



Bodleian Libraries

UNIVERSITY OF OXFORD

This book is part of the collection held by the Bodleian Libraries and scanned by Google, Inc. for the Google Books Library Project.

For more information see:

<http://www.bodleian.ox.ac.uk/dbooks>



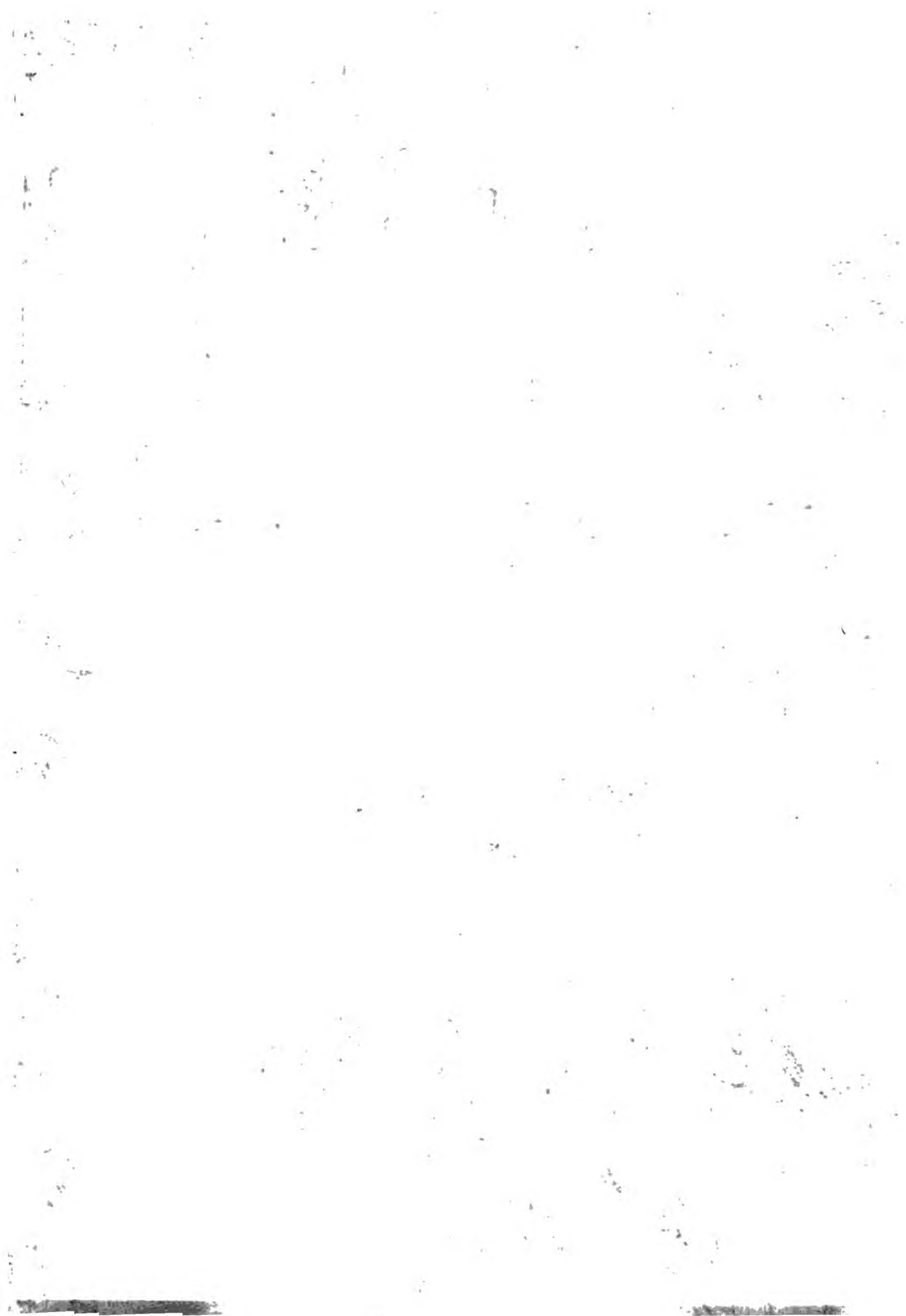
This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 2.0 UK: England & Wales (CC BY-NC-SA 2.0) licence.



569.15

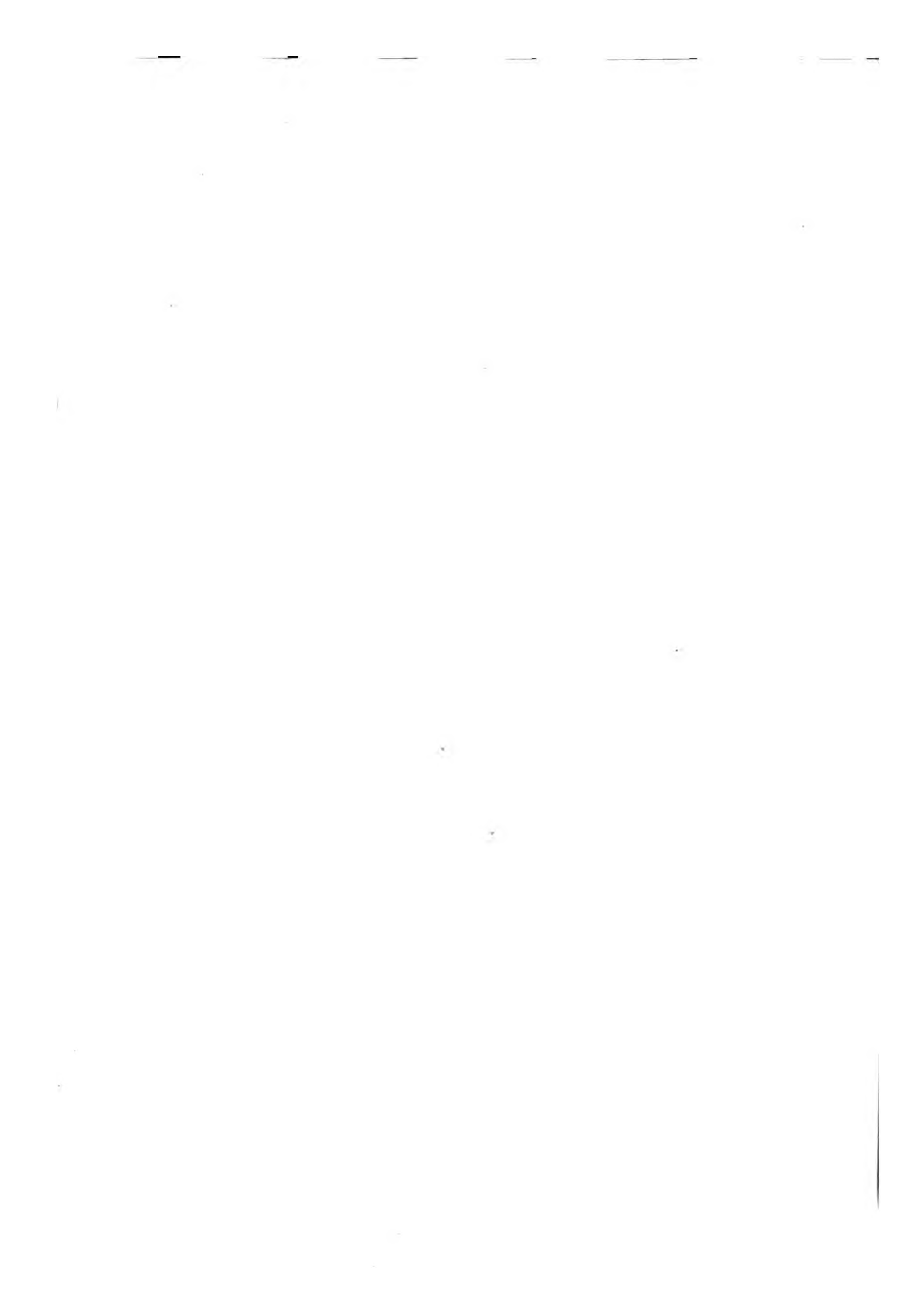
S. 2

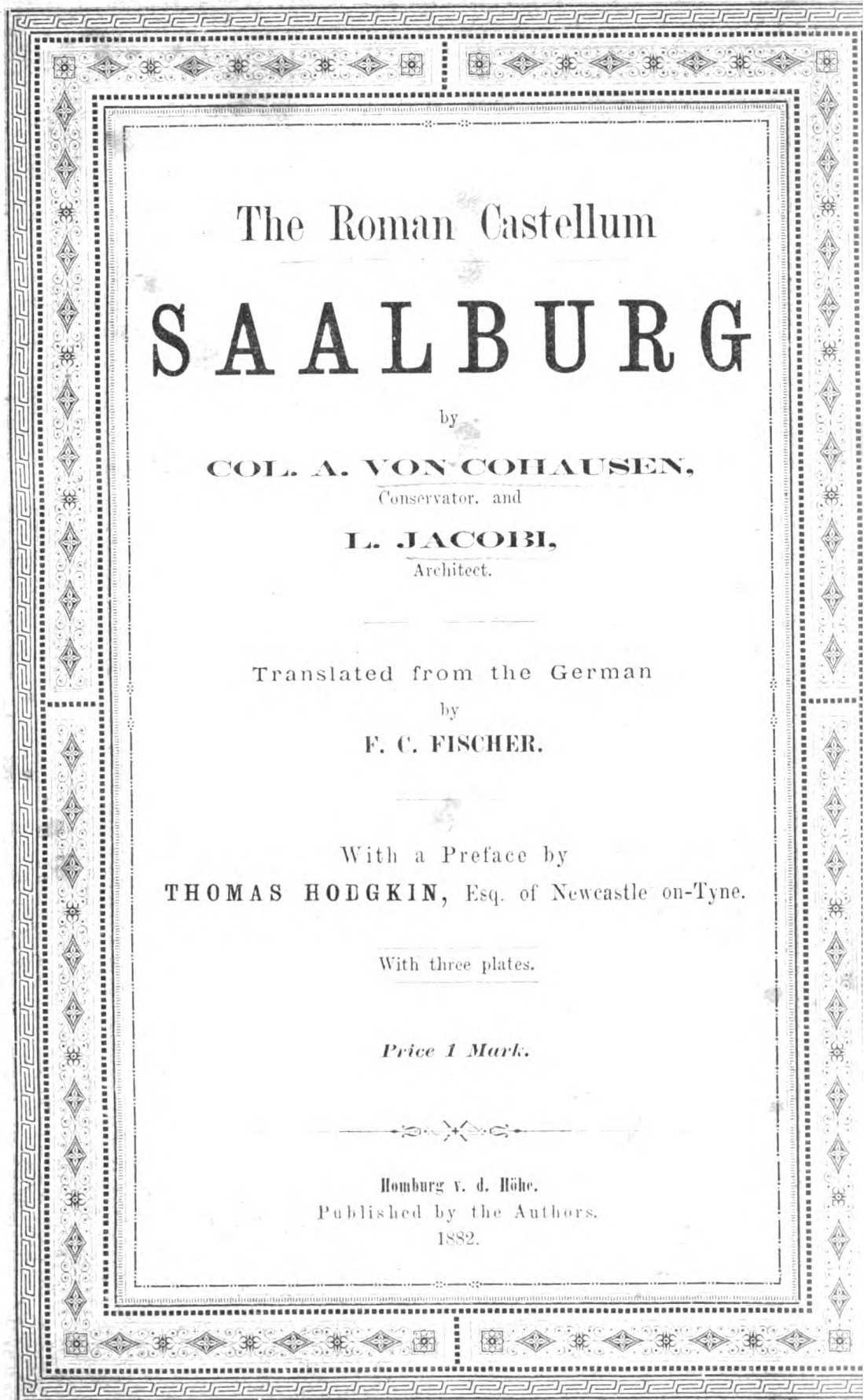






303324893Z





The Roman Castellum
S A A L B U R G

by
COL. A. VON COHAUSEN,
Conservator, and
L. JACOBI,
Architect.

Translated from the German
by
F. C. FISCHER.

With a Preface by
THOMAS HODGKIN, Esq. of Newcastle on-Tyne.

With three plates.

Price 1 Mark.

Homburg v. d. Höhe.
Published by the Authors.
1882.

The Roman Castellum
S A A L B U R G

by

COL. A. VON COHAUSEN,
Conservator, and
L. JACOBI,
Architect.

Translated from the German
by
F. C. FISCHER.

With a Preface by **THOMAS HODGKIN,** Esq. of Newcastle on-Tyne.

With three plates.

Homburg v. d. Höhe.
Published by the Authors.
1882.



P r e f a c e.

As an Englishman who has been much interested by the Roman remains in the West and South-west of Germany I have been requested by the authors of this little Essay to say a few words by way of introduction to the English public. Among German archaeologists no name stands higher than that of *Colonel von Cohausen*, who has made it his life-long study to illustrate the campaigns of the Roman Generals against the Germans under the Empire. Two subjects have claimed his especial attention: (1) the site of the bridges by which, as Caesars Commentaries inform us, that General twice crossed the Rhine, and (2) the accurate delineation of the Northern portion of the barrier (known to German antiquaries as the *Pfahlgraben*), by which the Romans bound together the upper part of the two great European defences of their Empire, the Rhine and the Danube, and secured for some centuries the peaceful possession of the large and fertile triangle of South-western Germany, which is marked in a classical Atlas "*Agri Decumates*".

In connection with the first named subject Col. von Cohausen was engaged by Napoleon III. as a fellow-worker in the Imperial "*Vie de César*". In connection with the second, he was requested by the German government to superintend the interesting excavations which were for many years car-

ried on, but have now, alas! practically ceased, in the neighbourhood of Homburg. In this latter undertaking he has been ably seconded by *Mr. Jacobi*, an architect of Homburg. This gentleman's practical experience of construction has been found very helpful, and moreover, he has been able to give a closer superintendence to the work than was possible for Col. von Cohausen, whose official duties in connection with the Museum of Antiquities require his presence at Wiesbaden.

That which gives an especial interest to the excavations at the Saalburg (or *Artaunum*, to use the classical name) is, that it is one of the very few Roman Camps (I am not sure that I might not say the only one) which have been thoroughly and scientifically examined in order to get at an accurate understanding of *the Camp itself*, and to illustrate therefrom the military life of the Romans (for example at York and Gloucester). Of course, in many instances, this is rendered impossible by the fact that a modern city now occupies the site of the Camp. Where this is the case, the antiquary is fortunate if he can recover the mere lines of the surrounding walls, and the position of the gates. But even where this is not the case, and where the grass-grown mounds, representing the Camp, still stand in solitary grandeur on a bare hill-side, the attention of explorers has generally been directed rather to the uncovering of mosaic pavements, or the disinterment of vases, statues and coins, than to the tedious process of recovering each line of building and the accurate reconstruction of the Camp as a whole.

This however is what the authors of the present Essay have attempted, and, as far as the excavated portions (about two thirds) of the Camp is concerned, have successfully achieved. With the Roman military treatises, especially with Vegetius "*De Re Militari*" and Hyginus "*De Munitio-nibus Castrorum*" in their hands and also with the know-

ledge of the domestic architecture of the Romans, which is supplied to us by the discoveries at Pompeii, they have watched each successive portion of masonry which was disclosed by the work-man's pick-axe, and have not rested content, till they could assign for each some probable, or at all events plausible, purpose in the mind of the camp-builder.

Archaeologists, especially those who are acquainted with General *Roy's* admirable book on "Military Antiquities", and with the resumé of the discussion in Smith's "Dictionary of Antiquities", will remember that there is much difficulty in deciding, whether any given camp is to be investigated on the principles of castrametation laid down by *Polybius* or on those of *Hyginus*. *Polybius* wrote in the second century before Christ, in the golden days of the Legion, when the soldier, as being still a citizen and a voter, was treated with a degree of consideration which the Generals of the Empire, except when they were themselves aspirants to the purple, did not think it worth while to bestow on him. *Hyginus* on the other hand wrote in the second century after Christ and we find in his camp besides many other differences of arrangement, much greater relative space allotted to the sumptuous quarters of the general and much less to the *contubernia* of the private, the ultimate result of a comparison of the two systems being, that a considerably larger number of men were crowded together into the same space on the principles of *Hyginus* than on those of *Polybius*.

Our authors follow without hesitation *Hyginus*, the contemporary of *Trajan* rather than *Polybius* the contemporary of *Scipio*, in explaining this camp of *Artaunum*, which was probably erected by *Drusus* and re-erected by *Germanicus*, and I have no doubt that they are right in so doing. At the same time they do not profess to find in this camp a *precise* reproduction of that described by the Roman *castrimensor*, and they admit that, side by side with one

VI

general plan, great varieties of detail exist even in camps erected probably so nearly about the same time as those, which mark the course of the Roman barrier from the Main to the Rhine.

One feature of Artaunum is sure to arrest the travellers attention and to dwell in his remembrance. I refer to the extensive *burying-place* South of the camp. Of course every one knows that it was the custom of the Romans to bury their dead outside of their cities by the sides of some of the great roads leading from them. We might have expected that the same plan would be pursued outside the camps, and a few graves so situated have been discovered at the Northumbrian Rochester (Bremenium on the Watling Street) and possibly in other places, but nowhere, as far as I know, has so large a cemetery as this of the Saalburg with its many thousand graves been met with by explorers. A little temple has been lately erected on the foundations of an earlier building, and to it some of the graves have been transferred, in order to give the visitor some notion of what he would see if the countless sepulchres round him were laid bare.

It will be seen from the list given in the following Essay that Artaunum has, thus far, somewhat disappointed the expectations of its excavators in the matter of *statues* and *inscribed stones*. No doubt the chief reason for this is the hard, intractable character of the local stone, which checked the enthusiasm of the Roman soldier or centurion, generally so forward to erect a monument "to the honour of the Divine (Imperial) House" or carve an altar to some local deity.

On the other hand, the finds of objects of domestic use or adornment, such as keys, pens, *fibulae*, glass-phials and so forth have been abundant and the numerous coins carefully arranged and tabulated, throw valuable light on the

varying fortunes of Artaunum for a period of nearly three centuries.

A larger work in German on the camp of the Saalburg is in preparation by the present authors and will shortly appear. It will be illustrated by 60 Engravings. May the favourable reception given to the present Essay encourage them to translate it also into English. It is possible that some visitors to the Saalburg may be disposed to follow up the quest which is here opened up before them, by exploring some other portions of the three hundred miles of barrier from the Danube to the Rhine, known as the Pfahlgraben. Such enquirers will find some valuable information in the late Mr. Yates's paper "On the *Limes Rhaeticus* and *Limes Transrhenanus*" prepared for the Newcastle meeting of the Archaeological Institute (1852). In a paper contributed by me to the lately published part of the "Archaeologia Aeliana" (Andrew Reid, Newcastle-on-Tyne, 1882) I have endeavoured to supplement Yates's information and bring it down to the present date. I have also added fuller maps and plans than were compatible with the character of his paper. I regret to say that I cannot yet refer the reader who is familiar with German to any single manual as comprehensive and yet as popular as Dr. Bruce's "Wallet Book of the Roman Wall" is for the Mural Barrier in Northumberland. Von Cohausen¹⁾, Duncker²⁾, Herzog³⁾ Christ and Ohlenschlager⁴⁾ are the chief authorities on the subject at the present day, but some of their best work lies scattered through the proceedings of various learned Societies. Possibly the student's best course would be to procure the 63^d vol. of the "Jahrbuch des Vereins von Alterthums-Freunden im Rheinlande" which contains an article from the pen of Dr. Hübner, summing up the already existing German

¹⁾ For the Pfahlgraben from the Rhine to the Wetterau.

²⁾ From the Wetterau to the Main.

³⁾ For the Württemberg portion.

⁴⁾ For the Bavarian portion.

VIII

literature on the subject of the Pfahlgraben and furnishing the clues which will put him in possession of more detailed information as to any particular portion which he may wish to visit.

Above all, if he finds Artaunum interesting, let him, on his return to England, take the first opportunity of visiting Borcovicus*) and Cilurnum**) which can both be seen in a summer-days excursion from Newcastle or Carlisle. Both of these illustrate, and both are illustrated by, the camp of the Saalburg.

*) *Borcovicus* (Housesteads) is about five miles distant from the Haydon-Bridge Station on the Newcastle & Carlisle Railway. Carriages can be hired at Haydon Bridge.

**) *Cilurnum* (Chesters) is less than one mile from Chollerford Station on the Border Counties Railway and about five miles from the Hexham Station on the Newcastle & Carlisle line.

Bad Schwalbach, June 1882.

Thomas Hodgkin.

THE SAALBURG.

Position and history.

To the North of Homburg there is in the Taunus-Mountains a gap, visible from a long distance, to which the country rises very gradually while the descent on the other side is yet more gradual. Nature has here formed a pass, over which the traffic between the wooded valleys of the Lahn-district, and the fertile plains along the Nidda and Main naturally flows.

When the Romans had taken possession of the latter region, and desired to turn the country to profitable account, both for themselves and the native inhabitants, the Mattiaci, they had to secure it against the inroads of the savage Chatti who, anxious for plunder, crossed over from Hesse and the Lahn.

Roman authors inform us that *Drusus* first established himself on the Rhine at Moguntiacum (Mayence) about the year 11 B. C. and that, in the same manner, as he built the castellum of Aliso on the lower Rhine as an advanced protection against the Cherusci, he erected a fortification (*praesidium*) here on the Taunus-mountains ("in Monte Tauno") against the Chatti. Ptolemy, about the middle of the second century called the Fort "*Artaunon*". In consequence of the battle of the Teutoburg forest, 9 A. D. it was lost but was soon after, in the year 15 A. D., rebuilt by *Germanicus*, the son of Drusus, who recognised at once its high military importance as a defence against the wild German tribes.

These early vicissitudes foreshadowed the subsequent fate of the fortress.

During the whole period of Roman dominion on the Rhine, which lasted nearly through the first three centuries of the Christian era, it was continually being conquered and destroyed by the Germans and retaken and rebuilt by the Romans. At least five re-establishments and as many destructions are mentioned in history, and at least three distinct strata, containing traces of fire and destruction, can be distinguished, with as many of leveling and re-building, without our being able to establish, how many other similar traces have been obliterated.

The Saalburg was undoubtedly of the greatest importance in all the wars with the Chatti, during the advance of C. SILIUS in the year 16 A. D. as well as during the warlike expeditions of CALIGULA or GALBA SULPICIUS in the year 41, and those of the Emperor CLAUDIUS in the year 51; but it can hardly have resisted the united efforts of the Usipetes, Mattiaci and Chatti during the Batavian revolt in the year 70. After its recapture by the Romans the interests of the inhabitants of the Main and Nidda districts seem to have been more closely linked with those of the conquerors, by the introduction of all the civic institutions of Rome. For the greater security of these communities DOMITIAN, after having driven back the Chatti in a victorious campaign during the year 84, caused the frontier-wall (*limes*: — in German *Pfahlgraben*) to be built, which extended from the Sieben-Gebirge on the Rhine to the river Main.

The consequence was that long peace which the country enjoyed under the reign of the ANTONINES, from 98 to 167, and although the wars with the Chatti, which shortly after broke out afresh, made considerable havoc in the line of fortifications along the frontiers, an era of re-establishing fortified places and roads commenced with COMMODUS, and lasted all through the reign of SEPTIMIUS SEVERUS. This however we can not clearly trace in detail in the ruins of the Saalburg. In the course of time a new enemy took the place of the Chatti, partly with the same lines of operation — we allude to the powerful coalition of the Alemanic tribes.

CARACALLA (211 to 217) who spent much of his time on the Rhine, seems to have fought and negotiated with them successfully. A votive tablet, dedicated to him in 213 leads us to the conclusion that he was at the Saalburg for more than a passing visit, and probably two other tablets, of which we possess fragments, refer to him likewise. The former was found in the year 1723 and was placed into the stairs to the tower in the castle of Homburg.

Towards the close of the reign of the Emperor ALEXANDER SEVERUS (223—235) we hear again of new and dangerous inroads of the Alemani,

— and it is mentioned that the Emperor was compelled to treat with them in sight of Mayence, from which we may conclude that the Saalburg was then in the enemy's hands — but only for a time — as the construction of roads under MAXIMIN THE THRACIAN (235—238) in the plains of the river Main could not have been thought of without the possession of this fortress. It is even probable that it was in Roman hands under PHILIP THE ARABIAN (244—249) of whom a coin was found near the Saalburg.

The increasing disorders of the State added also to the activity and the desire for booty on the part of the Alemanni, who in the year 250 had allied themselves near Mayence with the Franks, who had come up from the lower Rhine for the purpose of making plundering-expeditions into Roman territory.

When it is reported of GALLIENUS (254—257) that he maintained the boundary-lines on the Rhine, this means simply that he had given up the right bank of the river, and with it the Saalburg. Under POSTUMUS (258—267) however, both must have been again in the possession of the Romans, and during a peace of 10 years the Saalburg must have been restored, for it is reported of this Emperor that he regained for the Empire the possessions on the right bank of the Rhine to an extent which they had never before attained.

The latest Roman coin found near the Saalburg is one of CLAUDIUS GOTHICUS (268—270) and though this fact in itself leads us to assume that it was then in Roman hands, we may conclude from various historical statements, that their occupation of it lasted longer, for, although it might have been lost or evacuated in the interval, still it must have been in possession of the Romans under the Emperor PROBUS (276—282), for it is said of him that he re-established the old fortifications against the Alemanni along the entire frontiers, to which Artaunon (the Saalburg) naturally belonged.

After this period neither the statements of historians, nor antiquities found on the spot, indicate that the fortress was again in the hands of the Romans. Certain Roman pins (*fibulae*) of a later date, which still come to hand in the valley of the Rhine, are not found at the Saalburg. Moreover, no articles are found here, which might have come from the Alemanni, or the Franks or even the Middle-Ages. Taken and destroyed towards the close of the third century, its ruins have crumbled to pieces. Forest and heather sprang up and spread over it, and removed it from the sight and memory of man. When in the year 1243 the convent called "The Throne of Mary" was founded in the vicinity, people looked here for building-stones and found them in abundance, whilst the

peasantry in the neighbouring villages, when they wanted tiles for flooring their kitchens, or wished to build ovens, went and dug up the splendid tiles made by the Romans. When, at a later period, certain mines were worked on the southern declivity of the mountains, and when the high-road from Homburg to Usingen was made, it was again the fort which furnished the building-material. Except on such occasions nobody thought of the glorious old fortress. Only diggers after hidden treasures, tramps and robbers found there on the cross-roads, and so near the boundary lines between Homburg and Nassau, a very convenient resort, which permitted a speedy change of residence from one principality to the other.

In the beginning of last century the attention of the higher circles was directed to these ancient ruins, when the above mentioned votive-tablet was found and built up into the tower of the Palace at Homburg. *Elias Neuhof*, then bailiff at Homburg, described the castellum and its vicinity in the year 1780. In 1817, a votive-tablet, dedicated to the Syrian Jupiter Dolichenus, was found, during the construction of the high-road to Usingen, in the presence of the Landgraf Frederick Louis and Prince William of Prussia, our present Emperor, which tablet was also brought to Homburg and deposited in the castle. In consequence of this discovery an order was promulgated in 1818, prohibiting thenceforward the carrying away of stones from the Saalburg. During the third decennium of this century Homburg became a watering-place and the Administration of the Kurhaus — *Mons. Blanc* — established there, contributed largely, to make it one of the most fashionable and frequented in Germany. At the instigation of the learned and active antiquary, the late Mr. Habel, the reigning Landgrave permitted the forest to be cleared away, and the fort excavated, for which purpose the Lessee of the gaming-tables, from 1858 to the end of the gambling-period, furnished the means with a liberal hand. The outer walls of the fort with the four gates, the Praetorium, and the great buildings of the civil settlements outside of the fort, were uncovered, but, unfortunately, very insufficiently protected against the inclemency of the weather. Numerous graves were laid open, the most important ones were carefully measured and drawings made, and a not inconsiderable number of interesting articles collected and exhibited in the castle.

The year 1866 united the Landgraviate of Homburg with Prussia, while the furniture etc. of the castle, the Orangery, and collections were left to Hesse-Darmstadt, including the Roman antiquities, which were taken to the palace at Darmstadt and became an heirloom of the

Grand-Ducal house. Through the favour of the present Grand-Duke they were returned to Homburg in trust to the Corporation-authorities and are exhibited there.

At the close of 1872 public gambling was abolished, and thus the source, which had so far furnished the means for the exploration of the Saalburg, dried up. The foundations of the ancient buildings — rubble-walls — originally not of the most substantial kind, chiefly composed of rough stones from the neighbouring quarries, and almost the entire heating-apparatus of brick-work, being deprived of the protecting cover of the earth and left to the influence of rain and cold, it was but natural that, what had resisted the ravages of nearly 2000 years, now fast crumbled away.

In 1870 *Col. von Cohausen* was appointed to superintend the work of examining and preserving the ruins of the Saalburg and nearly 3000 Mark (£ 150) were placed at his disposal by the Ministry for public buildings, with which amount the most necessary work on the four gates was executed. Since 1872 *Mr. L. Jacobi*, architect, has been appointed his Coadjutor.

In 1871 some friends of our cause in Homburg founded the Saalburg-Society, which raised considerable funds (nearly 10,000 Marks) which were spent for excavations, restorations and especially for the building of the Columbarium.

H. M. the Emperor has repeatedly visited the Saalburg and in 1875 granted the handsome sum of 10,200 Mark (£ 510), which was expended in restoring the entire masonry of the castellum, — walls of circumvallation, Praetorium, store-houses, with the exception of the hypocaustum, — in a manner which promises to be lasting.

We cannot conclude this history of the Saalburg without mentioning the war of 1870—71, which interrupted these labours so suddenly and calling to mind the prolonged sojourn in Homburg of H. M. the *Empress Augusta*, and H. R. H. the *Crown-Princess*, at which time the latter used to spend whole after-noons at the Saalburg with her family. We remember the visits of H. M. the *Emperor* in 1871, 1872 and 1875, to whose interest in the matter we are indebted for the considerable sums expended in the work of preservation in 1876 and 77.

We remember likewise the visit of *Prince Charles* in 1873 and of the *Crown-Prince* of the *German Empire*, who, with his august family, in 1878 made a longer sojourn at Homburg, during which time excavations were made by them in various places, and were generally successful. *Prince Henry* and the lamented *Prince Waldemar* personally

lent a hand at these excavations, the results of which are exhibited at the Museum.

Besides the above we remember also that of the great strategist, Fieldmarshal *Count Moltke*, who, with his numerous staff visited the Saalburg, Oct. 6th. 1877, as well as the meeting of German Philologists and preceptors who inspected the fort and vicinity with great interest, Sept. 30th. 1877.

Many persons of high rank and distinction and many scientific Societies annually visit the Saalburg. The English visitors of Homburg show the greatest interest in the remarkable remains of Roman dominion in Germania. Of these visitors we will mention a few, with whose names we became familiar. They are: H. R. H. the *Duke of Cambridge*, H. R. H. *Princess Louise* and the *Marquis of Lorne*, Lord Archibald Campbell, the late Sir Anthony Rothschild, Bart., the late Sir Henry Cole, Director of the Museum at Kensington, the Marquis of Salisbury, Thos. Hodgkin, Esq., ~~the well known Archaeologist~~*) the Ex-President of the United States of America, Genl. *U. S. Grant* and many other well known English and American names.

The Pfahlgraben (Roman Barrier).

We have designated the position of the Saalburg, as being in a mountain-pass between the rivers Main and Lahn; this was however not the only fortification erected by the Romans. If we cross the fort, and continue the road beyond for about 300 paces to the North, we come to an embankment and fosse, extending through the forest to the right and left. This is the *Pfahlgraben*, in Latin "*limes imperii*", which extends from the lower Rhine past this place as far as to the Danube and which, in connection with forts, watch towers and roads, served to separate and secure that part of Germania, which was under Roman dominion, against the invasions of the war-like Germans to the North and East of it, who were always eager for booty.

If we follow the *Pfahlgraben* to the West, where it crosses the Road to Obernhain, and descend the latter for about 600 paces we find on the right hand side in the forest under some magnificent beech-trees three very rich springs — the "*Dreimühlenborn*". The ground all around, and to a considerable depth, consists of slag of iron, indicating this as the site of one of these old smithies, so frequently mentioned in legendary lore, and which are of great interest as far as the history

*) Author of "*The Pfahlgraben*", an Essay towards a description of the Barrier of the Roman Empire between the Danube and the Rhine.

of iron-works is concerned. The immense blocks of iron in the Saalburg-Museum and those walled in, like stones, in the Roman hypocaustum, were brought originally, without doubt, from this place. Vide the interesting article on this subject by Dr. Beck, published in the "Annalen des Nassauischen Alterthumsvereins", Vol. XIV.

The rivulet, formed by the "Dreimühlenborn", leads us in a north westerly direction, past some swampy meadows, on which we find the Parnasia and the Drosera in bloom. If we do not miss the path we come to a hill in the thicket, surrounded by a ditch (now dry), and shaded by high trees. This hill bears a great name, that of Drusus; however we cannot believe that it has been handed down by tradition, but rather that some learned men have named it thus. The villagers of the neighbourhood call it "Calosenkippel" — hill of Caloses — from the enormously large snow-drops to be found blooming there in spring. It does not contain a grave of any kind, but very likely, with a hut on it, served as a refuge for the men employed in the ironworks on the "Dreimühlenborn".

Returning to the Pfahlgraben where we left it, it leads us up-hill to the Weissenstein. Through forest and moor, over rocks and heath it is always distinctly visible, with its profile quite plain, — on the left the embankment, on the right the ditch, facing what was once the territory of the barbarians. Arrived at the top of the mountain a splendid view over the rich country rewards us. Between the "*Fröhliche Mannskopf*" and the "*Gickelsburg*" on our left and the "*Altkönig*" on the right extend the plains of the Nidda, the Main and the Rhine in which we distinguish Frankfort, and almost at our feet Homburg, while the Spessart, the Odenwald, the Bergstrasse and the Haardt-mountains beyond the Rhine close in the picture. The immediate vicinity too, offers objects of interest to the visitor, viz. two mounds of loose stones adjoining the Pfahlgraben, and a third about 30 paces south of it. In the latter the ground-floor of a square tower of 5.70 Meters has been discovered. It exhibits the same ground-plan as the watch-towers which are found at intervals along the Pfahlgraben, representations of which are to be seen on Trajan's column in Rome; there is also a miniature one in the Museum. They were square towers, two or three stories high, with a wooden platform on which the sentinels were stationed and from whence, according to *Vegetius*, they gave notice of the approaching enemy, in the day time by smoke — and at night by fire-signals. These towers were surrounded by a walled or pallsided courtyard. Some years ago, on the Winterberg opposite Ems, one of these towers was rebuilt on the original foundations.

The other two mounds either contained graves, (although nothing was found in digging through the westerly one) or else served as a place, on which to collect stores of wood for fire-signals — perhaps they served for both purposes.

We shall now follow the Pfahlgraben which, for several hundred paces, becomes rather indistinct on the high-plateau, until we come to a peculiarly shaped cliff, which it passes at about 25 paces distance, instead of including it in the fortifications. In its farther course it follows more or less strictly the top of the ridge to the mountain, known as the Great Feldberg; running then in a westerly direction over the north-side of this mountain past the castellum there, to the vicinity of Schwalbach and Kemel; here turning to the N. W. it reaches Ems, crosses the Lahn river, and skirts the basin of Neuwied, in a large curve not far from Sayn. Opposite Andernach it climbs the mountains again and follows them down to the frontiers of "Germania superior" and "inferior", perhaps even down to the "Seven Mountains" near Bonn. Which of the mediaeval defences, dykes, ditches and roads on the lower Rhine owe their origin to this Roman construction is as yet undecided by the antiquaries of that region.

We will now return to the Pfahlgraben at the place, where we first met with it near the Saalburg and trace its course eastward. Easily traceable and always accompanied by roads or paths, it leads us to the valley of Köppern which we reach a little below the *Lochmühle*. A small fort near this, 32 paces long and 25 wide can scarcely be distinguished under the thick carpet of moss in the forest.

Crossing the brook, the Pfahlgraben runs along the north-west-side of the mountains, past the forts "*Capersburg*", "*Ockstadter Jungewald*" and "*Kaisergrub*" to the Usa-river, which it crosses near Langenhain. Enclosing in its continuation Butzbach, Grüningen and the castellum at Arnsburg it reaches the Main, though no longer clearly traceable beyond Arnsburg. It crossed this river probably near *Obernburg* and *Freudenberg*. It extends down into Suabia in a straight line, turns at the foot of the Hohenstaufen, and crossing the Wernitz and Altmühl, it reaches the Danube between *Ingolstadt* and *Ratisbon*.

The Pfahlgraben was indeed a marvellous work, a boundary line, threatening and protecting at the same time, and, owing to the impassability of the outer country and in connection with the various castella (forts) commanding and guarding the passes and Roman roads, it was in reality an excellent defence. — We see this system of fortification prevailing through the entire middle-ages, in the so-called "Landwehren",

which surrounded single territories, or towns, and were often deemed formidable, not only during the Thirty Years War, but even in the wars of the last century.

Circular Camps (Ringwälle).

The vicinity of the Saalburg offers us two remarkable specimens of fortification, one of them dating from the remotest periods of our country, the other from the close of the last century. We allude here to the "*Gickelsburg*" and the "*Prussian Redoubts*". The former stronghold is situated scarcely 3000 paces East of the Saalburg, on a high hill, commanding a full view of the plain. It can be easily reached, even without a guide, by ascending the high-road to Usingen from the Saalburg-house, for about 1000 paces, till we strike a road on the right, intersecting it at right angles, which takes us in a straight line, past a small building, to this old place of refuge. Accommodating itself to the configuration of the mountain-top it forms an oval of 180 by 137 paces, secured by a stone-wall. This latter is more or less destroyed, chiefly where it interfered with the construction of a new road. The wall was additionally strengthened by a deep ditch on the side easiest of access, viz. the one by which we came. The wall itself is not difficult to climb, and this leads us to the conclusion that it was not always in its present state. Showing no trace of mortar, the unhewn stones must have been kept together by other means, in order to build a wall so high and steep that it could not be easily climbed. This was accomplished by laying wood, boughs and branches between the stones. In this style do the relievos on Trajan's Column represent the Dacian fortifications, thus too does Caesar describe the walls of the Gauls and we also find it confirmed in some circular camps in the Lausitz, Thuringia and Bohemia, and again in some in Scotland, where the stones are vitrified, often containing, even yet, remnants of coal from the wood originally placed between them. Where the walls were not destroyed by fire, the wood decayed, and the stones tumbled down, forming shapeless heaps, as we now see them.

What the object of building these forts was, is easily explained, without having recourse to mysterious rites with nightly fires and sacrifices, Druids and virgins, or to a solemn meeting for the dispensation of justice, which might be held in the plain more conveniently for all practical purposes. It was in times of danger (and these were of frequent occurrence both before and after the Roman occupation), that the

inhabitants of the productive plains were driven from house and lands, and, with their families and stock, were compelled to seek these hiding-places, which they then put in as good a state of defence as possible, in order to protect themselves as best they might. This is the purpose for which these circular camps were built — they were simply places of refuge.

The number of "Ringwälle" in the mountains corresponds comparatively with the population of the plain. In most cases the material for building the walls could easily be collected on the hill-tops themselves.

Of similar fortifications on the front-range of the Taunus and west of the *Gickelsburg* we mention only the *Bleibeskopf*, the *Goldgrube*, the *Altenhöfe* in the valley of the Ursel, the *Altkönig* (the most conspicuous of all), the *Bürgel* near Falkenstein, the *Kellerkopf* near Naurod, the *Würzburg* near Wiesbaden, the *Rentmauer* near the Platte, the *Schlüferskopf* near the Chaussée-house, the *Heidenkeller*, the *Heidenkopf* and the *Hallgarter Zange* beyond the Rhinegau.

In the plain some fortified earth-works, built for similar purposes, still exist, such as the ALTEBURG near Holzhausen, the SCHNEPFENBURG near Friedrichsdorf, the *Gewahnekipfel* near Schwalheim and others.

To the left, and West of the Saalburg, about 600 paces to the rear of the Inn, and half way up the hill, is situated a large redoubt, whilst a smaller one lies on the right of the road to Usingen, among the firs. These are called the Prussian redoubts, and date from that campaign about the end of last century, in which Prussian and Hessian troops drove the French General Custine from Frankfort.

Ancient Roads.

All the roads from the plain which cross the pass, in which the Saalburg is situated, unite close in front of the castellum, and then diverge again in various directions. One of these, the Roman road, is traversed and ruined by many by-roads, known under the general appellation of "Saalgraben". Since the high-road to Usingen was made, which ascends the mountain more gradually, the Roman road has been disused, but in forest and field it can be distinguished in many places, and runs in a straight line from the ancient Roman town, "*Novus Vicus*" near Heddernheim on the Nidda, to our *castellum*, and even through it, as the fortifications were built on the right and left of the road.

The Castellum.

The *castellum*, running in the direction of the Roman road (leading at the same time towards the enemy) is 223 Meters long, and 200 wide. Within these dimensions it was surrounded by a wall with battlements, against which a heavy embankment of earth was thrown up on the inner sides. Immediately outside the wall is a berme (walk), and before this two ditches, about three M. deep and 8 or 9 M. wide. These were separated by a small steep ridge, so that their total width was about 17 or 18 Meters, just about the distance for effectually throwing the Pilum, the Roman spear, from the walls. The rampart, from 2 M. 30 to 2 M. 70 high, was accessible from the interior by a gentle slope, and formed on the top a walk 3 M. wide. Above the top of the rampart rose the parapet, 83 Centim. high, on which were the battlements, 1 M. wide and 1 M. 60 high, completely covering a man, with openings from 2 to 3 M. between them, to give room for throwing the Pilum, and thrusting at an attacking enemy, for the height of the wall from the berme to the parapet was scarcely $3\frac{1}{2}$ M. (See Plate 1, Fig. 2.)

The four corners of the fort were rounded off with a narrow projection on the round part, $4\frac{1}{2}$ M. long, which may have served to strengthen this part of the wall, or as a substructure for an elevated wooden stand, such as we see represented on Trajan's Column. They may have served also as positions for catapults, or for the Centurion commanding at this corner. From this elevated position he could control his men, overlook the enemy, who, during the attack, tried to cross the ditches and clamber over the wall, and, from here he could give the signal for a sortie, if he thought a favourable opportunity had arrived.

The fort had one gate on each of the four sides, each flanked by two square towers, over which probably a wooden structure connected the ramparts.

On the short sides the gates were in the centre, on the long ones at about a third of the entire length reckoning from the side furthest from the enemy. Before the gates were no bridges, but the ditches were here filled up.

The gate on the short Side (A) towards the enemy, was called *Porta praetoria*. It is the narrowest and in time of war it was not only closed, but even barricaded with sods and similar material.

The gate on the opposite short side (B) towards the Roman territory, was called *Porta decumana*. It consisted of two wide entrances

separated by a central pillar; it was statelier than the other gates, arched and had in front of the central pillar a separate foundation, which bore a pedestal, upon which was placed a statue. In fact, fragments of one have been found here, which seem to point to a representation of the *Genius loci*, a Deity protecting the place. (See Plate 1, Fig. 3.)

The gate on the left of the long sides of the fort was called *Porta principalis sinistra*, and that opposite, the *Porta principalis dextra*; they are not of the same size, no reason for which can be given. They were chiefly used for making sorties, when a part of the garrison threw itself upon the enemy, at the moment when they were crossing the ditches and most embarrassed by the defenders of the ramparts.

The camp, being 300 paces long and 200 wide, has a circumference of 1000 paces, which the garrison had to defend. The Roman soldier, in order to be able to handle his arms without being crowded, required $2\frac{1}{2}$ paces frontage; his comrade, in the rear rank, took his place when he fell. Therefore, two men were always needed, to defend $2\frac{1}{2}$ paces or eight men to defend 10 paces frontage, consequently it required 800 men to defend the circumference of 1000 paces. To reinforce the defenders of the gates, or of any other particularly endangered point as well as for sallies and reserves two or three hundred more men were required, so that the total number of the garrison of the fort may be put down at 1000 or 1100 men.

Without touching upon the gradual changes which took place in the organisation of the Roman armies, we will describe that, which was customary during the reign of the first Emperors. According to this a legion numbered 3600 men under the command of a legatus and six military tribunes; it was divided into 10 Cohorts of 360 men, each of which was subdivided into three maniples of 120 men. Every maniple consisted of two centurias of 60 men, each commanded by a Centurion.

We are therefore not far wrong in supposing the garrison of the Saalburg, in times of war, to have consisted of three Cohorts numbering 1080 men, or, to have been about equivalent to one of our modern battalions.

In our mode of warfare, and with the arms now used, the men stand shoulder to shoulder, so that for every $2\frac{1}{2}$ paces two men stand in the front-rank, double the number required by the Romans and a work of the size of the Saalburg would therefore now require a garrison of two battalions.

Praetentura.

The camp was divided across in three nearly equal parts, the front part (*Praetentura*) nearest the side of attack, the central part (*Latera praetorii*) and the rear-most part (*Retentura*). While the two latter are pretty nearly on level ground, the *Praetentura* slopes down towards the front. These three parts are separated by roads. The *Via principalis* (C and D) divides the *Retentura* from the *Praetorium* and leads to the *Portae principales*. A road round the base of the ramparts (*Via angularis*) encircles the camp, while a broad main-street (B) crosses the *Retentura* from the *Porta decumana* to the *Praetorium*. The *Praetentura* was divided by two parallel-roads into three nearly equal parts, although this was not every-where the case. This part of the camp contained the quarters of the soldiers. With the exception of a bathing-house (I K) and a *Latrina* (Q) or sink, it contained no massive buildings. All traces lead us to the conclusion that, very likely, it contained only round huts covered with sods or straw. These were provided all round with benches for sleeping, were heated by a fire in the centre, enclosed between stones, and occupied by a *contubernium* (10 men) under the command of a *Decanus*.

The bathing-house consisted of two buildings (K and I) which were probably connected by a wooden structure, the *Apodyterium*, for undressing and dressing. K is a tank which can not be heated, with benches on the sides, for cold baths. The building I contained two apartments, which were both heated by a common hypocaustum with a heating-pipe under-ground. The southern room was about 40 centimeters lower than the other (*Balneum*) and could be filled knee-deep with water, which was then heated while the bathers sat on the sides and washed themselves or lay down on the floor, thus making the foot-bath available for the entire body. Considering the difficulty of rendering such a large tank water-tight and of heating it we can not be surprised that they limited themselves to such small quantities of water.

The other apartment, nearest to the furnace and resting upon a higher hypocaustum and a thicker floor, was in all probability a sweating-bath (*Sudatorium*). — The dirty water was conveyed by a drain to the sinks in the lowest point of the camp and from thence to the outside.

The sinks of the ancients consisted, as far as we can gather from the ruins of Pompeii, of a ditch, which appeared as a long narrow slit in the floor of the building. Probably Q is only the ditch, while the wooden floor and ceiling constructed of beams and covered with sods

on the top, have disappeared. — The letter P indicates a well, 26 meters deep, cut into the rock.

We shall here refer to the peculiar configuration of the ground (c, d, e, f) near the Praetorium in the soldiers quarters. It looks very much like a small Amphitheatre and we do not deem it improbable that it may have served as such. The tediousness of camp-life for the men, as well as for the officers, who, from the balcony of the *Oecus*, looked down upon the wrestling matches and other games, may have led to its being made.

The Praetorium.

The central part of the whole camp is occupied by the Praetorium, which leaves however room on both sides for soldiers huts.

It formed an oblong, 60 meters long and 45 wide. Its ground-plan resembles very much that of the antique houses, especially those of Pompeii, and, even in size it is very similar to the house of Pansa there, which measures 61 by 34 meters.

Entering it from the South we find a large hall (R) — used for drilling and other exercises. Vegetius mentions the necessity of such halls, in which the soldiers could be drilled in throwing the *Pilum* and the *Martio barbulo* (a short arrow weighted with lead), and where the cavalry could exercise, and perfect their horsemanship in bad weather. The same writer speaks at great length about the covering of these halls. The length of our drill-shed is 51 paces, its width 15 paces. As the *Pilum* can be thrown with accuracy at farthest at a distance of 25 paces, the house was just large enough for two squads of 25 men each in two ranks, who being placed in the centre, back to back, could throw at the targets placed at the ends of the hall.

The Drill-shed had two doors opening on the cross-roads of the camp, and five to the Praetorium, or rather to a gallery, which, somewhat like the *cloister* of a monastery, encompassed a square yard, (the Atrium E,) and was probably only separated from it by a wall, breast-high, on which wooden pillars supported the roof. In the court, where the rain-water from the roofs was collected in an *Impluvium*, there were also two wells (M and N), each about 10 meters deep, but now fallen in, and a small square building (S), the *Sacellum*, in which the Legionary eagles and images of the Emperor and of the *Genius Loci* were kept. Before this stood the altar for burnt-offerings and libations, fragments of which have been found.

To the right and left of the Atrium, lighted and accessible by the *Porticus*, various apartments were located, suitable for dwellings and magazines, called *Cubicula*. Behind the Atrium is another court (V), 9 meters wide and 29 long, the *Peristylum*; the colonnade, surrounding the square court, opens on it, and represents that part of the antique house which was called *Tablinium*. The wooden columns of the Peristylum were reared on stone-bases, which are yet in their original places.

In the Peristylum at the letter Y, Plate II, two heavy slabs of free-stone are still lying; it is generally supposed that they served as a base for the pedestal of a statue of Victory, from the circumstance that fragments of a bronze-statue, representing folds of the garments, a palm-branch, and a finger, indicating it to have been fully one half larger than life-size, were found near them.

On both of the short sides of the Peristylum are small rooms, which could be heated (X and W), while on the north-side were two open halls, perhaps stable and kitchen, and in the centre, we suppose, a higher and statelier building, the *Oecus*. It was the most aristocratic part of the Praetorium, just as it would have been in the antique house. The ground-floor contained the dining-room, while the upper, surrounded by a gallery, served as a look-out, like the watch-towers along the Pfahlgraben. If the elliptic depression in the Praetentura (c, d, e, f) really served occasionally as an arena for the fight of animals, the commander of the fort had undoubtedly his privileged seat on the balcony of the *Oecus*.

The Quaestorium.

The southern third of the camp is called the *Retentura* and was chiefly occupied by the military intendency, the *Quaestorium*.

In it is a well (O) which is still in use, a large and two smaller buildings, which could be heated (H, G, G 1.) and a large store-house, (F) 20 by 24 meters in size. We call it a store-house, not only on account of its position, but because there are a great many walls running parallel with each other which served as supports for the flooring when heavily freighted with sacks of grain. Buildings for such purposes are yet constructed in the same manner. We can even assert that in the north-eastern corner, which is farthest away from the rays of the sun, the Commissary of stores kept the meat, because here we found numerous bones and six iron meat-hooks. If we draw conclusions from the number and kind of bones the soldiers must have lived chiefly on

beef; next in order on pork and sheep, but we find also bones of deer and of the bison, now extinct in Germany; — these latter were probably the result of hunting-expeditions.

Civil Settlements.

The buildings of the civil settlements were situated in front of the Porta Decumana, on the south-side of the fort, and away from the enemy; they extended however, perhaps in less substantial constructions, to the right and left of the camp, even down to the foot of the hills.

Hypocausts.

On the west-side before the Porta Decumana is a large building which we call the Hypocaustum, as various constructions of heating-apparatus have been preserved in it.

The Romans in their southern climate did not require any such arrangements for warming their houses; on cold days, they, like the Italians of our own time, made use of the *brasero* (a large copper brasier filled with charcoal) — lat. *focus* — or they kindled a small fire on the stone-floor. As their doors and windows or shutters did not very likely shut too tightly, the dangers from the vapours and the smoke were in all probability not too great. They had, however, in Italy, in their baths, subterranean arrangements for heating (hypocausts), which were used in dry *sudatoria* or sweating baths as well, as for heating the tanks filled with water.

But in our northern climate it was of urgent necessity, during the long winter-months, to heat the dwelling-houses thoroughly, and this was done, not only by means of open fires, but also by these subterranean heating-arrangements (hypocausts).

For this purpose the floor (*suspensura*), mostly made of plaister, especially that part which was to be heated, rests on large tiles, which are supported by pillars from 50 to 90 centimeters high. These being from 25 to 40 ctm. apart, the fire and hot gases could circulate freely under the floor. The fire was made on a small hearth, reached by an ante-chamber (*Praefurnium*), in which the heat must have been very great at times, as the most fire-proof stones, such as a porous kind of basalt, peculiarly prepared bricks and even blocks of iron were used in the construction of these hearths. The latter kind we find before the front of the above mentioned building, and in the small hypocaustum (G 1.).

After the fire had spread well out under the floor the smoke and gases escaped, either through comparatively narrow chimneys, or through numerous flues, which were let into the walls, and went either above the roof or perhaps only as high as the roof, from whence they made their exit as well as they could, in the same way as may still be seen in the peasant's houses in Westphalia.

No traces of mosaic floors have been discovered so far; we only find a thick plaster-floor, made of small bits of brick and mortar. Owing to its thickness of 20 centimeters and more, which was increased by the layer of tiles on which it rested, and sometimes by flues being laid through, it required a long time, before the heat became perceptible in the room, and it is probably not too much to assume, that they had to light their fires on Monday in order to get warm feet on Thursday. The thinner flues in the walls naturally emitted warmth much sooner, and probably they had arrangements similar to those in the castles of the Teutonic Order: after the subterranean pillars and walls were well heated, they let the fire go out and admitted the hot air through an opening in the floor. The access of hot air could be regulated by means of a slide, several of which have been found. Of course the inmates had to put up with some dust and vapours and the whole arrangement was undoubtedly far from being as perfect as Heckmann's calorifers. Not all of the rooms, which were to be heated, rested on pillars spread over an equally large hollow space, as the floor above; many were heated by means of small pipes running through the floor. This is the case with all hypocausts in the fortress, as well as with three in the building immediately before it, the Hypocaustum.

The Villa.

Behind the Hypocaustum is another building, 37 Meters by 21 in dimensions, which corresponds exactly in its interior arrangements with what was found in numerous excavations (and destructions) of Roman Villas along the Rhine; viz: large and small square halls, and rooms with semi-circular triclinia adjoining. These general forms, recurring constantly, with slight variations, in Villas in Germany, France and England, have nothing in common with the houses of Pompeii, having neither Atrium nor Peristylum. The Villa in front of the fort is built after a uniform, almost symmetrical plan, and was carried out with a certain luxury. We know that Caracalla (211 to 217) spent a good deal of his time on the Rhine, where he fought and negociated, not unsuccessfully, with the Allemanni. As a proof of this we possess a

votive-stone, now built into the tower of the castle, dedicated to him by a Cohort, the Antoninian, and we infer from this, that this Emperor, in all likelihood, resided at the Saalburg, and the probability is great that the Villa was built for this august visitor.

We find in it five compartments which were heated by hypocausts of the normal type, adjoining which are the Triclinia, resembling the choir of a romanesque church, one step higher than the rest, and carefully sheltered from the draft. The halls are so spacious, that one of them would hold thirty modern couples dancing, and the other would easily accommodate fifty guests at the dinner-table. Although neither marble nor mosaic floors have been found here, the occupants enjoyed the even greater luxury of glass-windows, fragments of which were found in great quantities.

If the German tribes, who destroyed this grand building, and their descendants, who saw its ruins still standing for many years after, called it a "Saala", it is likely that from this circumstance the name "Saalburg" was given to the entire camp.

The Hedge-Rampart (Gebück).

That part of the civil settlements, which we have described thus far, is enclosed with a very peculiar hedge; it need hardly be said that this is of modern date. It was made in the year 1872 in order to present a picture of certain fortificatory obstacles, which were the chief methods of defence in the oldest times during the Roman conquest, and continued in use during the whole of the Middle Ages. We will here recall what Caesar says of the frontier-defences of the Nervii: "The inhabitants (of the present Hainault) cut down young trees, so that they shoot out in every direction, and then plant blackberries and other briars between them. They thus form barriers, which are not only impenetrable, but even impervious to the eye. In this manner they protect their country from the marauding expeditions of their mounted neighbours."

The Emperor HADRIAN defended the frontiers against German inroads by palisades as well as by thick hedges, which were planted by his orders.

The Rhinegau was thus surrounded by the celebrated hedge, which Pater Baer of Eberbach describes as a belt of woods, more than 50 paces wide, in which all the trees are cut down to different heights, in order to make them branch out again; these branches were then bent to the ground, fastened there, and closely intertwined. As they continued to

grow, such a thick and entangled wilderness was the result, that it was alike impassable to horse or man, and could only have been made so at the expense of long and arduous labour.

Further information on this subject may be found in the "Annalen des Nassauischen Alterthums-Vereins", Vol. XIII, Wiesbaden 1874.

The *Canabae* (Public-houses — taverns).

The ancient writers do not mention the *Canabae*, but inscriptions tell us of *canabenses* (Publicans — Tavernkeepers) and of *Lixae* (Sutlers and camp-followers), probably in many cases discharged veterans, who attached themselves to the troops with whom they had served, and who settled near their camps. The dwellings of such we have before us, at the right and left, (or at least the foundations of them,) when we descend the Roman road from the fort towards the plain. We see the cellars, over which beams were laid cross-ways, and on which the house was reared; we can recognise the openings to admit light, the niches in the walls, in which the milk pots were placed, and the peculiar stair-ways, down which they transported their wine. Fragments of *Amphorae* (large vessels of clay with two handles), glass-bottles and drinking-glasses were found here in considerable quantities. The houses were undoubtedly only built of wood, with walls of clay, and, according to traces found, were covered with slates or thatched with straw. Stables and other outhouses were unquestionably in the rear of them, so as to cover the entrance to the cellar. All were built according to one pattern at equal distances from each other and the Road. Remains of a human body were found in one of them, probably of some unfortunate wretch, who, whilst seeking safety in the cellar during an attack of the Chatti, was killed by the burning ruins of the house.

The Graves.

The Romans did not bury their dead in enclosed and sequestered places, as we do, but preferred to bury them along the high-roads, so that their resting-places could be seen by all passing by, and the recollection of the dead kept fresh in the memory. They generally burnt their dead; but in some exceptional cases, and in a few noble families, they were buried like ours. The ashes were deposited in an urn, often only in the fragment of a clay-vessel, around it was placed some food in plates and dishes (in many cases only broken fragments of them),

also one or two small jugs, perhaps filled with wine, or perhaps only symbolical, without any contents, to which were added some small articles, a pin (*fibula*), a ring, a piece of glass, a key etc. In every one of the graves the *obolus* (either a copper or silver coin) is found, and often a small lamp. Frequently we find iron-work from boxes, and nails in the graves. Four tiles of 25 centimeters forming a square, or four rough stones such as came next to hand and a fifth to cover the grave, enclosed the mortal remains; this was covered over with 25 or 30 centimeters of ground, and a rough stone was placed on it as the sole monument. These we see protruding from the ground in all directions.

The form of the graves and their contents can be studied in the *columbarium* (house of tombs), for they can be seen here in the ground-plan, as well as in profile. Neither martial weapons, nor female ornaments, were found in any of them. But few graves are distinguished by a sort of monumental erection, some of which resemble the substructure of small grave-chapels; in one of them an Ara, resembling a column and bearing the name of *Condollius*, was found, still standing upright. Grave-stones, like those found in great numbers near Mayence, are not found here. The modern columbarium was built on the old foundations, by the Saalburg-Society. The masonry is similar to that of the ancient Romans. The door is a copy of a Roman Bronze door, found in Mayence and preserved in Wiesbaden. The roofing is made after the Roman pattern, of Tegulae and Imbrices, prepared in Mr. Riegelmann's pottery at the Fechenmühle near Hanau. They are stamped C. T. (Cives Taunenses).

The inscription in the interior runs thus:

DIIS · MANIBVS · ET · MEMORIAE · AETERNAE
MILITVM · OLIM · ROMANORVM · IMPRIMIS · LEGIONVM · VIII · AVGVSTAE
ET · XXII · PRIMIGENIAE · PIAE · FIDELIS · ET · COHORTIVM · I · ITALICAE
CIVIVM · ROMANORVM · VOLVNTARIORVM · ET · II · RAETORVM · CIVIVM
ROMANORVM · ET · III · VINDELICORVM · QVI · HOC · CASTELLVM
ARTAVNV · QVOD · GERMANICVS · CAESAR · SUPER · VESTIGIA
PRAESIDII · AB · NERONE · CLAVDIO · DRVSO · GERMANICO · PATRE
SALTV · TAVNENSI · PATEFACTO · CHATTIS · DOMANDIS · COMMVNITI
ANNO · POST · CHRISTVM · NATVM · XV · IN · IVGO · MONTIS
POSVERAT · PER · SAECVLA · PLVS · MINVS · DVO · SEMIS
AB · HOSTIVM · EXCVRSIONIBVS · FORTITER · TVEBANTVR.

To the ever-lasting memory of the umquhile Roman soldiers especially of the 8th Legion, the Augustan, and the 22^d, the first enlisted, devoted, faithful, and of the 1st Italian Cohort of Roman volun-

teers, of the 2^d. Rhaetian endowed with Roman citizenship, and of the 4th. Vindelician, who for about 250 years bravely defended against hostile attacks this castellum *Artaunum*, which Germanicus Caesar erected about the year 15 after Christ, on the ruins of that erected by his father, Nero Claudius Drusus Germanicus, on the ridge of the mountain, for the purpose of subduing the Chatti, after he had opened these mountain-regions.

The inscription over the door outside:

HVNC · LOCVM · MONVMENTVM · DIIS · MANIBVS
 CONSACRAVERVNT · CIVES · TAVNENSES
 MDCCCLXXII

tells us, that the inhabitants of the Taunus-country dedicated this building in token of remembrance to the manes of the dead 1872.

Saalburg-Museum at Homburg.

All articles found at the Saalburg are on Exhibition in a hall in the Kursaal, where catalogues of the collection may be had. It is our intention to point out only some of the most interesting objects, about which we will make some general remarks.

Inscriptions and Statues.

The inscriptions found at the Saalburg and vicinity are either those cut in stone or impressed on tiles (stamps of Legions or Cohorts) or on clay-vessels (potter's stamps) or finally the inscriptions on coins.

It would be transgressing the limits of this paper, if we were to mention all the inscriptions, which are very often only fragmentary. We must refer the reader, in this respect, to our larger work, in which Prof. Dr. Becker has treated the inscriptions, and limit ourselves to the larger and best preserved ones. We reproduce these, as far as this is possible with our types, in their original form, together with a translation of their meaning, completed by conjecture.

I. Fragment found as stylobate in the Peristylum:

OAVG
 IF · MAX
 POT · II · CC
 D · SIG · III
 COH II RA

In honour of the Emperor TRAJAN HADRIANUS AUGUSTUS, the High-priest, in the second year of his reign, for the third time elected Consul, the second Cohort of Rhaetians, devoted to his divine Highness and Majesty caused this monument to be erected (— about the year A. D. 119).

II. Fragment found as stylobate in the same place:

IMPCA
HADRI · I
IRAI · PA
N · P · DIV
PRONEP · T
HADRI · A

In honour of the Emperor TITUS AELIUS HADRIANUS AUGUSTUS, the Pious, son of the divine Hadrianus, grand-son of the divine Trajan, great-grandson of the divine Nerva, the father of his country, the principal Priest, -- — (who?) — — caused this monument to be erected. (A. D. 138—161.)

III. Stone-slab — fragment:

LSEPTIMIO
SEVERO AVG

In honour of the Emperor LUCIUS SEPTIMIUS SEVERUS AUGUSTUS (between A. D. 193 and 211).

IV. Built into the stair-case of the tower in the Royal Castle in Homburg, is the following inscription:

· · · · P · CAES · M · · · ·
ANTONINO · PIO · · · ·
- ICI · AVG · PONTIF ·
MAX · BRITAN · MA
PARTHICO · MAX
TRIBVNIC · POTES · ·
TATIS XV · COS · II · ·
P · P · PROCOS · COH · ·
ANTONINA
VOTA · NVM

To the Emperor MARCUS AURELIUS ANTONINUS, the Pious, the Happy, the Sublime, the High-priest, the greatest conqueror over the Britons and Parthians, in the fifteenth year of his tribunician powers, for the third time Consul, Father of his Country, Proconsul, the fourth Cohort of Vindelicians, the Antonine, devoted to his Highness and Majesty, erected this monument.

This stone dedicated to the Emperor generally called CARACALLA, was erected between the years 211 and 217.

V. Two other very fragmentary inscriptions may, without doubt, be made out as being in honour of the same Emperor; one of them was erected by the 2^d. Cohort of Rhaetians, Roman citizens. —

VI. Fragment found in the fort:

· · O · LO · · · ·
D · D PR · · · ·
LVTE · IMP · P
· SEVERI · ·
· AVG · T · · · ·

To Jupiter, the Best and the Greatest, and to the Genius of the place, in honour of the Imperial house. For the welfare of the Emperor PUBLIUS SEPTIMIUS SEVERUS GETA in the (—?—) year of his tribunician powers. (About the year A. D. 198.)

VII. Votive-Altar in shape of a column, found still standing upright in the burial-place:

I · O · M
CONDOLLI
VS · MAR ·
VS · V · S · L · L
M

To Jupiter, the Best, the Most-high, CONDOLLIUS MARCUS dedicated this altar fulfilling his vow gladly, according to merit.

VIII. Votive-Altar:

I · O · M
DOLICHEN
IB · CL · TIB · FILIV
I · CANDIDV
· · · · · M

To Jupiter, the Best, the Most-high, the Dolichenian, TIBERIUS CLAUDIUS CANDIDUS, the son of Tiberius, fulfilled his vow gladly, and voluntarily as in duty bound.

IX. Votive-Altar in three pieces:

MERCVRIO
· · · AM
ONI
IVS
D D D

To Mercury, this altar was erected and dedicated by ANTONIUS.

X. Votive-Altar found as covering of a sewer :

FORTVNAE
C · MOGILLO
NIVS · PRISCI
ANVS · PRA
EF · COH · II · RAET
C · R · V · S · L · L · M

GAIUS MOGILLONIUS PRISCIANUS, Prefect of the II^d Cohort of Rhaetians, Roman Citizens, fulfills his vow to Fortuna gladly, as in duty bound.

XI. Votive-Altar with two inscriptions (palimpsest), one over the other; the newer one runs as follows:

IN · H · D · D · GENIO
C · SO · CVPITI ·
PRIMIUS AVSO
· OPTIO · POSIT

In honour of the Imperial house and to the Genius of the Centuria of the son of Cupitus, the Sub-Centurio PRIMIUS AVSO caused this monument to be erected.

The older inscription runs as follows:

IN · H · D · D · GENIO
ENTVRIAE SATTO
NIVS · AN · AS O PO

In honour of the Imperial house and of the Genius of his Centuria the Centurio SATTONIUS An. As. caused this monument to be erected.

We pass over two or three fragments of inscriptions, from which it may be surmised, that they were dedicated to the Genius Loci, and about twenty other fragments bearing letters, which may probably become valuable, if accident puts us in possession of the missing pieces.

All statues found thus far, at the Saalburg, represent the Genius Loci and can be recognised as such even in the smaller fragments. They are nude figures, in boots and with the Paludamentum over the shoulder and around the hips, holding in the left the cornucopia (horn of plenty) and in the right the cup of libation, from out of which they pour on to a diminutive altar. One of the three best preserved statues wears a mural crown, which designates it as the Genius Loci of the castellum.

The hand-millstones, which the Romans made use of, deserve to be specially mentioned. Measuring from 35 to 75 centimeters in diameter, they were furnished for the entire Rhenish country by the lava-quarries of Niedermendig near Coblenz. A hand-mill has been re-

constructed with stones found and may be seen at the Saalburg-Museum. We mention here likewise a pounding-dish of Syenite, which stone came from the Roman quarries on the Bergstrasse. (Compare: *Römische Steinbrüche auf dem Felsberg an der Bergstrasse in historischer und technischer Beziehung* von A. von Cohausen und E. Wörner mit 6 Tafeln. Darmstadt, bei L. Brill, 1876.)

Tiles.

Neither at the Saalburg, nor any where on the right bank of the Rhine, did the Romans build walls of tiles or brick. They used this material only for hypocausts, for flooring, for covering walls and ceilings, and for roofing. The tiles for the latter purpose are square slabs, provided with moulding on two sides (*tegulae*), over the joint of which a pantile was laid (*imbrex*). For heating-contrivances they used square tiles of from 20 to 25 ctm., and for covering-slabs the same of 30 to 55 ctm. square.

Similar tiles served also for covering the floors, walls and ceilings; in the latter case they were fastened with anchor-shaped iron nails and were then plastered over. Square flues, of which the Museum contains a great many, and which were imbedded in the walls, carried up the smoke and heat. Amongst all these products of tile-manufacture we find many with inscriptions like the following:

LEG · VIII · AVG ·

The 8th. Augustan Legion, which was ordered to the Rhine in consequence of the war with the Batavians (the present Hollanders) A. D. 67 to 70, and which remained here, like the next named, to the end of the Roman dominion.

LEG · XXII · P · P · F ·

The 22^d. P. *primigenia* = first enlisted, — P. *pia* = pious, — F. *fidelis* = faithful Legion.

COH · IIII · VIND ·

The fourth Cohort of Vindelicians, which was supplied with recruits from the country between the rivers Lech, Danube and Rhine.

COH · II · RAE ·

The second Cohort of Rhaetians from the present Canton Grisons (Switzerland).

COH · I · CIV · R ·

The first Cohort of Roman citizens.

The stamp of the last named has been found only once, so far; likewise the stamps of the following tile-makers and Centurions: HELVIVS CAMVLV, AELVIVS MOLANVS (?) MAGANDIVS (?) and IVSTVMVS.

A number of tiles have been found on which an inscription, a date — perhaps bearing reference to the manufacture — was scratched before they were burnt (sgraffiti). On many tiles we see the foot-prints of men and beasts, from which we may conclude that they were spread on the ground to dry before burning.

The Pottery

of the Romans is partly of the natural grayish-white, yellowish or reddish colour given to it by the burning-process, partly black or gray from the soot, which coloured it during a peculiar process of burning it at a slow fire, and again some of it is of a fine red colour, produced by some admixture to the clay, probably of ruddle (red chalk).

Of the first kind are all the coarser and ordinary household vessels, kitchen-pots, dishes, plates and Amphorae. The latter were placed in the cellar on a bed of sand, and were used for the preservation of wine and oil; some of them are round at the bottom, others pointed, and many of them have inscriptions on, or under the handles, referring to the contents or measurement.

The cooking-utensils are made porous, by the addition of sand to the clay. In those met with in the graves we sometimes find remnants of food. Vessels with handles, feet and spouts were in general scarcer with the Romans than with the Franks. A vessel, which was indispensable with them, and which our present kitchens know nothing of, is the pounding-dish; it was a flat, rather massive, dish provided with a shallow spout, the bottom of which was strewn with fragments of white quartz, and thus admirably adapted for pulverizing grain, peas and the like with a wooden pestle. But nothing is found so frequently, especially in the graves, as those small, bulging jugs, which seem to have been used for all liquids, water, wine, oil and vinegar.

All these ordinary articles are without the stamps of any manufacturers.

Vessels of a better quality, which the Romans used in the place of our China and Delf, were made of the so-called *terra sigillata*. The genuine, and as it seems, also, the oldest, are of a dark red colour and often are as hard as our stone-ware. They are sometimes ornamented with slightly raised bas-reliefs, representing partly architectural ornaments and arabesques, partly groups, such as hunts, fights of gladiators or erotic scenes. These bas-reliefs seem to have been either formed at the same time with the vessel, or separately, and then put on afterwards. Other vessels are ornamented in quite a different manner with foliage,

running game, or birds, but not with human figures. These ornaments were put on in a similar way to that, in which our confectioners ornament their cakes, only, instead of using sugar and the white of eggs, they took liquid clay, thus producing well drawn figures and garlands.

We find not only vessels of *terra sigillata* ornamented in this manner, but also those of white clay painted black. Drinking-vessels, black with a certain lustre, are found, as well as with white and sometimes red ornaments, which appear to have been laid on in the above mentioned manner. Some of them have upon them drinking-mottoes, such as: "Bibe!" (drink), — "Vive multos annos!" (live many years). — "Vinum!" (wine); — also garlands of leaves.

Only vessels of *terra sigillata*, with very few exceptions, are provided with the manufacturer's stamp, more than 60 varieties of which have been found at the Saalburg. What is most interesting in this is the fact, that the stamps of some of these firms are not only found in Pompeii, but also in the remotest parts of the Roman Empire, in Britain, the Saalburg and elsewhere. Nothing gives us a better idea of the means of commerce and communication at that period, which may be compared with ours before the introduction of railways and steamboats.

The Romans were very fond of bathing, and of anointing their bodies afterwards. In order that the vessels, containing the ointment, might be held with greasy fingers, they had to be rough or uneven on the outside. We find them therefore provided with grooves generally corresponding to the five fingers, or else covered over with projecting drops.

Among the articles found in largest numbers are small clay-lamps, frequently plain, but often very neat and tastefully ornamented. These were an absolute necessity, glass windows being a luxury only possible for the very richest, and, but for these lamps, the people would have been obliged to pass the greater part of the cold season in darkness, the openings for admitting light and air being furnished with shutters, which, when closed to protect the inmates from the cold, excluded the light as well.

Glasses.

Although but few glasses have been found intact, the fragments have in most cases been sufficient to indicate the shape; they are highly interesting and give a good idea of the advanced state of glassmanufacture of the period.

Glass was partly cast, partly blown; of the former denomination

was window-glass, which was poured on a stone slab, not over smooth, for which reason it is cloudy above and opaque below. The casting-slab was provided with an elevated edge, against which the liquid glass was pressed.

Blown glass is sometimes round and of the shapes produced by rotation; sometimes it was blown in square and ribbed forms: the bottoms, provided with concentric rings, were produced in this manner. The handles, in most cases finely shaped and deeply grooved, are put on with so much artistic skill, that our glass-makers have not yet succeeded in imitating them. The drinking-vessels are ornamented with glass threads and drops, pressed in pearl-shape or twisted in different ways with pincers, while yet in a soft state. Coloured glasses were known to them, also the art of engraving on glass (we possess several fragments of glass with fishes, the sign of Christianity, engraved upon them) and grinding it. Some pieces even show that they understood how to make use of the glass-blower's lamp.

The cut stones for rings are always concave (intaglios), so that they could be used as a seal; they are generally of glass.

Articles-made of iron.

Here we must mention specially several large blocks of wrought iron, which, according to Dr. Ludwig Beck, (Annalen XIV, page 317,) served as bases for anvils. Of the regular Roman legionary arms, always great rarities, only very few were found here. They consist of three or four points of the *Pilum* in a damaged condition, a sword resembling the *Gladius*, but provided with a hook on the back, and a poniard (*pugio*). Many spear-heads were also found of the most various shapes, which are generally considered to have been weapons of the chase, amongst them several with three prongs, evidently used for fishing, and a great number of arrow-heads, which are also of various shapes. Two very large blunt spear-heads may probably be the heads of great arrows, which were projected by catapults.

Numerous metal pencils for writing (*stilus*), have been found, some of which are very elegant; they prove that considerable writing was done here. There are various carpenters' and masons' tools, and nails of different sizes and kinds, viz: anchor-shaped ones for fastening the plaster-tiles, also some with conical heads, used for studding the doors, from which we can see how thick the wood-work was. Amongst the tools are shears like those now used for shearing sheep; the ancients knew of no other form.

Keys are also frequently found in the graves; likewise parts of locks and metal ornaments of large and small boxes. The Romans knew three kinds of locks, consequently also of keys. On opening one kind, one had to pull, on the other to push and on the third to turn the key. The keys for the first kind are clumsy iron hooks, some of them anchor-shaped, with which, after being inserted through a hole in the door, the bolt was withdrawn. With the second kind the key is inserted side-ways in the key-hole, which forms a right angle; it is then raised, by which motion the intervening stops are removed, and pushing to the right, the bolt is withdrawn. Large and ponderous iron keys, similar in principle, served to move the wooden bolts in the huge wooden locks, with which large gates were fastened. Similar locks, but of smaller size, are occasionally found now in villages, where the peasants use them for locking their stables and garden gates; they are opened with wooden keys. The third kind is very much like ours. The keys for this description of locks are often of bronze and tastefully made; some of them may be worn as rings.*) For further information in regard to the locks of the ancients see Vol. XIII, *Annalen des Nassauischen Alterthums-Vereins*.

Articles of Bronze.

We will commence this list with the description of a small bas-relief, representing a cavalry-soldier alongside of his horse; he wears a helmet and the leathern *lorica*, the sword on his right side, and on his left arm the small shield of the cavalry.

Fragments of a statue, consisting of the thumb and little finger of the left hand, parts of the folds of the dress and a palm-branch, have been found; from these we conclude that it was a statue of Victory, the size of which compared with that of life is as 10 to 7.

We possess likewise in metal several parts of horse-harness and rings, through which the reins ran; various handles of small boxes, some of them very tastefully made, some appendages of vases, representing two horned female masks and a number of small bells, such as were attached to goats and to fruit-trees to make them bear plentifully. There are also some surgical instruments for probing wounds, and two candle-sticks for thin tallow or wax-candles. On account of its rarity we will here mention the metal part of a helmet, the apex, which was fastened on the top of it in the shape of a cross with acorn-like buttons. Of the greatest interest however are the ornaments, and amongst them

*) The various kinds of locks have been re-constructed after parts found, and may be inspected on the model of a watch-tower in the Museum.

chiefly the pins, (*fibulae*) and ornamental buttons, of which we possess a great number in bronze as well, as in white metal and enamel. The *fibulae* consist of that ornamented part, which lies on the garment, and of the pin, which, either spring-like or in hinges, pierces the clothes and being fastened again to the upper part, prevents the loss of the instrument. They appear in the greatest possible varieties. (Copies of some of the handsomest patterns are made by and sold at *Sauer's Jewelry-shop*, Louisenstrasse and at the Museum.) We call special attention to one of these cloak-pins representing a ball, on which stands a winged Victory, holding in her left a palm-branch, and in her right a laurel-wreath, with which she is about to crown an eagle, while the latter, with out-spread wings, looks at her. Another circular-shaped pin represents the Triquetrum. The enamelled ones were made in the following manner: they were divided in fields, and these were hollowed out in such a way, that higher partitions remained between them; the lower portions were then filled with dust of finely pounded coloured glass, and then exposed to heat, until the latter melted. This kind of enamel is now called *émail à champlevé*; all Roman enamel was made in this manner. — Another process is to solder fine pieces of metal on a solid base, so that similar partitions are produced, and the space between them is filled with enamel (*émail cloisonné*); this process however was not known to the Romans, but the Chinese and Japanese produce wonderful things, made in this manner.

Amongst the ornaments are several in the shape of a lamp, which served as cover for a *bullæ* or locket. The deepened fields are filled, for example, with green enamel, into which red dots are pressed. Another circular *fibula* of white metal shows a red leaf of the convolvulus, edged with silver on a green field. A third fibula resembles the shield of the Amazon, the principal field being blue with two Bronze studs, and in it an oval enclosed in a ring of yellow metal, in which is a cross of red enamel. Two fibulae end on one side in a wolf's head, on the other in a crescent in green enamel, while the centre represents a circle, divided into three zones, filled with green, red and white enamel; this latter, which is also the outer one, is ornamented with inimitable skill with a row of small blue pine trees.

In some of the ornaments the enamel is laid on in red, blue, white and green, so that it resembles a chess-board. These are exactly like mosaic and millefiore work, but are executed in enamel. For further particulars on this subject see Vol. XIII, *Annalen des Nassauischen Alterthums-Vereins* or a pamphlet entitled: "Römischer Schmelzschmuck" with two coloured plates. Wiesbaden, W. Roth. 1873.

Coins.

In and near the Saalburg many coins have been found. The numerous conflagrations and destructions, to which this place was subjected, sufficiently explain this and also the circumstance, that great numbers of coins were often found in one place. Thus 456 silver-coins were found in a pot in the year 1816.

In June 1861 over 400 coins, mostly of Bronze plated with silver, were found in the north-eastern corner of the fort, strewn over the ground, but in considerable depth.

The oldest coin from the Saalburg is one of MARK ANTONY 44 to 31 before Christ, the latest of CLAUDIUS GOTHICUS A. D. 268 to 270.

In the annexed table we give the number of coins found, and the number of years each Emperor reigned. The distance between the vertical lines represents always ten coins, that between the horizontal ones always one year of the reign of the Emperor. Thus we see that of some of these numerous coins were found, although their reign was but of short duration; for instance, of HELIOGABALUS we possess 132 found near the Saalburg, although his reign lasted only four years (218—222). Every reader may draw his own conclusions from this fact.



Printed by J. G. Steinhäusser, Homburg v. d. Höhe.

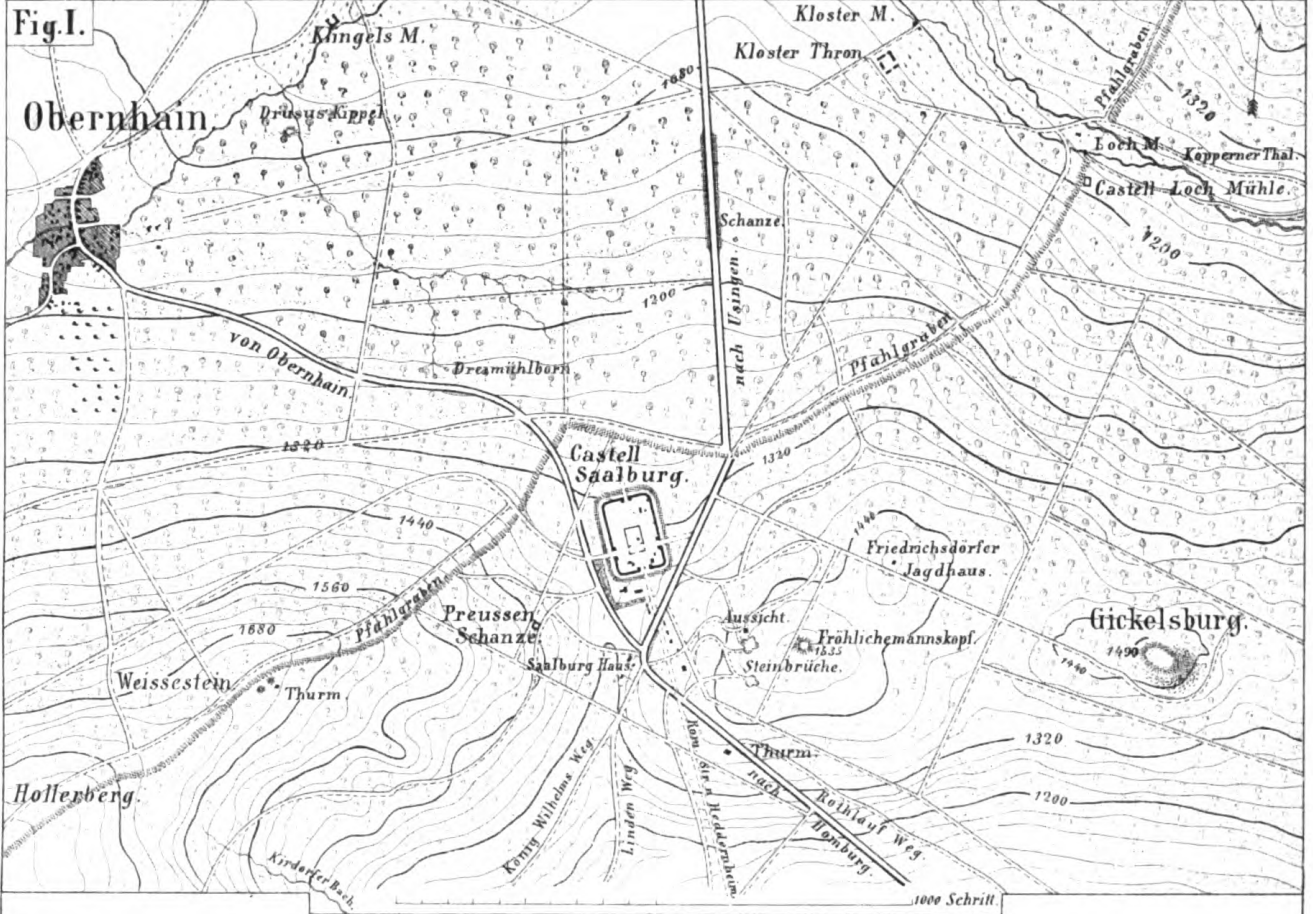


Fig. II.

PROFILE OF THE VALLUM AND DITCHES OF THE CASTELLUM, NOW AND FORMERLY.

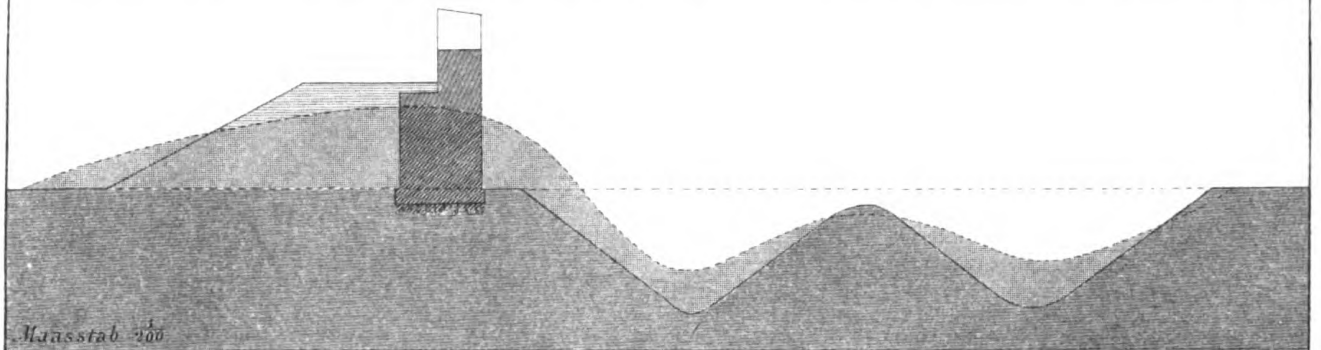
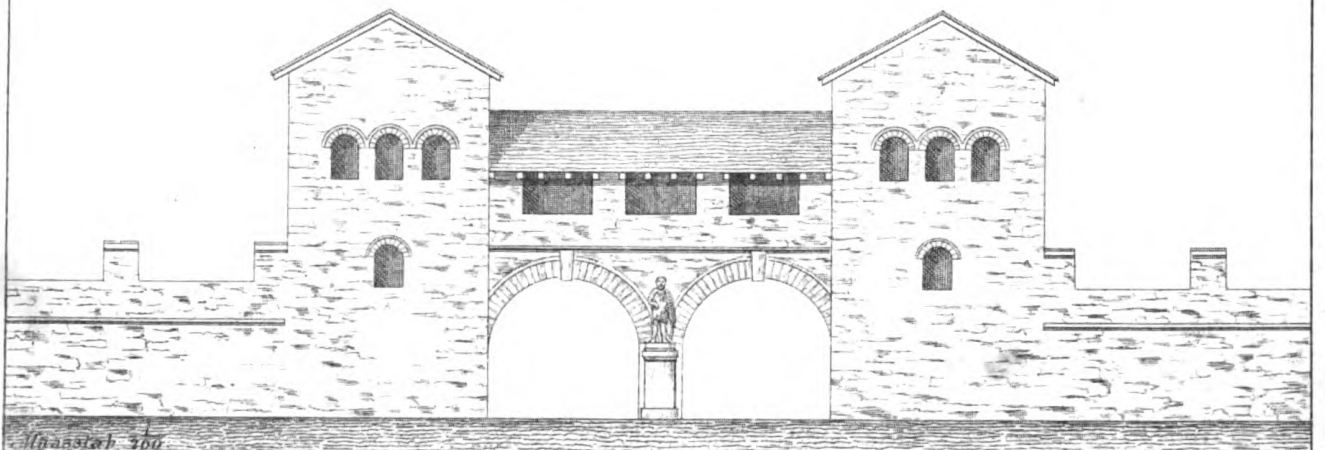
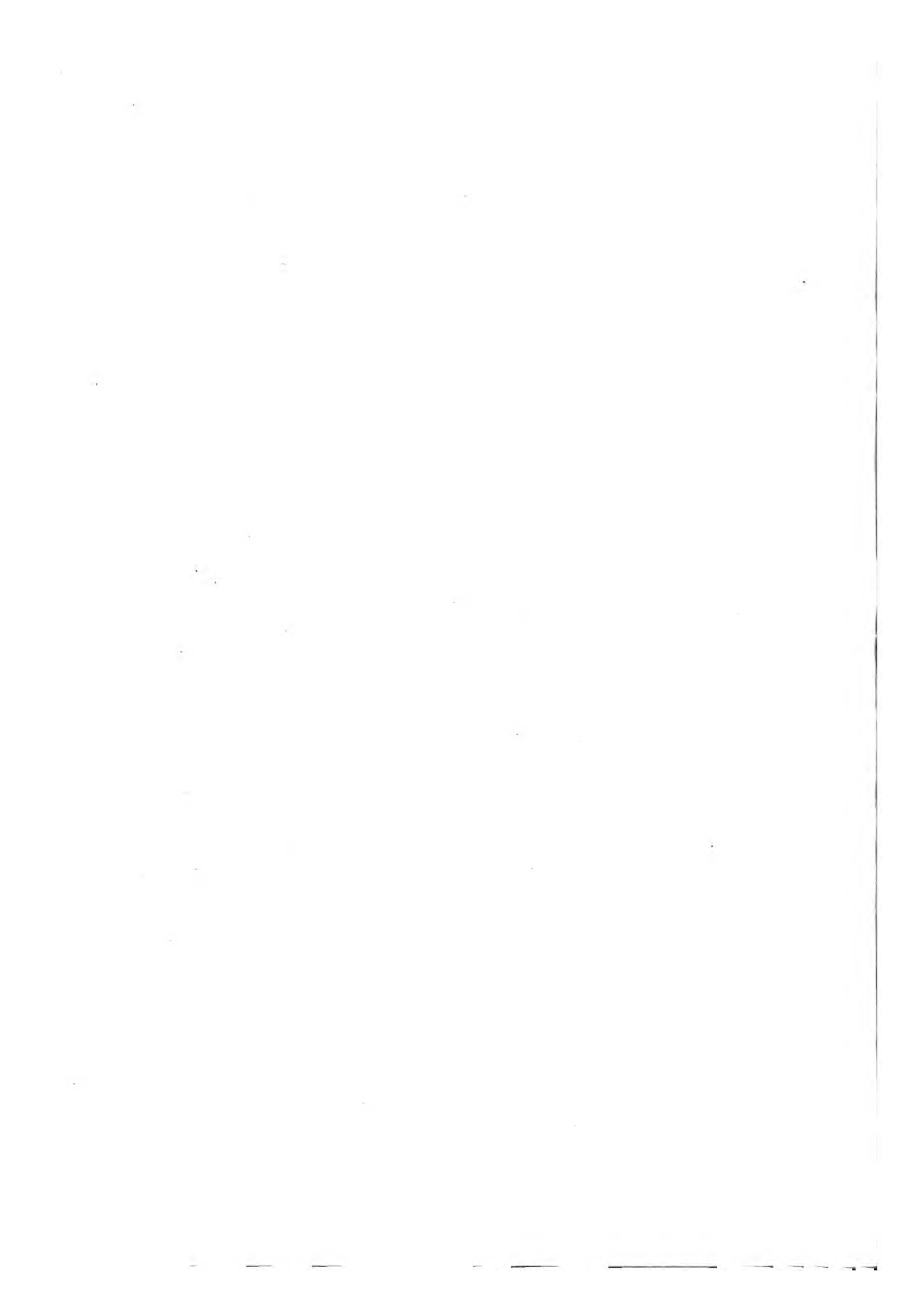
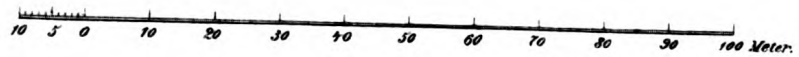
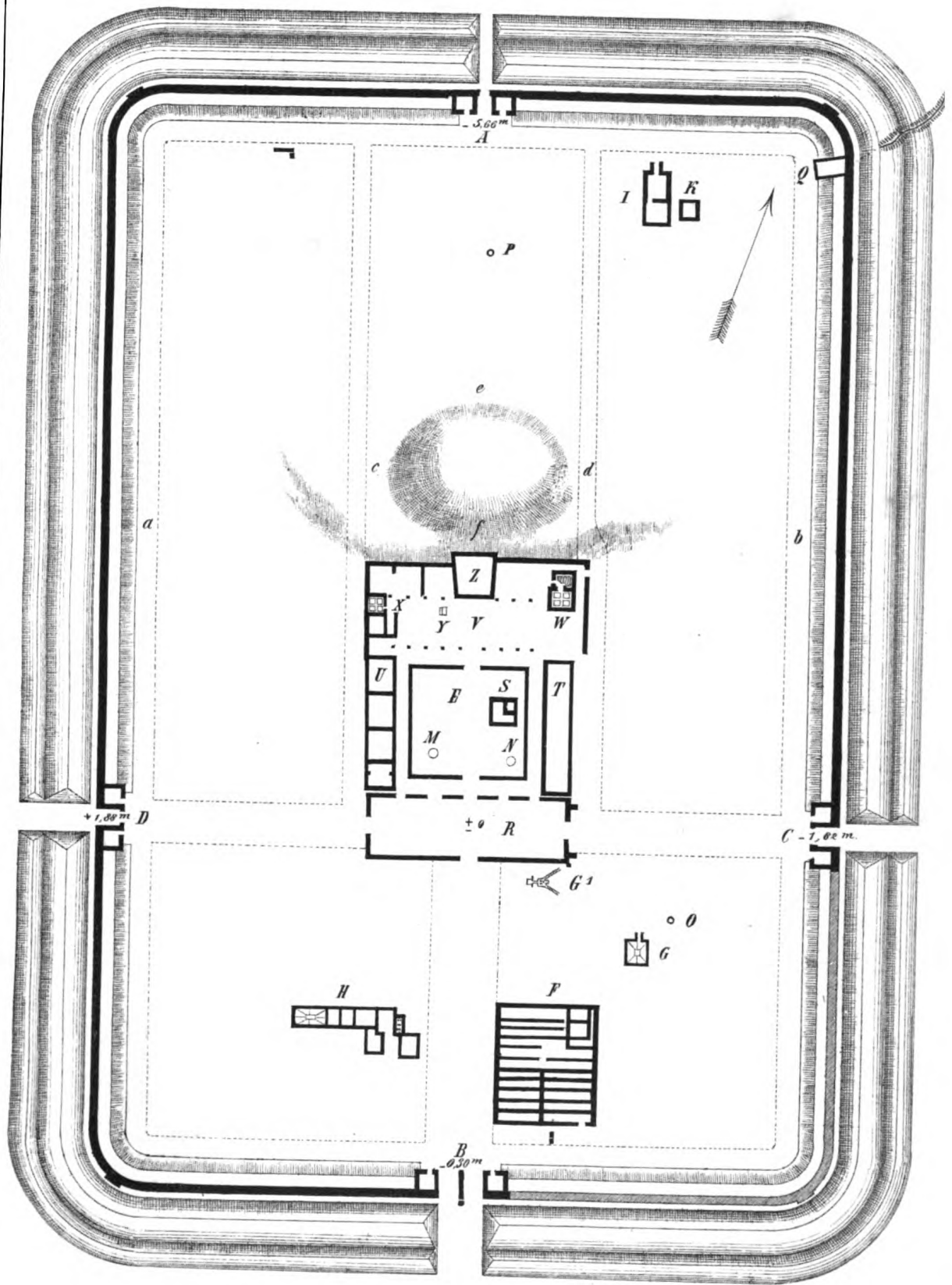


Fig. III.

EXTERIOR VIEW OF THE PORTA DECUMANA (FORMERLY).



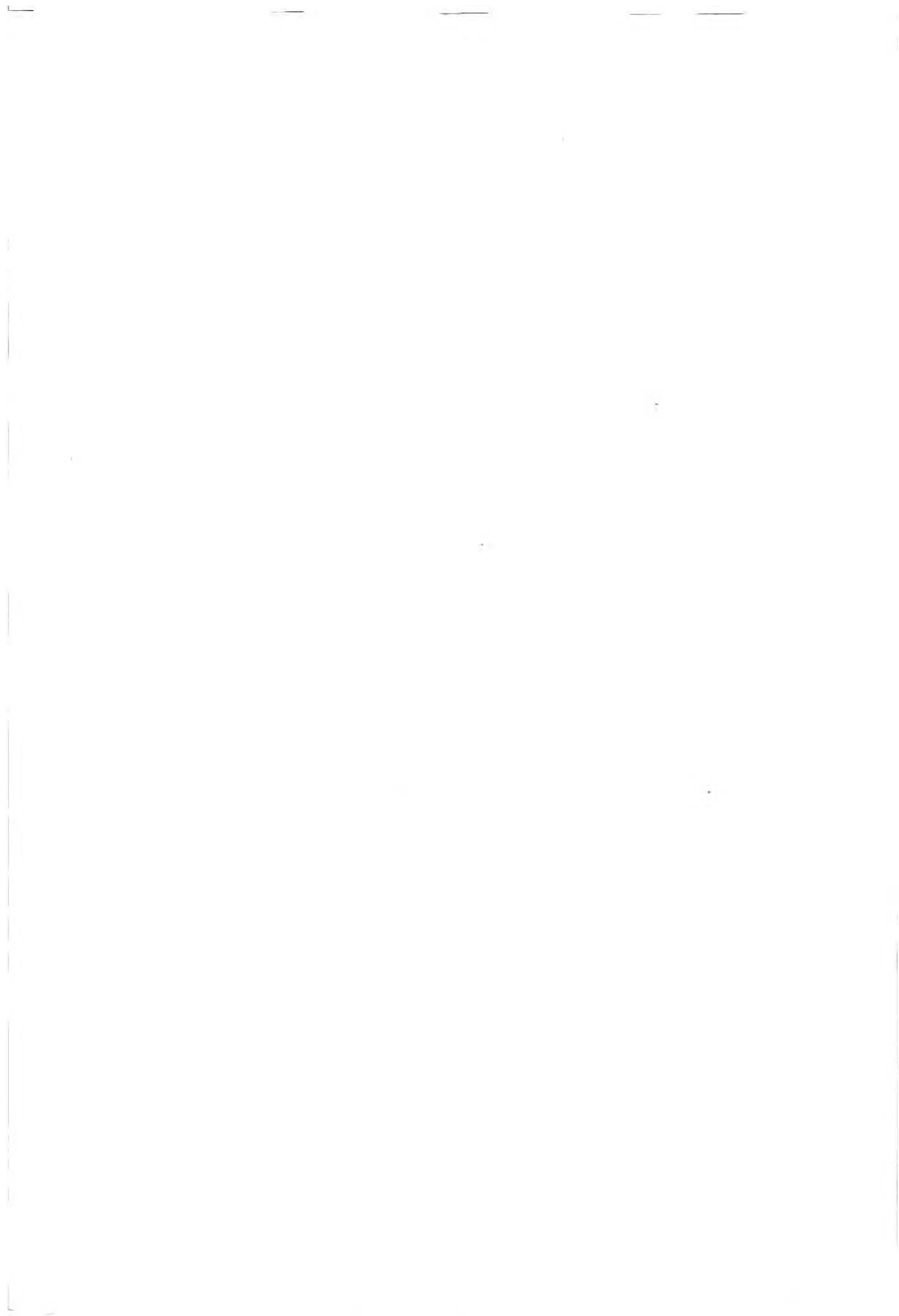


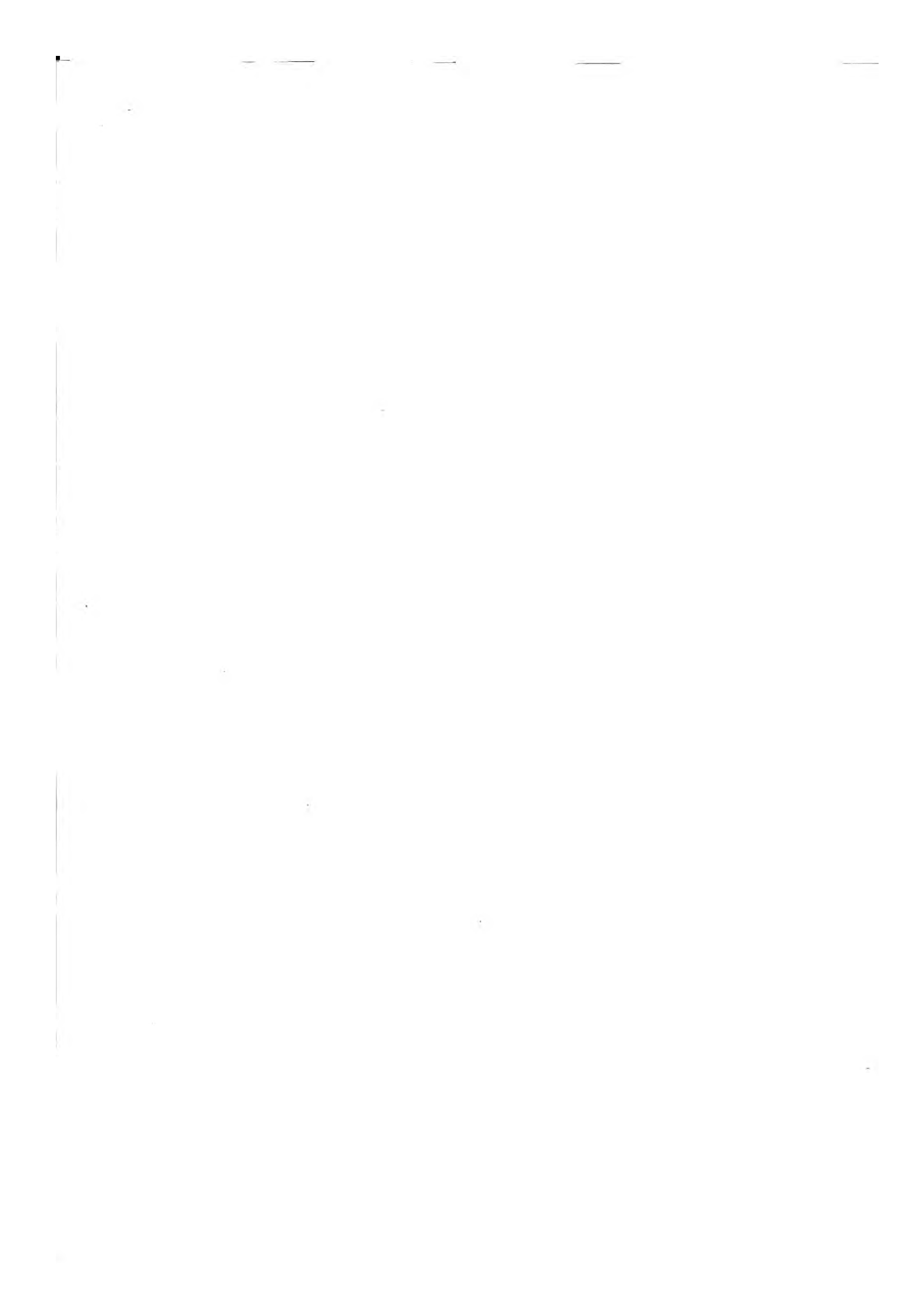


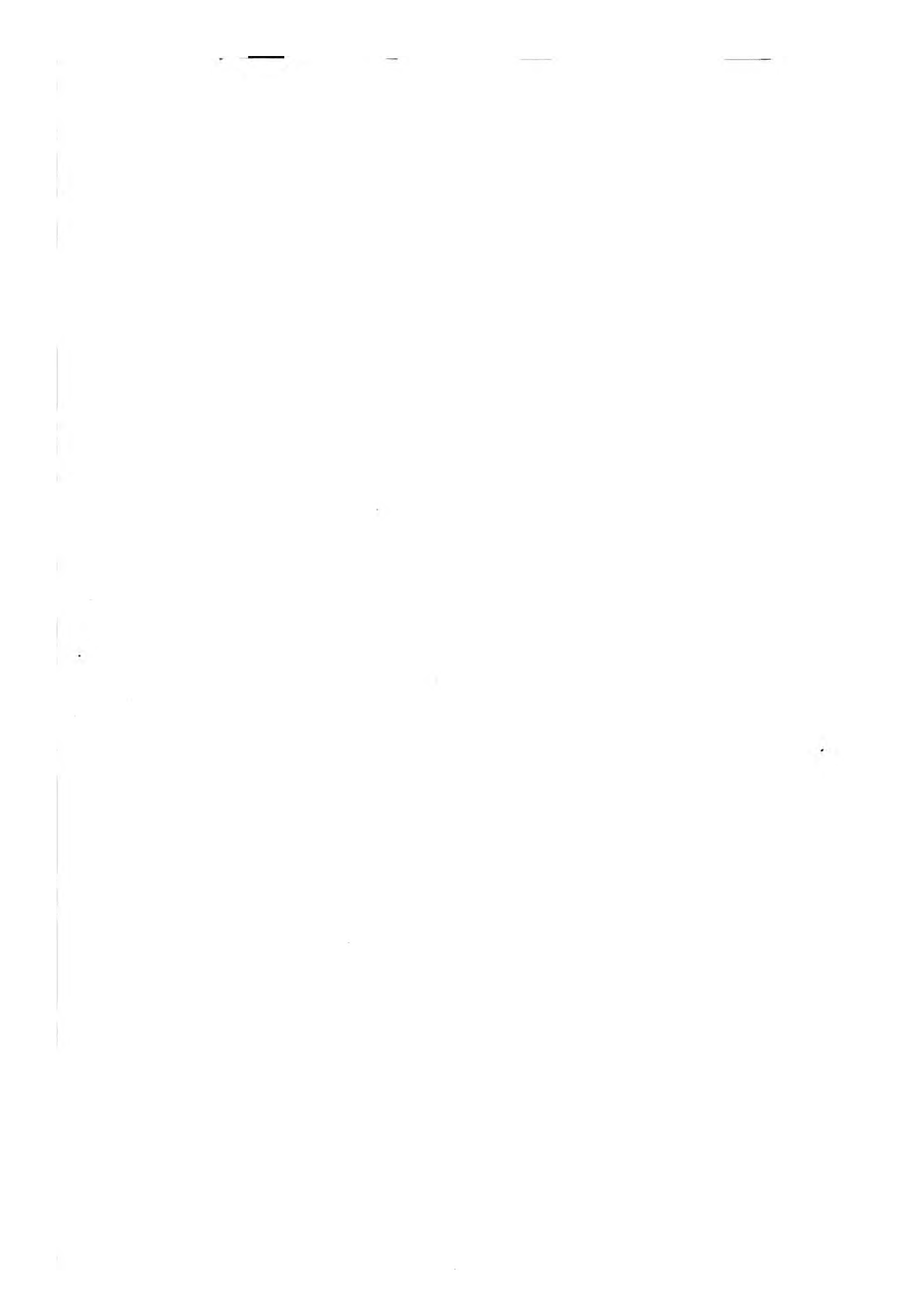




ASHMOLEAN
OXFORD
MUSEUM

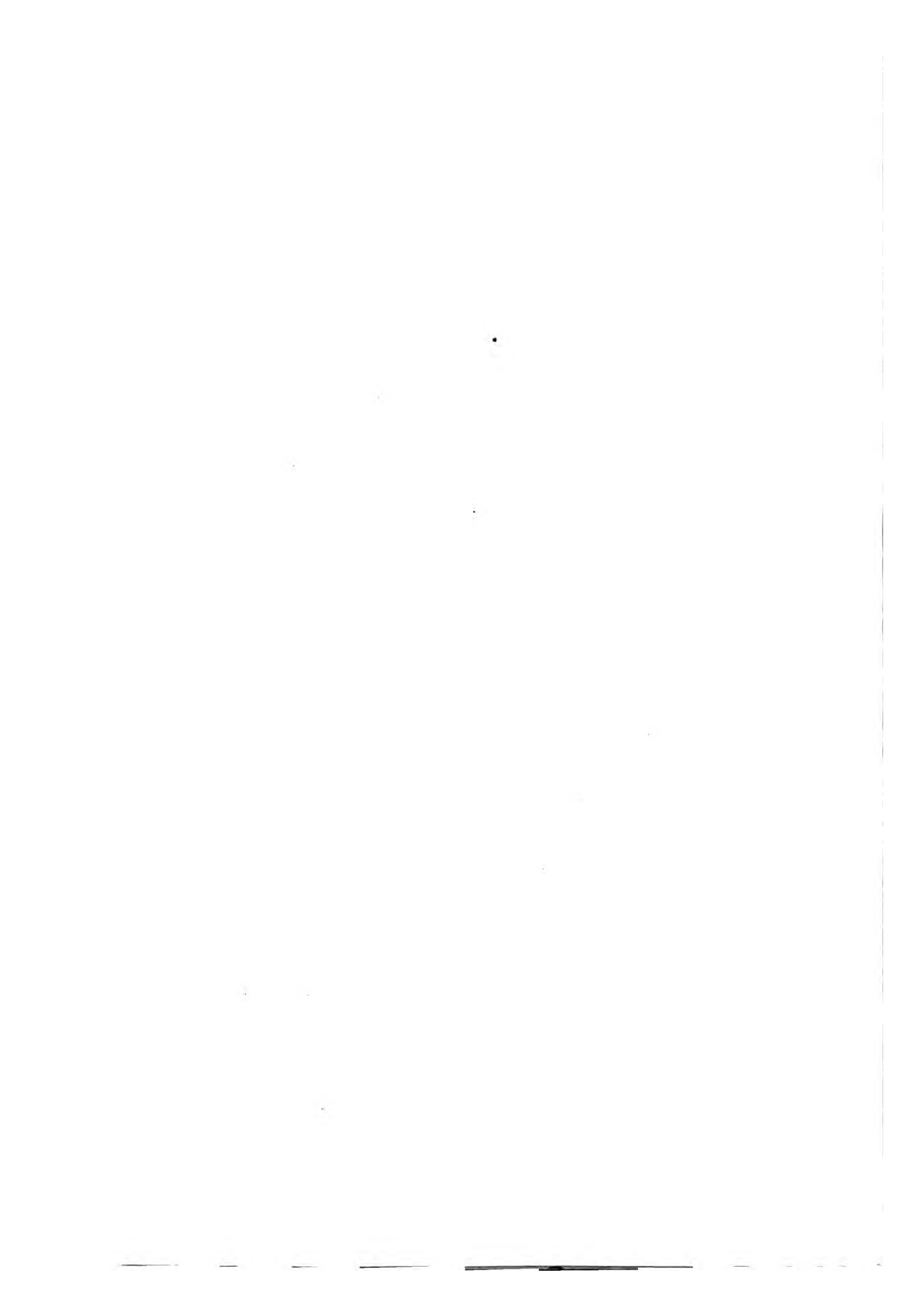




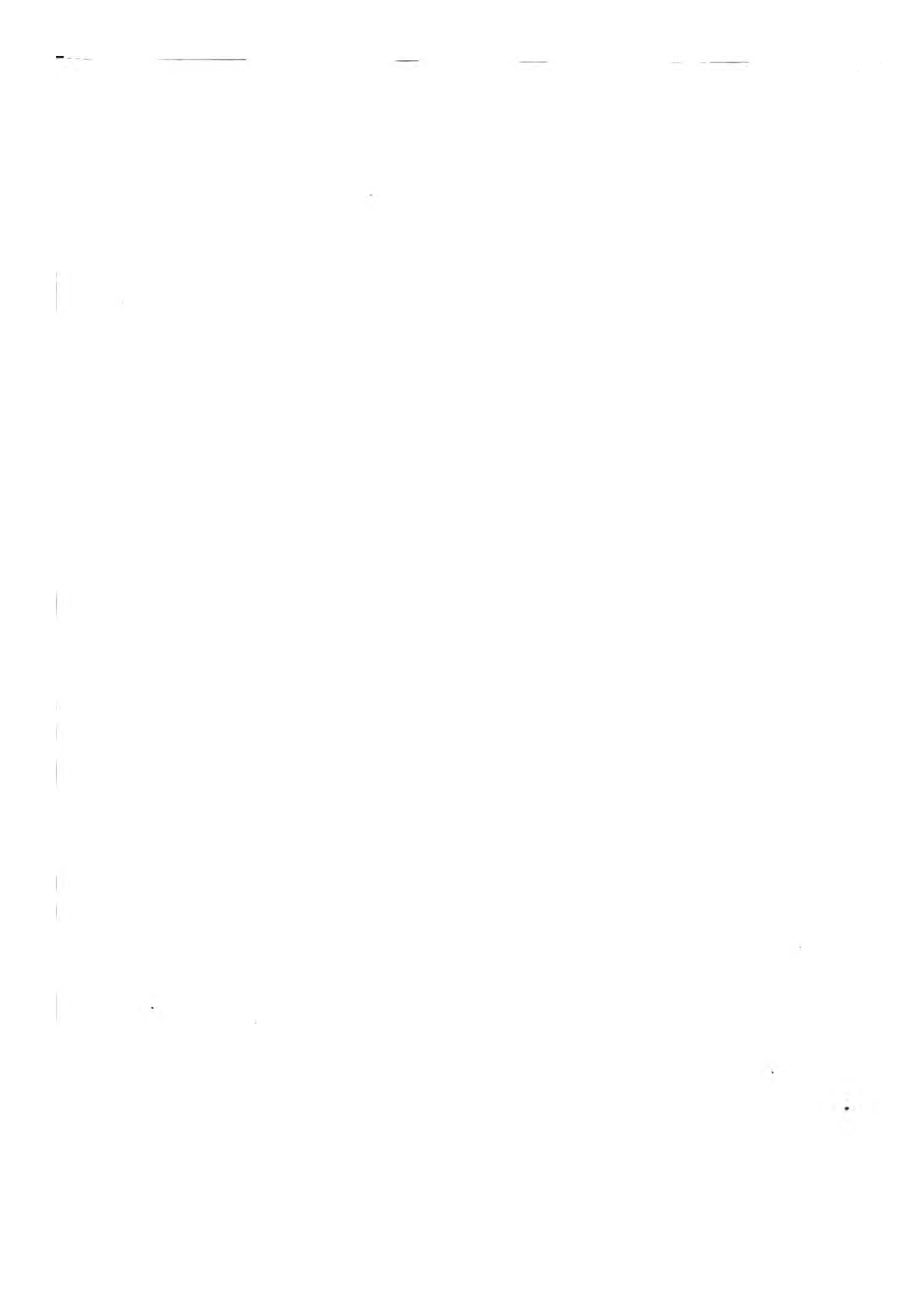


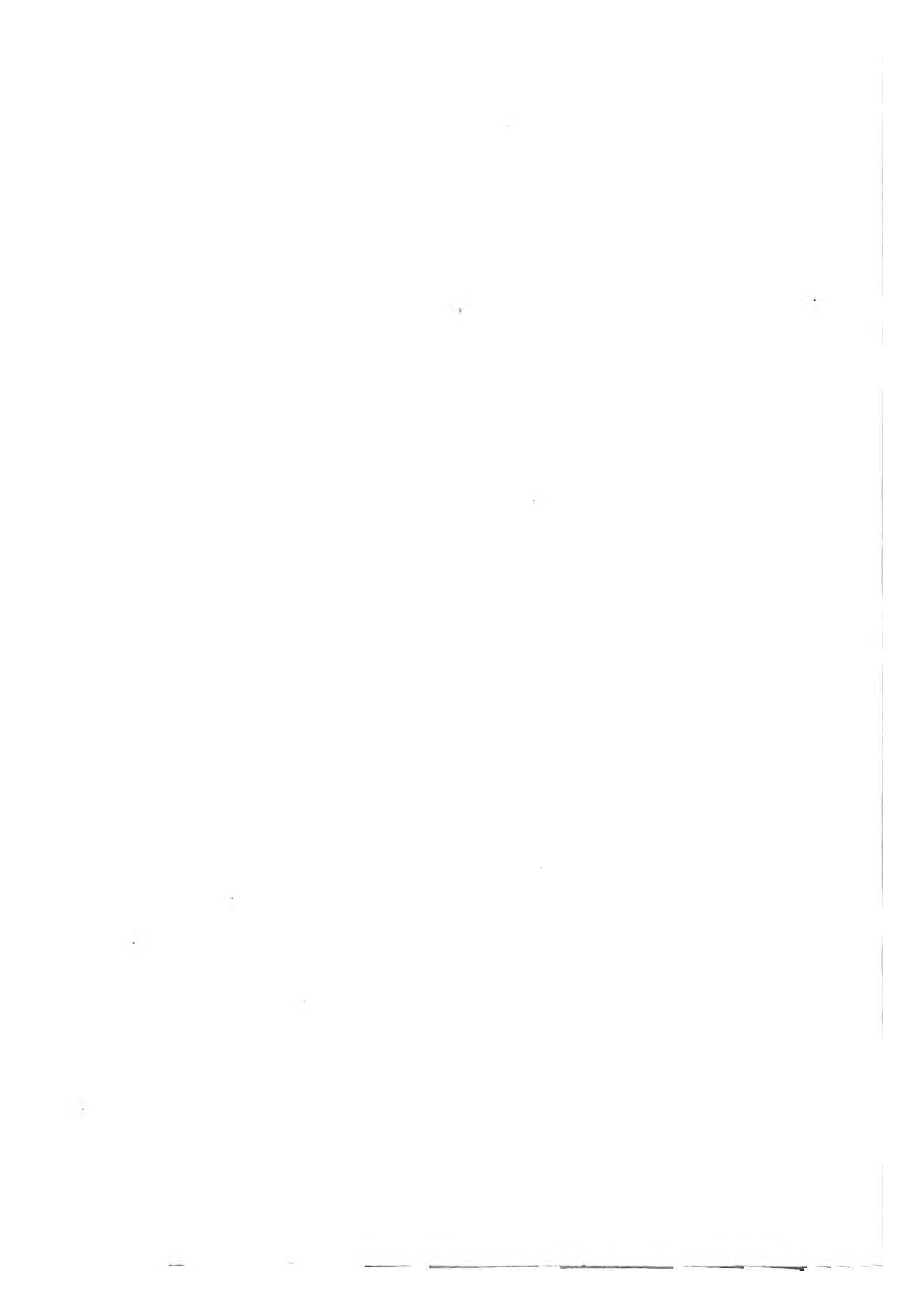






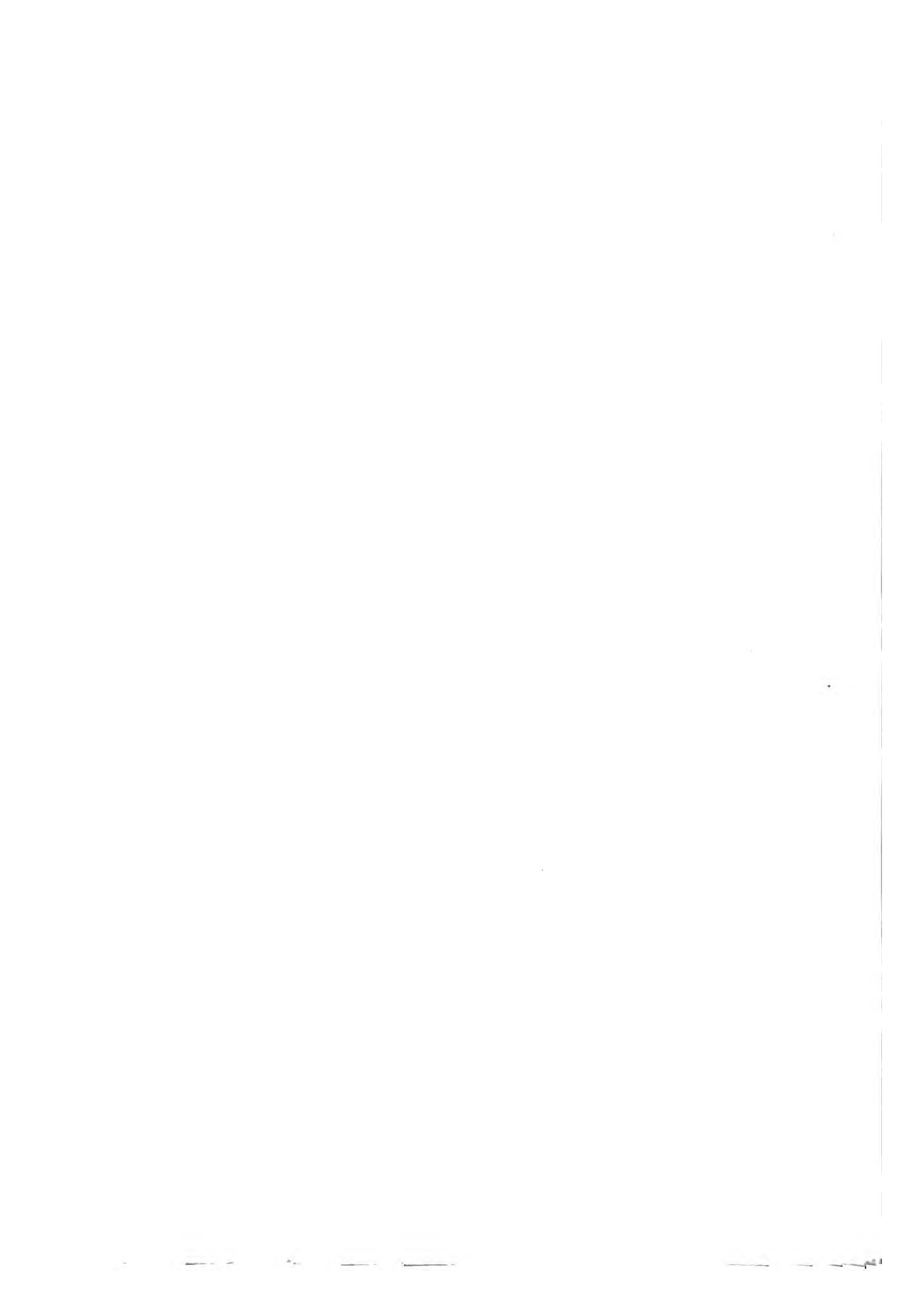


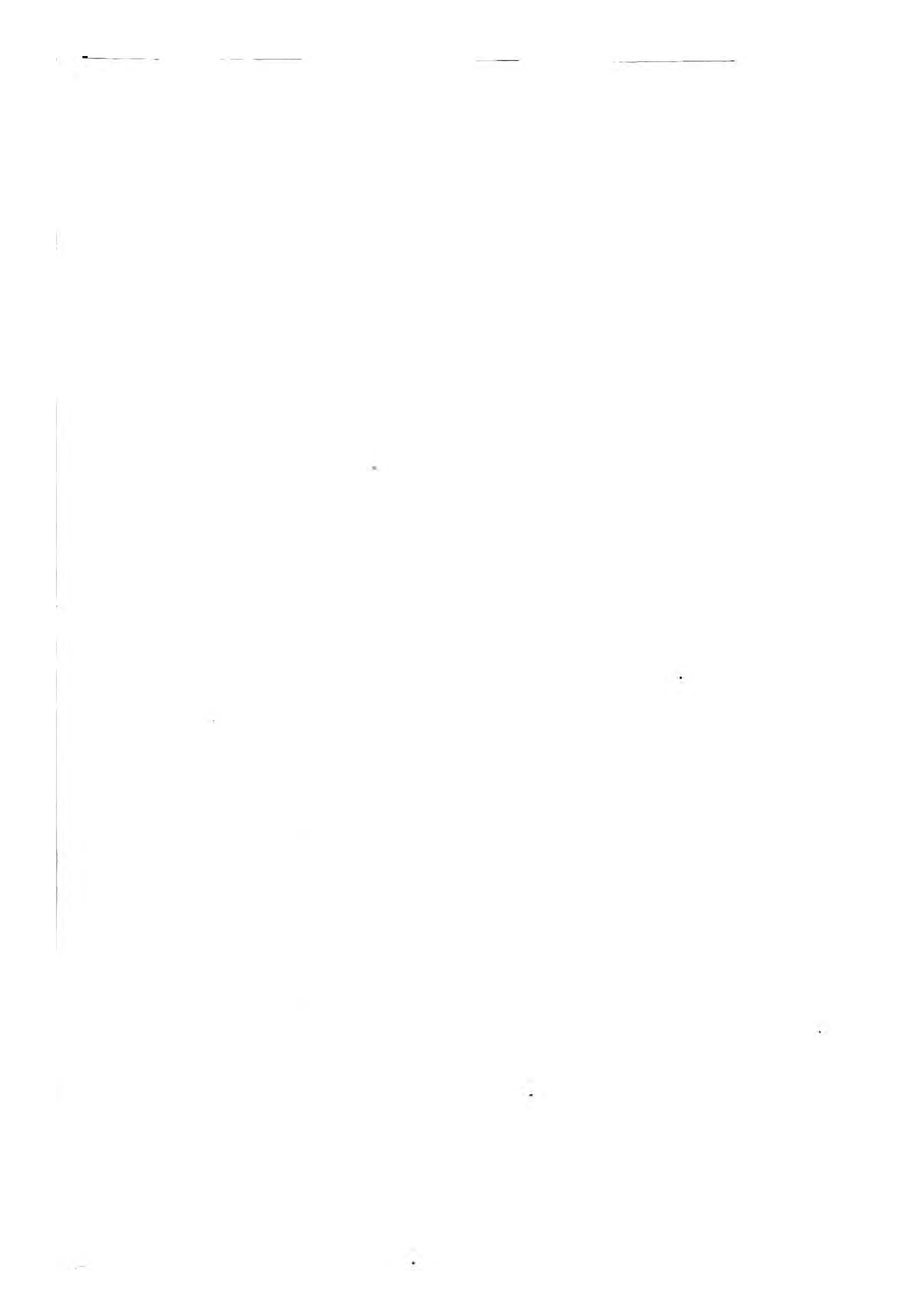


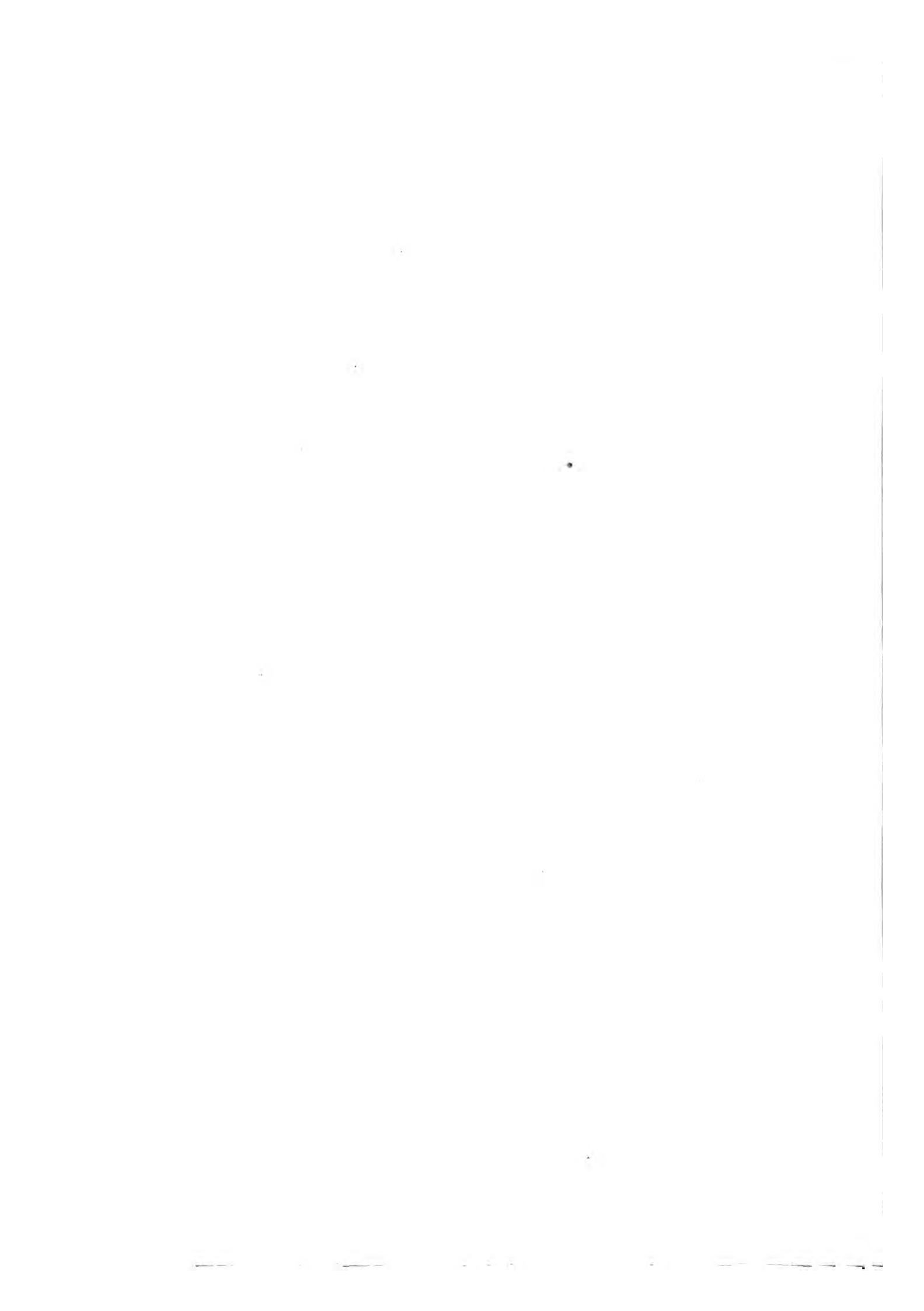




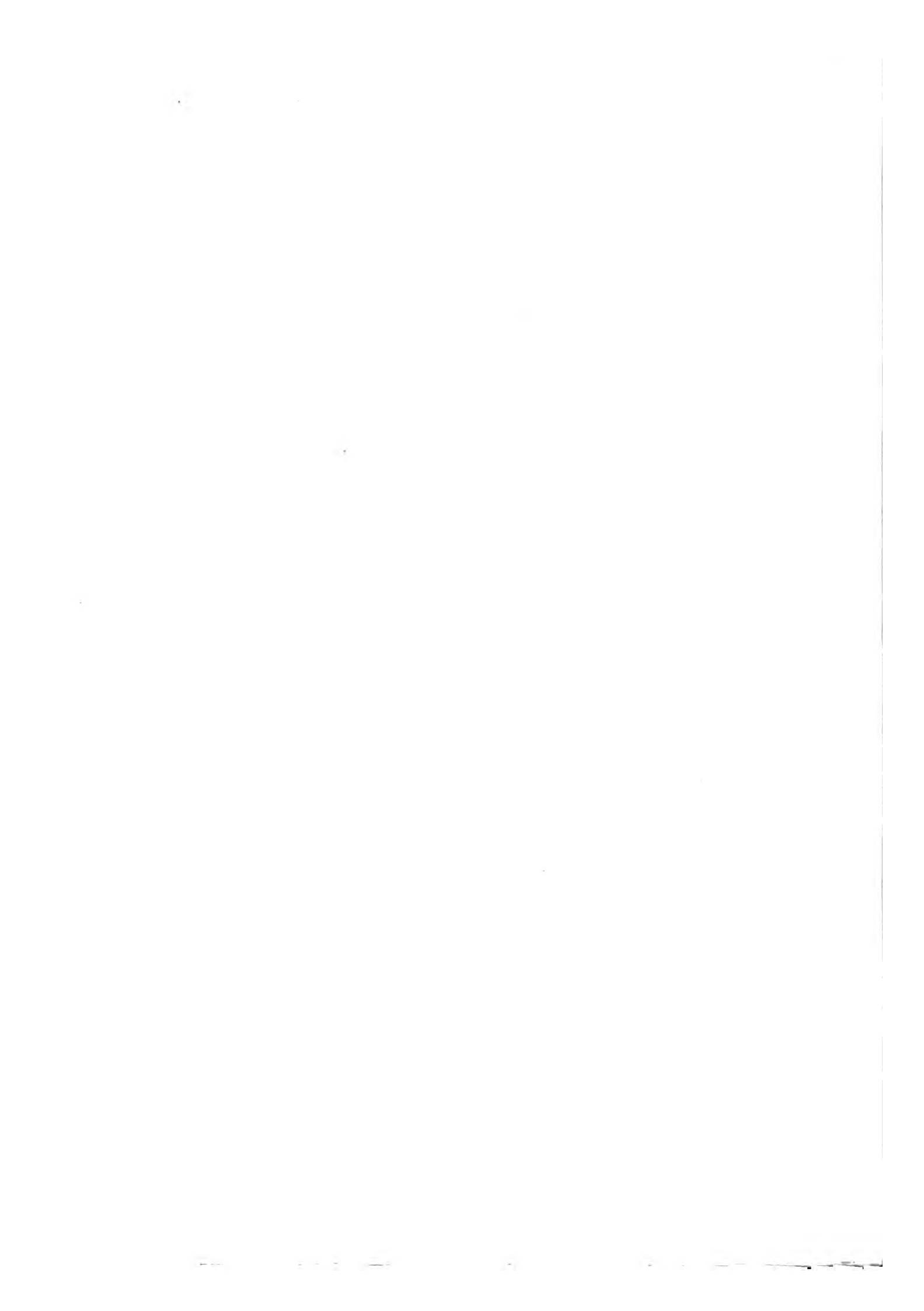




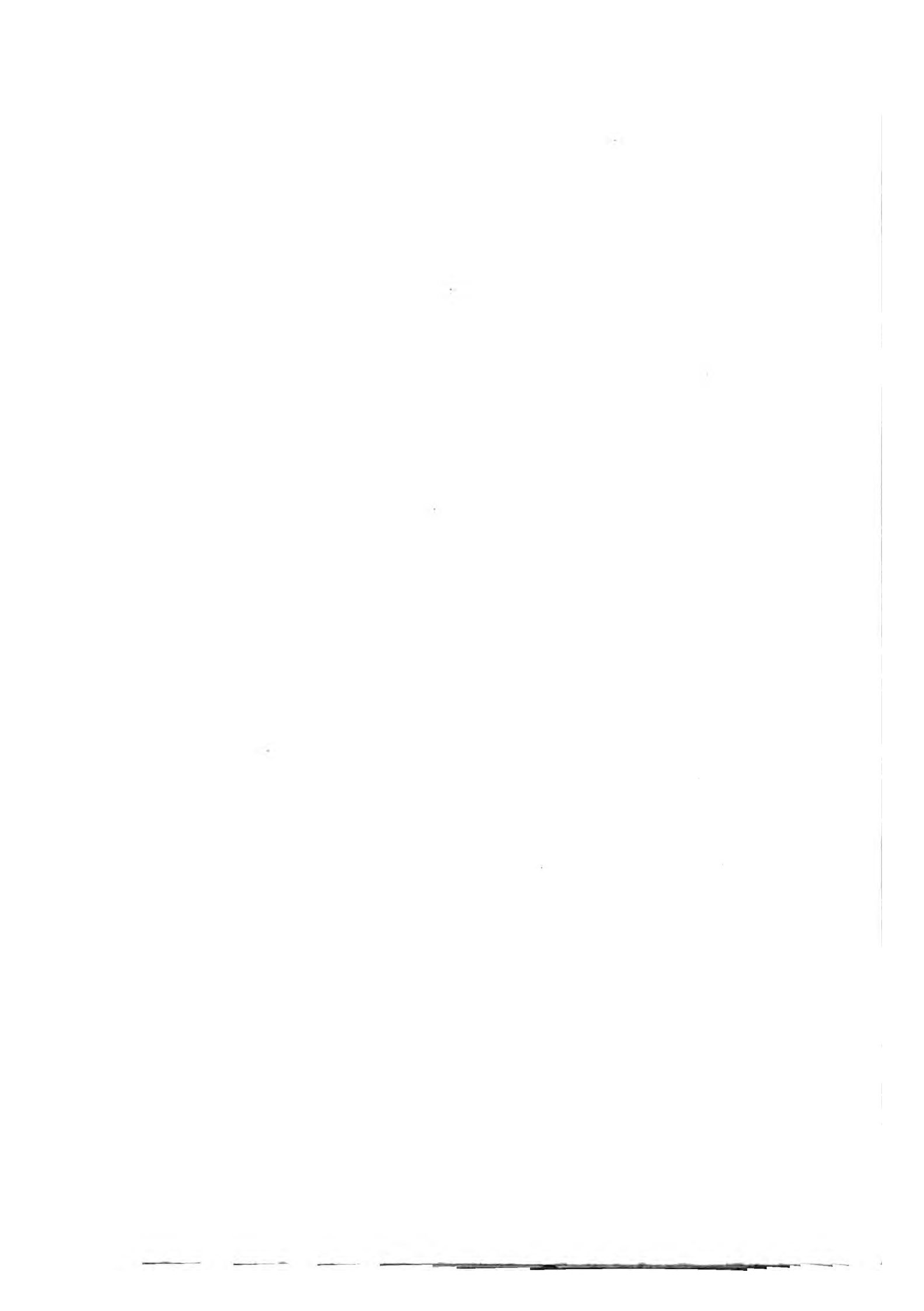




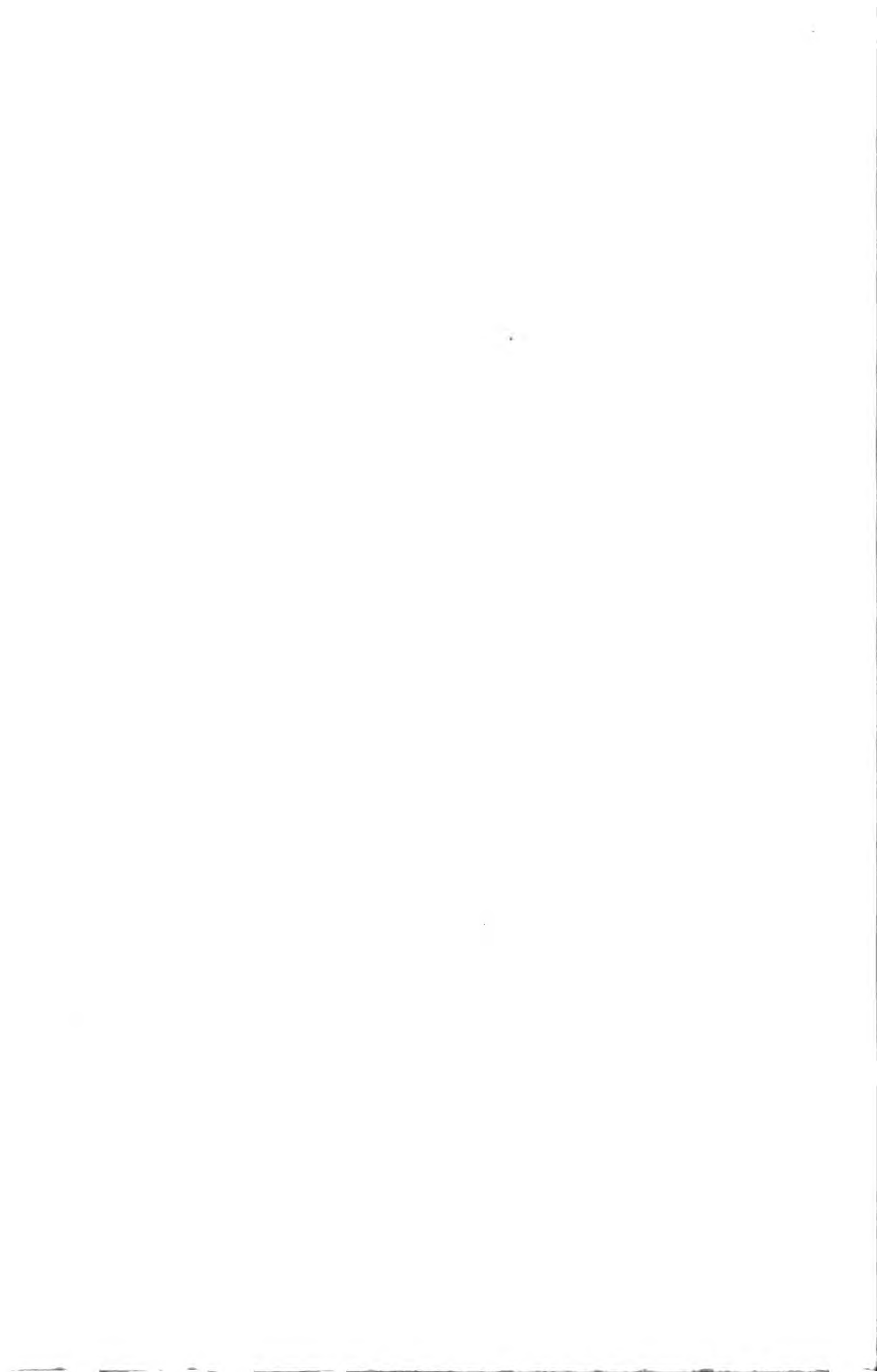








Vertical line on the left side of the page.



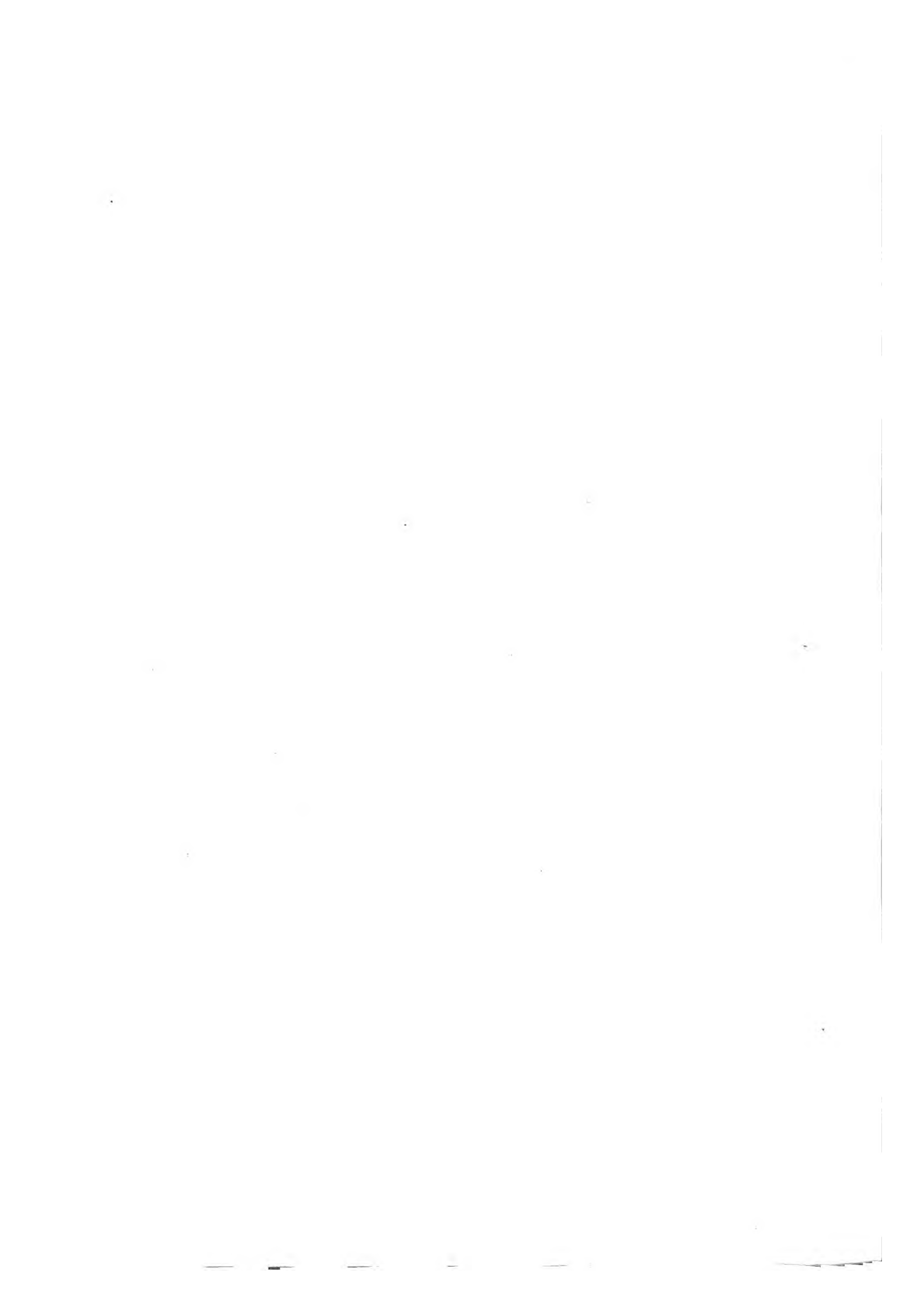
1

2

3

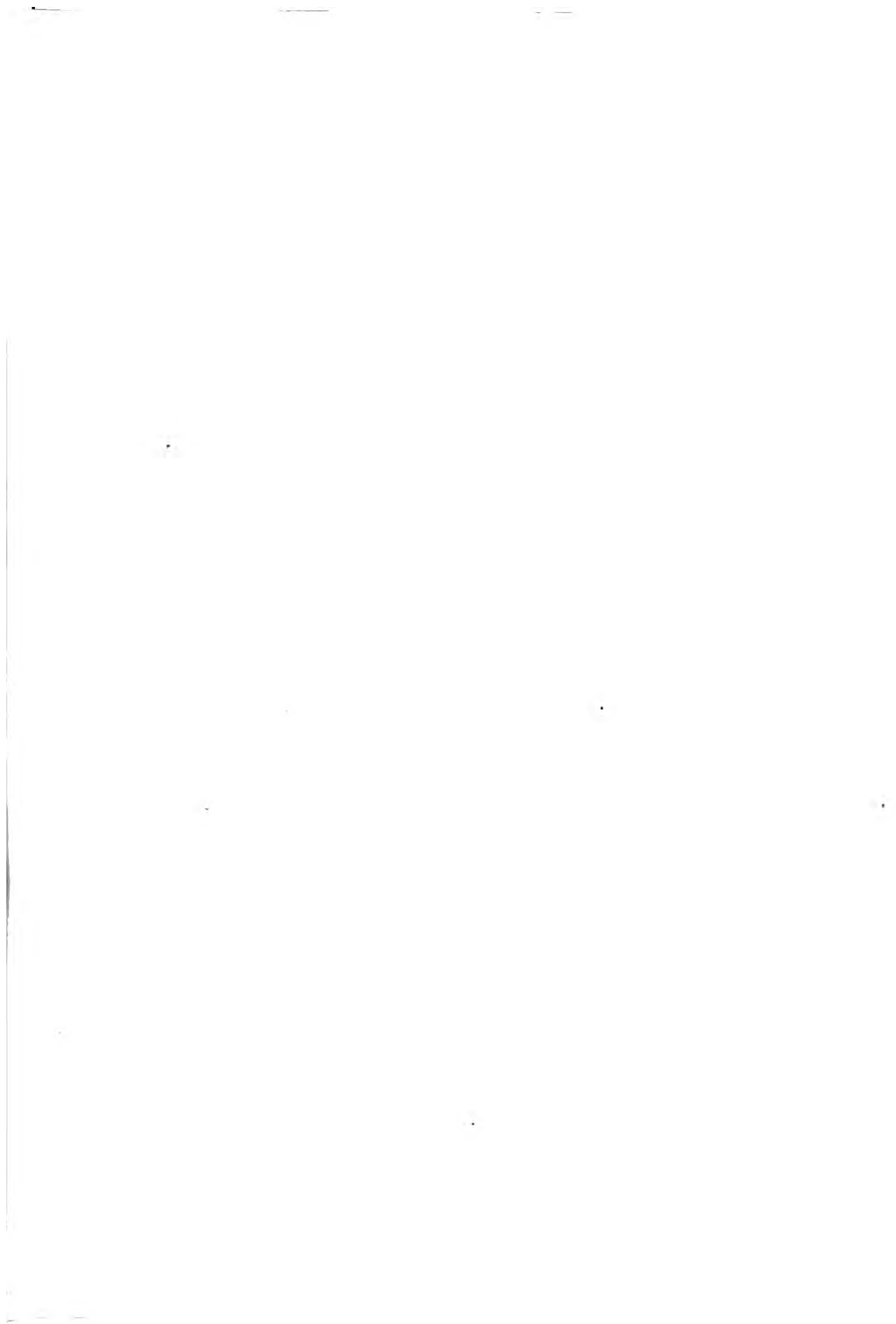
4

5

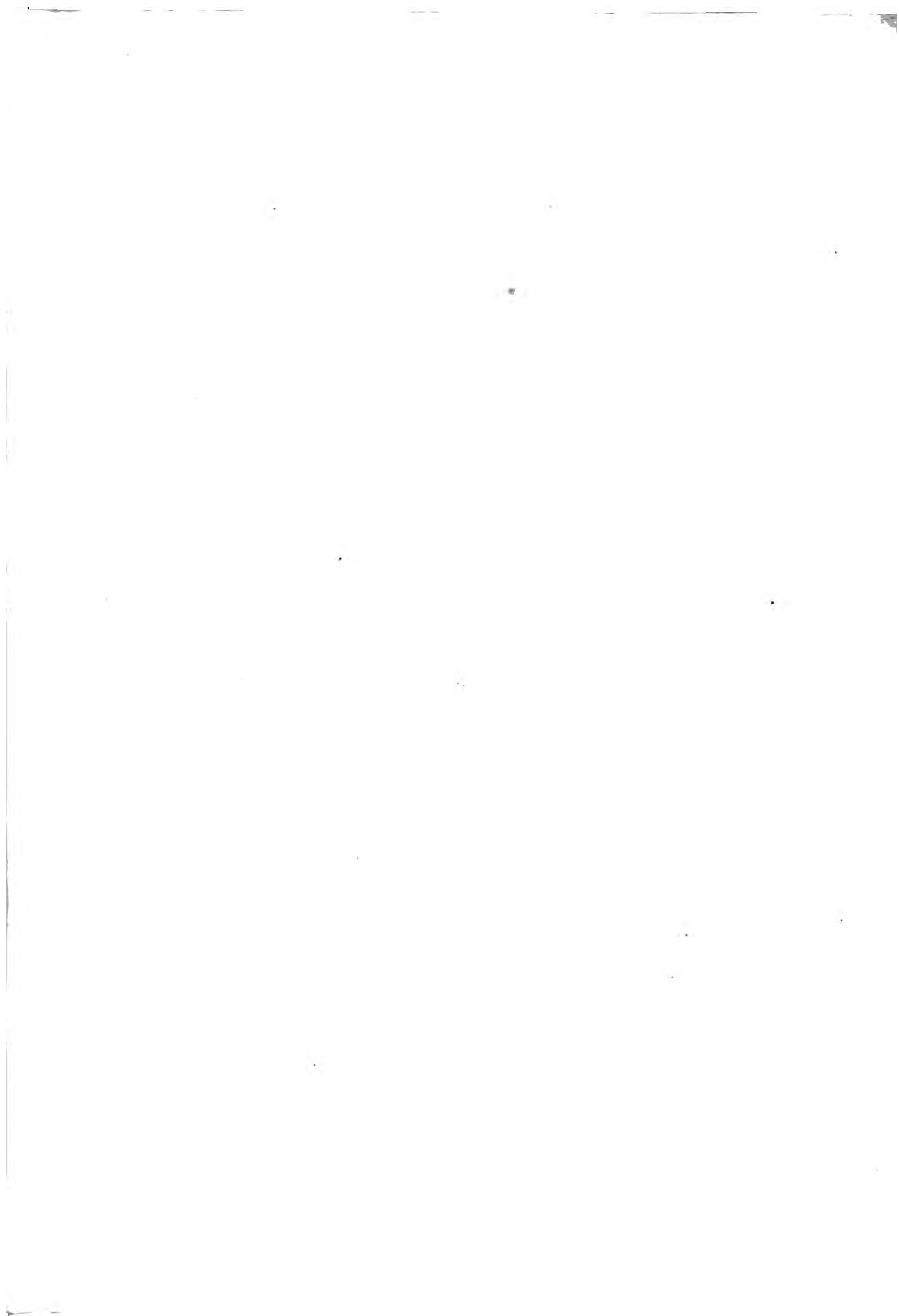














Printed by
J. G. Steinhäusser
Homburg v. d. Höhe.









