moyen excellent, *un instrument d'équilibrage des attitudes individuelles*, des commandements d'ordre éthique opérant très concrètement. Le rêve comme un tout (narration) n'est pas assimilé avec d'autres expériences d'un magie visuelle. Il est comme une autre façon *de voir*. Même dans le racontement du rêve, dans une condition active, en se regardant soi-même, l'individu *assiste* à ce qu'il a vu lorsqu'il communique, et cherche à se détacher de ce qu'il a rêvé pour le rendre plus fidèlement mais aussi pour en limiter les conditions néfastes, si cela est possible. Il s'y agit donc d'une attitude consciente défensive, censée séparer les deux plans : le *réel* où se fait la réitération orale, et l'*onirique* avec tout son contenu insondable, potentiellement dangereux ou tout au moins risqué.

Pour l'interprétation des données du rêve, on ne recourt pas à des personnes de l'extérieur de la famille ou d'un cercle d'amis proches, et tout au plus à l'extérieur du cercle restreint des participants aux séances mantiques. Cependant, le tracé de la lecture onirique peut être plus long. Sont sollicités les membres de la famille qui habitent le village ; ceux-ci, à leur tour, en appellent à d'autres parents ou aux voisins. Ce tracé se prolonge parfois dans le temps, réinterprétant des rêves d'antan qui sont adaptés aux conditions actuelles.

Dans le même contexte on peut inclure la réactualisation par la narration des rêves de personnes connues par les participants au cadre d'une rencontre mantique. Dans ces cas il s'agit de *signes* qui se rapportent à des événements importants. Les éléments d'ordre religieux y détiennent un rôle essentiel, car à ces rêves on accorde la signification de visions ou miracles. Beaucoup de ces rêves deviennent des faits collectifs. Ils entrent rapidement dans l'imaginaire général et continuent d'être opérationnels dans les coordonnées propres à celui-ci. En d'autres mots, l'onirique appartient au folklore dans l'acception la plus noble du mot. A ces rêves-narrations, les bénéficiaires appliquent un code d'interprétation où les symboles acquièrent non seulement des valeurs multiples et efficaces, mais, plus important, des significations majeures qu'ils renforcent à la base de la mémoire culturelle qui n'a pas encore perdu son *archaïque*. Dans ces termes, la tradition ne fut pas oblitérée ; elle est activée par la possibilité d'offrir collectivement (par des actants anonymes) des significations importantes reconnues collectivement. Parmi les symboles réinvestis de significations majeures on retrouve : la destinée, les fées de la destinée (*ursitorile*), les saints, parfois même Dieu, par le motif si bien connu de l'Ancêtre (Niculita Voronca E. 1912, Vulcanescu R.



1925), avec les attributs de conseiller qui montre la bonne voie à suivre, etc. Le pont des époques historiques est facilement traversé par ces créations populaires, bien que leurs expressions soient maintenant différentes, et les cérémonials qui l'ont perpétué sont disparus.

Cependant, la tendance de ritualiser les rencontres mantiques dont on parle ne peut être comparée avec les manifestations amples où le mythe était médiatisé dans son essence de mémoire culturelle intégrale. Même si le registre onirique s'affirme activement dans l'imaginaire collectif et qu'il a un impact saisissable sur les normes de socialisation, le milieu urbain favorise la désintégration du facteur onirique dans ses expressions culturelles traditionnelles, et son refuge vers les stratus occultés de la mémoire d'émotions.

Le répertoire onirique utilisé dans la narration et l'interprétation du rêve est assez limité. La limitation se réfère au nombre d'éléments symboliques comme au potentiel d'extrapolation de ceux-ci, d'expansion significative. Le symbole, de générateur de sens, devient récepteur de stimuli d'une manière prépondérante émotionnelle. La collectivisation de l'imaginaire se réalise au détriment de la plénitude spirituelle, mentale, émotionnelle de la personne et des communautés culturelles qui bénéficient d'une mémoire cohérente.

Comment se présentent-elles les autres deux modalités socialisantes auxquelles l'onirique est conjugué dans nos rencontres magiques, *la lecture dans le marc de café* et *la lecture dans les cartes* ?

La fréquence de ces pratiques *magiques*, la densité du phénomène, semblent indiquer une telle fonction compensatoire. Si une dimension thérapeutique y est aussi incluse, voilà un autre point d'intérêt pour le chercheur, car, si une telle hypothèse était prouvée, cela pourrait offrir une ouverture vers le problème si sensible des dynamiques socioculturelles typiques d'une communauté urbaine, mécanismes qui contribuent et assurent –en partie– l'équilibre de la vie du groupe.

*La lecture dans le marc de café* et *la lecture dans les cartes* sont deux pratiques si courantes dans le milieu urbain populaire. Dans ces pratiques les acteurs ont des positions interchangeables. Ils peuvent à tour de rôle, être les bénéficiaires de la lecture ou bien les consultants. (Nous ne parlons pas ici des individus qui sont ou qui se considèrent eux-mêmes des spécialistes de la pratique magique). La lecture divinatoire qui fait l'objet de notre analyse n'implique aucune spécialisation, ne se réclame d'aucun héritage. Elle est perçue, par les pratiquants, comme fait spontané, commun, auquel n'importe qui peut recourir d'après ses besoins, d'après son propre choix.

Les deux pratiques sont d'origine urbaine. Dans le passé elles étaient totalement inconnues dans les villages. Aujourd'hui, on les trouve surtout chez ceux qui ont de la parentèle dans les villes.

Parfois, la circonstance divinatoire, lecture des cartes, lecture dans le marc de café est complétée avec *la communication des rêves*. Mais l'interprétation des symboles ou celle des situations annoncées dans le registre onirique est tenue comme étant d'une qualité supérieure. D'habitude, la lecture (narration, interprétation du rêve) se fait indépendamment de la divination *banale*. Le rêve couvre un espace immense, où l'incidence du virtuel sur le réel vécu a une portée énorme. Souvent, le sens attribué aux faits qui *se montrent dans le rêve* concerne non seulement l'existence des individus, mais aussi le futur du pays, du monde, etc. La lecture de ce registre onirique peut contribuer, parfois, à un mode de formuler et mettre en application une cognitivité culturelle avec des influences majeures sur les communautés.

Devenu élément actif dans l'imaginaire collectif, le rêve signifié, s'inscrit dans le folklore avec, très souvent, une charge notable de symboles archaïques ce qui le fait participer à la continuité de la tradition.

Même si imprévisibles, les réponses–solutions obtenues grâce aux cartes et au marc de café sont en quelque sorte attendues, elles sont aussi commandées, ne tarderont pas à venir. Les moyens utilisés, le café, les cartes subissent une mutation au cours de la pratique divinatoire, l'intention des acteurs, sollicitant et consultant, leur confère une qualité *magique*, des propriétés qui sortent de l'usage commun, aliment pour le café, objets d'amusement pour les cartes. Est-ce que cette circonstance spéciale *fait de la pratique divinatoire commune un rite* ? Un élément participant la structure *d'une magie de type nouveau* ? Ou bien sommes-nous toujours en présence d'une attitude, forme d'esprit, etc., qui ne diffèrent point de cette *expérience* si fréquemment et toujours vaguement indiquée par le terme de *magique* ?

Souvent, les pratiquants affirment qu'ils n'aiment pas prendre leur café *seul*. Une compagnie est de loin préférée, même si on ne procède pas une lecture dans le marc. Pour les deux pratiques, possibilité pour le bénéficiaire de recourir à une lecture pour soi-même est réelle, sans aucune restriction. D'ailleurs le contexte gestuel n'est pas très compliqué : c'est le code d'interprétation qui est important et il est



immense, flexible, soumis à un degré de subjectivité qui ne doit se justifier que dans une acceptation mutuelle assurant la communication entre les acteurs.

La symbolique peut utiliser des images *réelles* ou tout aussi bien des signes abstraits (*tels que chacun les voit dans son esprit*). Les cartes et le café *montrent* soit des faits liés à un passé récent, soit, le plus souvent, annoncent des situations, des choses à venir dans un futur prochain. Ni les cartes, ni le café ne permettent une analyse approfondie des *ce qui este montré*. Leur langage este plutôt limité et se réfère aux *choses de la vie*, santé, mariage, mort, travail, rencontres, querelles, argent, cadeaux, etc., *tel que tant cela doit venir*.

Souvent, les deux pratiques sont utilisées simultanément, ce qui signifie *qu'ainsi on peut mieux voir*. Pourtant, le code d'interprétation de chacune peut être différent. Dans la lecture des cartes se retrouvent parfois des formules provenant d'une ancienne pratique divinatoire rurale, *lire dans les grains* (datul în bobii), sans que des textes d'incantation soient utilisés ou connus.

*Ce qu'on sait. Ce qu'on ignore. Ce qui doit arriver. Ce qui tombe dans (pour) la maison*, etc., sont les rubriques le plus souvent mentionnées. Les groupes qui se forment autour de ces pratiques divinatoires sont basés sur une relation de voisinage immédiat (même étage, même immeuble, même palier), sur un lien d'amitié, de parenté. Ce sont les femmes qui ont le monopole de ces rencontres, le lieu étant choisi d'après les circonstances, ou encore, en fonction de la qualité de la lecture.

Dans le contenu gestuel, ainsi que dans l'interprétation des données obtenues, une influence considérable ont les médias, l'expérience que chacune des participantes avait acquis dans ce domaine. La pratique de cette *magie domestique*, à la portée de tous, contribue sans doute, même si de manière plus discrète, une sensibilisation accrue des milieux urbains populaires vis-à-vis de *miraculeux*, de *l'occulte*, du *paranormal*, termes qui se retrouvent le plus souvent dans le vocabulaire entourant ces activités. Une confusion générale règne lors de ces rencontres ; réminiscences précaires d'un contact avec les traditions rurales, gestes qui accompagnent la pratique religieuse, improvisations qui s'efforcent à mettre d'accord les interprétations nullement unanimes, à réduire l'effet d'un choc toujours possible, commentaires et invocation des situations similaires, tout cela dans un rythme accéléré, comme pour arriver à dominer non seulement le moment, mais aussi les conséquences de l'acte.

L'exercice fait penser à une méthode de prophylaxie mentale, dont le contenu ou le caractère *magique* serait moins important.

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## FOR A MUSICAL ANTHROPOLOGY OF THE SUBWAY

MARIN MARIAN-BĂLAȘA

The complex and universal phenomenon of the human presence for purposes (i.e. functions) strange to the original function of a particular space, implies and imposes a pluridisciplinary approach, a specific anthropological study. My paper, on the one hand, forward some concepts and theoretic connexions trying to describe the topic from a scientific, comprehensive, point of view; and, on the other hand, it communicates some of the most speaking cases of diversifying the function of the urban, public spaces, like the subway, by second-hand artists performing for financial reasons. Of course, it is about cases and realities as they showed up lately in Bucarest, but which, actually, are relevant for a human behaviour, profession and urban, artistic anthropology worldwide.

The Romanian peculiarities are presented only in order to emphasize the issues' wide compass and complexity; since, comparing with musical performance as to be met in any Western subway, the specific level of poverty, as also the specific common mentality, gave birth and lead to forms and expectancies, comments or aspects from (very) pitiful up to bizzare. The children perform here a beggary proper, through singing, but talented individuals or bands become capable of fully supporting themselves through singing/playing instruments. A one-handed panpipe player makes fortunes singing in public places, and an 'international', picturesque carol singer from Maramureș turned to be an immensely efficient fund riser, getting millions. But in his case the traditional aspect of ritual wandering to sing carols got incredibly new temporal dimensions; the Christmas & New Year Eve feasts during no more 6 days, but 6 full months.

One main point and task of my research is to follow the ways, characteristics and features in and by which the contemporary financial reasons modified the old, folk, traditional customs, manners and artistical performances.

This is a paper based almost exclusively on personal, field observation and records. as on individual reflexive search, too. Since I couldn't see so far Marc Augé's volumes (*Un anthropologue dans le metro and les non-lieux*), many of my findings and suppositions have lost perhaps granted solutions, data and theories. And, therefore, the only thing I thought it was left to me to do was to dedicate this paper to the French anthropologist. Thus: To M. Augé, Who might be capable of improving my own endeavor through his - specific - works.

From an anthropological point of view, the subway, as the railway station, is equally an open and closed space. A place that both offers and conditions, gathers and spreads away. Characterized by continuous human flow, it represents an opportunity and serves as a market to those people eager to speculate it by offering the good of entertainment Nobody thought, first, when designing the space, that subway, and public spaces in general, would ever obtain such functions like hosting live performances, artistic exchanges or begging practices. But, to the original functions, the informal social super- (or infra-) structure has added new dimensions, quite 'functions', as said, making space to become being, urban planning to become abstraction, human presence to be turned into unpredictable, metamorphic event.

Preliminaries to a systematic/scientific approach and introduction of *a musical anthropology of the subway* have already been launched. Prior to this paper I have projected a comprehending research, dedicated to marginal performing arts and to the complex convergence between the informal show business of the street art and un-formalized, public entertainment forms (Marian-Bălașa 1995).

In fact, premises for such a large scale studying of the phenomenon have been already set by the multitude of essays, field observations and collections, as well as case or monograph studies, which generously filled the bibliography of marginal, economically oriented, popular performances. (For instance, see bibliographies accompanying genre/topical studies, like at Noll 1992. Only the Romanian literature has remained pretty virgin; see the minute mention upon what happens in Bucharest's subway at Constantinescu 1995).

On my side, I dedicated several years to systematic watch, field recording and research work on public, open-air or closed spaces, street and subways capable to host artistic performances. And wherever it happened me to pass by such places and opportunities I tried to follow and make professional

it happened me to pass by such places and opportunities I tried to follow and make professional observations upon. To whatever I might learn from the reality in Bucharest, lots of facts and observations from many other urban places, both from West and East, completed the huge information and outlook. Hence, similarities and variables, forms and conjectures, differences and common points have been recorded. To the concrete data reserve, as to the theoretical, analytical and interpretative findings close to the named topic I have contributed, publicly, so far, twice (Marian-Bălașa 1995, 1997). While the whole body of a monographic study, itself included in a larger and encyclopedic work - dedicated to relationships between folk creativity and economy - stays stored in the Archive of the Institute of Ethnography and Folklore in Bucharest.

The latter article concerned mainly the contemporary venues and ventures of an eastern European specific repertory in Bucharest's subways and streets, the theoretical draft earlier published has comprised - and stressed upon - the interrelationships between economics and performance, urban landscape and its 'functional' reshaping throughout performing artists' presence. And both essays, I consider, have tried to forward a few 'active' and synthetic ideas on how to handle the issue of (free-lance) artists giving peculiar, full- or half-artistic functions to urban environment and to the human, passing flow. By 'handling' this issue I actually mean equally applied and theoretic approaching of the phenomenon, in a holistic, creative epistemological way.

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Manipulating, or at least taking advantage of the human crowd or flow, of the mass people using public spaces, walking on streets, waiting in public transport stations, is reason to all kind of (free-) sellers, comprising/including artists, performers, acrobats, entertainers. Some of them offer useful, needed goods; some just ask, beg giving nothing in exchange; and some give more or less satisfactory compensations, or pleased/appealing artistic messages. These last ones exhibit themselves and try to enjoy the citizen - passer-by, walker, passenger - either by satisfying, or by raising compassion. The marginal, nomad, wandering, street artists form a 'class' in this sociological set. And their presence in the midst of the human crowds or passages, as in the most common or specific parts of the urban landscape, cause an anthropological phenomenon and anthropological events, which are of some totally particular importance, significance and resonance, identity and value. Out of any doubt, this must be studied. But out of doubt it became its multi-perspective studying, which is the approach that keeps into equation not only the economic and sociologic or artistic contents, but also the significance and value of the urbanscape, of the human flow, and the redefinition of the public place once marked by art events, and so on. Integral, modern studying fulfills itself when, as in the case with the public places' art performer, also the mental attitude and the psychology of those people just using, consuming or at least confronted with the spontaneous art offer in an unexpected place and time is known, discussed, analyzed. Upon the last subject tackled I shall insist herein just a little bit.

I had the opportunity of keeping under surveillance the flourishing in the subway of Bucharest of the whole package of the marginal art set to gain money. I say 'flourishing' because, as it is well known, prior to the political changes in 1989-90 going out in public spaces in order to sing and get money was officially forbidden, and only beggars or annual carolers were customarily accepted to do it. That is why, what happened especially in subways, trains and railways stations since 1990 might be called a local birth of the universal phenomenon, but also a surprising growth, blow up, exaggeration of it. Immediately after it seemed that all restriction ended up - since this was the First impulse to understand democracy -, among all sort of things it also happened that;

- the old, traditional, folk customs that implied collecting or getting goods or money in exchange for their performance/rendering, 'aggressively' reborn and spread up;
- these genres and repertories increased and generalized, on the one hand, and on the other one entered into a much more prolonged use, from the original period of one, two or six days counting now up to three or six full months (see concrete examples in Marian-Bălașa 1997);
- a huge fan of people in need, unemployed, beggars, cripples, orphans, sprang like mushrooms and concentrated itself in public spaces, from which the subway world seemed to be privileged, or most exploited/populated one. They were taking marginal and minimal, underdeveloped or used repertories of romances and begging songs, but developing them, enriching them with new lyrics, tunes, prayers and asking formulas, finally diversifying them to such an extent that those numerous and various pieces are capable of defining repertories proper, specific genres,

also unexpected, non-predicted, more precisely previously-unseen people, like pupils, students, unemployed, or just losers/unhappy chaps, have started to populate jammed places like the subway corridors, halls and platforms, singing or playing instruments for earning money. Some have started doing so only in order to ease their living; but many remained professionally close to it, postponing their quest for something else and better.

The profession of public space artist, within the framework, aspects, appeal and market principle known in West, was born; and this was quite new to the Romanians. Therefore it was very interesting to follow also the way the ordinary people reacted, since they 'suddenly' turned to become virtually clients and consumers of such a living trade. It is wholly justified if stated that Romanians got acquainted and familiarized with the phenomenon of meeting subway, everyday performers quite difficult and progressively, as the time run. To most passers by/passengers the phenomenon acted as disguised beggary. In fact it mostly appeared as such, in what the quality of what performed was looking or hearing like, as in what the specific carriers/performers were looking like: rags, bared feet, dirty faces, filthy bodies. The listeners/audience of begging songs or carols, and of recited prayers and hard-breaking texts of self-introduction were either full of mercy, or embalmed in despise. Two feelings, or rather options, between which, naturally, the innumerable nuances of the human casuistry ranked forth.

People's attitudes varied largely. On one side, the religious pity materialized in paying back the performance, often with no respect and interest in what performed, but paying like offering alms. While the people on the other side were either refusing silently to notice those children doing their best to impress and get some coins, or to look bad and sometimes, more and more rarely, to accuse them loudly. All this years, while circulating by subway trains one could notice as in a diagram how people became more tolerant, and learned to stand with the social reality of being daily urged to help the sufferings, the beggars, the abandoned (or monitored) little gypsies, the talented youngsters, orphans or unemployed who colonized the public transportation facilities.

And all these years one could also observe the way or the process the specific professionalism refined itself. Some bands became quite good as technical skills, rendering quality and pieces performed were concerned. In Bucharest there are two orchestras formed and educated in an orphanage; and those from six to twelve teenagers mastering quite well mandolins (from three to eight), guitars (from two to four), and the contrabass (one or two), are continuously enriching their repertory with popular hits, as their virtuosity, harmonies, accompanying patterns and chords and polyphonic or rhythmic passages also.

Comparing with Western cases, where public spaces are frequented by musicians and other sort of performing artists that did not find room inside the official, socially and institutionally established system of the show-business, in Romania most of the subway's performers have discovered and started their public performing position from the real beginning. I mean, they first discovered the generosity of the space, the fact that the specific space provides opportunities for meeting lots of people without special effort, and only then they thought to exploit this opportunity by performing something enjoyable or rewarding. They found their possible role and profession simultaneously with discovering the openness and generosity of those peculiar places. Most of the individuals started their new, specific position from the right beginning, as for instance the panpipe player **Ilie Mercan**, who find inside the underground stations like 'Universității' and 'Unirii' the perfect rehearsal room he never could have at home or elsewhere. He turned towards music only once the subway platforms became available to him. His motivation was not so much the money, anyway welcomed, but the ambition of being capable to play with his mates, as for instance with his brother violinist in Holland. His former musical education was rather nil; in 1990 he did knew nothing about music and playing the instrument. The first two years he was just repeating, lousy but patiently, formulas and musical phrases, and lots of passers-by were mocking at him. Progressively he was better and from the subway platform he got to play, in 1996, even at a USA embassy party. His melodies are now quite impressive, skillful, full of intonations, nuances and technical effects. And he focuses mostly on keeping the beat, i.e. on agogical aspects, because he knows he has problems with 'sticking to rhythm' and hence fitting into the eventual ensemble playing.

To a paralyzed young woman in wheelchair (**Daniela T.**, aged 28) the motivation was different; and this was to feel herself useful and ease her domestic budget. She never played music beforehand. But she suddenly had the idea of doing something of that kind by stepping on the subway platform. Though heavily affected by her illness, she was bought an electric mini-organ, started to take lessons, and almost two years long she could be seen playing that organ, often also by watching musical scores. Of course, her performance, her music proper, was minimal, symbolic. It was, in fact, the peculiar way of stressing, making obvious her presence, of signaling it. To the young woman playing that musical pieces was really

funny, playful; but to the passengers-audience her music was just the message and sign for evidencing though a smiling and fighting person, yet a pitiful human presence. Once, in spring 1997 a TV story covered her case, and, perhaps owed to it, something else had occurred, since she could not be seen anymore on the 'Unirii' subway platform.

**Marin Vasile**, a single-handed man, aged 42, still finds in the subway, as also in North Railway Station, his daily working place. Addicted gambler, he got close to enter the jail and had to give up his job of an accountant, becoming unemployed. This was the circumstance he remembered that when younger, aged 13, he handled once a panpipe. He took it back, from the zero; and shortly afterwards he succeeded to make a very good living this way. When interviewing him - it was two years after he started playing the panpipe in public spaces - he bragged himself claiming he got the sum of 200.000 lei per day, virtually five-six millions per month, thus 6-10 times more than a state salary and he said he was planning to go for the winter feasts period in other cities, like Timișoara, where 'people are richer and much more generous. Actually, of course his handicap and evident false arm are increasing the impact of his playing/musical presence upon passers by.

And what to say upon the incredible case - I say incredible for the large compass of aspects involved - represented by the caroler **Vasile Ardelean** from Sighet-Maramureș, what else to say that it clearly demonstrates the complexity and immediacy of an anthropology, applied to the concrete social, political, economic, intellectual, customary context. The minstrel V. Ardelean (see his presentation and tune in Marian-Bălașa 1997) by himself only deserves a complex case study. Because the guy is not just a caroler taking advantage of a traditional winter custom to make money, but a funds raiser proper, of highly efficient class. And he not only demonstrates that opposing/confronting the communism could play for a spiritual, political and social merit, but also that it is worthy from a very material, i.e. financial point of view. Since he started his profession pushed by a revenge spirit against communist lows and ideology, and continued practicing money collecting for filling state's incapacities (like those of helping calamity victims and of supplying schools in Republic of Moldova with Romanian books), these facts prove that political options, attitudes, and social, religious, missionary feelings blend together and sketch a totally special portrait or entity. A totally capitalist mind and final product, but born out - and continuing to make use - of a very traditional, peasant, ancient custom, repertory and arsenal: a winter-solstice song, a picturesque rural costuming, the ornamented star-cross.

I invoked these four cases just in order to emphasize the complexity and generosity - to the intellectual search - of the matter/phenomenon I am proposing as a special topic, chapter or field, which is *the musical anthropology of the public spaces*. Because, in fact, one cannot imagine the anthropology to have as task and object something else than analyzing the human behavior and the very ways it relates itself to the environment, which comprises the urban and social environment too.

On one hand, as already seen, a 'musical' anthropology is basically proper anthropology, but just improved, broadened by the multitude of connections, thus it is an interdisciplinary and multidisciplinary approach, and also both applied and theoretical/gnoseologic approach. On the other hand, as forwarded here above, the so many relationships involved in performing against money in subway and other public space (such as between performing arts and private/individual economics, mimicry and skill, beggary and entertainment, hard need and accidental pleasure, folk customs and modern circumstances, social-political demonstration and humanitarian attitude, scorn and compassion, marginal profession and urban environment, and so many other), make a whole world. Consequently, to the anthropologic research this is a field and subject ranging from interesting up to fascinating.

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## FROM AN OLD WORLD VALUE INTO POST-COMMUNIST REFUSE: ROMANIA'S VAGABOND DOGS AS KEY METAPHOR IN THE TRANSITION TO A NEW WORLD ORDER

ANAMARIA V. YOSSIF VICKERY

This paper identifies the much-publicized “dog problem” of Romania as a symbolic battleground between traditional herder/agriculturalist values and a historically more recent, materialist and commodity-centered value system. Four and a half decades of communist leadership endangered or destroyed many important elements of local millennia-old Carpathian traditions. Spells of accelerated industrialization were characterized by forced movements of individuals and groups from one geographical area (like Moldova) to another (Transylvania, for example) to provide work force to newly industrialized areas.

Deep social and cultural disruptions occurred together with the systematic destruction of homes, neighborhoods and cultural practices that accompanied the communist effort to create a new type of society. The socio-economic and cultural fabric of Romania was repeatedly ripped apart and woven back together, in order to be made to reflect the goals of communist ideology and planning. Even though the Romanian version of communism portrayed itself as a bearer and supporter of millennia-old national values, it actually unleashed a ruthless assault upon the majority of traditional lifeways, thereby undermining, subverting or reworking local cultural norms. An invasive re-designing of society was carried out on a large scale and in much depth through education, indoctrination, intimidation, imprisonment and other means, employed in similar ways by all modern communist states.

Before the advent of the communist regime, Romania's population was comprised mostly of village agriculturalists, shepherds, craftsmen, and small land-owners, in addition to a francophone, western-educated cultural elite. In the nineteen forties many of the wealthier members of society, later persecuted as “chiaburi” by the communist government, were former peasants or descendants of peasants who had acquired land, or who had created moderate amounts of wealth through their own productive efforts. A large subset of traditional Romanian myths and folklore illustrate eloquently a feeling of intimacy with the natural world and a powerful sense of reverence for the rural landscape and animals. The most famous and best loved of all Romanian folk ballads, *Miorita* is a sweeping allegory of a shepherd's relationship to the universe and the animals inhabiting it. The shepherd is forewarned by his favorite ewe that two fellow shepherds had planned to murder him in order to take over his more beautiful flocks and “more manly” dogs. Filled with reverence for the natural environment and its divine order, the young shepherd of *Miorita* shows a serene acceptance of the imminent experience of death, which he visualises as a festive marital union with the entire cosmos. The night skies shall provide the ritual lighting in this natural and living church.

It is beyond question that for Romanian peasants and shepherds, the animals they had in their care and especially the dogs were highly valued, as well as being emotionally, symbolically and spiritually charged. As do most peoples who rely on their direct relationship with nature for their subsistence, rural Romanians depended upon their animals and regarded them with profound pride and respect. Even in this day, many stories are told of faithful dogs who endangered their lives to protect their master from a bear or from the betrayal of another human. One such account appeared as recently as October 1997 in *Privirea*, a leading news magazine. A series of she-bear attacks on sheep had caused great anxiety among shepherds from a particular area. As in the popular tale of *Miorita*, the published article is a narrative of two shepherds' envy and betrayal of a third, named Ioan. The latter had an exceptionally fierce sheepdog: a pure-bred “ciobanesc ardelenesc” (Transylvanian sheepdog), which he had bought for a considerable sum as a pup. Whereas the other shepherds had lost several ewes to the hungry she-bear, Ioan's sheep were spared due to the strength, speed and courage of his prized and devoted dog, named “Duminica” (Sunday). When Ioan was severely beaten with clubs and left to die by the two envious shepherds, Duminica found his injured master and licked his wounds. Then, at the master's command, the dog went

on to rescue the two treacherous shepherds from the attacking she-bear. The writer of this moving popular account quotes an old Romanian saying: "From my one piece of bread, a man and a dog I fed. The dog still knows me, but the man recognizes me no more." Moved by the same eulogistic spirit, a Transylvanian forest administrator and herbal healer said to me recently, after narrating a few short tales about his beloved dog: "Dogs have all the qualities of the human being, but none of the faults."

The charity and compassion that a large section of Romanians show for the homeless dog population certainly reflects the value and importance of dogs in the traditional Romanian view of the universe. The very existence of thousands of wandering dogs in the midst of urban landscape and heavy traffic constitutes a survival and a success story, even if speaking strictly from the point of view of ecology. Moreover, a majority of Romanian "vagabond" dogs appear well fed and moderately healthy, which attests to their highly developed survival strategies as well as to the compassion of numerous urban citizens. From my own brief experience with Romanian veterinarians, as well as from the numerous accounts I have heard, it is not uncommon for people to take in and care for homeless dogs, especially if an animal is injured or ill. Private citizens as well as veterinarians frequently nurse homeless dogs and cats back to health, purchase medicines for them and pay from their own pocket to have them spayed or neutered.

During my fieldwork in Romania I have seen numerous older animals with a surgically amputated limb, including one charity case (injured by a car) who had been operated on the day before and was recovering in a corner of the waiting room at a downtown animal clinic. I had never seen more functionally healthy mixed breeds with missing limbs than I did in several months of living in Bucharest. Furthermore, a sizable percentage of adult street dogs have healed leg fractures that date back to their early encounters with urban traffic. As any paleopathologist would point out, a healed fracture certainly constitutes a proof of successful recovery, attesting to the survival of the individual well beyond the time of the injury. Found in the fossil record, such cases would indicate that severely injured animals were cared for well enough for them to heal completely from bone trauma. As illustrated by the famous case of an elderly Neanderthal skeleton with healed bone injuries discovered in the Middle East, the act of caring for a crippled being is considered in archaeology to constitute weighty evidence for the existence of *culture*, and the complex forms of communication and awareness that culture requires.

Undoubtedly, in most Western countries these homeless mixed breeds would have been disposed of through "euthanasia" even before they had the chance to become injured, or if not, then certainly afterwards. In Romania, the adaptability and intelligence of the "maidanezi" as they are called is notorious: people tell of their crossing the street expertly, most frequently at human crossings. I have also been told by an eye-witness that some of them ride on public transportation (especially buses) during the winter-time, using this opportunity to get warm. Many urban street dogs have their own regular rounds that may include waiting outside a butchery or deli during one part of the day, sitting outside a particular restaurant at meal times, and going to another familiar feeding spot in the evening. A majority of offices and businesses have one or two resident dogs. I once had a most amusing experience: I walked into a downtown Bucharest cafe and saw a shaggy, marbled spitz-mix sleeping in the middle of the floor, next to one of the tables. Waitresses and customers walked casually around him. As I sat down at a nearby table for a hot cup of coffee, the dog came over to me very calmly and rolled belly up.

It is important to note that most Romanian vagabond dogs are not truly stray. A majority of them have permanent residences inside or next to apartment buildings, institutions, stores, queosks or guard posts. Some of them live to be so old that they become completely blind. The medical school yard has at least a dozen dogs with permanent residence there, fed regularly by friends and benefactors. One compassionate woman brings them leftovers daily from the nearby hospital kitchen. A major hospital in downtown Bucharest has at least three yard dogs, two of which I have seen dozing inside the security guards' quarters, next to the radiator. The institute of anthropological research has two resident dogs that stay inside during the daytime and outside at night, each under the guardianship of a particular staff member. One of them, a medium sized, blind mixed breed named Calu' (Horse) is rumored to be at least eleven years old. Similarly, most Romanian universities, hospitals, restaurants and apartment complexes typically have three to a dozen communal dogs that can be seen sunning themselves in the neighborhood, barking at cars or rowdy strangers, and patrolling the grounds during the night.

From all accounts, the times when workers from the pound tried to pick up "stray" animals they met with outrage and hostility from neighborhood residents and local shop owners. People took the side of the animals against the dog-catchers, telling them in no uncertain terms to find something better to do with themselves and leave the poor animals in peace. At other times people have defended their local



vagabonds by saying that they are not stray at all, and forcefully stating ownership: "This is *my* dog! Go elsewhere to pick up garbage....". One young woman I met (Vali), who worked at a sidewalk newspaper stand in Brasov, went to the pound to take back the young dog she had been sharing her lunches with every day. She told me that she had been afraid of dogs before that one black-and-white puppy came along on a rainy day, to become her regular workday companion. "He was my first dog" Vali said. When the dog was taken away, the pound workers assured her that it would be neutered and released. She went to the pound a day later, only to be told that he had died. Five months later, two other friendly dogs had become permanent daytime guardians at Vali's newspaper stand. However, she was still upset and apprehensive about the earlier events. "Why did it have to happen to *my* dog?" she wondered again.

In the media, reactions such as the ones mentioned above, together with the presence of thousands of wandering mixed breeds all over Romanian cities is often cited as an example of Romanians' "balkanism". This term is usually used to describe the perceived discrepancies between South-East European (Carpathian) cultural norms and contemporary western standards of civilization and hygiene. That is, "balkanism" is generally employed to mean cultural backwardness. To foreign visitors and ambitious entrepreneurs who compare the appearance of Romanian cities to American or Western European ones, the vagabond dog population is an eyesore, an annoyance and a symbol of post-communist disorder. The fact that most Romanians recoil at the idea of a mass killing of homeless dogs to "clean up cities" contrasts deeply with the western disposal-mentality and norms of hygiene which identify homeless animals as refuse, an attitude which is also widespread in the United States of America.

It is true that rabies treatment and prevention centers report dozens of cases of dog bites each day in the major cities. Furthermore, it appears that foreign visitors get chased, nipped and barked at more often than local people. Consequently, the Romanian "dog problem" has been blamed for creating a bad public image for Romania and discouraging tourism, as well as constituting a health and safety hazard. (Yet the existence of free alligators and countless grey squirrels has not stopped tourists from visiting Louisiana bayous....) It is a fact, however, that here has been no reported case of rabies in a major city for many decades, and that no known dog diseases are currently transmissible to humans, other than some common parasites. It is also true that most of these urban dogs are more akin to tame pets than to wild predators, and are just as likely to roll over to a gentle tone of voice as they are to bite when startled, threatened or harassed.

To most non-Romanians, as well as to many Romanian officials or entrepreneurs who share in the ethic and value system of consumerism, mass euthanasia rather than spaying/neutering is the preferred answer to the dog over-population of Romanian cities. In a materialist and commodity focused frame of thinking, these animals have no economic value. Of course, they can even be said to present an economic cost (feeding, dog bites, intimidation of visitors). The obvious commodity-centered answer to the management of non-values is disposal. Based on this worldview, the vagabond dogs are simply labeled as pollution, noise and garbage.

I suggest that for the many Romanians who are struggling with the economic and socio-political hardship of post-communism, there is a deep process of metaphoric identification at work, whereby vagabond dogs have come to symbolize the alienated and devalued selves of formerly useful but currently marginalized people. Among the visible casualties of both communism and the transition period are the steadily growing groups of poor people, living in run-down, improvised or unsanitary conditions, as well as thousands of destitute, hungry, unemployable retirees, drug-dependent street children, and countless ill and disoriented homeless individuals. These other formerly valuable beings have all become "disposable" as a result of the socio-economic shifts of the past few decades. Similarly, the vagabond dog population is another visible effect of a sociocultural failure in the social, economic and political re-workings of the late twentieth century, and it can be viewed as a metaphor for the self of the dispossessed. To illustrate this symbolic connection, I reiterate the point out that most dogs and dog packs have regular, voluntary feeders: typically retirees, unemployed, homeless people, or individual benefactors who work in hospital kitchens or restaurants, and who have taken it upon themselves to deliver daily buckets of leftovers to the neighborhood dogs.

It is undeniable that a vocal number of Romanians deplore the presence of wandering dogs in cities, advocating that they be killed or at least be permanently removed from sight for the sake of urban safety and aesthetics. These citizens view the over-population of these urban animals as evidence of the "lack of civilization" of contemporary Romania, a result of the destructive urban policies of the Ceausescu era, continued by the current inefficiencies of public administration and sanitation. Yet, on each and every street in Bucharest there are persons sharing food and shelter with a "maidanez", or

offering a gentle pat on the head to one of these ubiquitous urban dogs. Existing observations also suggest that mentally ill homeless people are frequently accompanied by a permanent, devoted canine companion. Side by side with the westernized and leather-clad youth, toting cellular phones and large pedigreed hounds on expensive leashes, the observer of the Romanian urban landscape sees countless people of modest means, walking their seemingly humble mixed breeds, sometimes connected to their master with a looped belt or a piece of rope.

Sporting the ideology and values of commodity culture, a young Romanian entrepreneur joked to me recently about the “loser attitude” of the shepherd from *Miorita*, who looked to his destiny with a serene acceptance of divine order, allowing himself to be killed. Romanians who aspire to the rapid integration of their nation into the western socio-political organizations deplore the perceived passivity and backwardness of Romanians in front of some major existential challenges. The compassion and attachment that many local people feel towards the homeless dogs are an intimate part of cultural traditions that go back for millennia. While the practice of drowning newborn puppies and kittens has continued to exist as a rudimentary, painful and ambivalent means of population control in most rural areas of the Old World, most Romanians are now struggling to come to terms with the modern ethics of neutering and spaying young dogs and cats. As “balkanic” or soft-hearted the Romanian attitude about street dog over-population may appear to critics who view it from an emotional distance, its roots are symbolically charged and profoundly authentic, stemming from the deep past of Carpathian culture.

In response to a reader who was criticizing the passive attitude of the average Romanian with regard to the “dog problem”, as well as the ineffectiveness of urban administrators in resolving the situation, a prominent journalist from the paper *Romania Libera* pointed out that, while it is quite unfortunate that there is no quick, economic and hygienic answer, the mass killing of these animals constitutes a cruel, unfair solution. “The dogs themselves have no fault in this”, he wrote. Anachronistic as it may appear, the Romanian street dogs are a natural part of the contemporary landscape of cities, much as the cows of India have been. Their presence and the on-going drama of their survival is not at all unlike that of many Romanian people: the outcome of a long series of socio-political and economic events that have caused many casualties, human and non-human. Consequently, the reluctance of most Romanian people to treat vagabond dogs as refuse must be respected and evaluated in a multicausal sociocultural, archaeological and historical perspective.

## THE TRANSDISCIPLINARITY AND INTEGRONIC THEORY IN THE INDIVIDUAL ANTHROPOLOGY

CORNELIA GUJA, DIANA DAROCZI, ELENA ILIESCU, CĂLIN E. DOLCOȘ

The present paper starts from two important ascertained facts. These are the great variety of anthropological concerns and the lack of a systematic approach to generalised, pre-university and university anthropological education in Romania. The variety of anthropological concerns allowed apparition of the **specialised anthropology domains** having only a vague anthropological **character** left. They can also belong to the related fields they co-operated with and within which they are **dissipated**.

Anthropology, in prospect of the 21<sup>st</sup> century, should become a **science**, at last like physics chemistry or biology. That requires the unification of all anthropological fields in one common body given by its subject of study: the human being and humanity. At the same time, some specific laws, methods, methodologies and theories paper to anthropology should be created. Our team, dealing with interdisciplinary studies, suggests in the present paper some common topics also used in a handbook of general anthropology. The human phenomenon should be approached by complex inter- and transdisciplinary methods inspired from advanced theories in physics, mathematics, cybernetics, and information science. That led us to anthropology based on **anthropological models**. Computer modelling and the simulation of variants and hypostases of the human being evolution and of another anthropological phenomena outline an ecological, symbolical, cognitive, predictive anthropology.

### INTRODUCTION

#### *Contribution of the Individual Anthropology to the UNITARY Development of the Anthropology Fields*

Today, after more than a century of research, the diverse studying directions of anthropology have gathered a great amount of information in the field of knowledge and understanding of the *human population variability* [6, 29, 63, 65, 77].

The prospects of anthropology as far as the **research and its goals** are concerned can be assessed if we add to the *huge data bank* existing at present, *the needs* of the contemporary society and their *future projection*. Among these needs, **education** and **instruction** are of the highest importance [9, 17, 57].

The unity of anthropology, despite the diversity of its interests, is given by its “object” of study, common to all the branches of anthropology, that is the **human being** with his/her own, unique personality and identity (Fig. 1). The human being can be considered an **atom**, a primary constituent of the human society.

The research on the human being as a unique, non-repeatable entity follow very diverse direction a thorough inventory of which is rather difficult to be made in the genuine information explosion that exists today. An independent field focusing all these directions could lay the foundations of the “Individual Anthropology” [34, 40, 41, 46, 51].

We have conceived - following laborious **interdisciplinary** investigations - a set of methods, principles, theories that could be a useful methodology in such an enterprise (Fig. 2).

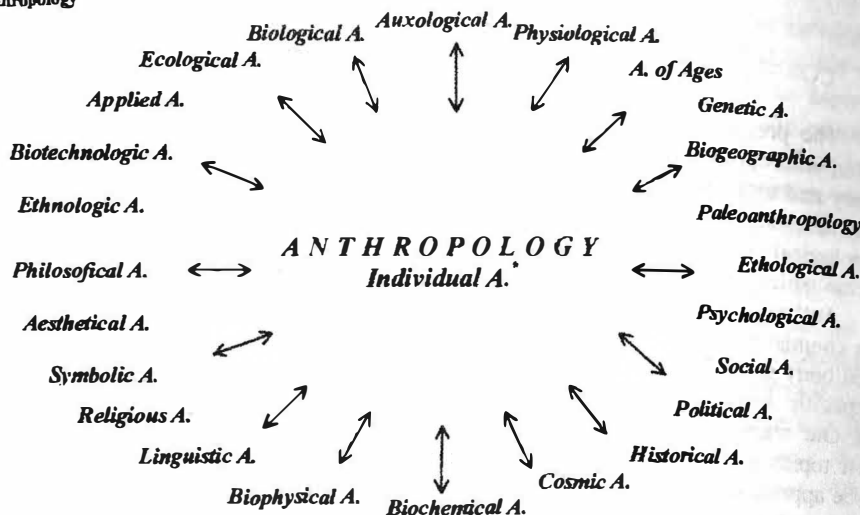
It is worth emphasising how discoveries in various fields of the human knowledge, such as physics, biology, technical sciences, technology or in spiritual fields, influence anthropology and can change completely some of its fundamental points if view. We mean discoveries in atomic physics, molecular biology, geophysics or astronautics. A very simple example: the discovery of a synthetic material compatible with the heart muscle makes possible, if used as a prosthesis, the increase of the individual’s lifetime. Besides the medical effects, its influence extends over the demographic phenomena or future biotechnology thus changing our status within the nature [27, 31, 60, 86, 91].

Within the interdisciplinary method we built a *hypothesis* (no.1) according to which *the human being is organised according to archetypal, universal laws that can be deciphered through the analysis and synthesis of the principles discovered in macrocosm and microcosm by the sciences with which Anthropology is in an interdependence relationship* (Fig. 3).

Figure 1

Unity of anthropology has as a common converging point the Individual Anthropology

Legend:  
A. = Anthropology



\* The huge diversity of anthropological research domains has a common object: THE HUMAN INDIVIDUAL. A distinct discipline "INDIVIDUAL ANTHROPOLOGY" that studies the human individual in its integrity based on data given by these fields, can discover, even if too, new reference elements useful for everybody.

Figure 3

Interdependence between Anthropology and other fields of knowledge

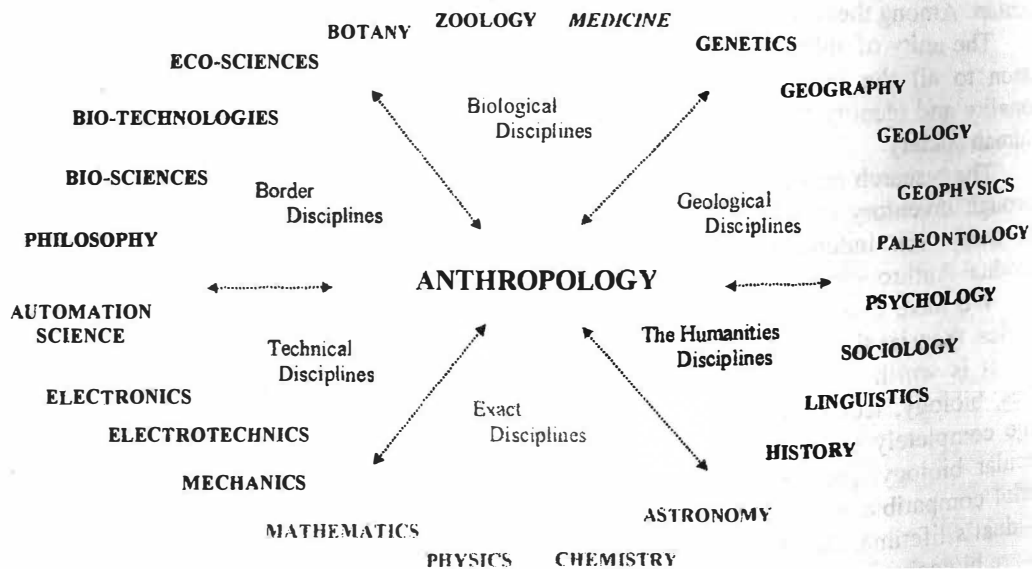


Figure 2

Interdependence between Anthropology and other fields of knowledge

**OBJECT OF STUDY:** the human being in his/her bio-psycho-socio-cultural evolution from the origins; ontogeny and spiritual development.

**DEFINITION:** the human being is the basic component of the human species (couple, family, group, population, mankind), a kind of "atom", the primary element of human society.

**OBJECTIVES:**

- fundamental researches and syntheses of the knowledge about the human being
- the pursue of laws characteristic to the human being and his/her modelation.

**MOTIVES:**

- the need of anthropological education for a normal life;
- the necessity of finding solutions in states of crisis;
- identification of therapies enabling the human being to put away the chaos in and out his/her life.

**GOAL:** the progress in the self- knowledge of the human being.

**HYPOTHESIS:** the human being has a hidden archetypal pattern also present in micro- and macrocosm.

**PRINCIPLES:**

- unity in diversity;
- universal communication;
- of complementarity opposites;
- similarity in organisation;
- cyclic evolution;
- integration – individualization.

**METHODS:**

- DIACHRONIC individual\*;
- individualization;
- TRANSDISCIPLINARITY\*;
- comparison.

**THEORIES:**

- conscious self- adapting systems;
- cognition;
- archetypal forms;
- information;
- holographic forms;
- INTEGRONIC\*.

**PARADIGMS:** • the concepts of INTERFACE, COEXISTENCE, INTEGRATION. INTEGRON.

**PARADOXES:**

- multidimensionality of the human being;
- the couple subjective/objective knowledge;
- the phenomenological couple similitude/unicity;
- the myth of the androgyn.

The diachronic individual method, transdisciplinarity and the Integrone theory are dealt with in this study exposition.

The **goal** of such an attempt is to formulate criteria able to characterise the specific, the qualities of being a human being in order to differentiate he/she from any other living entity, terrestrial or not. Each human being should know his/her status within the Nature and Society, be aware of it and act accordingly.

August Comte's thesis: "To know yourself you should know history first" is instructive and reciprocal alike. To understand history, one has to know himself, an incentive that adds further connotation to the words written on Apollo's temple, in Delphi: "Know yourself!"

Intensifying the research into the individual's anthropology can reveal answers and solutions for the acute present states of crisis (ecological, biological, social, etc.) that have become more various and more dramatic.

For solving these conflictive states, definition of some basic concepts of anthropology, e.g. **normality** as a guide mark for abnormality and paranormality, **state of health** for understanding illness, the **commonplace**, the **ordinary** versus evil offers as many key issues.

Population anthropology has recorded, among other things, within the dynamics of the evolution of civilisations, appearance, transformation, degradation and even disappearance of populations due to only partly known or even completely unknown causes. Approaching the subject from our own prospect we have drawn up a theory - INTEGRONIC - that proved to be very useful in interpreting our populational and individual longitudinal investigations [34, 43].

Essentially, the *integronic* theory deals with deciphering the general laws governing the global coexistence phenomena at an interface level.<sup>1</sup>

Within the *integronic* theory we have reached another working hypothesis (no.2), i.e. THERE EXISTS A FUNCTIONAL-INFORMATIONAL SIMILARITY IN THE MAN-HUMAN SOCIETY RELATIONSHIP.

We will show below our experimental and theoretical arguments supporting the methodological advantages of this theory that can explain the integration (organisation) or disintegration (destruction) of the human collectivities and of the human individual by studying the interface processes.

Our paper develops three aspects on the methodological valences of the human being anthropology characteristic of the *anthropological unity* as an inter- and transdisciplinary science.

#### A. THE OBJECT OF STUDY OF THE INDIVIDUAL'S ANTHROPOLOGY

For a better definition of the object of study of the individual's anthropology we start from a fundamental principle of nature, i.e. *the state of a system is closely dependent on the state of its component parts*. The human being is the elementary constituent of the human society system and can be considered a SOCIAL-CULTURAL CONSCIOUS ATOM.

Similarly to the importance the deciphering of the atom enigmas had for the physicists studying the matter, the approach of the human being as a dynamic, complex, phenomenon, taken as a whole, will lead to a better understanding of the human society, to better laws in agreement with the specific of this conscious atom [73, 81, 83]. The critical states of the social systems should be solved on the basis of a deep understanding of the human being's laws and not through statistical, majority criteria or through some criteria taken over from other related fields of reality [2, 7, 8, 21].

The existence of two sexes, that is of *two kinds of atoms* (!) and the numerous categories of groups formed within the human society (family, ethnic groups, profession, etc.) (Fig. 4) lead to a *hyper-complex interdependence between the human individual and the population* he/she belongs to.

The state of the substance aggregation is defined by the intensity of the cohesion forces among the component atoms and molecules; analogously, the unity and integrality of a human community (its aggregation degree) is found to depend on the kind and intensity of the *affective-emotional relationships* among the individuals forming it (family, professional, religious, political relationships, etc). The laws governing these coexistence phenomena are only partly deciphered and difficult to grasp since the phenomena are **in continuous transformation**. Anyhow, they must be known.

The man as a whole becomes the **main object** of study as a concrete, dynamic individuality revealing generally human potentialities that generate new interpretations for the results of the population investigations and new premises for their development. A *leap* has been thus achieved in the methodology of the anthropological research. Whereas the **population anthropology eliminates**, as a rule, in

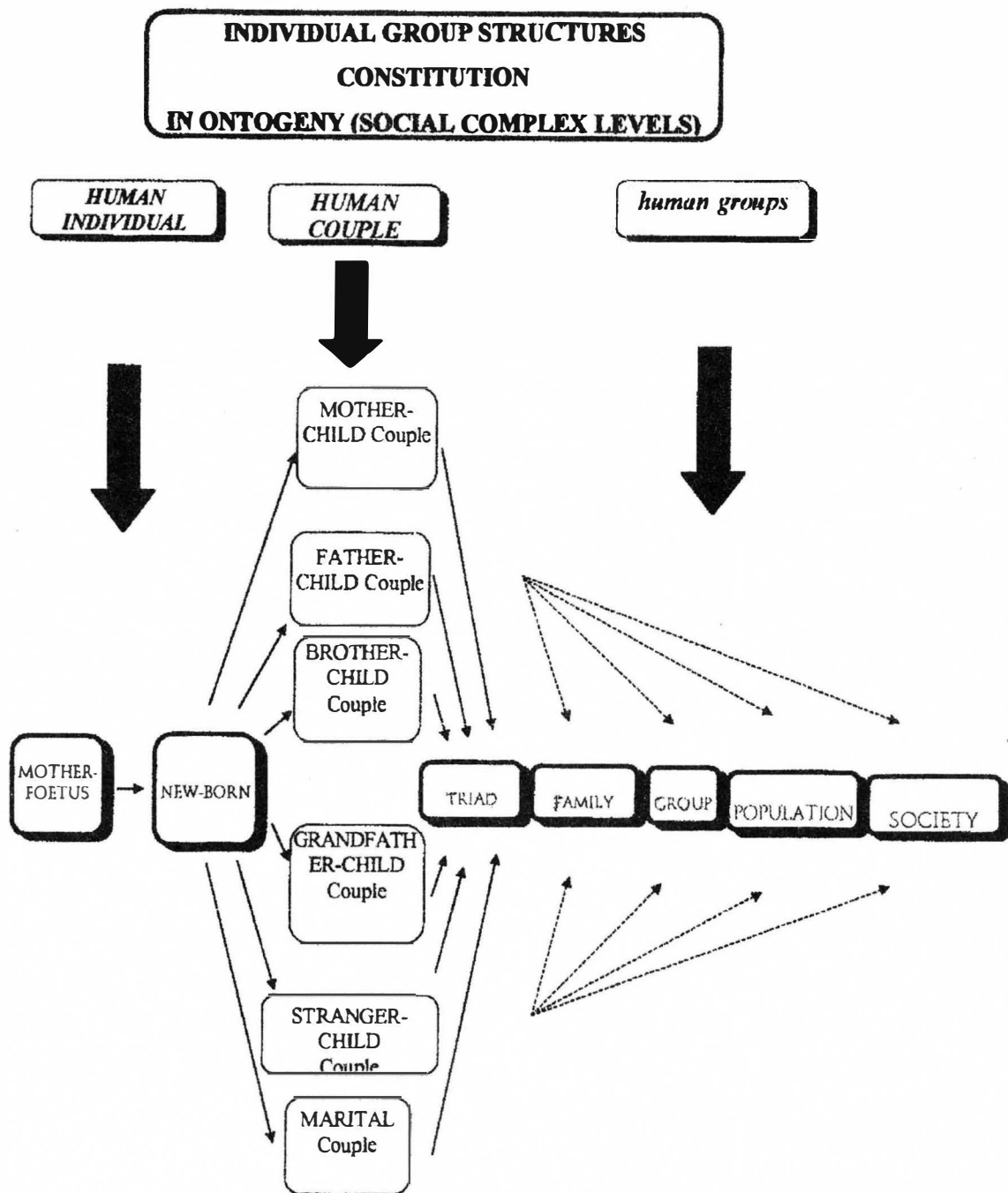
<sup>1</sup> We consider interface to be the seat of the manifestations generating the coexistence of the interacting systems or their disorganisation as a result of their obeying or not some information laws among their characteristics.

statistics, the particular, exceptional data, in the individual's anthropology these cases are relevant for the study of the human potentialities and for describing the limits of the human phenomenon [10, 38]. The Individual Anthropology avoids both to ignore and to generalise the particular cases and tries to find their real significance since they can generate some problem phenomena that are present but have not been solved yet.

Figure 4

Anthropological record no. 3

A systematisation of interacting types which contributes to individualisation process in ontogeny, useful for researching by longitudinal method.





In the Individual Anthropology, the concrete individual, as an object of study, is no longer considered as an average or the representative of a human group or type but as an entity having his/her own possible, not to be confounded identity (for instance, the coexistence of the Siamese twins).

In the human society-individual relationship, a functional similarity can be shown to exist.

The fundamental law of biogenesis, according to which the human individual repeats the whole phylogeny, describes the human being as a biological "sample" of the whole evolution of the animal kingdom [10, 29]. On the other side, culturally, during the individual's lifetime, a transfer of knowledge and behaviours appears, principally during the instruction-education process, and generally during the social practice [8, 57, 87]. In this way, the individual acquires his/her own valuable life experience, a must in the coexistence and spiritual evolution. By culture, the human being takes over, at an individual scale, the "historical experience of the community". We could thus say that **each personality could be considered a synthesis of the population he/she belongs to.**

We give below some results of our investigations that support the hypothesis of the similarity between the individual and the human society.

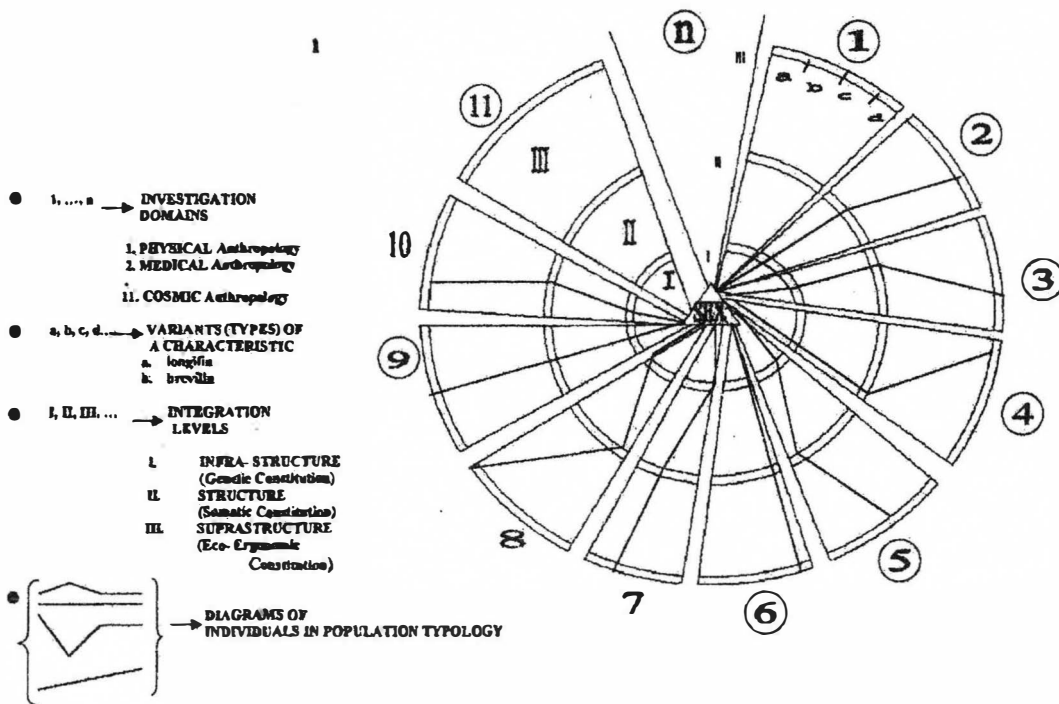
Similarly to the structure of a population group, the human being is thus conceived as to function at three levels of *functional-informational structuring* (I, II, III).

In the present paper, "informational" concerns those aspects that have neither a substantial nature (matter) nor a field one (energy) but a different nature from them (such as form, proportion, organisation, program, meaning, and archetype).

- The 1-n research sectors show the multi- and interdisciplinary approach of a human subject
- The circles describe the inclusion of the functional structures.
- The concrete individual data are assessed based on the characteristics of the population to which the subject belongs.
- The anthropogram reflects the complexity and oneness of the whole range of the individual's qualities.(Fig. 5)

Figure 5

Scheme representation of human individual-interdisciplinare abordation



## B. THE INTEGRONIC THEORY APPLIED TO THE FIELD OF THE INDIVIDUAL'S ANTHROPOLOGY

The main question we have tried to answer, that generated hypothesis no. 2 is:

HOW COULD THE HUMAN BEING'S AGGREGATION, INTEGRATION, AND COEXISTENCE IN THE POPULATION IS MADE?

The fundamental characteristics, similar in population and in the component individuals can appear as more or less phenotypically expressed. How and which are these characteristics, taking into account that both the population and the individual can be concretised by a multitude of, theoretically, limitless aspects?

We have found out that the theory of the systems, but mainly the theory of information and more recently the theory of the determinist chaos and of the fractals are really helpful [1, 18, 76].

The phenomena we have in view can be better approached through the **information science** [11, 19, 84]. Therefore, using the transfer method from one domain to another we have taken over **INTERFACE** from the computer science, and **COEXISTENCE** and **INTEGRATION** from other fields of knowledge [22, 71, 72, 82].

We have noticed that the similarity between the individual and the population can be described and understood using the concept of interface. The population and the human being are alike through their interface qualities, as both of them undergo transfers, processing, memorisation, codification and decodification of information, a genuine **INFORMATIONAL METABOLISM**, resulting in their coexistence and integration or non-coexistence and disintegration.

Unlike computers, the living world, in general, knows phenomena of coexistence, acceptance and tolerance or of rejection that appear in the communication zones among the different components. These zones are sometimes found more easily, some other times with more difficulty, they are hidden, subtle, deep and in such cases there is only indirect information that can help.

Electrophysiological investigations made by us on the human skin **using the electrographic method, a Romanian original method, showed the qualities of the human skin to be an interface, through the electromagnetic signals recorded on the radiological film.** The extremely rich material gathered during 25 years helped us to evidence a codified system of signals (fractals) with which we could demonstrate the informational qualities of some human body's interfaces. We could thus determine the medical and anthropological diagnosis [36, 37, 39, 42, 44, 45, 48, 49, 50, 52, 53, 55, 58].

On the basis of the theoretical results of these experiments, **analogously to the complementarity in quantum physics**, expressed by the corpuscle/wave couple, we suggested to assign to the bodies and phenomena studied, besides the quality of system, that of **interface**, as well, as a complementary alternative opposed to the trends resulting from the system one. Generally, the concept of interface is defined as any manifestation (state) mediating two or more components of the material or spiritual reality acting as a **coexistence filter**.

From this point of view, the concept of total independence of a body or phenomenon (the main quality of objectivity!) should be reconsidered since, today, the complex interdependence (chaotically deterministic) is experimentally demonstrated among all the bodies and phenomena in nature [46, 47, 51, 68].

The experience shows us that some categories of relationships perpetuate the systems, some others make them disappear.

The **SYSTEM/INTERFACE** couple has become a working tool with paradigm qualities in our theory.

We called this theory "**integronic theory**". It is based on such concepts as interface, integration, coexistence, and integron. We have conceived it as a theory of integration - an "integronic" - similarly to "cybernetics, that approaches evolution processes of interface from the viewpoint of the coexistence relationships between couples of phenomena - forces - that are opposed, complementary, or contrary. Mention should be made of the couples: **assimilation/dissimilation, homeostasis/transformation, conservation/evolution** that can be **found** and act both at a **population** and at an **individual level**.

### MATERIAL AND METHOD

We have approached the anterior presented topics following two research routes that proved finally to be complementary. The former was the **synchronous** (simultaneous and parallel for several

ages) and **diachronic** (longitudinal, in time, of the same sample) population research and the latter was a theoretical one following the explanation of some global coexistence phenomena of the various characteristics investigated.

The field and laboratory investigations were interdisciplinary. More than 200 characteristics were investigated for one individual only from 15 distinct domains of anthropology using their specific techniques, e.g. physical, physiological, medical, psychological, social-cultural, etc. anthropology.

Summary evidence of the investigations covering 25 years is given in Table 1.

Table 1.

Record of the materials studied for 25 years

No. of Samples	No. of Investigation Fields	No. of Characteristics Individual	Sex		Age		Total no. of Subjects
			m	f	Diachronic (longitudinal)	Sincron	
26	15	200	5.000	5.000	7→14 years 2 samples	7÷90 years 24 samples	10.000

The laboratory investigations, focusing mainly on electrophysiological explorations revealed more than 100 biophysical-bioelectrical characters, in addition to the current ones.

The results of the research in the bioelectrical field correlated with the results of other experimental and field investigations represent, as mentioned above, the bridge to the theoretical-methodological domain dealing with the *significance of the results* obtained and with finding of *applications* for them (differential diagnosis).

The 200 characteristics investigated with each individual were arranged and grouped according to the frequency of the dominant class. Ten ranks were finally obtained (Fig. 6).

Figure 6

Method for arranging the criteria according to the interfacing criterion through the "frequency of the dominant class"

Rank No	Explored characters	Frequency classes %								
		1-9	10-19	20-34	35-49	50-59	60-69	70-79	80-89	90-100
1	•••									
2	Rh. Syst.									
•	•••									
•	Size									
•	•••									
•	Blood groups									
•	Growth groups									
•	Androgenic groups									
•	Behaviour groups									
•	Bioem groups									
•	References									
•	•••									
10	Physiognomy									
Character type		Minimum	Intermed.	Complementary	Majority				Maximum	

Integrating level with homo ratio  
 $0.4 + 0.3 + 0.2 + 0.1 = 1$

Integrating levels with HOMO RATIO

- Down: the 200 characteristics studied.
- Across: the characteristics with the dominant frequency in the respective category in groups of ten percents each. From this point of view, the characteristics\*) can be grouped into categories of interfaces, e.g. the homeostasis physiological characteristics are included in the category with a

maximum dominant variant (body's temperature); the blood group belongs to the category of complementary variants, while the physiognomy characters to the minimum category.

\*) Characteristic = each aspect that can be noticed and that has several variants (height, weight, blood group, tastes, preferences, psychological characteristics, etc.).

Besides the frequency of the dominant class we have also used some other criteria shown in Table

2.

Table 2.

Methodological criteria for the organisation of the experimental data.

Integration level / Interfacing Criteria	I. Infrastructure	II. Structure	III. Suprastructure	IV. Infostructure
1. Dominant frequency (df)	$df \geq 70\%$	$30\% \leq df < 70\%$	$10\% < df < 30\%$	Unique
2. Type of law	Gaussian	Cybernetics	Integrionic	"Cosmic"
3. Type of integration	Performance	Resistance	Coexistence	Communication
4. Operational solutions	Dominance	Optimum	Balanced	Conservative
5. Goal	Individualisation	Use	Integration	Knowledge

Following this systematisation we could distinguish and analyse a great many **hypostases of the aggregation forces - Gaussian, cybernetics, of resistance or coexistence, optimal or equilibrated, of functioning or of knowledge.**

Systematisation of the great number of characteristics and data interpretation through the interface criteria were made, besides the usual processing methods, through our own analysis method, called the *integron method*. It consists in plotting the results in the previous diagram taking into account the five criteria in table 2 (Fig. 7).

The experimental results, got by using the integron method, showed:

- a) - a *hierarchy of the characteristics* as a function of the size of the dominant class
- b) - a *symmetry between the dominant classes* and the compensating classes called by us "of integration".
- c) - percent distribution of the variants within a characteristic remains the same, as the variants can exchange among them. We called this distribution HOMO RATIO.

The CONCLUSION to be reached is that among the characteristics defining a human population there exist certain interdependence relationships that can be expressed by certain symmetry principles and certain proportionality systems that reflect the VARIABILITY and, at the same time, the INTEGRALITY of the human groups. Arrangement on levels foreshadows the INFORMATIONAL INTERFACE function.

Therefore, for studying the human individual starting from the population study we have used the following approaching routes:

- *experimental: longitudinal - diachronic research*

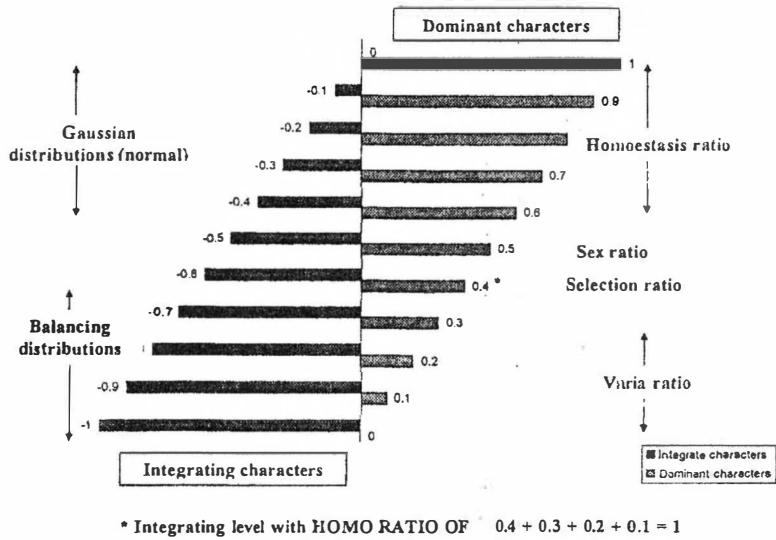
Page of album for longitudinal study. The research was made on samples of 150 children each during 8 years, between 6 and 14 years old. We made 2 auxologic albums with interdisciplinary data (Fig. 8 - 9).

- *theoretical: the integron model* (Fig. 10).

The study of the individual in ontogenetic evolution shows him/her in a succession of similar, and at the same time different, hypostases that can finally be considered as an OWN POPULATION.

Figure 7

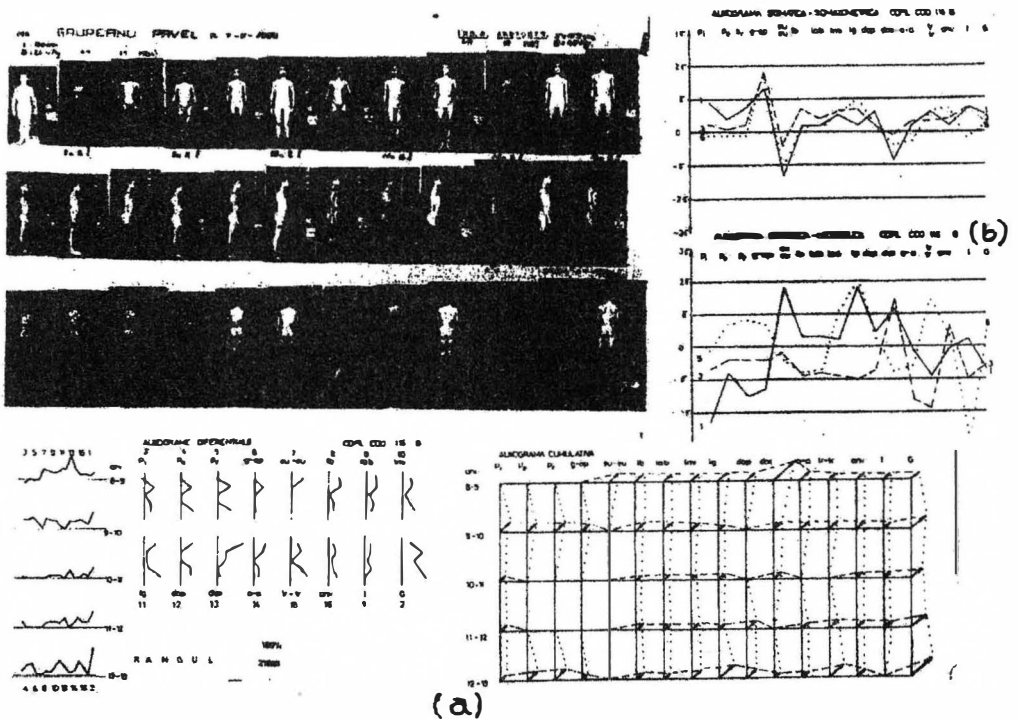
Diagram of the human characters integrated by HOMO RATIO - INTEGRAM



**Legend:**  
 The horizontal levels on the right stand for the category of characteristics arranged according to the dominant class (grouped in ten percents each)  
 The horizontal levels on the left stand for the *variants* corresponding to the levels on the right to which they are *complementarily, oppositely or contradictorily coupled*.  
 Both categories of characters achieve a collectivity's integration in the environment.

Figure 9

Diachron study model. Child with slow growth type



Applying the integrom method to this population on the basis of hypothesis 2 - Existence of a similarity between the human being and the population he/she belongs to - we have found out a very interesting *significance transfer* between the characteristics of the population and those of an individual (Fig. 10).

In the diachronic study we can follow the dynamic succession of the ontogenetic stages in a single individual. The diagram should be read from left to right, starting with the moment of birth when the *couple of bio-psychical characters* starts crossing successively the vertical axis and couples gradually with the social-cultural characteristics the individual gathers during onthogeny.

Three important aspects are worth emphasising:

- a) Dominance of the bio-psychical couple during the first part of the lifetime
- b) The existence of a critical time in the young age
- c) Dominance of the specifically human characters in the second half of life
- d) Reaching a maximum of humanising characters to the end of life only.

Integronic approach showed the couples of phenomena coexisting at the same interface level and even the presence of a coupling phenomenon of the couples.

Within the context of integronic theory we have drawn up a theoretical synthesis model that considers the human being a succession of overlapping and interacting interfaces (Fig 11).

Figure 10

Integronic anthropological model of the human ontogenetic development approached as a process of biologic-psychical and social-cultural coexistence.

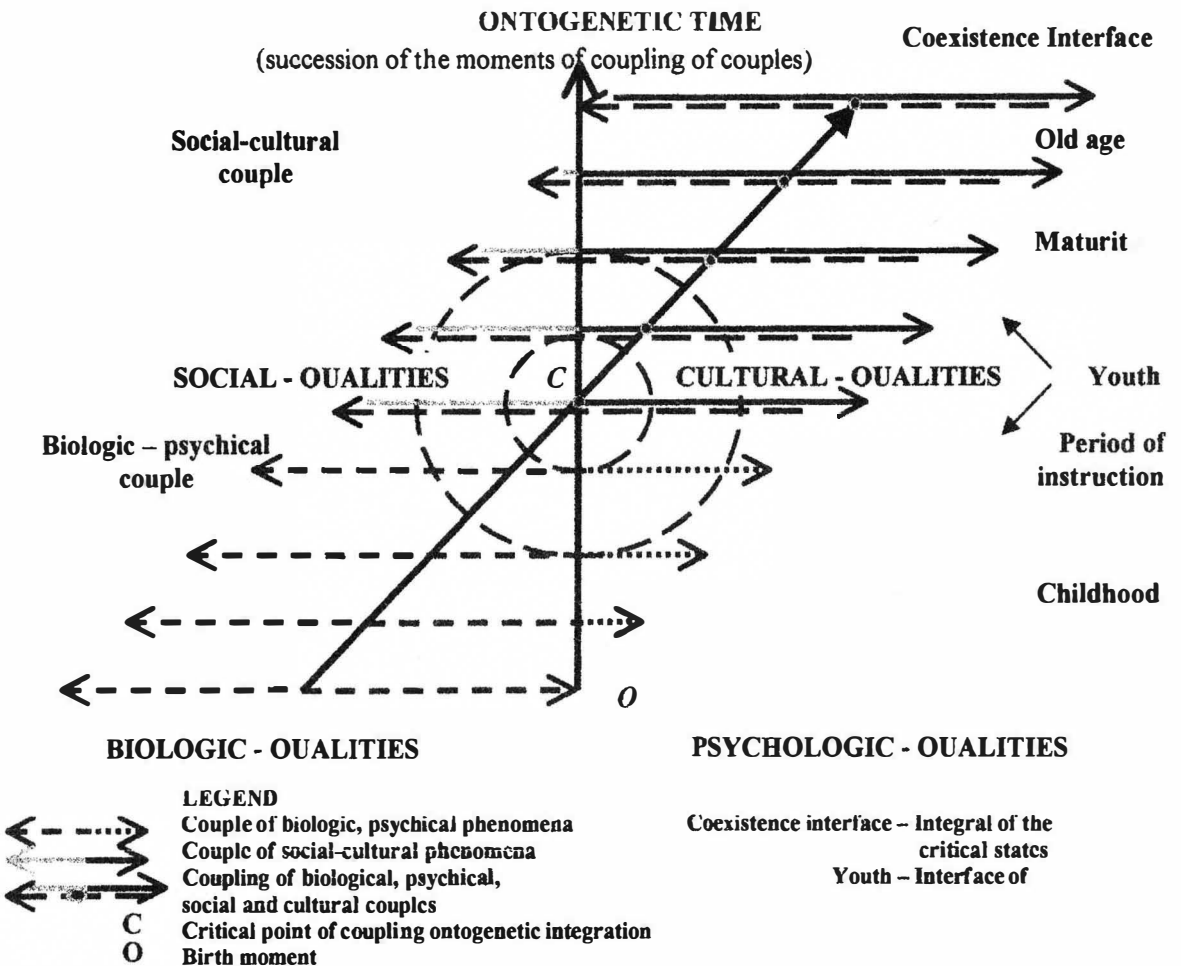
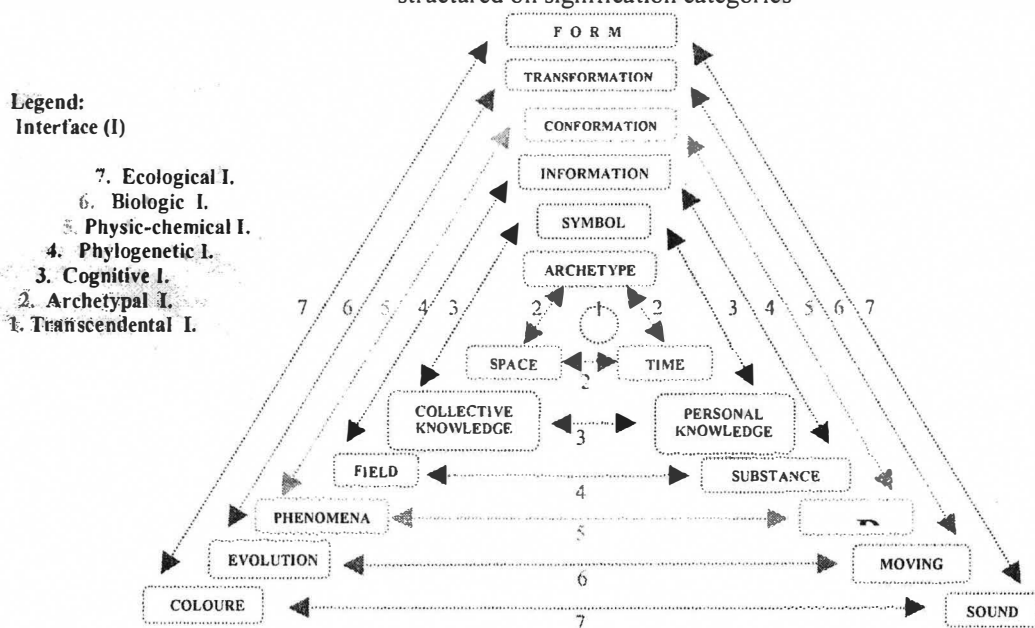


Figure 11

Operational concepts that describe the human being as an interface succession – integration levels structured on signification categories



Using the results of our laboratory investigation, mainly the electrophysical ones, we have made up a series of concrete, operative models, in which the human being is seen as an interface with different functional-informational structures, such as:

- Human Being - an interface between microcosm and macrocosm
- Human Being - an interface of universal communication
- Human Being - a cyclic evolution interface
- Human Being - an affective-emotional interface
- Human Being - a pro-, re-, and creative interface
- Human Being - an integrating interface
- Human Being - a spiritual and transcendental interface

Use, as a methodological tool of the system/interface couple of concepts, in the context of the **comparison, analogy, and synthesis** methods for studying the human being, as a conscious “atom” and of the fundamental entities defining the environment: **physical atom, living cell, planet Earth and the solar system** [3, 4, 40] showed:

- a. **similarity in the structural/informational organisation of the entities enumerated according to the CONCENTRIC ARCHETYPE, without the alternating succession of systems and interfaces surrounding a centre - nucleus, respectively** [3, 5, 40].
- b. **similarity in the way of transferring the information at the interface level by using the form of the BRANCHED ARCHETYPE.**<sup>1</sup>[46].

### C. UNITY OF ANTHROPOLOGY THROUGH TRANSDISCIPLINARY METHODOLOGY

The anthropological model for the human being built up on the basis of the integronic thinking showed the human being as a **succession of system/interface couples**. Analysis of the concepts describing man through interfaces using **integration levels** shows that the knowledge through **significance-informational categories** strongly requires the inclusion within the model of the human being of some **transcendental dimensions** [24, 41, 61, 62].

This model foreshadows accessible ways for research and knowledge owing to the transcending capacity of the human being using such operational concepts as **form, symbol and archetype**.

Within this context **transdisciplinarity** is understood as a concept referring to the **consequences of the transcending quality of the human being on knowledge and research, the man being at the same time the researcher-expert and the research object, i.e. system and interface**.

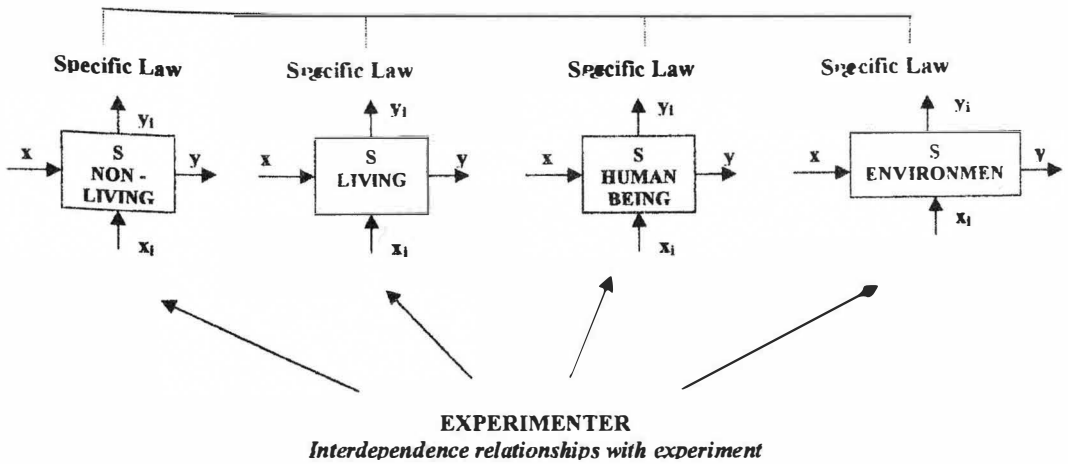
<sup>1</sup> Our team has gathered rich illustrative-demonstrative experimental material for supporting these conclusions.



It should be emphasised that within the knowledge and the creative activity, the human being has permanently transformed and evolved. At the beginning, as an observer he/she approached reality directly and indirectly with the help of instruments and tools and acquired the so-called **objective knowledge** (Fig.12). Following this way, he/she found general laws and specific approximate laws of the phenomena studied, considered as systems that ignore his/her interaction as an experimenter with the phenomenon. In this way, models for the Universe are built today, ignoring the existence of Homo sapiens within this Universe.

Figure 12

Conceptual model of the objective human knowledge. Interdependence relationships (r)



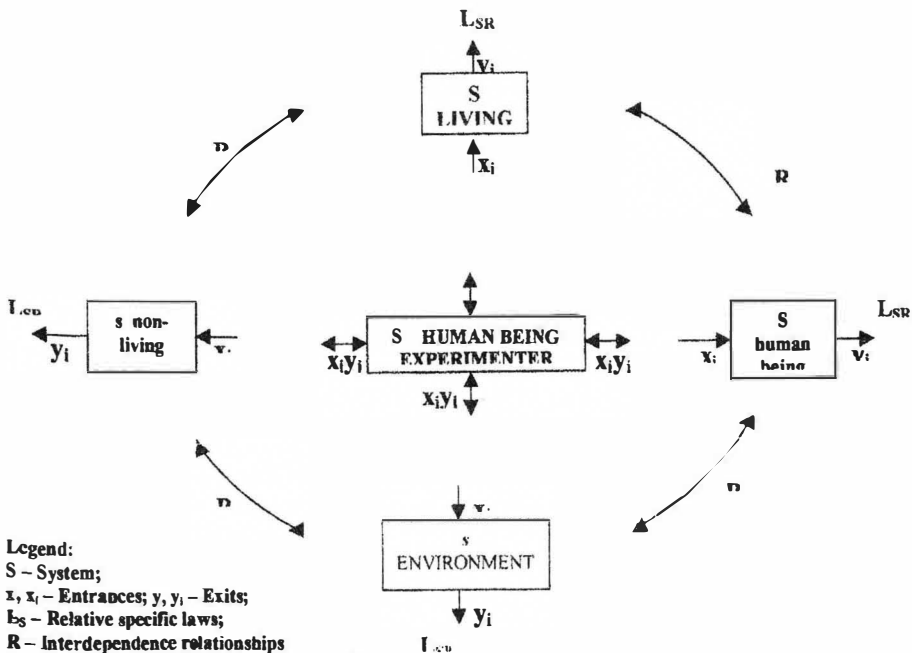
Legend:

S - System;  $x, x_i$  - Entrances;  $y, y_i$  - Exits

Next, we examined the experiment as a process of mutual interaction and of **objective-subjective** knowledge by the experimenter, since there is a similitude in organisation between man and the other phenomena (Fig. 13).

Figure 13

Conceptual model of the subjective-objective knowledge



Legend:

S - System;

$x, x_i$  - Entrances;  $y, y_i$  - Exits;

$L_{SR}$  - Relative specific laws;

R - Interdependence relationships

▪ The systems are limited by space and time

▪ Knowledge depends on the experimenter's  $x_i$  and  $y_i$

In this stage, the researcher-experimenter discovered the influence of his presence on the experiment made (both physically and mentally - we mean the experiments in quantum physics - the principle of non-determination) and **included himself** in the experimental model. The result of knowledge is a process of **permanent "assimilation" of reality by the observer through the interaction sphere.**

The SYSTEM/INTERFACE couple proves to be a paradigm of knowledge where the idea of total autonomy of the bodies and phenomena is but a first approximation in the research methodology.

We can state thus that the objects and phenomena in nature rather **coexist**, they are simultaneous and **integrated in an ample energetic-informational context** the limits of which can be only partly imagined "concretely" or known "objectively", as a function of each individual's own capacity (subjective informational filter).

The concrete, immediate consequence of the previous suggested facts is that the limits or delimitations among systems are difficult to be established. Among these systems there appear different interaction degrees that act as an interface. They overlap, cover one another, interact, intersect, interfere, so in the interference and interaction space, between the object of research and researcher there exists something (an interface!) that cannot be ignored since it influences the results of the research (Fig. 14, Fig. 15).

Transposing the theoretical model of the "bio-psycho-socio-cultural atom", the human being in his/her *two existential forms* (female and male) has become *the anthropological model for the human couple.*

In this model, the human being has a functional-informational structure similar to those of the main entities in the environment: atom, cell, Earth, solar system, that is: a concentrically radiate structure with nucleus and nucleoms, with successive interfaces, body and an own external interaction zone (aura).

Figure 14

Conceptual model of the subjective knowledge

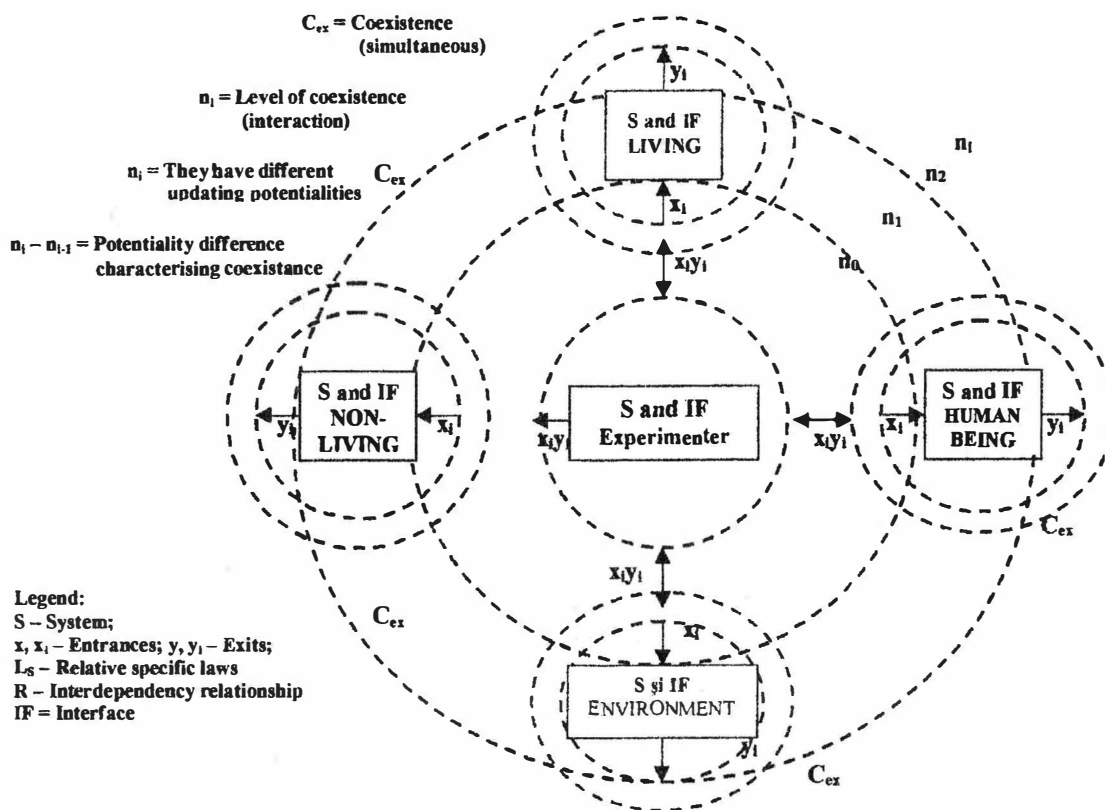
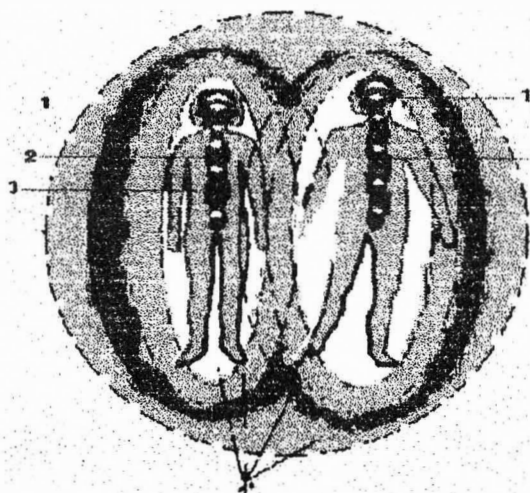


Figure 15

An anthropological model for the human couple

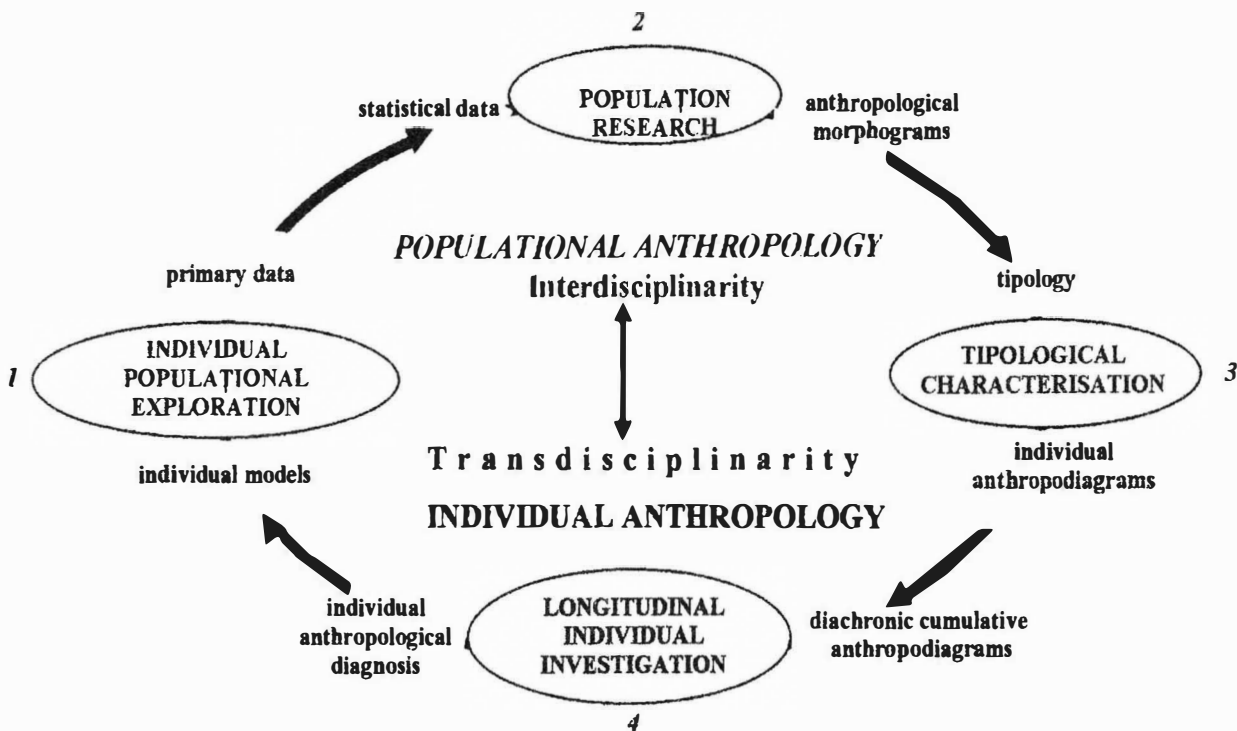


**Interface:**

- |                  |            |
|------------------|------------|
| 1. nucleon       | 1' nucleom |
| 2. human nucleus | 2' nucleus |
| 3. human body    | 3' body    |
|                  | 4' aura    |

Figure 16

Circuit of the transdisciplinary anthropological research



## CONCLUSIONS

The new concepts laying the foundation of the Individual Anthropology, and through it of the Unity of anthropological research can be summarised as follows:

1. The bodies, irrespective of their nature are simultaneously *systems* and *interfaces*, alike. The system/interface *couple* naturally belongs to the *complementarily contrary* couples such as: corpuscle/wave, male/female, centripetal/centrifugal force, entropic/negentropic, etc. In the system/interface couple, the system mainly belongs to the **substance, structure, entropy** categories, whereas the interface is assigned to the **information, communication, and negentropy** category.
2. Within the context presented, the anthropological model of the human being is conceived according to the system/interface complementarity principle and contains the male/female subsystems, complementary as well. Integron.
3. The human being is organised according to the **similarity** principle by archetypes that can be found at each organisation level.
4. The structural archetypal form is *concentricity* expressed by structures surrounding a centre (nucleus) and communicating among them and with the environment. The egg model (integron) [40, 43].
5. The archetypal form of intra- and intersystemic communication, at the interface level, is the branch. The tree model [46].
6. Some phenomenological principles can be emphasised:
  - Communication among the homologous components of the systems is made at the level of their interfaces.
  - Communication at the level of interfaces is made through a *code specific* to each structure level.
7. Anthropology as an independent science, having for all its branches a common body of **methods, principles, general laws and theories such as: physics, chemistry, genetics, can become an object of study in the general education system.** It can have beneficial effects on the formation activity of the human individuals emphasising such notions as: self-knowledge, dual origin of the human being, pluridimensional structuring, the human being within the interaction network, in groups and populations, significance of birth and death for the trajectory of the human individual, goal of life.

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## THE EFFECT OF GLOBALIZATION ON LOCAL IDENTITIES

PETER KLOOS

Globalization stands for the growing global interdependence and for the rise of transnational regimes, and the growing intercultural contact. One could surmise that globalization will lead to a global culture. Although the number of global cultural standards is increasing, this does not entail total cultural homogenization. On the contrary, everywhere people are reorienting themselves, taking guidance from their cultural roots and stressing their cultural specificity. The growth of local identities could be called localization. Globalization and localization are mutually connected. For the anthropologist this poses a challenge: the strength of the discipline lies in intense local research - but localized societies are globalized at the same time. How to face the challenge?

### INTRODUCTION

When the term 'globalization' became popular in the mid 1980s it stood primarily for the increasing degree of global interdependence. In this sense it referred to the increasing density of internal connections of the inhabitants of McLuhan's global village, a term already coined in 1960 in the context of the rapid development of communication technology. The term also stood for the awareness that events in one place exerted influence on events elsewhere, often far away.

In the course of the 1980s and 1990s 'globalization' became a catch word. As a result it suffered severely in terms of conceptual content: in many discussions it is merely a fashionable word meaning nothing more than 'global' in a rather unspecified sense.

From a scientific point of view such a use of a term is unsatisfactory. For instance, and to turn to the title of my paper: one cannot meaningfully discuss the effects of globalization unless it is clear what globalization stands for.

The discussion on globalization has become compounded because globalization does not seem to entail a global, cultural homogenization and the rise of a global culture. On the contrary, there is another process in the world of today that attracts attention because it emphasizes the specificity of culture. This process is sometimes called localization. A striking example of this double trend can be found in language: while on the one hand English is rapidly becoming the language of global communication, in many countries local minority languages, sometimes almost extinct, are being revived. But there are similar examples from economics: while on the one hand products are more and more globally standardized, there is an increasing number of products that bear a name that can only be used when they are produced in a specific geographic locality. In the same vein seems ethno-nationalism to be a product of globalization. Localization thus appears to contradict globalization.

The general feeling among scholars is that the contradiction between both trends is only apparent: perhaps they are only two sides of the same process. This feeling gave rise to at least two neologisms, namely *framigration* (Rosenau 1994) and *glocalization* (Robertson 1995).

The coining of a new word does not solve the problem how both processes are related. For that reason I am hesitant to use the neologisms. The question remains how globalization and its ostensible opposite are related. My paper is an effort to find an answer to that question. In Section 2 I briefly review a few approaches. In Section 3 I turn to one concrete example, and in Section 4 I wind up with a few remarks about the challenges the issue of globalization and its twin localization poses to anthropology.

### 1. GLOBALIZATION AND ITS OPPOSITE

Rosenau (1994) coined the word 'framigration', 'which connotes the interaction of fragmentation and integration' (p.256), words that appear to have for him the same meaning as localization and globalization. Both interact, 'each increment of globalization tending to give rise to an increment of localization, and vice versa' (1994:256). Although his article contains many insightful remarks it fails to elucidate his statement of reciprocal influence and to define in detail the dynamics of framigration – the



question how apparently opposite tendencies or processes are related or how globalization stimulates localization and vice versa remains unanswered. A main problem I have with his article is that although he refers from time to time to concrete examples, his argument is predominantly intelligent reasoning and speculation.

The term 'glocalization', brought into the debate by Robertson (1995) is formed by telescoping globalization and localization. Robertson argues that in the world of today

It is not a question of either homogenization or heterogenization, but rather of the ways in which both of these two tendencies have become features of life across much of the late- twentieth-century world. In this perspective the problem becomes that of spelling out the ways in which homogenizing and heterogenizing tendencies are mutually implicative. (Robertson 1995: 27, italics in the original).

In his view conceptions of locality are largely produced in global terms although this does not mean that all forms of locality are homogenized as a consequence. If globalization involves the linking of localities (and it obviously does), 'it also involves the "invention" of locality' (1995: 35).

My problem with Robertson is the same as with Rosenau: one can do a lot with abstract terms and build a reasonable sounding conceptual framework - but what happens to people who are invented as a locality? Who does the inventing? What I miss in Robertson's article is how these insights actually work out in practice.

Geana (1997) follows a somewhat different line of reasoning. His point of departure is that ethnicity and globalization are opposite yet complementary processes (1997:199). He then proceeds to conceptualize the opposition in terms of two other oppositions: culture/civilization, and individuation/communication. My problem with the ethnicity = culture and globalization = civilization equations is that they suggest that globalization is not a cultural phenomenon - cultural in the meaning anthropologists attach to the term. A good deal of the global phenomena are West-European cultural phenomena (hence the opinion of some scholars that globalization is actually western cultural imperialism).

To come to grips with the frightfully broad concepts 'globalization' and 'localization' I tried to pin them down to something that can be investigated empirically. Globalization I defined in terms of the rise and extension both in geographic terms as in scope of transnational regimes (Kloos n.d.). A regime is a formalized constellation of human interdependencies in which implicit and/or explicit principles, rules and decision-making procedures created by actors enable as well as constrain their behaviour in a given area of activity.

Regimes have a beginning in time. They show some development in time: in the case of globalization they tend to become global. Apart from a geographical coverage, they have certain scope ('a given area of activity'). Regimes are used by people - and as a result they also constrain people. They show, finally, different degrees of organization and centralization.

Localization can be made amenable for empirical research if we embody it in social identity movements. However, social identity movements can also be seen as regimes, and here we arrive at an important point: processes of globalization and of localization can be analyzed in the same terms.

The advantage of the term 'regime' is that it does not necessarily refer to a central organization but rather to a set of rules that is ultimately applied world-wide. Truly transnational regimes can be used also by small groups, small enterprises and social movements included. Naisbitt rightly points out that the successful transnational enterprise is not necessarily the gargantuan MNO (Multi National Organization). The successful multinational is a small group that creatively makes use of transnational communicational infrastructures (Naisbitt 1994).

This brings me back to the question how globalization and localization are related. The solution might be found in perceiving actual events in terms of transnational regimes and local movements at the same time, and both as (transnational) regimes.

It will come as no surprise when at this junction I turn to a concrete example. Lack of systematic empiric research informed by theoretical concepts is my main objection against much writing about globalization.

## 2. GLOBALIZATION FROM BELOW

To illustrate my general argument I take as an example a Sri Lankan secessionist movement, the *Liberation Tigers of Tamil Eelam*. The LTTE was established in the early 1970s as a radical, militant answer of Tamil youth. Its background is on the one hand the rather systematic discrimination of the

Tamils by the Sinhala majority of Sri Lanka who in the 1950s defined independent Ceylon as a Buddhist Sinhala state, and on the other hand the fact that Tamil youth felt that the late-colonial Tamil elite proved to be unable to defend the interests of the Tamil population in the Sri Lankan political arena using parliamentary means - the interests of Tamil youth in particular (Kloos 1997). In its goals the LTTE has been from the beginning a movement defending the ethnic identity of the Sri Lankan Tamil population. In this way it was and still is a localized identity movement.

However, Tamil secessionist movements, the LTTE included, have also been transnational from the very beginning. Important to keep in mind is that although Tamils in Sri Lanka form a minority of about 20%, there are more than 60 million Tamils in adjoining Tamil Nadu. Especially for Tamil fishermen and traders in the Jaffna area, the colonial and later post-colonial boundary between Ceylon/Sri Lanka and India had no meaning.

The LTTE leader, Velupillai Prabhakaran, and many other members, come from a small town on the north coast of Jaffna peninsula, Velvettiturai. This is a fishermen's town where during the early years of Independence (and probably already during colonial times) fishermen combined fishing with trading and smuggling a variety of goods from India (Tamil Nadu in the first place) to Ceylon, later Sri Lanka: VVT [Velvettiturai] 's menfolk were civil servants, traders, fishermen or simply smugglers, thanks to the winding coast and the proximity to India. Boats would sail to Rangoon, Chittagong, Rameshwaram, Nagapattinam and Cochin with both legitimate cargo and contraband. Smuggling was considered a way of life in VVT and no one ever thought there was anything wrong with it. (Narayan Swamy 1994:50)

This already existing connection of the Tamil fishermen cum traders with India (with Tamil Nadu in particular), came in handy when the LTTE increased its insurrectionist activities, and made use of bases in Tamil Nadu where cadres were trained, where wounded cadres were treated, and from where weapons and other resources could be transported to Sri Lanka. In a more general way the Tamil world (tamil ulakarn) was never restricted to Sri Lanka but included South India.

However, Tamil secessionism became transnational in a global sense as a consequence of the ethnic conflict itself. Ethnic tension in Sri Lanka increased after 1977. The LTTE was banned and turned into a guerilla movement. The Sri Lankan armed forces began the fight the LTTE. This led to an increasingly number of casualties on both sides. An LTTE ambush in 1983 led to an ethnic pogrom in Colombo and other places in Sri Lanka.

2 This section is largely based in a paper written in 1996 (Kloos 1996), now being prepared for publication

The July 1983 pogrom caused thousands of Sri Lankan Tamils to leave Colombo and even the country. Most of those who left Sri Lanka moved to South India. Others went to Europe (France, England, Germany, Switzerland, Norway, Denmark, the Netherlands), to Canada or to Australia. Reliable numbers of expatriate Tamils are not available. The estimate is that nowadays about 20% of the Sri Lankan Tamils are living abroad. The refugees remained Sri Lankan Tamils nonetheless, and in some cases began to support - or were forced to support - the Tamil Eelam movement in Sri Lanka.

There is strong tendency among migrants anywhere to become more culture-conscious and even nationalist than they used to be in their country of origin. As a result they become more supportive of the nationalist movements in their home country than they ever had been. Anderson called this long-distance nationalism' (Anderson 1992).

The LTTE began to organize this self-conscious Tamil community spread, however unevenly, over the whole world in order to continue the struggle for Tamil Eelam in Sri Lanka.

This community is first of all a source of money for the LTTE. For obvious reasons there is not much known about the size of this phenomenon. The amounts of money are probably considerable. An anonymous source (a report of the Toronto based Mackenzie Institute) gives a number of figures:

In Germany, ten LTTE members were caught extorting 50 Deutsche Marks per months from Tamil families [...] They threatened to harm relatives who were still living in Sri Lanka if the money was not forthcoming. The ring grossed 200,000 DM per month (Anonymous 1995: 4)

There are similar reports from most European countries with sizeable groups of Tamil refugees. Apart from taxing individuals there is also tax on business:

The new Toronto-area levies would demand that Tamil business turn over 20% of their profits. Lists of profitable businesses were drawn up. [...] Similar extortion networks operate elsewhere, including in India where 210,000 Sri Lankan Tamils now live (Anonymous 1995: 5)

Social security offers another source of money: ... one security fraud [by Tamil refugees in France] was worth 2,000,000 [French] Francs (about \$ 560,000 Canadian). Individuals filed claims

with numerous townships for benefits and earned incomes on top of the social security payments. An individual could acquire over 500 Francs a day with this scheme (Anonymous 1995: 5).

A similar fraud has been reported for Great Britain and there is not reason to believe that the LTTE (as well as other groups!) failed to find ways to tap social funds in other European countries as well. Financial activities, laundering of money included, involved the LTTE unavoidably in transnational monetary regimes.

Tamils abroad established in numerous countries so-called Tamil Coordinating Committees. The official purpose of these TCCs is to supply information on the plight of Tamils in Sri Lanka and to assist Tamils abroad. They are not officially LTTE offices although in fact they are. They and the people employed by them (on a paid or on a voluntary basis) play an important role in collecting money. Apart from the fact that they are, quite rightly so, seen as LTTE offices, they are accused of pressurizing expatriate Tamils to pay. These TCCs are a thorn in the flesh of the Sri Lankan government that has done its utmost to have them closed. As long as these TCCs obey the laws of the country, however, the government of the country concerned cannot legally close them. The latest example regarding Tamil organizations is Switzerland. The LTTE as such is regarded as a terrorist organization by the Swiss but as long as the Swiss police is unable to obtain proof from Tamils being pressurized by Tamil groups in Switzerland bearing other names, it is not legally possible to take measures (see *Journal de Geneve et Gazette de Lausanne*, February 5, 1998). And it is very hard to obtain that proof of pressure and extortion. In the first place part of the money collected is probably given freely because expatriates do sympathize, if not with the methods of the LTTE than at least with its aims. In the second place, given the proclivity of the LTTE to kill its adversaries, Tamils whether in Sri Lanka or abroad think twice before they antagonize the Tigers. Perhaps the former are safe themselves, but most Tamils abroad have relatives in Sri Lanka - and they know that their relatives are in danger if they refuse to contribute to the struggle in Sri Lanka.

Another source of income is drug trade. Ganja (cannabis), grown in Sri Lanka, is traded mainly to Australia (see the Annual Report for 1995 of the International Narcotics Control Board). More profitable is the heroin trade that became important in the early 1980s. Heroin is not grown in Sri Lanka. It originates from Burma and from West Asia. For already decades, part of the heroine goes to Sri Lanka, and Tamil smugglers are likely to have been involved long before the present civil war (see Abeysekera 1991). Nowadays most of the heroine is probably transported to Europe. Tamil drug-runners have been arrested in such places as Sri Lanka itself, Rome, Bombay, Warsaw, and in various places in Canada. This points at large scale drug trade and large scale involvement in the highly transnational regime of the drug trade.

The income derived from taxing Tamils abroad and drug trade is used to finance weapons in the first place. Today there is a lively trade in weapons: apart perhaps from nuclear weapons and other advanced weapon systems, all weapons can be bought by those who have the money. As a result, the LTTE became participant in the transnational weapon market.

Transport of weapons would be a major problem for the LTTE. It solved this problem simply by buying a fleet of its own. The LTTE ships communicate with a land based Inmarsat in Sri Lanka (Gunaratna 1997:27). The ships are registered not in Sri Lanka or India, but in cheap-registration countries like Panama, Honduras or Liberia (Gunaratna 1997: 29).

The apogee of making use of global regimes is of course the appearance on Internet. A large number of documents is available on Internet, not only from the LTTE but also from its adversaries. Internet as a transnational communication regime became the arena of an information war.

The LTTE began as a local secessionist movement but under present circumstances and making extensive use of transnational regimes, it turned itself into a transnational enterprise. It fights for a localized Tamil identity but does so with global means. In such cases the differentiation between the local and the global makes no sense any longer. Movements like the LTTE can be understood only in a global context, however localized their aims appear to be.

### 3. CHALLENGES TO ANTHROPOLOGY

Nobody knows exactly what 'cultural anthropology' stands for - or perhaps we all do know, but disagree amongst ourselves what is actually is. I personally feel always ill at ease whenever someone states what anthropology is in terms of subject matter. Disciplines, and disciplinary boundaries, are historical and cultural matters, and they change over time. Anthropology at the end of the 19th century was not what anthropology became after the Malinowskian revolution of the 1920s and 1930s, and

anthropology now is again something else. British anthropology and American anthropology in the 1940s were very different.

Yet I have always felt at home with the American historian of anthropology, George Stocking, when he argued that anthropology is the offspring of the Enlightenment and Romanticism. He argued that anthropology is based on a double question: why do human cultures differ, what do they have in common these differences notwithstanding (Stocking 1982:408). The first question, the fascination with cultural differences, goes back to Romanticism, the second to the idea of rationalism of the Enlightenment. Anthropology at any moment is the actual shape of the questions, the relative emphasis on one or the other, the answers sought, and the methods and techniques used.

For the specificity of culture, anthropologists eventually (and historically quite late) turned to intensive, participatory fieldwork on localized communities. Doing so they greatly added to our insight in human society and its different cultural forms. However, communities are no longer localized. Identity movements in a global context do no longer allow anthropologists to carry out fieldwork along the lines set by Malinowski and others. Apart from the fact that a movement like the LTTE is unlikely to allow fieldworkers in its head offices, its nature can only be grasped by including the TCC offices, the drugs runners, the weapon buyers, the seamen on its freighters, its diplomats who unknowingly to many represent the LTTE at public events, and so on. Intensive, participatory fieldwork is not the answer to the challenge posed by transnationalized, globalized movements. The relevant human configurations are no longer confined to localized groups (if they ever were) - they are global. I personally feel that Stocking's double question still stands as the main contribution anthropology can make. but we have to find new means to answer it. answer to the challenge posed by transnationalized, globalized movements. The relevant human configurations are no longer confined to localized groups (if they ever were) - they are global. I personally feel that Stocking's double question still stands as the main contribution anthropology can make. but we have to find new means to answer it.

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## THE GENESIS AND DIFFUSION OF REFORMATION: AN ETHNOLOGICAL PROBLEM?

GIORGIO MARCUZZI

After a comparison of the spreading in Europe of the ideas of Reformation, from the first appearance to its definitive stabilization, with the diffusion of the populations once known as "Nordic" and which speak one of the various Germanic languages, a good concordance is found among the three phenomena, ethnic, linguistic and religious. An example of the conservation of religious beliefs (Anabaptists) together with genetic characters is furnished by Mennonites (or Amish), migrated from Central Europe to United States and Canada. Also, the first medieval moments known as "heretic", appeared after 1000 A.D., and considered as precursors of Reformation are mentioned (Catars, XIII century, Lollardy, XIV century) and their historic continuity with Reformation is demonstrated. A relation between the percentage of Protestants present today in the various European nations and the degree of illiteracy present in the same is illustrated. Also, a relation between diffusion of Protestants and extension of agriculture in the different parts of Europe is shown. Anthropologic relation between ethnic composition and appearance and secondary diffusion of Reformation is clearly demonstrated by Keiter (1938-1943) perhaps the first student who speaks of "racial psychology", though not agreeing with the existence of European "races". Slavery in Europe - though born in Mediterranean, extra-European countries - has spread in most territory, but disappeared first in the North, remaining in the South until XV and XVI centuries. Serfdom has remained a longer time in Slavia. The first signs of search for freedom in the Middle Ages - all sporadic - are quoted, and the sense of freedom among Nordic "populations" is illustrated on the ground of the greatest authorities in this field. The author emphasizes the development in the last times among human ecologists of a keen interest in the relations existing between ecology (environment in its widest sense) and spiritual manifestations such as moral, religion, ethnics and philosophy, showing how - at least partially - ideas are conditioned by the environment in which man lived. The work is accompanied by many maps and graphic representations

A comparison between the diffusion in Europe of the Reformed churches and that of "nordic" populations shows a significative parallelism. Also the diffusion of some Reformed churches as that of Mennonites (and Amish) shows a relation with the birth and distribution in Central Europe of these Churches and the successive migration to North America (Canada and northern US) where the first migrants brought with them some genetics traits still preserved as a consequence of the inbreeding among the adherents to this Church. The relations in Europe between Reformation and the presence of German languages is striking, from Iceland and Fär Oer to German Switzerland and Southern Germany<sup>1</sup>. On the other hand German language and some physical anthropologic characters are strictly linked, as demonstrated by Palsson.

Reformation has been a struggle against the Middle Ages and its policy, an inextricable tissue of civilian and ecclesiastic governments. The idea that "cuius regio eius religio" according to Oberman is not a German invention, but it must be attributed to the political reasons of Switzerland, when the second peace of Kappel has been ratified at Deinikon on Nov. 16 1531. Protestants indeed were present (as they are today) in countries very different among them, belonging to quite different, independent, nations. On the contrary, in Southern Europe all nations have only one Christian religion, Catholic, in the West, Orthodox in the East. Keiter (1938-41) though not recognizing the different "races" formerly described for Europe, finds that in Southern Germany there is a superposition of the degree of colours (of eyes and hairs) with the map of the religions, what can be read in evident anthropological key: for instance present Swabians show a lighter coloration compared with Bajuvars (Bavarians)(p. 412-3). According to Gini, it is very probable that the struggle of Protestants against Catholics in England and of Catholics against Hus'

<sup>1</sup> . The major inspirers and promoters of Reformation are indeed of Centro-Northern European origins: Wyclif from Yorkshire, Hus from Husinec (Bohemia), Erasmus from Rotterdam, Luther from Eisleben (Mersenburg), Zwingli from Wildhaus, Tottenburg (Switzerland), Calvin from Geneve, etc.



followers in Czechoslovakia has been directed against individuals which were distinct from the majority through their physical, intellectual or moral characters and their religious faith (p. 264). to Keither<sup>2</sup>, the re-election of the faith in man of the evagelic freedom has included white belts of European populations with light eyes. Those in prevalence with eyes of mixed colour demonstrated to be revolutionary and spiritually "productive", those in prevalence with blue eyes obstinate and consequent. Without Southern German Reformation would not rise, without Northern Germany it would not substain itself (Keither, p. 141). In 1520 it was not possible to foresee that today Protestantism and catholicism would stay one in front of the other as reason and consacration, spirituality and symbolism, individualism and authority(idem, p. 141). In South-Western Germany on the ground of the geographic distribution of ethnological manifestations Helbok thinks that it is possible that there is, beside a pre-Reformation Catholicism, another less symbolic. One could therefore speak of "racial psychology".

Clauss (1939) has been the first author who takes into consideration the psychological causes which brought Nordic populations to Protestantism: the freedom of a Christian stays in fron of each soul: instead of the mass excitement, characteristic according to Clauss of Orientals, the true Protestantism poses the worry of soul. Instead of the public prayers before the spectators there is the silent prayer of single man. This corresponds to what Villoslada says of Reformed Church: silence, constance, discipline and self control.... reservedness and difficulty to externate own feelings. According to Clauss the "nordic" man does not reveal himself before the mass, nor present himself openly with his prayers, but he does it in his calm room. The "nordic" soul is autosufficient. This strictly corresponds to Villoslada words "(the Protestant) reprovved the farisaic observance of human precept and did not insist on ascetic penitence and other exterior deeds". We may say therefore that in the Reformed religions there is an internal religiosity, closed in itself, in the place of public manifestations.

Several authors have pointed to the close relation existing between Reformation and Renaissance: according to the British Encyclopedy, in 1530 the Renaissance was closed for the country which had originated it, Italy, whereas in Northern Europe the Reformation gained firmly ground. One may say that Reformation has been the Teutonic Renaissance (p. 88), and goes on saying "Renaissance has been the stage of Middle Ages, which emerges from ecclesiastic and feudal despotism. It shows the effort of man to reconquer himself as a free being, not as the slave of theologic despotism".

A difference can be today noted in the percentage of illiteracy between European countries with a various majority of Catholics (or Orthodox) versus Protestants, what as a whole corresponds to Northern and Southern European regions. Illiteracy is near o in Protestant countries; in 20 countries with a Catholic or Orthodox majority the average is 4,4% with the highest value in Bosnia-Hercegovina (43,7%) where are also Moslems.

According to Pullé the Reformation has given a powerful inducement to the formation of the modern State. The interior or intra-mondane "ascesis" of Protestantism rapidly spread in england and Scandinavia, condemning the nediaval ascesis, the escape from the world, commits man in an action in the world, so that it encourages and justifies a purely "human" action . The contribute given to the formation of the modern State and to the theorization of "professions", the rebellion against the "autoritas" traditionally accepted by the populations of Southern Europe, such as the Spanish Inquisition (1478) and the Roman Inquisition (1542), contribute to the formation of modern Centro-Northern European society<sup>3</sup>. Reformation is characterized by the equiparation before God of all men, without ecclesiatic hyerarchies of divine origin and the correspondent individualism.

he presence of slavery in Europe reflects the ethnic composition of the different peoples. The term "slave" is present in Greece in old historic times (Homer has only the feminine *dule-*); *dulos* has probably a pre-hellenic, pelagic, origin, according to somebody (Assman) coming from Northern Semitic as a loan (Frisk), or according to Chantraine from Cretan *dolos*. In Roman world *servus* means slave and serf, contrary of "free man". In Anglo-Saxon (c. 500 A.D.) no term exists for slave; also in High mod. German there is not a clear distinction between serf and slave. High German *mangari* comes from Latin *mango* (slaves trader) and the exchanges between Romans and Germans occurred with war prisoners, sold to Romans in change of several produces and goods. Only in Southern Europe slaves were used for work (as in North Africa and the Semitic world). Hebrew however had never a treatment of slaves cruel or

<sup>2</sup> . Keither in 1938 was Professor of Anthropology at Würzburg (Franconia).

<sup>3</sup> . The trials of Inquisition for heresy interested most of Centro-Southern Europe since 1022. They began in France, Italy, Holy Roman Empire (germany) and England. Since XV century Inquisition extended its trials and condemnations to death to witchcraft and magics, which lasted in Ireland until XVIII century and in Edimburg up to 1687 (two countries with catholic majority). In Spain Inquisition lasted until december 1808 (arrival of Napoleon to Madrid) and has been reinstaured in 1814 by King Ferdinando VII.



degrading, not only but the Vulgate translate the O. T. using the terms *servus* and *ancilla*, but not slave. Also in the case of the presence of Hebrews in Egypt Vulgata says "*ipse servieris in terra Aegypti et liberaverit te Dominus Deus tuus*". One speaks only of "to serve" but not to be a slave, which for Rabbis represent the most serious offense one can address a man. The Fathers of Christian Church did not condemn the slavery: this disappeared in Eastern Empire in XIII century. Generally in Europe slave was substituted by "serfdom" (France, Slavia etc.). In Spain however slavery remained until XVIII century and in Italy (Florence) until XIV century and at Lucca until 1537.

Middle Ages heretic movements are well known in Europe: Cathars include the dualist heretic Albigensians (from Albi, on the Tarn River). They already in VIII century demonstrated an aversion to worship of saints, images and relics. Cathars diffused in Spain, Italy and Germany in 1160 and in XII century in Burgundia, Normandy and Aquitania (S-W France). The Waldensians constituted a Protestant church which took their name. They diffused to Provence Dauphiné, Piemonte and Lombardia. At the beginning of the Reformation Waldensians and Hussites (from Hus, 1369-1415) opposed themselves to papacy, so that the Reformation can be considered in a sense historic continuity of some heretic movements of the Middle Ages. However, during the Middle Ages, several signs of search of freedom are present scattered through Europe, but particularly in Northern countries. After the first millennium, the inhabitants of Bagnères de Bigorre (Hautes Pyrenees, at the feet of Pic du Midi de Bigorre) at 556 m (Bigerrones) also during the Middle Ages kept always fixed to their laws, forming practically all together an independent republic. They were poor but they cared over everything their freedom. Before accepting as "seigneurs" the various counts or viscounts, the mountaineers wished to have a chart signed with at determined conditions, as we read on the Fors de Bigorre of 1090. Their valleys as autonomous organisms have preserved their autonomy which perhaps has no correspondence on the Alps. Another example of political autonomy in full Middle Ages is offered by the Republic of San Marino on the tosco-emilian Apennine (m 738), in XI century a Commune (or Municipality) with own Statute and Consuls, in 1400 a Republic. The Placito Feretrano (885) recognizes to nobody, not even the Church, the right to have pretensions or to claim rights towards the top of M. Titano. In Iceland, inhabited mainly by elements of the so-called "nordic populations" we find an Althing, the oldest European legislative assembly in 930. The oldest Parliament of the World-Iceland being organized in a republic in 928 – took a seat in 930. In 1000 the Althing decided through a "democratic" discussion to accept the Christian religion in lieu of the old religion of Odin. Under the influences of Magna Charta (1215) the English political institutions transformed into modern constitutional institutions. Magna Charta goes back to June 15<sup>th</sup> 1215, when the King John of England granted to Barrons the Chart of freedom, consider in the successive centuries as the prototype of the acts of warranty of individual freedoms. Habeas Corpus – contemporary with Magna Charta – is an Act (Writ) through which who keeps a prisoner is obliged to declare in which day and for which reason the latter has been arrested. It has been put again in force in the Petition of Rights on 1627. Another sign – though isolated – of tendency to freedom in full Middle Ages is offered by Marsilio from Padova (1275? – 1342), a theologian, professor of theology at the Sorbonne, who refused to recognize the divine character of papal authority.

From these or other grounds – geographical, historical or political – a few centuries later Reformation affirmed itself in Centro-Northern European countries.



## SELF- IDENTITY BETWEEN CULTURES AND CIVILISATION

MIRCEA MALITZA

Starting with the definition of Cassirer who regards man as the single symbolic animal, a distinction is made of belief-supporting symbols and the knowledge-supporting symbols. The first provide an explanation of the variety of cultures, the second clarifies the world civilization. The two adjoind universes are created by the same faculty of human imagination.

The objections of K. Popper against symbolism and anthropology are discussed. The paper ends by considering the merits and the risks of the present trends in cultural anthropology.

About the last decade of this century of ours, scholars involved in the study of global processes have suddenly found themselves faced with the impossibility to explain the fragmentation that broke out either in a multiplicity of cultures or in the violent form of identity conflicts. We shall mention only one example. Fukuyama having proclaimed in his article on *The End of History* (Fukuyama F. 1989) the irreversible worldwide diffusion of democratic liberalism, in a book in which he continued this initial study, he focused on a human characteristic drawn from the same Hegelian source that inspired the title of his work, namely "the need for recognition" related to the assertion of identity (Fukuyama F. 1992). Wallerstein the theorist of globalization (Wallerstein I. 1974,1979) sees himself obliged to deal in his recent studies with the cultural component previously neglected in the prevailing economic premisses (Wallerstein I. 1991). So, now we have an anthropological issue being re-introduced in the study of globality.

The most recent synthesis is the work of a number of authors among whom we would quote Anthony Giddens (1991). "Transformation in self-identity and globalization (he writes) ... are the two poles of the dialectic of the local and global in conditions of high modernity" (p.32). His solutions are resumed in a thoughtful review of the debates around the rise and nature of world society (Axford B. 1995), which is my most frequent reference. In this family of papers and works one detects some caution against the explicative cardinal principles which usually characterize the great theories, a caution resulting also from the postmodernist renunciation to "metanarrations". Also, one detects a careful avoidance of teleologism which such theories like that of evolutionism or of functionalism imply. Complexity has a large range of address and there is a definite care to elude reductionism. Here there are neither privileged objectives nor preferred directions as are required by the concept of "progress" or an inescapable determinism. One note in common is the regaining of the cultural dimension ignored by the studies in which the focus prevailed upon the technical, economic or social factors.

But before coming to the subject of identity it would be useful for us to examine the opposing pole, that of the worldwide processes.

First, the notion of modernity is analyzed. Nobody contests the fact that human society has stepped for more than three centuries now onto the track of an expandable modernity due in turn to industrialism, capitalism, science, and technology with the national state as its central institution. It is not essential whether its birth date is to be found in the Newtonian or Galileian sciences, or in the Westphalian Peace treaty, in Descartes' philosophy, in the Kantian Enlightenment, in the English industrial revolution or in the French political one. What is important is that we distinguish a few of its specific features, namely the pre-eminence of scientific reasoning, the emphasis laid on stability and order, the faith in progress and the existence of an international system built by the states which have economic inter-relations with strong discrepancies and inequalities. Criticism and contestation have constantly attacked this kind of modernity, the most recent and radical one being the contestation of postmodernism. Despite its merits in having introduced the concept of the plurality of cultures, its relativistic corollary and its rejection of "universality", postmodernism has arrived to a dead-end. This was announced by its very name as "post" reflecting its incapability to foresee the chapter opened by the dissolution of the old modernity denounced. Yet the well-founded criticism was addressed to a period defined by the changes of modernity itself. Denouncing constantly a system built on the visions of the Enlightenment is tantamount

to whipping a dead horse (Ophus W. 1997). The modernity prevailing for centuries was renewed since the middle of this century to such an extent that it became unrecognizable. No name has yet accredited it. Sometimes it is named high modernity, sometimes late modernity, or second or new modernity, although probably it should be defined more properly as "globalized" (modernity). Recent papers have the merit of clearing the features of the present modernity. Instead of stability, we talk of "risk society" and of changes at a fast rate (Beck U. 1992). The concept of "contingent" acquires pre-eminence to such an extent that a "natural contingency" is acknowledged and replaces the old "natural order". Especially since the 70-ies "how to cope with complexity" is together with the exploration of limits the central theme challenging our intellectual endowment. Rationality is not excluded as it is in postmodernism, but appears enriched, enlarged and brought in tune with the affective and aesthetic dimensions. Yet, according to Giddens, what is shocking is the separation of time and space, which introduces a massive dynamism into human social affairs. Giddens does not refer anymore to the social differentiation but to the "disembedding" of social institutions following the emptying of time and space process. They allow a "lifting-out" of social relations from local contents and their rearticulation across indefinite tracts of time-space.

Globalization is the contemporary process accompanying modernity whose main vector it is. Other historical movements also undertook the same process, e.g. the great religions or the great empires but then it stopped short at their geographical limits. Furthermore, it accompanied the velleities of classical modernities in the era of internalization of economic relationships and of such bodies with universal vocation like the UNO. Now, in the phase of late modernity globalization is made amply evident not only by engaging as actors the national states whose role it eroded but also an impressive number of multinational societies and non-governmental bodies. This is the fruit of the new informational technologies which abolished the idea of frontiers. In the field of institutions, globalization brings the innovation of networks and creates incessant flows of objects and subjects. It builds up a single global space. In Giddens' simple formula, globalization serves to link people and collectivities previously separated and insulated by time and space.

Exacerbated by globalization, the risk, contingency and fluidity features of modernity have a direct influence on the construction of meaning and identity considered as key factors in the production and reproduction of social systems. The role of culture in defining identity is acknowledged since culture itself is described as "the medium through which people create and re-create the worlds in which they live, a process of enacting and interpreting reality" (Axel, p.82). Stability as provided by classical modernity was torn out into shreds. National unity is being confronted with the local identities. The society considered as totalizing was deconstructed, producing a revitalization of the cultural and political forms once subsumed to a hegemony. The new identities are burgeoning in the society. One critic of this trend observes that the massive loss of stability entails a loss of history, tradition and culture, which secured identities, these being today dissolved or dismembered by the fragmentation of experience (Mongardini C.1992). The picture shall not remain a benign one when we add to it the ethnic civil war politics of "blood and belonging" (Ignatief M. 1994). Almost all the conflicts in the world are being waged at the end of our century. Whether cultural conflicts or identity conflicts they are fed by "savage dreams of a tribal past", by the violent and exclusivist assertion of belonging to some religious, ethnic or linguistic group (Malitza M. 1997).

The idea of a contemporary identity crisis does not limit itself to the individuals or collectivities but, taking into account Premier Blair's proposals to build a new identity for the Britishers, this appears to affect also those countries with an historical identity that seemed uncontested.

Giddens does not appear discouraged by the apocalyptic vision of the trials to which the self identity of individuals and collectivities is subjected. He introduces the key notion of reflexivity which is nothing else but "the quality of human action that subjects social practices to constant examination and reformation in the light of incoming information about these practices, thus constitutively altering their character". The world is not given but made by the choices of the actors engaged in a reflexive monitoring of all areas of life. The individuals are the authors of their own identities, a task which commits them to an unending interrogation.

In reflexivity we recognize a property announced by the cybernetic feedback, the auto-correction of systems, the characteristics of living systems (autonomy, circularity, self-reference), but these had been considered as pre-existing organizing principles which allowed for the confrontation and control of environmental circumstances. Now we talk of a "dynamic self-reflection of autonomous subsystems linked contingently with each other".

But then what is the information which is processed by the reflexive agent of self-identity? We discover that it is based on the dissemination of formal education, the popularization (and demystification) of scientific knowledge, public access to databases and even on the competence of experts. True enough, a note of caution is introduced: individuals re-appropriate fragments of knowledge and experience "previously expropriated by modernity's expert systems", which are still suspected of using science for manipulatory or destructive goals. Thus, we also recognize traces of the philosophy of Enlightenment where critical reason and knowledge were the source of man's emancipation. Yet in order to avoid giving this impression, the partisans of reflexivity added to its cognitive feature or even over-emphasized an aesthetic dimension consisting in the search of the authentic, the expressive and the natural components of selfhood as a basis for identity (Lash S. and URRY J. 1994).

To Giddens, modernity is likewise reflexive. All social structures are reflexive. One common property thus secures the coherence of a system with two reflexive poles at its extremities. He does not share the pessimism of his critics who see in the fragmentation of cultures the harbinger of the end of capitalism (Wallerstein) or the irrecoverable dissolution of identities and a definite intronisation of chaos. To him, man is offered a new freedom through reflexivity, a unique chance to forge himself his own identity.

The scarcity of this vision is seen at its point of intersection: why does reflexivity, fed by adequate information, conduce to self-fulfillment in the games of globalization for some, while it transforms others into bitter contenders enrolled into fanatic and violent groupings to which they surrender their identity eroded by contingency and fluidity?

We are thus forced, by an otherwise stimulating reading, to seek the corrections needed by a perspective that does not call itself a theory (a term appreciated only in the classical modernity) but simply an account or a narration.

Now, let us come back to the globalized modernity. All authors agree that this is manifest in the following domains: 1. Trade (From 1950 to 1975 the volume of world trade has grown by 500%); 2. Production (the example is provided by the location of the production units and by the investments that ignore frontiers); 3. Finances (the volume of exchanges is hundreds of times higher than that of the traded goods) and 4. Technology (illustrated by the unprecedented rhythm of innovation and dissemination of informational technologies). These impressively dynamic forces are the engines of global modernity and their effect is that of changing the position of the nation-states within the world system but also of breeding those features which sociologists take as starting points (contingency, fluidity, risk). What do they all have in common? They have a common and universal base of knowledge, with a conspicuous absence: the local values and creeds, specific to one or other place. If we name civilization this sphere of human activities built on universally applicable knowledge we shall understand its huge capability of spreading out, for the simple reason that it is defined by components essentially transferable. Science and technology are its main pillars.

Cultures are found at the opposite pole and they are also mentioned in the plural. It is not enough to consider them only as a medium within which people create and re-create their own worlds, we must consider what sociology believes are its basic constituents: the beliefs and values differing from the universal knowledge by the fact that they are local ones. Cultures point out to the specific difference while civilization is dedicated to the *genus proximus* and the common features.

This cultures/civilization polarity must face a semiotic obstacle. Ethnography and anthropology confuse the two. When this equivalence between cultures and civilization is adopted by politologists the result is a serious confusion conducing to erroneous conclusions like in the case of Huntington in whose text cultures clash, which is correct, but in whose book-title it is civilizations (in the plural) that clash, which is not correct (Huntington S. 1996). The question is not to oppose two terms but to place them at the ends of a continuum, where they interlace continuously at different degrees of collaboration. But as an analytical procedure the distinction is a useful one to remind us the global/local polarity accepted by Giddens. Other authors too deal with similar polarities, e.g., Dahrendorf (1992) whose study of the social conflict is based on the pair of concepts: entitlements/offer.

Cultures are the great laboratory where identities are forged. To the question "who am I?" they offer a status based on the belongingness to an ethnic, religious, linguistic group having their own traditions and history, and therefore also a distinct genealogy. So, we cannot ignore this "*datum*" which the individual carries along throughout his/her life like an identification card. This very simple reality contradicts the hypothesis of the individual's absolute freedom to build his/her own identity.

The status of citizenship introduced by the national-state of the modernity was the first step in abstracting and freeing the individual from the cultural bonds, as the liberal economy needed a citizen able to enter the economic game of the market, irrespective of his/her belongingness to groups built on other criteria, which were irrelevant to the economic processes. The weakening of the national-state in the phase of late modernity was accompanied by the lessening of the signification of the citizenship state for the individual and his/her orientation toward the regional or local belongingness, as one can see it in almost all the developed countries, in which localism and regionalism are at the order of the day.

Generally, the sense of status is made equal with the sense of position within the social hierarchy. The status of nobility was indeed an expression of the coincidence of inherited identity within the privileged group with the domineering position. The classical modernity abolished the rights obtained by birth. The new modernity lessened the importance of hierarchy, which destroyed itself through horizontalization. This is why we shall give to the term of status its organic meaning of ascribed identity.

Civilization does not make status-based discriminations. Like legislation, it concerns individuals "irrespective of religion, sex, nationality". What civilization offers are roles. Unlike the organic status, the role is a functional status. The role answers the question: "what are you?", not "who are you?" This is the perspective of action, which Giddens appreciates so much. Irrespective of who you are, you may play a role according to your vocation, your knowledge and your skills. While the metaphor of the organism - by which the individual is part of a living social body - is applicable to the status, in the case of the role, the metaphor of the theatre, of life as a Shakespearean stage, is quite pertinent.

The moment the individual is engaged in playing the roles offered by society, mainly its professions, the status is subdued. It is not suppressed, as it is often stated, but confined to a sphere of private relations, which are a rewarding source and even one of satisfaction.

The statement that civilization homogenizes is a false one. Civilization has standards for the products, for the services, for consumption. Otherwise, the variety of cultures and of the identities which they generate, far from being a preoccupying source is one of renewal and innovation. It took some time for classical modernity to learn the lesson of tolerance, and in its totalizing trends it has tried to impose or to exclude cultural corpses of beliefs, like ideologies or religions. Late modernity leaves full room to their manifestations in a special sphere of expression which is disjunctive with the area of activity of civilization. Anomalies begin with the absurd pretention to build civilizations (in the plural) on the specific cultural pedestal, as in the case of the illusion, swept away today, of the "socialist civilization" or of the still vocal illusion of an "islamic civilization". Civilization is unique, having the same recipes for creating wealth in the USA, Europe and Asia and it is only a linguistic slip, with no foundation whatsoever, which insists on the existence of a "Western civilization", thus confusing a universal activity with its place of origin.

These considerations on the plane of globality about the salutary disjunction, made also by other authors formerly (Ricoeur P. 1995) or more recently (Yamazaki M. 1996), between the uniqueness of civilization and the multiplicity of cultures whose compatibility can be understood only after their analytical separation, will help us to discern the source of anomalies in the sphere of personal identity. The anomaly starts when an individual cannot perform roles other than those prescribed by his/her particular status. A fanatic from a group guided by particular beliefs would assume only roles within the group, with a fervour which might go as far as the supreme self-sacrifice. We thus reach a possible therapeutics of the pathology of identity. The intervention of the roles of civilization maintains the identities of the cultural status within the paths of normality. The explanation goes here deeper. In playing his/her roles, the individual inter-acts with persons of various identities. In the light of group identity, he who has a different identity is an alien, he is a suspect, a possible enemy, a threatening existence. But the perception of alterity is educated in the compulsory interaction resulting from practising roles.

If the polarity of cultures and civilization is taken as a reference we have a new perspective in elucidating the problems of identity. Instead of non-determination and an explicative gap in Giddens' account of polarity we are offered supplementary analytical criteria. Identity thus appears as an interlacement of cultural statuses and civilizational roles with the simple but revealing corollary that the latter do not presuppose the abolishing of the former, but only assigning them a recessional position while the roles are being enacted. The idea of enactment favoured by the reflexion school is maintained and even amplified.

There is also another observation which maintains its validity and is enhanced in the cultures/civilization polarity. This is man's experience mostly made public through the media. Two of man's natural weaknesses ( unsure instincts, precarious power) are compensated by two media which



were considered as his main characteristics (*sapiens, faber*). One artificial medium was created on the symbolic strength of the language and of the worlds construed on imagination which are taken as virtual representatives or approximations of reality. Another artificial medium built on the abstract symbols of knowledge consists in the total extensions of power and ability of technology (Cassirer E. 1994). Even if, together with Cassirer, we should take the symbolic man as a starting point, the distinction between the expressive symbol systems or meaning systems of culture and the cognitive abstract symbol or expert systems is currently being operated by the scholars. Acknowledging culture as the first medium and civilization as the second medium allows us to continue the obvious distinction between man's capability to create worlds put into motion by his beliefs and weighed with his values and preferences and his aptitude to act physically in the midst of nature through his "outil" based on knowledge and thus to build and enrich his artificial notch of existence.

On the plane of identity, we agree with Giddens that, far from being an irrecoverable drama, bringing up the theme at the present moment will lead neither to a terminal crisis of the globality nor to a fatal shattering of the identity of man. It is just living a new chapter of the creative tension between cultures and civilization, the former ones providing comfort and stimulation, which support human dignity, feeding the variety and the differences, while the latter creates one single world which promises, through accrued power and wealth, the decency of human existence.

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## ON MAN'S TRIADIC UNITY TWENTY EIGHT VIEW-POINTS (I.E., ONE) FOR THE NEXT MILLENNIUM

GHEORGHE ȘTEFAN

The new millenium will  
not be a spiritual one.

The paper presents motivations for a possible way to substitute the binary based on the *rational / spiritual* alternative with a **triadic** approach in which the man manifests into the tridimensioned space of rationality, *imaginary* and *spirituality*. Some basic point of view are presented in this extended abstract.

1. The *oneness* of man and the *unity* of the **existence** must be mirrored in the **world's** coherence in which we live. This is the main idea on which we ground the paper that follows.
2. The tension between the **individual's** *oneness* and the **existence's** *unity* makes the path toward the **world's** coherence difficult and round about.
3. Man is present in the **world** through his own three components that assure stability with regard to **oneself**, to **existence** or to the **world**, i.e., *spirituality*, *imaginary* and *reason* (the triad SIR). *Knowledge*, *action* and *living* are coordinated by the previous three components, each having different weights in different moments of the individual or the historical evolution.

### 1

More than ever in the human history, we are faced with problems arisen from hard to explain or hard to control things. The accelerating "progress", at the current incredible speed, outputs an increasing number of problems for mankind. The exclusive *rationalistic* ways are surpassed by complex or strange facts. Many people believe that, the next century "will be religious or never be at all". But, we will try to point out, in this short essay, almost the contrary. The solutions of the present crises, perceived to the world's surface in which we live, are not to be solved only in a religious or a spiritual way. Instead of a fight or a doubtful alliance between **reason** and **spirit**, we propose to add a third concept to the previous two: the **imaginary**.

### 2

We must distinguish the **world** from **existence** and from **being**. The human **being's** appearance in **existence** created the man's world. Therefore, **world** is a superficial skin of **existence** in which man shows his current presence by *being*.

Man is too much connected to the **world** instead to be connected to the existence. He knows the world, acts on it and lives in it. (The world is only the first step of being in existence because the common man lives only in this skill.)

### 3

In order to exist, in the last two millennia man imposed to himself only dissociative models. These models excessively practiced, divided the world in many different cultures, in parts more or less adverse. A dissociative model promotes the slogan:

- they accept the bipolar models (such as good - bad, formal - non-formal, rational - spiritual, civilization - cultures, structural -phenomenological, ... )
- perceive man connected only to the world and too much disconnected from the existence.

## 4

Man as an agent builds the world, deconstructing (by structuring) and reconstructing (systemically) the existence, through the techno-sphere, the ethno-sphere and the calo-sphere. The values in the three "spheres" are dominated, respectively, by rigor, by truth and by beauty. Without any doubts these three "spheres" originate in three hidden and deep human bents.

## 5

The oneness of man and the unity of existence must be mirrored in the world's coherence in which we live. This is the main idea on which we ground the paper that follows.

## 6

The tension between the individual's oneness and the existence's unity makes difficult and roundabout the path toward the coherence of the world.

## 7

Man is present in the world through his own three components that assure stability with regard to oneself, to the existence or to the world. These three components are: the spirituality, the imaginary and the reason (let's call it the human fundamental triad: SIR). Knowledge, action and living (the action of being alive) are coordinated by the previous three components, each having different weights in different moments of the individual or of the historical evolution.

- In the pre-Christian age SIR appeared acting synchronically as a whole (the Socratic. reasons closely supported by his imaginative maieutic and by the indwelling force of his daemon)
- In the two Christian millennia the three components manifested themselves diachronically, in turn by the Orthodox spirituality, by the Catholic cultures and by the Protestant rationalism
- We believe that in the next millennium the three components of SIR will be resynchronized in order to allow an unrestricted and a, full being synchronously affected by reason, imaginary and spirit.

## 8

What generates the problems of our Age? A bimillennarian diachronically practice of the fundamental triad (SIR). The synchronization of the spirituality, of the imaginary and of the reason at the level of the contemporary man should equilibrate its relation with the world.

## 9

A main question that arises is: can SIR regain its wholeness by synchronization after two millennia of diachronical evolution? The man was "deconstructed" (structured) emphasizing the three own components as acting only distinctly. Now, the "reconstruction" tends to be made too systematic, blocking the path toward the man's oneness.

## 10

What are the consequences of the two millennia. of diachronism? There are consequences at the human being level reflected at the world surface by the following three main problems.

- The occurrence of the limits given by the complexity of the rationally developed processes
- Conflicts generated by the cultural differences
- Through practicing an institutionalized Christianity, Homo Religiosus degenerates in a. layman by the conversion of the sacred (the mystery & the magic.) in the cultural values or in the rational skills. Conversely, the world acts on man, thus the man was torn by the conversion of a triadic inner unity in an external triadic too disjoint behavior. In turn, he is instructed to be rational, lie is trained to be imaginative and he is educated to have spiritual feelings in order to apply these learning's only in the distinct domains of the being.

## 11

How can we solve the crisis induced by the diachronism of SIR in man and in his world? By finding ways to resynchronize SIR at the human level, over the world (and in the existence, if possible). Over the world, in order to integrate the cultural diversities we will proceed starting from the deep spiritual witty and using the uniformity of the rational approaches.

## 12

The complexity, stimulated mainly by the rational built techno-sphere, can be avoided only by the imaginary suggestions and by the spiritual based discernment.

## 13

The conflicts could be prevented by taking into account only the common values as bridges to restore the deep spiritual unity using the civilizing reason with its uniform methods which are identical all over the world.

## 14

In order to restore the sacred abilities of Homo Religiosus, we must first regain the trust in the direct knowledge and action. We must first restore the rights of the mystery and of the magic; both prohibited in the name of the superficial results of the reason or of the spectacular performances of the imaginary. Thus the wholeness of the sacred feelings will constitute the basement of the rational buildings of the imaginary.

## 15

What are the steps that led us to the contemporary break-ups in the Western World? The sad bimillenary experience of diachronically exercised SIR, which by turn:

- made its own debut with a millennium of Orthodox spirituality (which, frozen into Spirituality, hid the Greek rationality and the Roman civilization),
- continued with a half millennium of Catholic phantasms (which tried to solve the tensions between the existence's unity and man's oneness through the performance of the world created by the unrestricted imaginary),
- ends with a few centuries of Protestant rationalism (which tries to resynchronize in a rational fashion a culturally dispersed world).

## 16

The unity of the human being is now split up after two millennia of dissociative treatment in the world. Man becomes able to practice, more or less performant, any of the three components of SIR, but he is not able to use them into an unitary approach. Also, the world is distorted by this dissociative treatment. Men looks only for dissociative solutions in order to apply them to the world and against man.

## 17

Unfortunately, the solutions to surpass this crisis are dominated by a line of thinking developed only on the civilization - cultures axis (corresponding to the reason - imaginary axis), for the world's problems. The explanation is: the evolution of the Western World in the last half millennium due only to the fight between the Protestant spirit and the Catholic mentality, without any implication of the Orthodox spirituality.

## 18

In order to solve the man's problem, we looked for the solutions on the rationalism - spirituality axis. The obsession of the bipolar dissociative models imposed the axis on which are emphasized the two

most accepted behaviors: the reason and the spirit. Imaginary is easy forgot as a dangerous behavior, because in the "free" world of man we have only a limited bipolar freedom to be reasonable or spiritual. The reason of the "true" scientists and the spiritual feelings of the clergy don't agree with the imaginary. The mystic disclosing of the imaginary are rejected by "scientists" and the unpredictable magic actions are damned by popes.

Concluding, the world accesses only the reason - imaginary axis and the man is limited to the reason - spirit axis. Thus the tension between the world and the man results from these two distinct restrictions.

## 19

Is there any chance now for the Orthodox mentality to come into a consistent dialogue with the Western World? Or perhaps, does the West avail of a chance to reconsider a tripartite model wrongly substituted to an instable bipolar one? At the same time, does man have a chance to regain unrestricted access to the imaginary? Thus the world should regain its spiritual dimension and man should re-gain the access to its own world of the imaginary. In this way, the man and the world will have the same space, "focused" on SIR, in which the reconciliation is possible.

## 20

What is to be done?

- We must adopt a complete model of man: the triadic model of SIR (spirituality - imaginary - reason), through which the human being interacts synchronously with the existence, with the being and with the world.
- Building a world dominated by one civilization based on spirituality and mediated by the diversities of cultures.
- Finally, in order to achieve the first two points, a new type of school is necessary, in which learning is made as a real synthesis between education, training and instruction.

## 21

The main starting point must be a new learning paradigm based on the SIR's synchronization. The present surpassed paradigm assumes learning (to acquire "knowledge of" or "skill in") as a weighted sum, depending on the historical period, between the following three modalities:

- education by which people learn to develop and use their mental, moral or physical powers in order to gain discernment regarding to the being
- training: to make a person efficient, in some activities by repeated and guided practices
- instruction: to acquire skills in the formal developed and presented domains.

The previous three components of learning correspond approximately to:

- spirituality, because the education stresses on the wholeness of the connections in which man is faced to have discernment
- cultures, which are based on traditional and spectacular practices, having no direct, spiritual motivations or a rational basement
- reason, because the formal skills are taught, in the same way in any place in the world.

The contemporary teaching systems lay stress on instruction based on the division of domains in disciplines and try to improve this rudimentary system by the interdisciplinary approaches.

We propose that the future systems must integrate the previous three modalities (education, training and instruction), not stressing only on one of them (instruction, e.g., as in most of the Western schools), and the breaking up into disciplinary must be substituted by the modularization of the knowledge domains using the new tool offered by computer science and information technology: the hypertext.

Therefore we suggest: no interdisciplinarity but intermodality, based on modules structured as hypertexts, instead of disciplines contained in manuals.

## 22

Briefly, a schema simplifying the present learning paradigm to be surpassed is >

$$\text{Learning} = k_1 (\text{education}) + k_2 (\text{training}) + k_3 (\text{instruction})$$

in which:

- $k_1 \gg k_2, k_3$  for the first Christian millenium
- $k_2 \gg k_1, k_3$  for the Catholic half of the second Christian millenium
- $k_3 \gg k_1, k_2$  for the Protestant half of the second Christian millenium

23

Now, the trend is characterized by the tendency to balance the values of the constants. But the real transition will be obtained only when the sense of the weighted sum will be lost. Each subject (not the discipline), organized as a module, will need an approach in which teaching supposes a deep merging (without quantitative weight) between education, training and instruction as a whole. Briefly:

learning is (education & training & instruction).

24

For what reason WP didn't not take into account this approach until now? Because we can not change anything unless it has exhausted all its consequences.

25

What is enabling this new approach? The information technology with its components:

- the computational power can validate or invalidate any intuition or any imaginary product (a lucky "guessed" solution or happily imagined one can be evaluated through computation in a shorter time than the time needed to find it systematically using only the formal methods)
- the communication facilities allowing a good stimulation of the imaginary and of the capacity for "direct coupling" to the reality (today most of the computers are used only for information access)
- the flexibility of representation allows designing the materials for supporting the education activities and the research activities better than the traditional ones organizing the course supports as hypertexts in which any connections are possible (even between two, more or, why not?, all hypertexts in a miraculous world of hypertexts constituting The Hypertext).

26

What is the chance offered to us" (civilization based on cultural bridges that allow us to regain access to the deep spiritual unity. Distinction between civilization, cultures and spirituality becomes senseless if this model will work out well.

27

The initial indistinction of SIR from the pre-Christian West, must or deserves to be regained? A direct answer seems to be very difficult. For sure, the only answer seems to be that we have no answer. Indeed, a bimillenary diachronic dissociation can not be compensated by a possible resynchronization so easily. Our existence is marked by an unforgiving function: the memory. The diachronic deconstruction made by Christianity cannot be perfectly cancelled by a synchronizing reconstruction. While the gracefulness of the imaginary - as a magic result of the suspension in the space opened between the rigidity of forms and the annihilating freedom of revelation - cannot delete the strong-headedness of memory. The unavoidable time arrow acts merciless!

28

The approximate correspondence expressed in view-point No.21 is very important by the openness offered by nuanced explanations and hypostases of the fundamental triad: Spirituality - Imaginary - Reason.

Indeed, there are many approximate hypostases of the fundamental triad SIR. The significations involved in these triads do not overlap rigorously. Results an enormous advantage consisting in the diversity of senses which occur from these partial, even minimal, non-overlapping. We list here 12, i.e., "three", approximate hypostases of the fundamental triad SIR, with the hope that they »suggest more than the entire previous text:

Unity	Oneness	Uniformity
Sense	Signification	Syntax
Present	Past	Future
Existence	Being	World
Symbol	Chaos	Sign
Revelation	Imagination	Explanation
Mystery	Expressivity	Clarity
Magic	Art	Technology
Human Being	Communion	Community
Spirituality	Cultures	Civilization
Orthodoxy	Catholicism	Protestantism
Elitism	Centralism	Democracy

We believe that these  $1+12 = 13$  non-overlapped triads have the chance to open up the way toward a real change.

#### CONCLUSION:

The third Millenium will be the Millenium of the "three" resynchronized hypostases of the fundamental triad: spirituality - imaginary - reason.

The fight between the two will be substituted by the joint of the three, as one.

Based on world's uniformity, the oneness of man has a chance against the unity of existence.



## LA FIN DE L'INDIVIDU

ADRIAN MIHALACHE

The present "worldview" seems to locate the individual in the center of attention. Any social or political approach is nowadays defined in terms of the individual's needs, hopes, urgencies and fantasies. However, in spite of the explicit focus upon the individual, the postmodern society attempts to eliminate him from nearly all the social and cultural practices. The corporate culture of the post-industrial era favors the team, the small self-organizing groups, since they are more easily manipulated than the individuals in a social framework, which has given up explicit coercion in favor of more efficient and subtle methods of control. "Teamwork", "Empowerment", "Team integration" are some of the key words of postmodern management and they signal the drift of attention from the individual to the group. The human factor, once a nuisance in a business process because he couldn't cope with precision and efficiency of the machines, is now seen as a precious asset. However, there always persists a shadow of a doubt. The individual is tempted to behave in an uncontrolled, nonconformist manner, dangerous for the establishment. The social complexity, together with the democratic abhorrence of totalitarian means, prevents the use of "old good methods", like hierarchical supervision. Consequently, the teams grouped around a project or a process, the small communities which share interests and fears are themselves the best social forms which keep a watch over the common values and punish the outcasts who try to define their own ones.

At the overall social scale, the end of the individual is visible in the revival of prewar "corporatism" under the cover of a democratic discourse, centered on the individual. A subtle ideological manipulation makes use of the neoclassical liberal concepts against the very meaning of liberalism, in order to promote communitarian values and to keep the society under control using its own self-organizing mechanisms. We believe that such a strategy is bound to lead, in the case of a major crisis, to the convocation of "The General States" which was already proved a dangerous decision with unpredictable consequences.

## 1. L'ÈRE DE L'INDIVIDU?

La modernisation peut être envisagée comme le processus qui a porté les valeurs individuelles à la victoire. Depuis Descartes et Leibniz jusqu'à Louis Dumont et Emmanuel Lévinas, on n'a cessé de promouvoir la légitimité de la pensée indépendante, l'autonomie de tout un chacun, la liberté individuelle bercée par l'égalité sociale. Alain Renaut a retracé avec charme et autorité les lignes de force de ce mouvement qui a réussi pour de bon à instaurer "L'ère de l'individu"<sup>1</sup>. C'est un mouvement opposé à l'idéologie holiste, qui valorise la totalité sociale et lui subordonne l'individu. Au contraire, pour l'idéologie individualiste, l'individu indépendant et autonome est la valeur suprême, celui-ci ne peut être soumis à rien d'autre qu'à soi-même. La conséquence logique de cette option pour la liberté est l'égalité sociale, car tout principe hiérarchique étant exclu, l'égalité règne en vedette. La liberté assumée transforme le *Homo Hierarchicus* en *Homo Aequalis*<sup>2</sup>. Les grands moments de la marche vers l'individualisme outré sont l'apparition de l'état chrétien sous l'empereur Constantin, qui réconcilie pour la première fois les valeurs égalitaires à celles de la hiérarchie. La Réforme de Calvin a transformé à son tour l'église d'une institution holiste dans une association composée par des individus. Enfin, après une longue œuvre d'édification du droit naturel moderne, l'individu connaît son triomphe avec la Déclaration des droits de l'homme de 1789, qui consacre la décomposition individualiste de l'ancienne communauté chrétienne hiérarchisée et impose le sens de la liberté comme indépendance constitutive à la citoyenneté. Conséquemment, les gens ne sont plus des membres d'un tout, comme dans la fameuse fable de Menenius Agrippa, que Shakespeare cite dans *Coriolan*, mais les éléments d'une société atomisée, un peu comme les abeilles d'une autre fable, celle de Mandeville<sup>3</sup>. Chaque abeille est intéressée seulement par son propre

<sup>1</sup> Alain Renaut, *L'ère de l'individu*, Gallimard, 1989. Trad. rom. Institutul European, 1998.

<sup>2</sup> V. les travaux fondamentaux de Louis Dumont

<sup>3</sup> Alain Renaut, op.cit., p. 138.

gain, les valeurs morales n'y sont pour rien dans cette communauté mais, contrairement à toute attente, les choses vont plutôt bien pour l'ensemble. Les vices des individus contribuent à la prospérité sociale. L'explication réside dans le fonctionnement compensateur de la loi du marché libre, qui harmonise les contradictions ponctuelles en imposant des solutions raisonnables de compromis. C'est ainsi que le marché paraît résoudre le conflit entre les différences arbitraires des individus et les exigences collectives de la rationalité.

Le résultat en est qu'on se méfie de tout ce qui n'est pas particulier, déterminé localement, engagé dans une spécificité quelconque. Toute généralisation est trompeuse et manipulatrice, il n'y a que des vérités partielles, des aperçus atomiques, la cohérence, si cohérence il y a, se construit d'elle-même, par l'interaction des forces locales. Nous vivons dans une époque essentiellement nominaliste: pas de catégories, pas de classes, pas de, *horribile dictu*, races, rien que des individus. L'idéologie néolibérale du marché libre paraît avoir le dessus, en tant que seul instrument de la rationalité dans le mouvement brownien général. C'est à la "main invisible" d'harmoniser les libres choix des individus. Adam Smith est le Dieu Unique et Bill Gates son prophète.

## 2. L'ERE DE L'ENTREPRISE

Ces individus libres et égaux ont dû être disciplinés et organisés pour travailler ensemble dans les grandes entreprises que la révolution industrielle a fait apparaître. Il y a une sorte d'ironie dans le fait que, dès que l'idéologie libérale a émancipé l'individu, la technologie de la force a imposé de nouvelles contraintes, visant l'intégration de celui-ci dans la technostructure. La solution a été la reconstitution de l'ancien ordre hiérarchique à l'intérieur de l'entreprise. Cette organisation verticale et dichotomisée reprend la méthode cartésienne de résoudre tout problème par sa décomposition successive en de tâches simples. La communication est presque purement verticale, chaque individu, dont la liberté n'est qu'un objet chéri déposé à l'entrée, reçoit des informations de ses subordonnés qu'il est censé de contrôler, les transmet à ses supérieurs qui, eux, l'évaluent sans répit. La visibilité devrait être, en principe, totale: du sommet, par les voies de la hiérarchie, on peut tout surveiller et, s'il le faut, tout punir. Marx disait que l'ouvrier vend son temps et son énergie pour pouvoir survivre. En réalité, c'est sa liberté qu'il met en gage pendant ses heures de travail en croyant, lui, le naïf, qu'il la retrouverait intacte à la sortie.

L'entreprise cartésienne de l'époque industrielle ne met en valeur qu'une partie des qualités de l'ouvrier et réprime ce qui n'est pas utile pour elle. L'individu prétendu libre et égal à ses patrons se sent profondément frustré et son sentiment particulier d'insatisfaction a été dûment étudié sous le nom d'aliénation. Le remède en est la compensation que l'individu retrouve dans les deux espaces complémentaires à celui du travail, le foyer et la scène publique. La société bourgeoise a été consciente de l'importance compensatrice de ces deux espaces et a fait de son mieux pour les protéger, contre l'intérêt immédiat des patrons, qui était de les réduire le plus possible. La famille était la garantie de la discipline sociale, elle affermissait la responsabilité de l'individu, donc elle était prisée comme une valeur essentielle. L'espace public, qui comprenait l'assommoir, le bistro, ainsi que le music-hall, l'église, le salon et la promenade<sup>4</sup>, n'était pas seulement un lieu de récréation, mais aussi de re-création, c'était là qu'on restaurait la dignité et l'intégrité de la personne mutilée par les heures marrantes de travail.

## 3. DU HIERARCHIQUE AU FRACTAL

La complexité technologique actuelle défie l'approche cartésienne de la décomposition systématique des projets. En s'efforçant de réduire le complexe au simple par des partitions de plus en plus fines, on risque de rencontrer des problèmes insurmontables justement là où on a pratiqué des coupures. Conséquemment, on ne peut plus aller pas à pas jusqu'aux tâches élémentaires accomplies par chaque individu séparément, celui-ci étant remplacé, dans l'économie de l'entreprise, par l'équipe égalitaire. De plus, l'organisation de l'entreprise, pour que celle-ci soit profitable, devrait être semblable aux produits qu'elle fabrique. Or, les produits et les services de la société postindustrielle (informationnelle) ont, eux-aussi, une architecture décousue, une structure distribuée, décentralisée. Par ailleurs, on a renoncé à la fameuse visibilité qui faisait de l'entreprise classique une sorte de *Panopticon* au sens de Michel

<sup>4</sup> *C'était dimanche; encaissée entre la balustrade et les grilles des chalets de plaisance, la foule s'écoulait à petits flots, pour s'aller perdre en mille ruisseaux[...]. Que d'enfants! Enfants en voiture. dans les bras, à la main ou marchant par deux, par trois, devant leurs parents, d'un air gourmé. Tous ces visages, je les avais vus, peu d'heures auparavant, presque triomphants, dans la jeunesse d'un matin de dimanche. À présent, ruisselants de soleil, ils n'exprimaient plus rien que le calme, la détente, une espèce d'obstination. [...]. Un formidable évènement social agonisait: c'était la fin de dimanche.* (Jean Paul Sartre, *La nausée*. Gallimard, le livre de poche, 1966, pp. 78-83).

Foucault<sup>5</sup>. Le regard de *Big Brother* ne pénètre plus partout, il serait vain, car les compartiments sont trop nombreux, les niches et les recoins trop éparpillées.

Si la surveillance des individus est trop difficile dans une structure complexe, il vaut mieux qu'ils se surveillent les uns les autres. La délégation des responsabilités à une équipe remplace les individus instables par des groupes qui s'auto-organisent. Les gens trouvent dans leur équipe le confort et la sécurité d'un foyer, ils y passent beaucoup plus d'heures qu'avec leurs familles, dont le rôle ne cesse de diminuer. C'est l'équipe, avec son ensemble de valeurs morales librement adoptées qui assure la discipline sociale, d'une manière dont l'efficacité et l'autorité dépassent de beaucoup celles que les familles exerçaient autrefois.

L'équipe est une unité opaque pour l'extérieur, qui établit ses propres buts et décide en ce qui concerne ses propres ressources. La structure fonctionnelle de chaque équipe, aussi petite soit-elle, est similaire à celle de toute autre équipe, peu importe sa dimension. Cette propriété d'auto-similarité donne à l'entreprise post-moderne son caractère fractal<sup>6</sup>. Le groupe en est la cellule, chaque cellule est le miroir de l'ensemble et la relation horizontale fournisseur-client est le maillon communicationnel fondamental. Ce trait est d'autant plus important qu'un individu n'est jamais complètement intégré dans le système de production. Il en transgresse les limites par ses attaches biologiques, psychiques et culturelles. Les besoins de la chair, les vocations inaccomplies, la lucidité théorique le poussent dehors. Mais le groupe égalitaire empêche ses membres de vaguer et de s'évader. Il renforce la discipline, fait accroître la productivité, améliore la qualité, quelquefois au prix de l'inventivité.

L'espace public, le soi-disant *troisième espace*, ainsi que l'espace familial, s'est rétréci jusqu'à la disparition. L'effet compensateur de la culture ne s'exerce donc plus en dehors de l'entreprise, c'est le groupe, l'équipe qui s'en charge, c'est elle qui est désormais responsable de la création et de la conservation des symboles identitaires. La culture n'est plus, son rôle est joué maintenant par les cultures d'entreprise.

#### 4. CONCLUSIONS

L'ère de l'individu est plutôt celle des communautés professionnelles, devenues les maillons du réseau social. Autrefois, la stabilité sociale s'appuyait sur l'institution familiale et la culture offrait un équilibre par compensation. Aujourd'hui, en dépit de la *doxa* individualiste, c'est le groupe qui régit et maintient l'ordre établi, vu qu'il est plus conformiste que l'individu et plus facile à discipliner parce qu'il s'auto-organise.

Le slogan "Travail, famille, patrie" devient "Travail, compagnonnage, globalisation". Une seule solution: Convoquez les Etats Généraux!

<sup>5</sup> V *Surveiller et punir*, Gallimard, 1975

<sup>6</sup> Le fractal est une fonction continue partout, qui, en échange, n'est dérivable nulle part. L'auto-similarité est une conséquence de cette définition.



## PLAIDOIRIE POUR L'HOMME. IN MEMORIAM VICTOR SĂHLEANU

MAGDALENA BRATU

“Le Poète est semblable au prince des nuées  
 Qui hante la tempête et se rit de l'archer;  
 Exilé sur le sol au milieu des huées,  
 Ses ailes de géant l'empêchent de marcher”.

De nombreux écrits littéraires interfèrent avec *l'Albatros* de Ch. Baudelaire, l'albatros auquel V. Săhleanu remarque une très bonne utilisation des courants d'air: une métaphore pour la réceptivité éthologique et écologique de sa Seigneurie, l'Homme!

Mais les réactions lyriques ne sont pas seulement génératrices de vers! Leur spécifique lié au début de “l'impact” de la science s'inscrit sur d'autres coordonnées en même temps que les recherches de poétique et stylistique mathématique.

Plus tard, le sens des réactions renfermera aussi le problème des conflits entre les valeurs et non-valeurs, respectivement anti-valeurs, mais aussi la nécessité de leur compréhension génétique, psychologique, sociologique - qui allaient constituer un autre domaine de préoccupations interdisciplinaires de V. Săhleanu.

Grâce à une pensée typologique et individualiste, l'homme et le médecin par formation s'approche de l'école endocrinologique.

Ce qui fâchera surtout l'Homme V. Săhleanu reste le fait qu'il n'y a pas encore une compréhension de la valeur et du spécifique interdisciplinaire de l'Anthropologie.

Au projet carrelien, il aura connu les limites tenant de l'état de notre médecine, d'ici et actuelle; les autres limites tiennent du moment historique, de l'esprit du temps.

“La médecine n'est plus la santé, mais l'harmonie”. La science et la technique unies arrivent, réussissent à en tracer le contour, son art.

En poursuivant l'exaucement de quelques critères d'harmonie, Săhleanu regarde à contre-jour l'Homme, à partir de la perspective particulière de diverses sciences (plus de trente sciences sont passées passées en revue), Homme qui devient ainsi “cognoscible” dans une étape riposte pour *l'Homme, cet inconnu*, d'Alexis Carrel.

Par la vibration de sa représentation, *L'Aspiration vers l'Absolu*, de nature à objectiver certaines liaisons existantes entre les processus psychologique et ceux organiques de la structure humaine, il retrouvera ses accords dans la sensibilité et l'esprit de l'homme de culture V. Săhleanu (la prière-garde de la raison apportant et maintenant la présence réelle de la lumière céleste, dont les sociétés culturelles de notre monde ont un si grand besoin).

De nombreux écrits littéraires interfèrent avec *l'Albatros* de Ch. Baudelaire. Le célèbre roman de Miguel de Cervantes avait tracé, il y a beaucoup de temps, une perspective typologique sous une transparence mutilante qui humanise. D'un pareil point de vue, Don Quichotte serait parti plus loin, confiant et perfectionnant ses illusions jusqu'à la santé morale, un final qui reproduit le vol de la fille d'Icare, les ailes intactes, des ailes pulsatives cherchant des espaces libres et dépassant le cadre de la fausse perception. Dans le sens prospectif “la mouette” sera atteinte par une “glissade” dans la pièce de théâtre écrite par A.P. Tchekhov ou dans la fable de Richard Bach, domaines d'une même métaphore, celle de l'essor vers le parachèvement, connaissant par une ascension graduelle, le sens le plus réaliste possible.

Sur ces données j'ai réfléchi à partir des notes de Monsieur V. Săhleanu dans son journal de l'été de l'année 1990, concernant *l'albatros de Baudelaire* auquel il remarque (à la lumière des résultats récents des recherches de certains éthologues) une très bonne utilisation des courants d'air (qui lui permet de parcourir 15 mille Kilomètres par mois sans atterrir). C'est une métaphore pour la réceptivité éthologique et écologique de sa Seigneurie, l'Homme!

Mais les réactions lyriques ne sont pas seulement génératrices de vers! Leur spécifique lié au début de “l'impact” de la science (une tentative “interdisciplinaire” de connexion de la science avec

la philosophie et la rhétorique offrant "La Poème didactique" publié en 1940) s'inscrit sur d'autres coordonnées en même temps que les recherches de poétique et stylistique mathématique ("les poètes mathématiciens" ou tout simplement "des poètes qui expliquent à l'intérieur ce qu'on étudie à l'extérieur"<sup>1</sup>).

Plus tard, avec la vision "dramatique" de l'homme ayant l'expérience d'une vie tourmentée, le sens des réactions renfermera aussi le problème des conflits entre les valeurs et non-valeurs, respectivement anti-valeurs, donc rapportées à leurs valences humanitaires, mais aussi la nécessité de leur compréhension génétique, psychologique, sociologique - qui allaient constituer un autre domaine de préoccupations interdisciplinaires de Victor Sahleanu, domaine concrétisé par exemple dans les chapitres de "*Psychologie et médecine*" et par lesquels il adhérait à une *éthique aspirative*.

Grâce à une pensée typologique et individualiste, perspective cristallisée déjà dans l'ancienne doctrine des tempéraments, hippocratique (et reprise par les écoles constitutionnalistes modernes: Kretschmer, Pende) l'homme et le médecin par formation, V. Sahleanu, s'approche de l'école endocrinologique roumaine, "luttant" pour la réintégration et le raffinement de cette perspective dans la science médicale roumaine. C'est à elle qu'il va consacrer en bonne partie, sa thèse de doctorat de 1949 (thèse selon laquelle on peut constituer des sciences qui aient pour domaine un objet ou un phénomène particulier - éventuellement unique; tout homme peut constituer l'objet d'une science sur cet homme - mais pas tout homme justifie une telle préoccupation); et pour les plus diverses contributions apportées dans le domaine de la biologie, de la médecine, de la philosophie, de culture, cette perspective est restée définitive.

Coopté (en 1950 après son apport aux premières recherches sur les radio-isotopes de notre pays) dans l'association d'Anthropologie qui prenait et développait l'héritage matériel et spirituel de Fr. Rainer, en 1950-1952 prenant l'initiative des recherches d'auxologie, V. Sahleanu arrivera graduellement à la conviction que la médecine et l'anthropologie ne connaissent pas leur propre position réciproque dans la "géographie" des sciences. Ainsi, les recherches et les élaborations en faveur d'une médecine anthropologique se sont amplifiées et se sont élucidées.

Mais ce qui le fâchera, ce qui fâchera surtout l'Homme V. Sahleanu, ce qui ne peut être dissocié dans les composantes "nature et culture" (quand sa vie de chaque jour s'appuie sur une base solide et exprime la dialectique du biologique et du social), il reste le fait qu'il n'y a pas encore une compréhension de la valeur et du spécifique interdisciplinaire de l'Anthropologie (point central dans ses préoccupations méthodologiques qui habilite son autobiographie au rang d'une méthode de première grandeur dans l'Anthropologie).

Et au projet carrelien audacieux jusqu'à ce que Saupault nommait "son oeuvre profane"<sup>2</sup> il lui aura connu les limites tenant de l'état de notre médecine, d'ici et actuelle; les autres limites tiennent du moment historique, de l'esprit du temps. Un certain asynchronisme entre la pensée médicale nationale et la pensée internationale a obligé V. Sahleanu d'intervenir moralement: par des compte-rendu, exposés, articles, cours, conférences, manuels, volumes. "La médecine n'est plus la santé, mais l'harmonie"<sup>3</sup>. Il est inutile de nous demander si la médecine est seulement science (quand elle ne devrait pas s'arrêter avant la connaissance *intégrale* de l'homme et la maladie n'est pas une manifestation d'une lésion de l'organisme) ou si elle est seulement technique (qui suppose l'utilisation des forces naturelles, maniables, pour combattre les maladies). La science et la technique unies arrivent, réussissent, à tracer le contour, son art. Car "si la médecine est un art, c'est sûrement parce que l'acte médical dépend de l'équation personnelle de celui qui la pratique, ainsi que toute activité humaine complexe en dépend dans une grande mesure..."<sup>4</sup>

Contrairement à ceux qui ne voient pas le sens "de la médecine formative" corrective et complétive (préconisée par Descartes dont se réclame la physiologie moderne et qui soutenait que l'Homme n'est pas seulement "extension et mouvement", ensuite mentionnée par Alexis Carrel - aux temps de progrès retentissants de l'endocrinologie - et adoptée chez nous par V. Sahleanu et Al. Partheniu) l'Homme est "une masse de protoplasme qui commence à lever son front vers le ciel"<sup>5</sup>.

<sup>1</sup>. V. Sahleanu publiait en 1965 l'essai "*La Poésie des mathématiques - Les mathématiques de la poésie*" d'où il reprendra quelques idées dans "*L'art froid et la science brûlante*" (1971)

<sup>2</sup>. Dans cette catégorie entre "*L'homme, cet inconnu*" tout comme l'opuscule sur la prière, "*La prière*" 1944, et certaines (posthumes) du même Alexis Carrel, "*Méditations*" ou "*Réflexions sur la conduite de la vie*" (des livres de morale)

<sup>3</sup>, <sup>4</sup>, <sup>5</sup>. <sup>8</sup> Apud. V. Sahleanu - "*De l'homme inconnu à l'homme cognoscible*," 1996

En poursuivant l'exaucement de quelques critères d'harmonie, V. Sahleanu regarde à contre-jour l'Homme, de la perspective d'une certaine science (plus de trente en étant passées en revue), Homme qui devient ainsi *cognoscible* dans une étape-riposte pour *l'Homme, cet inconnu*.

Ces disciplines, qui favorisent l'exercice de l'esprit dialectique, ont été nommées par V. Sahleanu disciplines médiatrices entre Biologie et Culturologie. Ainsi on énumère: l'éthologie, la psychanalyse, la démographie, la médecine sociale, la biologie de la personne.

C'est à elles que d'autres disciplines facilitent la compatibilité, en s'élevant jusqu'à un degré spécial d'abstraction et étant appelées à l'appui de la connaissance dialectique du phénomène "Homme": la théorie des systèmes, la cybernétique, les sciences d'information, "l'évolutique" (une science générale et préconisée de l'Évolution).

Les hypostases notées par Montaigne (l'Homme - divers et ondoyant) de même que certains modèles (les relations psychosomatiques, les typologies, les modèles de la personnalité humaine dans lesquels on peut reconnaître des particularités morbides) se constituent dans des formes d'opposition entre le biologique et le social-culturel. Mais plus importantes sont les formes d'association entre elles, c'est-à-dire la mise en valeur et la valorisation des notes et des tendances biologique, une "lecture-interprétation" dialectique - anthropologique de la biologie humaine, pour la réalisation de laquelle la recherche est obligée de se préserver aussi du "réductionnisme essentialiste".

Parce que pour connaître "l'empreinte du bios" sur les traits physiques du système vivant, on a besoin de savoir, par la suite, "comment faut-il utiliser les données de la biologie pour ne pas appauvrir, mais pour compléter celles apportées par les sciences [ ... ] au psychisme, au social, à la culture" - une question délicate à laquelle V. Sahleanu (valorisant grâce à son parcours anthropologique, sous ce sens, "bien des choses humaines - trop humaines!") lui complémentait la nuance inspirée de la métamorphose suivante: "à partir d'où (et dans l'investigation d'un fait concret, mais aussi d'un «phénomène humain en général», jusqu'où) on peut faire abstraction de *la biologie humaine* (car il existe évidemment un *biologique humain* et il serait absurde de considérer que *le biologique de l'Homme* est «sous-humain»)»<sup>6</sup>.

Mais pour respecter l'autonomie de l'humain, tout ce qui personnel dans son homéostasie, l'homme a besoin de "cette fonction - là morale de son corps et de son esprit" (invoquée par Alexis Carrel à une époque de préconisation de l'interdisciplinarité) développée par la connaissance individuelle de la conscience de Soi-même; mais paradoxalement l'autonomie de l'humain ne s'harmonise pas avec les anciens dogmes climatiques et organiques, hippocratiques, avec le neo-humorisme que Mircea Eliade retrouvait dans les dernières conceptions de la médecine (conformément auxquelles les types hormonaux où s'intègrent les malades, ne sont pas autonomes, eux non plus, mais en étroite liaison avec "les climats" et même avec les "astres").

Le cri du cygne<sup>7</sup> invoquera tout comme la Connaissance, *La Prière* comme "fonction morale". Puis par la vibration de sa représentation, *L'Aspiration vers l'Absolu*, de nature à objectiver certaines liaisons existantes entre les processus psychologique et ceux organiques de la structure humaine, il retrouvera ses accords dans la sensibilité et l'esprit de l'homme de culture V. Sahleanu (la prière-garde de la raison apportant et maintenant la présence réelle de la lumière céleste, dont les sociétés culturelles de notre monde ont un si grand besoin). Parce que, quelque tard qu'il ferait noir, l'obscurité ne pourrait anéantir la lumière, la seule qui n'est jamais en retard, parce qu'elle ne fait que s'élever dans un déterminisme original, évoqué par N. Iorga par cela qu' "on ne peut approcher deux objets qui semblent éloignés aux autres, sans qu'il jaillisse de leur frôlement, la flamme bleue de la poésie".

La dernière voie spirituelle de V. Sahleanu nous le révèle de nouveau: l'homme qui cultive l'art, particulièrement la poésie, penché vers la métaphysique et "l'existentialisme" de Pascal, initiateur du thème de l'Anthropologie de "l'homo religiosus", mais dépassant les limites des recherches de M. Eliade, comme une position "gnoséologique" concédant une importance toujours plus grande à l'extra-rationalisme (y compris sur "la ligne" de C.G. Jung, de la psychologie de l'inconscient collectif). Dans cette page de journal, il se prononce sur une philosophie du Destin, connectée avec l'importance due au soi-disant "hasard" qui distingue non seulement les coïncidences

<sup>6</sup> Apud, selon, Adrian S. Valentin (pseudonyme) - "*La conception anthropologique de V. Sahleanu*" 1995

<sup>7</sup> V. Sahleanu désigne par cette métaphore l'essai "*La Prière*" (ou *Aspiration vers l'Absolu*) qui clôt l'activité de publiciste et scientifique d'Alexis Carrel



(dans l'espace et le temps) mais aussi "les correspondances" chronologique, biographiques, culturelles, anthroponimiques, caractérielles, zodiacales"<sup>8</sup>.

La fragilité humaine, il la "sent" avec les yeux concrets et avec ceux "de l'intelligence" essayant un assemblage des aspects résultés des Anthropologies religieuse, philosophique et "scientifique".

Mais comme "un fait non-fortuit", le symbole de l'art médical, me dirigeant aussi dans cette succincte incursion, je le compare davantage avec le serpent en cuivre, élevé par Moïse<sup>9</sup> sur le poteau en bois préfigurant le signe de la Sainte Croix.

Mirifique révélation pour l'Homme!

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<sup>8</sup> Apud. V. Sahleanu - "De l'homme inconnu à l'homme cognoscible," 1996

<sup>9</sup> Références au chapitre *Nombres* 21,8 et *Jean* 3, 14-16

*Jean* 3, 14-16: "Et comme Moïse a élevé le serpent dans le désert, il faut que le Fils de l'homme soit élevé afin que quiconque croit ait, en Lui, la vie éternelle. Dieu, en effet, a tant aimé le monde qu'il a donné son Fils, son unique, pour que tout homme qui croit en Lui ne périsse pas mais ait la vie éternelle".

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