

29. 8.93

1.01

Visit of Kerstin Höghammar

Koan

Dr. Höghammar spent about an hour looking at our file on Koan 5AH in Fatin. She suggested some readings (actually, decipherment of some letters) for Atme of our ext. The bad boped up would have some contexts with dates, but there aren't many (any?) from the agora; nost are from the Denski Coll. pr. Hoghammar mentioned learning from K" Kavzix, Kave a whom the saw at the symposium on Rhodes this week about her pilns of Koan jars on Kos (not the subject of her talk at the conference). There is a fourth - cen. one in the uniddle of the island N (?) of the airport, but as there are not enough people to exercite it, no real investigation bas been done. In the city is a closed 4th - c. deposit of faro + fragments that seen to have come from a kiln site, as they are apparently wasters (but she doesn't have the actual workshop). These wellede some that will work up, which is being done. There are 3 kinds of handles: double, broad non-double and cylindrical. The clays used were of 2 different kinds. for of this K' KovZa spoke about at the conference in Mussolomki several years ago; publication is in progress. Mrs. K. said to Dr. Höghammas that in 5.10 years it will be possible to have a good dated sequence. Dr. H. took notes from our Koan - Latin SHH and if the finds more information, the write us. 22:XI.93 It did arrive a week on to after K.H's JST We have not yet recid the copy of D. H& dissertation here,



1.026 Uppsala 11/10-1993 Uppsala domkyrka Dear Ulis Petropoulakou, Jam looking orward to seeing your at 11 o'clock on Friday, 29th October at the Mrs Petro poulakou Agora Museum Agora museum! yours suicekly, ATHENS Kerstin Höghammar

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MEDELHAUSMUSEET

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Uppsala 17th Sept. 1993



UPPSALA UNIVERSITET

Institutionen för antikens kultur och samhällsliv

Department of Classical Archaeology and Ancient History

Kerstin Höghammar

Dear Mrs. Petropulakou,

Having finished my thesis (which was finally published this summer), I am at present working on the connection between Kos and Rome in the Late Hellenistic and Augustan periods. One of the sources which came to my knowledge through you in 1988-1989 are the Koan stamped amphoras with Latin letters. As I never saw them when I lived in Athens, I wonder if it would be possible for me to see them this autumn.

I will attend the symposion connected with the 2 400 years anniversary of the polis of Rhodes during the last week of October, and I thought to come to Athens at the end of this week. The Swedish Institute has been in touch with Miss Grace on my behalf. She told them that you are at the Agora museum on Tuesdays and Fridays. I would be very grateful if it would be possible for me to visit the museum on Friday the 29th October. $U_{f} \sim 11.00$ On Saturday I will return to Sweden.

Could you please inform the Swedish Institute in Athens (phone 92 32 102, 9AM to 1 PM) whether this date would suit you. They will forward the information to me. (I will send this letter as a fax to the Swedish Institute and they will mail it in Athens for me.)

Yours sincerely,

Kershin Höghammar

Kerstin Höghammar

P.S. As a token of gratitude for all the pleasant times I visited you and Miss Grace at the museum I am sending you a copy of my dissertation, *Sculpture and Society*. What remarks I make on Koan amphoras and the wine-trade are on pp. 35-36.

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K. Höghammar

Mrs M. Petropoulakou Agora Excavations Stoa of Attalos Adrianov ATHEN Grekland

INTRODUCTION

I have long been interested in both the interconnection between art and society and in the Hellenistic period. This has led me to start working on material from Kos, an island abundant in ancient statues and the history of which has been admirably treated recently by Susan Sherwin-White.

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3.01

Kerstin Höghammar

Art forms an integral part of the cultural development of society. The artists are human beings who live in and are influenced by their surroundings. They express in their art their own and their contemporaries needs and wishes.

In order to comprehend art more fully one has to know the economic, political and social development of the society the art of which one studies. My thesis in this study is then that the sculpture of Kos reflects Koan history.

This general and rather abstract thesis can be given a more concrete form by way of choosing a particular line in the historical development and see how it corresponds with the information gathered from the inscriptions on the bases of Koan statues. It is then possible to have the thesis verified or rejected.

Such an analysis requires that the bases concerned are securely dated. That is no problem with some of them, but many, unfortunately, cannot be given a more precise date. There is thus from the beginning an element of uncertainty which affects the result. I have tried to minimize this factor by carefully reassessing the dates of all the inscriptions the result of which is presented in chapter 1.

The dated inscriptions have been plotted on to a time chart, the division of which is the same as my historical periods (see further down). Several inscriptions are so vaguely dated that they can fall into any one of several consecutive periods. These inscriptions have to be considered separately as well as together with the others. Some inscriptions I have given a more definite date than certain readers may think they merit. I have chosen to do so to be able to use them in my statistical analysis. I hope that even if I may be wrong in some individual cases the overall picture achieved by this type of analysis will present results which justify occasional errors. I also hope that in presenting carefully my arguments for the dates given, any reader can react and argue for another conclusion.

The Hellenistic and Augustan periods cover a long time and I have divided this into shorter periods. These are not of equal length as I have defined my periods after what to me seems to be historically and economically relevant dates in the history of Kos.

All the inscriptions are submitted to statistical analysis on the basis of different criteria. The results of this analysis are presented in the form of tables. These latter form the basis for a discussion of the material in chapter X to XX.

Some inscriptions are given a closer treatment for the particular value they may have in widening our knowledge of the history of Kos.

Using this method I hope to be able to present an integrated analysis of the development of Koan history and culture. Here the culture is represented in the form of sculpture and its raison d'etre.

The selection of the inscriptions for the last period, '7 or later', may be somewhat arbitrary. I would say that this reflects a difficulty most scholars meet; the chronological periods of history are not easily separated from one another. Development is continuous and change gradual. Thus it is often difficult, for instance to decide whether to place an inscription in the Augustan or in the immediate post-Augustan period. Some inscriptions under the heading '7 or later' could have been excluded, others included. I can only hope that my decisions here have not significantly changed my statistics.

Kerstin Höghammar

KOAN AMPHORAS, AND TRADE.

My aim with this tentative study is to try to present an alternative picture of the importance of the Koan wine trade for the Koan community. The figures presented in the tables of various excavation reports/publications for stamped handles are, if one has no knowledge of the amount of unstamped handles found and unfortunately hardly ever reported, very easy to misinterpret in terms of trade.

seed to a light

In using the ratio of stamped to unstamped handles found in an excavation on Delos (1:12) on the entire material of Koan handles my only aim is to break through the common misapprehension that the number of Koan amphoras on various sites was very small as compared with, for instance, those from the neighbouring island of Rhodes. Undoubtedly there was a difference, but not on the scale so easily and so mistakenly seen in the exact numbers of stamped handles found. In using the ratio 1:12 for stamped to unstamped handles I do not think that I overrepresent the implied total number of Koan amphoras at a certain site. I rather suspect that the ratio was even higher during the third and most of the second century, but this remains to be proved. However, even in using the ratio 1:12 one can see important changes in the relative relationship between Kos and Rhodes in for instance the northern and western Black Sea area.

I wish to stress that the figures I present in my calculations do not represent a real number of amphoras found in any place listed, but I believe that my figures come closer to the number of Koan amphoras once there than the figures presented in the tables of stamped handles found.

It would not have been possible for me to produce this text without the information and help given to me by Miss V. Grace and Mr. J_*-Y_* Empereur, whom I hereby thank.

<u>Problems involved when using Koan amphora handles as a way</u> of reconstructing trade.

1. Stamped Koan amphoras appear from the late 4th century (then very rarely, oral information, Empereur) and continue down to about Augustan times. Most stamps seem to date from the 2nd and 1st centuries.

According to Miss Grace there was a break in the stamping of Knidian amphoras between 88 and 85 because of the Mithradatic War. After this war stamping reoccurred (but not to the same extent) down to Augustan times, that is, the wars meant disruption of trade (Grace & Savvatianou-Petropoulakou, Delos XXVII, 1970, 322-23). Was there a break in the production on Kos as well or could the island profit on the difficulties of the other wine producing area and increase its exports?

2. We know that far from all Koan amphoras were stamped as

opposed to almost all Knidian and Rhodian - the latter were stamped on both handles -. What was the ratio of stamped to unstamped Koan amphoras? Was it the same in all periods or did it vary?

Unless the Koan handles published from various sites are dated and a ratio of stamped to unstamped handles is worked out for the different periods we cannot really make an estimate of the Koan wine trade down to the end of the 2nd century.

For the 1st century and later we also have to learn how many of the so called Koan amphora handles really are Koan.

3. Koan potters produced not only the 'classical' double handled amphoras but also other types, for instance, a) imitation of the Rhodian type (Grace, Empereur), b)the socalled Nikandros-group (Grace, Empereur; - Savvatianou-Petropoulakou thinks that this group is not Koan -) and c)the so called the Sopatros group (Empereur). These groups have not been included in the 'Koan' group when published and are thus not included in my calculations.

Do these groups show a similar proportion of stamped to unstamped handles?

4. From the end of the 2nd century and particularly from the beginning of the 1st century, amphoras of the Koan type start being produced at various places, for instance Myndos, Halicarnassos, Theangela, Knidos and Rhodes. According to Empereur the clay can be so similar to that of Kos as to make it virtually impossible to see any difference with the eye.

These extra-Koan production centres may also have produced amphoras with name stamps now considered to be Koan.

How many of the so-called Koan handles from this late period are not Koan?

5. Koan amphoras contained more wine than for instance Rhodian jars. A Koan jar took over 40 liters whereas a Rhodian one took 25 to 26 liters.

The ratio of Koan stamped to unstamped amphoras.

Already in 1949 Miss V. Grace presented us with the fact that many examples of the Koan amphoras were not stamped, she also notes that the same observation was made by the Alexandrian collector of stamped amphora handles, mr Lucas Benaki (Hesp. Suppl. 8, 1949, 181, 186), an observation since repeated by Miss Grace several times.

In 1962 D. Levi and G. Fugliese-Carratelli published a number of handles from lasos in Caria. They pointed out that the number of stamped handles from Rhodes found was much larger than from anywhere else, but that perhaps the numerical relationship between imports of wine amphoras as such from Kos and Rhodes had to be modified somewhat because of the finding

of a great number of double handles without stamps apparently from Kos (ASAA, N.S. 23-24, 1961-62, 605).

Mr. Empereur presented the results of an 'informal' survey made in 1976 on the southern coast of Kos in an article. He counted 176 double handles, two of which were stamped. In a note he says that the unstamped handles are contemporary with the stamped ones (2nd and 1st cent.). This would give a ratio of 1:44, a figure which he later modifies to 1:30 (oral presentation in Fylos 1984).

In an excavation in Delos, la Maison au nord de l'Ilot de Bronze (date t.a.q. 69), Empereur studied all the Koan handles from the excavation. There were 59, three of which were stamped, the implied ratio of stamped to unstamped amphoras is 1:12 (Empereur, BCH 106, 1982, 226-27, 233).

Most publications do not date the Koan handles, usually an overall figure is given. Exceptions are the later publications by Grace - Savvatianou-Petropoulakou. An estimate of the development of Koan trade cannot really be given until one has both the dated stamped handles and the ratios stamped unstamped handles for the different periods.

As I have already pointed out the ratio of stamped to unstamped Koan amphoras is on the whole unknown. However, I would like to make the experiment of multiplying the figures given in S. Sherwin-White's table (Ancient Cos, 1978, 238) by twelve, the lower ratio presnted by Empereur from the Delos excavation. I am fully aware that the result will not give a true picture of Koan trade as the ratio probably varied at different times and the figures given in Sherwin-White's table are undated (most Koan stamps, however, seem to date to the second and first centuries).

Centres where Koan amphoras seem to predominate.

I will list the places where the calculated number of Koan amphoras is larger than the number of Rhodian jars. The Koan figures are quoted first. In the Black Sea area; Phanagoreia 168-150, Panticapaion 240-123, Chersonessos 156-92, Tyras 468-155, Istria 444-242. I add some places for which Sherwin-White has not given the figures, Myrmekion 192-98, Callatis 192-64 (Gajdukevic, Das Bosporanische Reich. 1971, 182, n. 37; Gramatopol, Poenaru Bordea, Dacia N.S. 13, 1969, 127-37). In Panticapaion, Phanagoreia and Tyras the implied number of Koan amphoras is not only larger than the Rhodian, but the largest number of amphoras imported alltogether as the present evidence stands. The count and identification of unstamped handles may, of course, change this picture. (In Olbia and Odessus the Rhodian figures are higher than the Koan even after the conversion.)

Apart from the Black Sea area the Koan figures are higher at Pella (where Thasian amphoras are most numerous of all) 180-104, Samos 234-195, Iasos on the Karian mainland 168-30, 3.05

Kos 1932-198 and Nessana in Palestine 240-7. The jars in Nessana are however, according to their publisher Miss Grace, very likely to have been reused before being brought there and thus do not bear evidence as to trade between Kos and Nessana.

In a more recently published excavation on Labraunda, Koan amphoras predominate with an implied number 144-12. Most of the Koan handles date to the period 108 to 80, whereas the Rhodian are earlier, c. 275 to 108.

Athens, Delos and Alexandria.

In Athens (agora) and Delos the Knidian handles ar e in a vast majority. In Athens the Rhodian handles seem to be more numerous during the late third and early second centuries whereas the Knidian ones dominate from about the middle of the second century or somewhat earlier and onwards. On Delos the Rhodian are much more numerous in the second century, but the Knidian handles dominate from the second quarter of the same century (Delos, Empereur BCH 106, 1982, 224; the Athenian agora, Grace, Hesperia 54, 1985, 7). As has been pointed out by Y. Garlan (Trade in the ancient economy. 1983, 28) the figures for Delos may change if earlier layers are excavated.

In these two centres the figures for Koan and Rhodian amphoras do not differ so much after conversion. For Delos the relationship is 636 implied Koan amphoras and 800 Rhodian (These numbers are based on the figures given in Sherwin-White's table. There are more recent figures published for the Rhodian handles but not for the Koan and I therefore use the older figures.). For the Athenian agora the implied Koan number is 2 096 and the Rhodian number is 2 216. Miss Grace very kindly gave me the opportunity to make a quick count of the Koan stamped amphora handles from the agora - the number of which is 166 - as well as the date of Koan amphora handles found in datable contexts in the agora (see table) - 79 dated handles and jars of a total of 173 -.(I am very grateful to her for this information and also for her kindness to me whenever I visited her.) Most of the datable handles and jars (of which there are seven) come from the early second century. It is thus not unlikely that the import of Koan amphoras was larger before the middle of the second century than after that time.

As the dates of very few of the stamped Koan handles found on **Delos** have been published, only 17 of a total of 55, it is at present impossible to say anything about the chronological development on the island. Thirteen of the seventeen dated stamped handles are late, i.e. early first century, but we know from Delian inscriptions concerning the buying of wine for the festival of the Posidaia that in 180 thirtyfive jars of Koan wine was bought at a price of 105 dr. and in 178 another thirtyfive jars for 100 dr (J.H. Kent, Studies presented to D.M. Robinson. 1953, 128). Also, as has been mentioned above, this picture may change if excavations of the earlier layers at Delos were to take place. Unfortunately it is not possible to get an idea of the number of unstamped amphoras in any of the above mentioned places.

For Alexandria Miss Grace has gone through 18 000 Rhodian handles bearing stamps with the name of the potters. These handles represent 18 000 amphoras. Between 176 - 146 the turnup of Rhodian amphoras is about 78 per year and then it increases to 227 per year in period from 146 - 108, and from 108 - 88 the yearly turn-up is about 163 (Grace, Hesperia 54, 1985, 42). This means, as has already been pointed out, that Rhodes kept up, and maybe even increased the export of wine amphoras after 166.

The total number of Rhodian amphoras, c. 40 000, is more than double the implied number of Koan ones, 17 760, but the difference is certainly not on the scale as the one so easily percived by a mere provision of the numbers of stamped handles found; 80 000 Rhodian to 1 480 Koan.

According to Empereur the majority of the Koan handles in Alexandria date to the second and first centuries which would make them roughly contemporary with the Rhodian handles there.

The huge amount of unstamped Egyptian amphoras found and reported recently do, however, make all imports small in comparison (Empereur, BCH Suppl. 13, 103-109).

For **Cyprus** I would like to refer to Y. Calvet. He writes that 'From the middle of the third century the stamps from Thasos, Kos and other important centres of production grow more and more rare, they are, after that, hardly represented at all to the exclusive profit of Rhodes during the second century' (Kition-Bamboula I. Les timbres amphoriques. 1982, 53).

Dated Koan handles.

Of a total number of 1925 stamped 'Koan' handles I have the date of about 384, that is, cirka 20%. A very small amount of the dated handles come from the third century. Somewhat over 200 come from c. 200 to 108 and somewhat less than 200 come from the first century. Most of these last are from before c. 50 B.C. (70 B.C.?) These figures agrees with the information given by J-Y Empereur for the Koan handles in Alexandria.

Conclusion.

Even from the little we know about dated Koan stamped amphora handles it is perhaps permissible to conclude that the Koan wine (and amphora) trade was important to the economy of Kos during the second and early first centuries. As for the third and later first century it is more difficult to judge. The stamping of handles seems to have been rarer, at least during the late period and so the number of stamped handles give little information as to the size of trade. We do know that export of Koan type amphoras continued during the Augustan and early imperial period as such amphoras have been found both in the East and in the West Mediterranean area. But here most remains to be done as to the exact original provenances of these amphoras.

The most important conclusion, however, is the understanding that it is vitally important in further excavations to note also the number of unstamped handles found, and, if possible, to ascertain their origin and date. The completely changed picture of the importance of Koan trade sketched above open exciting possibilities in the research of the economic history of not only Kos, but also other wine producing and wine importing centres.

Athens 1988-11-28 Kerstin Höghammar

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Unfortunately it is not possible to get an idea of the number of unstamped amphoras in any of the above mentioned places.

For Alexandria Miss Grace has gone through 18 000 Rhodian handles bearing stamps with the name of the potters. These handles represent 18 000 amphoras. Between 176 - 146 the turnup of Rhodian amphoras is about 78 per year and then it increases to 227 per year in period from 146 - 108, and from 108 - 88 the yearly turn-up is about 163 (Grace, Hesperia 54, 1985, 42). This means, as has already been pointed out, that Rhodes kept up, and maybe even increased the export of wine amphoras after 166.

The total number of Rhodian amphoras, c. 40 000, is more than double the implied number of Koan ones, 17 760, but the difference is certainly not on the scale as the one so easily percived by a mere provision of the numbers of stamped handles found; 80 000 Rhodian to 1 480 Koan.

According to Empereur the majority of the Koan handles in Alexandria date to the second and first centuries which would make them roughly contemporary with the Rhodian handles there.

The huge amount of unstamped Egyptian amphoras found and reported recently do, however, make all imports small in comparison (Empereur, BCH Suppl. 13, 103-109).

For **Cyprus** I would like to refer to Y. Calvet. He writes that 'From the middle of the third century the stamps from Thasos, Kos and other important centres of production grow more and more rare, they are, after that, hardly represented at all to the exclusive profit of Rhodes during the second century' (Kition-Bamboula I. Les timbres amphoriques. 1982, 53).

Dated Koan handles.

Of a total number of 1925 stamped 'Koan' handles I have the date of about 384, that is, cirka 20%. A very small amount of the dated handles come from the third century. Somewhat over 200 come from c. 200 to 108 and somewhat less than 200 come from the first century. Most of these last are from before c. 50 B.C. (70 B.C.?) These figures agrees with the information given by J-Y Empereur for the Koan handles in Alexandria.

Conclusion.

Even from the little we know about dated Koan stamped amphora handles it is perhaps permissible to conclude that the Koan wine (and amphora) trade was important to the economy of Kos during the second and early first centuries. As for the third and later first century it is more difficult to judge. The stamping of handles seems to have been rarer, at least during the late period and so the number of stamped handles give little information as to the size of trade. 3.13

We do know that export of Koan type amphoras continued during the Augustan and early imperial period as such amphoras have been found both in the East and in the West Mediterranean area. But here most remains to be done as to the exact original provenances of these amphoras.

The most important conclusion, however, is the understanding that it is vitally important in further excavations to note also the number of unstamped handles found, and, if possible, to ascertain their origin and date. The completely changed picture of the importance of Koan trade sketched above open exciting possibilities in the research of the economic history of not only Kos, but also other wine producing and wine importing centres.

Athens 1988-11-28 Kerstin Höghammar

Kerstin Höghammar

WORK PROGRAMME

SCULPTURE AND SOCIETY ON HELLENISTIC KOS

The work will be presented in two separate volumes. The first will comprise an analysis of the statue base inscriptions and the second an analysis of the statuary and a comparative analysis of the inscriptions and the sculpture.

I hope to be able to present a manuscript of volume A during the autumn of 1989 and then continue with the sculpture and the comparative analysis.

Art patronage and conditions of production Α

Introduction. Subject and method.

Chapter 1 The dating of the inscriptions.

A discussion and reassessment of the dating of the statue base inscriptions from the Hellenistic and Augustan periods.

Chapter 2 The classification of the inscriptions. A presentation of the different classes of inscription and an analysis of the material from this aspect.

Chapter 3 <u>The historical background</u> A sketch of the history of Kos during the Hellenistic and Augustan periods.

Chapter 4 The honorary inscriptions.

a) Private dedications

b) Public dedications

An analysis of when, where, why, by whom and to whom statues were erected.

Chapter 5 The dedicatory inscriptions. When, where, why, by whom and to whom were statues erected.

Chapter 6 <u>Conclusions</u>.

Chapter 7 Summary.

Catalogue

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II <u>The sculpture</u>

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IV <u>General conclusion</u>

3.16

21/9-88 Kerstin Höghammar

KH (Sculpsoc) 1 3.17

HELLENISTIC SCULPTURE ON KOS - A MIRROR OF SOCIETY? (Thesis, methods, results)

My thesis is that art forms an integral part of the cultural development of society, and I here use the word 'cultural' in a wide sense. The artists are human beings who live in and are influenced by their surroundings. They express in their art their own and their contemporaries' needs and wishes.

I think that in order to comprehend art more fully one has to know the economic, political and social development of the society the art of which one studies. That is, the sculpture of Kos reflects Koan history.

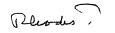
This general and rather abstract thesis can be given a more concrete form by way of choosing a particular line in the historical development and see how it corresponds with the information gathered from the statue bases. It is then possible to have the thesis verified or rejected. I will proceed by giving three examples of such theses,

- The general political development in the Eastern 1. Mediterranean is reflected in the choice of persons honoured by the Koan demos and by Koan individuals.
- Kos remained a free state until the time of Augustus in 2. contrast to Achaia and Asia which became Roman provinces during the latter half of the second century B.C. Can this be seen in the inscriptions, comparing those found in the province of Asia and those found in Kos during the period of c. 150 to 30? What happens with the advent of Augustus?
- A rich and strong society has no need to lavish honours 3. on its individual members. A poor and weak society needs to 'buy' substantial gifts from private persons by way of erecting statues honouring the donors of large gifts. I.e. during a period of strength and affluence we should find few honorary statues erected by the demos of Kos and during a period of weakness and poverty there should be many.

Thesis no 1.

Alexander died in 323 and after his death his generals fought for power for about forty years. What emerged about 280 were the three Hellenistic kingdoms, which dominated the Eastern Mediterranean for roughly the next one hundred years,

The Roman influence in the Greek world started in the early second century and gradually grew stronger whereas the great Hellenistic kingdoms were either vanquished by the Romans and/or disintegrated in internal strifes. Their influence was



at an end about 150. The Romans on the other hand <u>tightened</u> their grip on the Greek homeland by making Achaia.part of a province c.150, Asia became a province c. 130. Roman magistrates, tax-collectors and traders spread in the area. The already cosmopolitan society of Kos also received an influx of Roman/Italiote traders at about this time.

The economic background.

Kos town with its excellent harbour became an important port of call for north-south plowing trading vessels travelling between the Black Sea and Rhodes, Cyprus and Egypt. Kos by way of levying harbour dues improved its economy. Trade to and from Kos also grew and ties were particularly close with Egypt, A large number of amphora handles have been found in Alexandria, c. 80 000 from Rhodes and about 1 500 from Kos. Dr J.-Y. Empereur has studied the ratio of stamped to unstamped amphora handles for Rhodian and Koan amphoras. As is known almost all Rhodian amphoras had both their handles stamped. The complete Koan amphoras we have show that they almost always have only one of their handles stamped. Empereur, in a preliminary investigation, has come to the conclusion, that for each Koan stamped amphora handle found there are c. 88 unstamped ones. For each stamped handle we should thus count 44 unstamped ones, whereas for the Rhodian amphoras we have to count two stamped handles for each amphora. This gives us a figure of about 40 000 Rhodian amphoras and a maximum number of 66 000 Koan amphoras. Even if that number after a more thorough investigation should be halfed it still shows us a picture of an important export of the content of these amphoras! Most of them must have contained wine and Koan wine was considered to be of decent quality.

Other famous Koan products were silk and perfume, luxury products sold widely in the Mediterranean.

Harbour dues and export trade thus made Kos prosperous at the time when the Asklepieion was built up and became an internationally known sanctuary with its right of asylum. This development was completed c. 240 and the scene is set.

The evidence of the inscriptions.

The Hellenistic powers.

During the second half of the third century the Pergamene king Eumenes Philetairos (?) and the Macedonian king Antigonos (Doson?) was each honoured once with a statue in the Asklepieion. A little later, c. 200, queen Arsinoe III was honoured at least once, as was presumably also her husband Ptolemy IV Philopator.

I.e.we have one statue of a Pergamene king and one of a Macedonian king and at least three statues of Egyptian royalty

during the period of c. 240 to c. 200, all which fits the proposed thesis.

The Roman ascendancy.

Titus Quinctius Flamininus, the Roman general, consul and victor over Philip V of Macedonia, was honoured in 198. Kos, with Rhodes, fought on the same side as the Romans in the Second Macedonian War. The Macedonians had only a few years earlier managed to land troops on Kos and the situation then had been extremely precarious for the Koans. An honorary statue of the vanquisher of Philip V must have been considered most appropriate.

When Titus Quinctius Flamininus vanquished Philip V, the beginning of the Roman ascendancy in the East was marked by a number of honorary tributes to him, one of which is the statue of him in the Asklepieion.

A Roman was honoured in the Asklepieion in the 90s, another three statues of Romans were erected in the years between 60 to 30. During the Augustan period, 30 B.C. to A.D., 15/20 seven Romans were honoured with statues, another three statues of Romans come from either this period or a little later.

I thus think that my first thesis is confirmed by the statue base material. This particular thesis in itself is, of course, neither new nor questioned, but in showing its reflection in the Koan material it supports my general thesis - that art is an integral part of a society.

<u>Thesis no 2.</u>

My second thesis is that Kos remains an independent state until the time of Augustus. There is no consensus in this question as some scholars argue that Kos became part of the province of Asia at an earlier date.

The island of Kos.

The reasons for honouring Titus Quinctius Flamininus are, as I have shown earlier, easily understood! They have nothing to do with the status of Kos. No Greek state at this time (198) was a province.

The next Roman to be honoured was presumably a woman - the text is fragmentary - a relative of Quintus Mucius Scaevola, a governor of the province of Asia during the 90s who was much appreciated by his subjects. Later, in the 40s, the wife of another 'good' governor of Asia, Publius Servilius Isauricos was honoured twice on Kos.

An otherwise unknown Roman magistrate was also honoured some time between 60 and 30.

After 30 six statue bases of Augustus are known and two of his daughter Julia. They are both likened to gods, and one base tells us of a statue dedicated to Augustus as a god. 3.19

Three other bases name Roman magistrates and their relatives as well as Roman settlers on Kos.

The province of Asia.

In the province of Asia, statues of Romans were scarce before the time of Sulla. With the defeat of Mithradates in the 80s the Romans felt more like conqurers and their rule became harsher. In the following twenty years, i.e. during the 70s and the 60s, a great number of statues were erected in many poleis in the province of Asia honouring Roman magistrates and their relatives. No equivalent trend exists on Kos. Not until the time of Augustus do we have a similar development, and I think that this fact is one more factor supporting the theory that Kos remained a free and independent polis until c. 30 B.C.

<u>Thesis no 3.</u>

My third and last thesis concerns the number of honorary statues dedicated by the demos in periods of strength and periods of weakness.

We know that between c. 190 and 150 there was an immense , rebuilding activity in Kos town. Marble was used in the new buildings instead of travertine. The large harbour sanctuary near the agora was built at this time as well as the altar of Dionysos at the western end of the agora.

In the Asklepieion the huge temple A on the uppermost terrace is supposed to have been built during this period as well as the large surrounding stoas and the monumental staircase up to this terrace.

Many normal to large-sized marble statues have been dated to this period.

All the signs of a strong and affluent society are at hand and during this happy period the absence in the epigrapOhic material of honorary statues voted by the demos is a notable fact.

In contrast, the last decades of the first century B.C. abound in them. There are 17 (28) examples in my material. What were the conditions on Kos like then?

Kos had been made tributory by Augustus and the sum of 100 talents (= c. 2 600 kg silver) is mentioned in this context. The Koans could not pay this large sum and had to give away the famous painting of Aphrodite Anadyomene by Apelles instead.

A series of earth-quakes occurred in this part of the Aegean and Kos was particularly hard hit. The reconstruction of buildings after the earth-quakes must have cost a fortune.

To sum up; Kos had supported the wrong side in tha last Republican Civil War and lost its political freedom, and it was now tributary to Rome. In addition natural disasters struck the island hard. Under such difficult circumstances the state was obliged to rely more on voluntary economic help from

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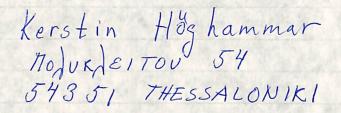
private individuals. The state in its weakened form was in no position to demand contributions from wealthy citizens and settlers, especially not from the Romaioi!

To induce the rich to give a helping hand, the community offered to erect a statue of the donor, forever commemorating his or her honour and virtue. This is a simple and logical explanation which fits the obseved facts and in my opinion the third thesis has been proved.

Kerstin Höghammar (1988-03-10)

10,78.91

4



031- 929213

Comera Axis, my husband's photo shop. (We don't have a telephone at home)

Mrs. Hoghammer has just telphone, fro Salonitsa. She will be coming to Kos for Easter, and would let & come to our office on Thesty April 9. In Kos she will stay with Xapes Karsia, and medoubte well gree us more news of The day, Are dissortation mode been accepted, now she prepares it for publication. She may be able to stay in A trus for a week or so (the ASCS will be having a congress about sculption ?), but it thanks ma babysitter for her diels in Salouti,

She has been high that we may have contact for Kom limble with Latin stamps. I from not, but MED sha hum.

10.17.91 She came Today, aring from Kos, It was & have been yesterday, and the sti zome on purpose, but Mrs. H. had & two one mon day in Kos, as because of muspech light of holiday, and closed andiginter she could not finds her work then. So, what she needed most, dates for Kran with hadin storps,) could not give her wol being able & find to Joh and of hali kom. I will have to write & her about it. She is way should money - went E Ros on a Sweder 1 grant. The tild me something findle about X. Kans Sia dig.

KOAN AMPHORAS AND TRADE. An attempt at a hypothetical reconstruction of the Koan wine trade during the Hellenistic period.

Fran Mis Hoghen All figures on Koan jors will Högham be changed in Sept. 89, [6.01] 261 2. TH. 89.

My aim with this tentative study is to try to present an alternative picture of the importance of the Koan wine trade for the Koan community. The figures presented in the tables of various excavation reports/publications for stamped handles are, if one has no knowledge of the amount of unstamped handles found and unfortunately hardly ever reported, very easy to misinterpret in terms of trade.

In using the ratio of stamped to unstamped handles found in an excavation in Halasarna (modern Kardamena) on Kos on the entire material of Koan handles my principal aim is to break through the common misapprehension that the number of Koan amphoras on various sites was very small as compared with, for instance, those from the neighbouring island of Rhodes (which produced wine of a similar or somewhat inferior quality). Undoubtedly there was a difference, but not on the scale so easily and so mistakenly seen in the exact numbers of stamped handles found. In using the ratio 1: for stamped to unstamped handles I do not think that I overrepresent the implied total number of Koan amphoras at a certain site. I would not be surprised if the ratio will be shown to have been even higher during the third and part of the second century. However, even in using the ratio 1: one can see important changes in the relative relationship between Kos and Rhodes in for instance the northern and western Black Sea area, Athens and Delos.

I wish to stress that the figures I present in my calculations do not represent a real number of amphoras found in any place listed, but I believe that my figures come closer to the number of Koan amphoras once there than the figures presented in the tables of stamped handles found.

It would not have been possible for me to produce this article without the information and help given to me by Miss V. Grace, Mrs. M. Savvatiani-Petropoulakou, Mr. J.-Y. Empereur and Mrs G. Kokkorou-Alevra whom I hereby thank.

In the first part of this article I will list various problems encountered when working with Koan amphora handles. The ensuing section presents evidence of the amount of unstamped Koan amphora handles found on various sites. In most cases no figures have been given as the unstamped handles were thrown away. The ratio resulting from the excavations of the University of Athens at Kardamena is presented here.

A hypothetical estimate of the number of Koan amphoras once to be found at various sites forms the third part. For Athens, Delos and Alexandria a short discussion of the implications of the dated handles is presented. In the fourth section a summary is given of what I know of the hitherto dated handles. The last part contains a general discussion of the Koan wine trade and some hypothetical conclusions. PROBLEMS INVOLVED WHEN USING KOAN AMPHORA HANDLES AS A WAY OF RECONSTRUCTING TRADE.

1. Stamped Koan amphoras appear from the late 4th century (then very rarely, oral information, Empereur) and continue down to about Augustan times. Most stamps seem to date from the 2nd and 1st centuries. Only a minor part of the Koan stamps have been published with a date and thus we cannot yet trace the development of the Koan wine trade.

2. We know that far from all Koan amphoras were stamped as opposed to almost all Knidian and Rhodian which were stamped on both handles. What was the ratio of stamped to unstamped Koan amphoras? Was it the same in all periods or did it vary?

Unless the Koan handles published from various sites are dated and a ratio of stamped to unstamped handles is worked out for the different periods we cannot really make an estimate of the Koan wine trade down to the end of the 2nd century.

For the 1st century and later we also have to learn how many of the so called Koan amphora handles really are Koan.

3. Koan potters produced not only the 'classical' double handled amphoras but also other types, for instance, a) imitation of the Rhodian type (Staerman, Grace, Empereur), b) the so-called Nikandros-group (Grace, Empereur; - Savvatiani-Petropoulakou thinks that this group is not Koan -) and c) the so called the Sopatros group (Empereur). These groups have not been included in the 'Koan' group when published, with the exception of the first type which is included in the material from Tyras published by Staerman. Apart from this exception the above groups are thus not included in my calculations.

Do these groups show a similar proportion of stamped to unstamped handles?

4. The clays of Kos are very heterogenous in their composition and Koan amphoras may vary considerably in the outlook of their clay depending on which claybed a particular potter used.

5. Koan winejars were famous for the fineness of their fabric and it was presumably this that led to the widespread copying of this type of amphora (Pliny, NH, 35. 161). From the end of the 2nd century and particularly from the beginning of the 1st century, amphoras of the Koan type started being produced at various places, for instance Myndos, Halicarnassos, Theangela, Knidos and Rhodes. According to Empereur the clay can be so similar to that of Kos as to make it virtually impossible to see any difference with the eye.

However, the copying of the amphora type must not lead us to believe that the stamping system used on Kos was also 6.02

copied. I thus think it less likely that jars with a stamp of the Koan type were produced outside the island. When Koan type amphoras were produced at other places it seems more plausible that they were stamped according to the local system.

6. Koan amphoras contained more wine than for instance Rhodian jars. One Koan jar from the second century, found in the Athenian agora, took over 40 liters whereas Rhodian amphoras generally took 25 to 26 liters. This ratio changed in the first century, -maybe even earlier- when the capacity of Koan amphoras became more equivalent with the Rhodian standard.

THE RATIO OF KOAN STAMPED TO UNSTAMPED AMPHORAS.

Already in 1949 Miss V. Grace presented us with the fact that many examples of the Koan amphoras were not stamped, she also noted that the same observation was made by the Alexandrian collector of stamped amphora handles, mr Lucas Benaki (Hesp. Suppl. 8, 1949, 181, 186), this observation has since been repeated by Miss Grace several times.

E. M. Staerman in her article on amphora stamps from Tyras (KSIIMK, 36, 1951, 39) mentions that few Koan handles have been found. She then goes on with a reference to Grakov who writes that many Koan handles are not stamped, and that this is why there are so few stamped ones found.

In 1957 V. Canarache writing on the Koan stamps found in Istria made the following comments: "An interesting side of the problem of the amphoras from Cos is made up by the fact that both in our country and in the archaeological centres in the south of the USSR many double handles without stamps have been found. Both the curve and the dimensions of the handle, each taken separately, are identical to those which have stamps attributed to Cos. Moreover, the clay of these unstamped handles, as well as the slip, is the same as on the stamped ones. In the excavations at Histria such handles appear in great numbers in various Late Hellenistic layers. Also whole amphoras of this type with unstamped handles have been found near Bucarest, at the Getic site of Popesht." (Importul amforelor stampilate la Istria 1957, 278-79). The translation of both the above texts were given to me by miss V. Grace.

In 1962 D. Levi and G. Pugliese-Carratelli published a number of handles from Iasos in Karia. They pointed out that the number of stamped handles from Rhodes found was much larger than from anywhere else, but that perhaps the numerical relationship between imports of wine amphoras as such from Kos and Rhodes had to be modified somewhat because of the finding of a great number of double handles without stamps apparently

from Kos (ASAA, N.S. 23-24, 1961-62, 605).

Mr. Empereur presented the results of an 'informal' survey made in 1976 on the southern coast of Kos in an article. He counted 176 double handles, two of which were stamped. In a note he says that the unstamped handles are contemporary with the stamped ones (2nd and 1st cent.). This would give a ratio of 1:44, a figure which he later modifies to 1:30 (oral presentation in Pylos 1984).

In an excavation in Delos, 1a Maison au nord de l'Ilot de Bronze (date t.a.q. 69), Empereur studied all the Koan handles from the excavation. There were 59, three of which were stamped, the implied ratio of stamped to unstamped amphoras is 1:12 (Empereur, BCH 106, 1982, 226-27, 233). However, as the excavation progressed Mr Empereur changed his opinion as to the provenance of the 'Koan' amphora sherds. In january 1989 he informed me that it, at present, is not possible to ascertain the provenance of these sherds and thus the ratio presented in the above mentioned article is void.

In 1985 the University of Athens started excavations in ancient Halasarna on the south coast of Kos. Since then four excavation campaigns have been carried through. Prof. G. Kokkorou-Alevra has very kindly given me permission to use the amphora material from their excavations in order to obtain a ratio of stamped to unstamped Koan amphoras. As this material comes from a place which in all probability was a centre of production of amphoras, one can be fairly certain that the material found is Koan. A large number of both double barreled and cylindical handles have been found.

CALCULATED NUMBER OF KOAN AMPHORAS FROM VARIOUS SITES.

As I have already pointed out the ratio of stamped to unstamped Koan amphoras is on the whole unknown. I would, however, like to make the experiment of using the figures given in S. Sherwin-White's table (Ancient Cos, 1978, 238) as a point of departure for a hypothetical reconstruction of the number of amphoras once in existance in various poleis. I will multiply these figures with xx, the ratio obtained from the excavation in Halasarna. I am fully aware that the result will not give a true picture of Koan trade, as the ratio probably varied at different times, and the figures given in Sherwin-White's table are undated (most Koan stamps, however, seem to date to the second and first centuries), but I think this type of presentation will reveal something of the extent of Koan trade during the Hellenistic period.

<u>Centres where Koan amphoras seem to predominate over</u> <u>Rhodian.</u> 6.04

I will list the places where the <u>calculated number</u> of Koan amphoras is larger than the number of Rhodian jars. The Koan figures are quoted first. In **the Black Sea area**; Phanagoreia 168-150, Panticapaion 240-123, Chersonessos 156-92, Tyras 468-155. I add some places for which Sherwin-White has not given the figures, Myrmekion 192-98, Istria 444-242, Callatis 192-64 (Gajdukevic, Das Bosporanische Reich. 1971, 182, n. 37; Gramatopol, Poenaru Bordea, Dacia N.S. 13, 1969, 127-37, esp. p. 134. The figures for Istria have been obtained from the percentage and total figures given in Gramatopol and Poenaru-Bordea's article; Histria 2,3% = 37 stamped amphoras, Rhodes 15,1% = 242 amphoras, total number 1600.).

In Panticapaion, Phanagoreia and Tyras the implied number of Koan amphoras is not only larger than the Rhodian, but the largest number alltogether of imported amphoras as the present evidence stands. The count and identification of unstamped handles may, of course, change this picture.

In the as yet unpublished corpus of Koan stamped amphora handles 28 handles found in Olbia are listed (oral information Grace, Savvatiani-Petropoulakou). I have no exactly comparable figure for Rhodian stamped handles found in Olbia, but M.M. Bondar mentions 2 898 Rhodian stamped handles in an article from 1957 (Bondar, M.M. 'Le commerce d'Olbia avec les villes grecques l'époque hellénistique', Arheologija XI, 1957, 37. In Ukrainian.). That is, the import from Rhodes seems to have been considerably larger than the import from Kos.

Apart from the Black Sea area the Koan figures are higher at **Pella** (where Thasian amphoras are most numerous of all) 180-104, **Samos** 234-195 (According to Mrs. Savvatiani-Petropoulakou several of the handles on Samos seem to be early to judge from the form of the handles.), **Iasos** on the Karian mainland 168-30, **Kos** 1932-198 and **Nessana** in Palestine 240-7. The jars in Nessana are however, according to their publisher Miss Grace, very likely to have been reused before being brought there and thus do not bear evidence as to trade between Kos and Nessana.

In more recently published material from Labraunda in Karia, Koan amphoras predominate with an implied number 144-12. Most of the Koan handles date to the period 108 to 80, whereas the Rhodian are earlier, c. 275 to 108 (Säflund, M-L., Labraunda. Swedish Excavations and Researches. II.2 Stamped Amphora Handles. 1980, p.9).

According to information from Mrs Savvatiani-Petropoulakou there are eleven Koan handles found in **Pergamon**, eight of which are unpublished.

Athens, Delos and Alexandria.

In Athens (agora) the Knidian handles are in a vast majority. The Rhodian handles seem to be more numerous during the late third and early second centuries whereas the Knidian 6.05

ones dominate from about the middle of the second century or somewhat earlier and onwards (Grace, Hesperia 54, 1985, 7).

Miss Brace very kindly gave me both the opportunity to make a quick count of the Koan stamped amphora handles from the Athenian agora, the result of which gave a number of 166, as well as the date of Koan amphora handles found in datable contexts in the agora (see table). There are 71 dated handles and seven dated jars of a total of 173. (I am very grateful to her for this information and also for her kindness to me whenever I visited her.)

Of the dated handles and jars two belong to the second half of the third century. The majority, 53, come from the filling of the Middle Stoa which building has been dated to 183 by Miss Grace. Another eight handles date to the period c, 200 to 166 (two of these may be as late as c. 150). In the filling of the Stoa of Attalos only one stamped Koan handle was found. According to the opinion of Miss Grace this building is to be dated to the 150s. From c. 150 to c. 50 only six datable handles have been found.

There seems to be a drastic decrease in the number of Koan amphoras imported somewhere between c. 185 and c. 160 to judge from the large number of Koan fragments found in the Middle Stoa as compared to the single sherd from the Stoa of Attalos filling. This pattern is repeated in the various odd finds from different dateble contexts; eight handles from c. 200 to c. 166, two handles from the second half of the second century, two of which may be as late as 90/85 and two handles from the first half of the first century.

It would thus seem as if the import of Koan amphoras follows approximately the same time pattern as the import of Rhodian jars, with the bulk of the material dateable to the earliest third of the second century.

The implied number of Koan jars is 2 096 and the Rhodian number is 2 216. If the Koan figure is not too far off the mark it appears as if the Athenians imported just about as much Koan wine as Rhodian - if the contents of these amphoras was wine which seems a reasonable assumption -.

On **Delos** most of the finds of the stamped amphora handles date to the time between c. 200 and c. 50. The most important concentration of material is from the period 125 to 69. The general picture is that Rhodian material dominate from the end of the 4th century until about 175. The bulk of the Rhodian material dates to the second century. In the same century Knidian handles gradually became more numerous and during the second half of it and down to the sack of Mithradates in 88 they were overwhelmingly predominant. After the sack of Mithradates, imports from Africa and the West grew on a massive scale.

Empereur notes that it is difficult to to judge the importance of the imports from Kos, Chios and Paros as the handles of amphoras from these centres of production were either rarely stamped or not stamped at all.

In 1986 Mr. Empereur published statistics on the number of stamped handles and complete amphoras found. The figures given are: Knidos 4 802, Rhodes 1672, Latin origin 810, and Kos 97. As these figures include complete amphoras it is not possible to obtain an exact figure for the calculated number of Koan jars. However, as Mr. Empereur in the same article mentions that there are only a few Koan amphoras found ('quelques exemplaires'), it is probably safe to assume that if one presumes a maximum number of ten complete amphoras and subtract ten from 97 the result of 87 stamped handles is presumably not higher than the actual number found. This figure would give us a calculated number of 1 044 Koan amphoras which should be compared with the Rhodian number of jars, c. 836 and the Knidian c. 2 401. That is, the implied number of Koan jars is larger than the Rhodian and somewhat less than half of the Knidian (Empereur; BCH 106, 1982, 224; Guide de Delos 1983, 97-98; "Les amphores de Delos", Dossiers d'Histoire et Archeologie 105, Mai 1986, 67-69).

As the dates of very few of the stamped Koan handles found on Delos have been published, merely 17 of a total of 97, only a comment of the chronological development is possible. Thirteen of the seventeen dated stamped handles are late, i.e. early first century, but we know from Delian inscriptions concerning the buying of wine for the festival of the Posidaia that in 180 thirty-five jars of Koan wine was bought at a price of 105 dr. and in 178 another thirty-five jars for 100 dr (J.H. Kent, Studies presented to D.M. Robinson. 1953, 128).

Mr. Empereur has informed me that the handles from Kos mainly date to the period from 166 to 69. They are thus, on the whole, later than the Rhodian material, contemporary with the Knidian which stops at 88, but go on being imported after that year down to 69 to an apparently larger extent than earlier.

As has been pointed out by Y. Garlan the overall figures for Delos may change if more of the earlier layers are excavated (Trade in the ancient economy. 1983, 28).

For **Alexandria** Miss Grace has gone through 18 000 Rhodian handles bearing stamps with the name of the potters. These handles represent 18 000 amphoras. Between 176 - 146 the turnup of Rhodian amphoras is about 78 per year and then it increases to 227 per year in period from 146 - 108, and from 108 - 88 the yearly turn-up is about 163 (Grace, Hesperia 54, 1985, 42). This means, as has already been pointed out, that Rhodes kept up, and maybe even increased the export of wine amphoras after 166.

The total number of Rhodian amphoras, c. 40 000, is more than double the implied number of Koan ones, 17 760, but the difference is certainly not on the scale as the one so easily percived by a mere provision of the numbers of stamped handles found; 80 000 Rhodian to 1 480 Koan. 6.07

According to Empereur the majority of the Koan handles in Alexandria date to the second and first centuries which would make them roughly contemporary with the Rhodian handles there.

The handles found in Alexandria referred to by Miss Grace in her Nessana publication date from somewhere in the earlier part of the second century (Sopatros) into the earlier part of the first century (Lochos). In 1962 there were 92 examples of dies with the latter name known, dated by miss Grace to between 80 to 60. Most of these were found in Alexandria (Nessana I, 1962, 121)). The name Lochos is very unusual on Kos. It appears in two different combinations on Koan tetrobols, dated by Kroll to the second half of the second century and early first century ('The Late Hellenistic tetrobols of Kos', ANS Mus. Notes XI, 1964, 84-85). It also occurrs in the inscription on a statue base dated to the middle of the first century (Segre M., Memorie. Ist. Stor.-Arch. di Rodi. III 1938, 48-50).

The huge amount of unstamped Egyptian amphoras found and reported recently do, however, make all imports small in comparison (Empereur, BCH Suppl. 13, 103-109).

Cyprus.

For **Cyprus** I would like to refer to Y. Calvet. He writes that 'From the middle of the third century the stamps from Thasos, Kos and other important centres of production grow more and more rare, they are, after that, hardly represented at all to the exclusive profit of Rhodes during the second century' (Kition-Bamboula I. Les timbres amphoriques. 1982, 53, author's translation).

DATED KOAN HANDLES.

Most publications do not date the Koan handles, usually an overall figure is given. Exceptions are the later publications by Grace - Savvatiani-Petropoulakou. Of a total number of 1925 stamped 'Koan' handles I have the date of about 384, that is, cirka 20%. A very small amount of the dated handles come from the third century. Somewhat over 200 come from c. 200 to 108 and somewhat less than 200 come from the first century. Most of these last are from before c. 70 B.C. (See table).

GENERAL DISCUSSION AND SOME HYPOTHETICAL CONCLUSIONS.

Even from the little we know about dated Koan stamped amphora handles it is perhaps permissible to conclude that the Koan wine (and amphora) trade was important to the economy of Kos during the second and early first centuries. As for the third and later first century it is more difficult to judge. The stamping of handles seems to have been rarer, at least 6.08

during the late period and so the number of stamped handles give little information as to the size of trade.

We do know that export of Koan type amphoras continued during the Augustan and early imperial period as such amphoras have been found both in the East and in the West Mediterranean area. But here most remains to be done as to the exact original provenances of these amphoras.

Trade in the Black Sea area.

The Koan trade with the Greek city states on the northern and western shores of the Black Sea seems to have been considerable, quite on par with the Rhodian. Already in the later fourth century Demosthenes, in his speech 'Against Lacrites' points out that 'Wine is carried to Pontus from places around us, from Peparethos /=Skopelos/, and Cos, and Thasos, and Mende, and from all sorts of other places.' (Demosthenes, Against Lacrites, 35). A little earlier in the same speech he writes 'The Coan wine (eighty jars of wine that had turned sour) and the salt fish were being transported in the vessel for a certain farmer from Panticapaeum to Teodosia for the use of the labourers on his farm.' (ibid, 32). This surely means that it was more or less common knowledge in Athens in the latter half of the fourth cenury that Kos exported wine to the Pontic area.

Kos thus had a strong self-interest in keeping the Bosporan Straits open as well as acquiring as favorable conditions as possible for Koan traders trafficking the Black Sea. In the third century this can be evidenced by, for instance, a letter from Ziaelas of Bithynia to the Koans from 242. I quote S Sherwin Whito's translation: 'In the future, as you may request, we shall try for each one individually and for all in common to favour you as much as lies in our power, and as for your sea-faring citizens to take thought for all those who happen to enter territory under our control, so that their safety may be assured, and in the same way also for those who are cast upon our coast because of an accident in the course of their voyage, we shall try to exercise every care that they are injured by no one' (Welles, Royal Correspondence 25; Syll.3, 456; S-W, 243).

In 220 Rhodes aided Sinope when the city was threatened by Mithradates II of Pontos. The only other Greek state known to have helped Sinope is Kos (S-W, 118). Sinope was an important port of call for vessels travelling to and from the northern coast of the Black Sea.

Soviet scholars who have studied trade relations in the northern Black Sea area have come to the conclusion that Rhodian imports grew and diminished gradually and that they reached their peak at the end of the third and the beginning of the second century. At first they dominated in the region of Olbia, but during the second century the Rhodian trade moved more and more to the Cimmerian Bosporos (Shelov-Kovadjaev T., BCH Suppl. 13, 25, n. 122).

Welles

V. F. Gajdukevic notes that in the third and second centuries B.C. the majority of the imported handles into the Bosporan Kingdom came from Sinope, Kos and Rhodes (Gajdukevic, V.F., Das Bosporanische Reich 1971, 103)

In the catalogue of stamps from Nessana, Miss Grace notes that several of the stamps found there have equivalents in the Black Sea area. Of those found in Panticapaion on the the Cimmerian Bosporos, nine examples, seven date to the latter part of the second century or the first half of the first century. This indicates that Kos kept trade going in the Black Sea region down into the earlier part of the first century.

These facts and the minimum number of five stamped Koan amphora handles found in Olbia, dated by their find context to before 175 (they could possibly be as late as 150), give evidence for Koan trade in this area already during the latter part of fourth as well as during the third, second and early first centuries B.C.

Trade in the Aegean area and Alexandria.

In Athens it seems as if the import of Koan wine was larger in the early second century than later. On Samos the Koan handles found are probably early - how early we don't, as yet, know.

At Labraunda almost all the Koan handles, nine out of eleven, are late (108-80).

According to Miss Grace there was a break in the stamping of Knidian amphoras between 88 and 85 because of the Mithradatic War. After this war stamping reoccurred (but not to the same extent) and was used down into Augustan times. This war thus meant a disruption of trade at least in the Knidian area (Grace & Savvatiani-Petropoulakou, Delos XXVII, 1970, 322-23). This event could perhaps be linked with the apparently increased number of Koan amphoras on Delos after the sack of Mithradates, when Knidian wine was replace by African, Italian and, to a certain extent, Koan wine.

In Alexandria the bulk of the now extant Koan handles apparently date to the second and first centuries. Perhaps the Koan exports followed the same pattern as the Rhodian with an increase in the second century.

Late handles found in Panticapaion and Tanais bear witness of Koan exports to the northern Black Sea area in the late second and early first century (Shelov D. B., Amphora stamps from Tanais. III-I century B.C. 1975, 132-34. In Russian).

In my opinion the above summary bear witness of a continued prosperity down into the first century, at least for that part of the population involved in the cultivation of vine and the export of wine. Taxes extracted on the wine production thus ought to have provided a fair income for the Koan state in this period.

Stamped and unstamped amphoras.

The most important conclusion, however, is the

6.10

understanding that it is vitally important in further excavations to note also the number of unstamped handles, rim, neck and base fragments found, and, if possible, to ascertain their origin and date. The completely changed picture of the importance of Koan trade sketched above open exciting possibilities in the research of the economic history of not only Kos, but also of the centres importing wine.

Athens 1989-02-22 Kerstin Höghammar

Findplace	Kos	Athens agora	Delos	Alexand- ria	Tyras	01bia	Panti- capaion	Pergamon	Samos	Labraunda	Koroni	Cyprus	Samaria	Nessana	Nau- kratis
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DATED KOAN AMPHORA HANDLES: STATISTICS OF DISTRIBUTION,

Sources; Grace V., Nessana I, 1962, 118-26; Grace V., & Savvatiani -Petropoulakou M., Explor. Delos 27, 1970, 363-65; Grace V., 'Revisions in Early Hellenistic Chronology', AM 89, 1974, 193-200; Grace V., 'The Middle Stoa dated by amphora stamps', Hesperia 54, 1985, 6; Säflund M-L., Labraunda. Swedish Excavations and Researches. Vol II, part 2 Stamped ampora handles; Grace V., Aral information

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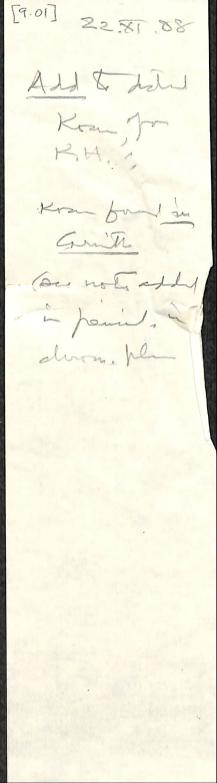
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ap ben sut CALL BY KERSTIN HÖGHAMMAR 2 March on Nov. 11, 1988 (18, 71,88)

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We seem, then, to have wederce of stamped Koan in the 3rd century B.C., our information beginning with Koron material (an 270-260 B.C), and in the 2nd control, and in the 1st control B.C., at least for the first 3rd of the 1st carling, What we have clusters in The late 3rd - early 2nd (meddle Store (filling but also other deposits) and in The Date 2" - earlyst 1st (especially in Delos and Nessana). Not much for the middle of the 24 " Bat we cannot say that then was no stamping of) Koan pus, from rattion early 3rd To purhups middle 12 B.C. Sorg M. Emporen picked up handles of Koan jours of a period that would not have been stamped anylice (and sopofield his statistics), they would healight be only those datable after a. 50 B.C. So perhaps he is right Chat, during the paried of stamping Koan ampliones, only a small percentage of these gass were stamped.

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BCH 106, 1982 Empereur red 22, XI.88 Les ANSES D'AMPHORES TIMBRÉES ET LES AMPHORES : ASPECTS QUANTITATIES 200

1982

n'échappent pas à l'actuel félichisme du chiffre. Ils en viennent à se larguer de preuves mantilatives là où les matériaux disponibles ne le permettent pas, ou à se méprendre sur les implications légitimes de leurs chiffres 59.

J'ai souligné la dernière partie de cette citation car elle me paraît s'appliquer parfaitement au cas des anses d'amphores : certes, les chiffres existent, mais un examen un peu plus attentif amène à s'interroger sur de telles considérations statistiques; à l'intérieur d'un groupe bien déterminé — celui des amphores —, elles favorisent délibérément la partie du matériel la plus aisément identifiable - les anses d'amphores timbrées -...

Je n'en arrive pas pour autant à un constat foncièrement pessimiste, dans la mesure où je crois qu'il est possible d'utiliser les amphores dans des études quantitatives, mais seulement en tenant compte également du matériel non timbré. Les archéologues doivent pour cela publier ensemble et les anses timbrées et le matériel amphorique non timbré (même fort fragmentaire)⁶⁰, et ne pas surestimer la première catégorie au détriment de la seconde.

Ces propos n'enlèvent rien, naturellement, à la valeur chronologique d'une anse d'amphore timbrée pour l'archéologue qui la trouve dans une couche, ni à tous les renseignements, si variés, que peuvent apporter les estampilles⁶¹.

Jean-Yves Empereur.

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(59) M. I. FINLEY, The Ancient Economy (1973), p. 25 de la traduction française (1975).

(60) Dans la publication exemplaire qu'est EAD 27, les amphores complètes sont publiées par Ph. BRUNEAU avec le reste de la vaisselle (ch. XI) et les anses timbrées dans les chapitres XIV et XV. Cette répartition ne tenait nullement à des motifs scientifiques et Ph. BRUNEAU est d'accord pour penser aujourd'hui qu'on n'a pas fait la part assez belle aux amphores non timbrées.

(61) La valeur chronologique est fort appréciable : la date de certaines anses rhodiennes ou cnidiennes est connue à l'année près; les estampilles présentent, en outre, un véritable intérêt pour l'onomastique, la dialectologie, l'histoire des institutions, l'iconographie, etc.).

Addenda. P. 9 : G. SIEBERT a soigneusement récupéré les moindres tessons d'amphores trouvés au cours de sa campagne de 1975 de sa fouille de la Maison au Nord de l'Ilot des Bronzes (cf. BCH 100 [1976] p. 799-821) ; il m'en a récemment confié l'étude et j'ai pu identifier 59 anses coennes bifides dont 3 étaient timbrées (soit 5 %) : dans une maison délienne, en 69 av. J.-C. (date de la destruction et de l'abandon de cette habitation), on compte donc 1 amphore de Cos timbrée pour 12 amphores non timbrées de même provenance.

Ce résultat, le premier à sortir d'une fouille, est précieux, car il est aussi le premier à ancrer dans l'espace et le temps des rapports de proportion entre les anses coennes timbrées et non timbrées.

P. 11 : je tiens à préciser que je ne perds pas de vue la nécessité de ne considérer les groupes d'amphores que par tranches chronologiques. Mais j'ai voulu comparer, de manière globale, les amphores du Musée d'Alexandrie aux anses d'amphores timbrées conservées au même endroit.

COMPTES DES HIÉROPES

Mae 2 22. KI . 8%

11.01 [καί ή - - - - καί έγγύωι Π]εριάνδρωι Βούλωνος, κα[τά συγγραφήν τήν παρ³] 35 [Αμνωι?. Ποσιδεώνος - - τοῦ] φιλωνιδείου Η Η, εὐτυ χείου - -, ἐπὶ ὑποθήκηι τῆι] [οἰκίαι ἢι γειτονεύει οἰκία ἡ Δημ?]έα τοῦ Μνησικλέους [καὶ ἐγγύοις - - - -] - [N?]ικάνδρου, κατά συγγρα[φήν τήν παρ' Αμνωι Τιμο-] [ξένου?. Ποσιδεώνος - - - μετά] κυρίου τοῦ ἀνδρός Δι[- - τοῦ - - είου - -], [ἐπὶ ὑποθήκηι τῆι οἰκίαι τῆι προς? τ]ον Πυθογένην ῆ(ι) γειτ[ονεύουσι οἰκίαι ἥ τε] - [καὶ ἡ - - - - κ]αὶ ἐγ[Υ]ύωι Δημέαι ἀΑντ[ιγόνου, κατὰ συγγραφήν] 40 [τήν παρ' "Αμνωι Τιμοξένου?. Ποσιδε]ώνος του εύτυχείου Η, [ἐπὶ ὑποθήκηι τῆι οἰκί-] αι τῆι - - - ῆι γειτονεύουσι] οἰκίαι ἥ τε Τιμοκλέο υς καὶ ἡ - - - καὶ] [ἐγγύωι - - - - -]ος, κατά συνγραφή(ν) τή[ν παρ' "Αμνωι?. Ποσιδεῶ-] [νος - - - - τοῦ - είο]υ Η· τοῦ νησιαδείου [- -, ἐπὶ ὑποθήκηι τῆι οἰ-] 45 [κίαι ηι γειτονεύουσι η τε - - -]ος του Φωκαέως και η Δ[- - και έγγύοις -] [κ]ατά συνγραφήν την π[αρ^{**} Αμνωι Τιμοξένου?]. [Ποσιδεώνος - - - μετά κυρίου] τοῦ ἀνδρὸς Ξενοτίμο[υ τοῦ - - -είου -], [ἐπὶ ὑποθήκηι - - - - -] ωι ΚΛΓΛΝΤΕΙ καὶ ἐγγύ[οις - - - -, κατὰ] συνγραφήν τήν παρ' *Αμνωι Τιμοξέ]νου. Ποσιδεώνος *Αρκοίύσει μετά κυρίου τοῦ ἀν-] 50 δρός Εύ - -, ἐπὶ ὑποθήκηι τῆι οἰκ]ίαι τεῖ ἐν λιμένι εῖ γει[τονεύουσι οἰκίαι ἥ τε] - [καί - -]λου καί έγγύοις Τιμοκλεί [Τιμοκλέους, κατά συγγρα-] [φήν τήν παρ' *Αμνωι?. Ποσιδεώνο]ς Εὐέλθοντι (Τι)μησιέργ[ου τοῦ - -είου -, ἐπὶ ὑποθή-] [κηι τηι οικίαι ηι γειτονεύουσι οικί]αι η τε Θεαίου και Στη[σίλεω? και ή - -, κατά] συνγραφήν τήν παρ' "Αμνωι Τιμοξέν?]ου. vide. 33 [KAI ΤΟΔΕ ΑΛΛΟ ΑΡΓΥΡΙΟΝ ΕΔΑΝΕΙΣΑΜ]ΕΝ τοῦ ἱεροῦ ἀργυρίο[υ τεῖ πόλει καὶ τεῖ βου-] [λει και τοις ταμίαις και τωι γραμμα]τει και προδανειστ[αις] -- [δ]ώρου κατά τὸ ψήφισ[μα] -- [κατὰ συγγραφήν] τήν παρ³ "Αμνωι Τι[μοξένου]. - (mois) -] [τει πόλει και τει βουλει και τοις τ]αμίαις και τωι γραμ[ματει και προδανεισ-] 60 [ταΐς - - - - - - - - - - - - -]ου, Φωκαεί Φωκαέω[ς ώστε εἰς τὴν δωρεάν] την ψηφισθείσαν τωι δήμωι τωι -]Ι+ΝΛΙΩΝ κατά συνγ[ραφην την παρ' Άμνωι] [Τιμοξένου ?. - (mois) - τεῖ πόλει κ]αὶ τεῖ βουλεῖ καὶ τοῖ[ς ταμίαις καὶ τῶι γραμ-] ματεί και προδανεισταίς Ξενοκλ]είδει Ανδρομένου, Σ- - - - -[- - - εἰς τὸν στέφανον τῶι δ]ήμωι τῶι ˁΡ[ο]δίων κατ[ὰ συγγραφήν τήν παρ³] 65 [Αμνωι Τιμοξένου ?. - (mois) - τεῖ πό]λει καὶ τεῖ βουλεῖ κ[αὶ τοῖς ταμίαις καὶ τῶι] γραμματεί και προδανεισταίς Σ]τησιλέωι Πραξιμένο[υ] - [κατά συγ]γραφήν τήν παρ³ "Αμν[ωι Τιμοξένου]. vide = 2 lignes. [ΛΟΓΟΣ ΤΩΝ ΕΙΣ ΤΑ ΠΟΣΙΔΕΙΑ· βοῦς ἐκ Τ]ήνου σύν ναύλωι ΗΔ[Δ] -[κριοί ΙΙ Ποσειδώνι ³Ασφαλείωι και ³Ο]ρθωσίωι ΙΔΔΓΙ· κάπ[ρος] -- [γλυκέως μετρητ]αί ΙΙΙ, τιμή ΔΔΔΔΓΗ· [οινου Κνίδια - -, τιμή - -]· 70 - [ὄ]ξος ΗΗ· ἀρτύματα Ι [- -· ἕλαιον] -- [ἄννησ]σον Ι· ἐργάταις ΔΓ· [μαγείροις - -· ἐπισπλαγ-] [χνίδιοι -· ἐρέβινθοι -· κάρυα ΔΔΔ] Γ· ἰ[σχ]άδε[ς] ΔΓ· [κληματίδες] - - οἴνου Κῶια ΔΔΔΙ, τιμ[ή - - νικητήριον ἁ-] 75 [μίλλης - και δευτερείον -. Εχομ]εν δε το άποτετα[γμένον ΗΗ] -- Γ. κεράμου Γ. vide. [ΛΟΓΟΣ ΤΩΝ ΕΙΣ ΤΑ ΕΙΛΕΙΘΥΑΙΑ· ἀπό τῶν] ΔΔΔΔ· πρό[β]ατον ΔΗ· -- - [στεφανώ]ματα ΙΙΙ· ἀρτοκόπωι ΗΙ[- -· λάχανα Η· τάριχος Η]· [όψον -· κάρυα· -· οΐνος - -.] vide. vide = 2 lignes. 80 [ΑΝΕΜΙΣΘΩΣΑΜΕΝ ΔΕ - -, οὐ καθιστά]ντος τοὺς ἐγγύους Δημ[- - καὶ ἐμισθώ-]

11.02

[Δ]ημοσῶντι γραμματεί vide · ἀΑπολλωνίωι τῶι ἀρχιτέκτονι ℡ΗΗ™ΔΔΔ. Ἄγαλμα τῶι Δ[ιονύ-] [σ]ωι Ι^ΔΔ· ξύλα εἰς πτέρυγας ΔΔF· ῆλοι καὶ ἄξων καὶ περ[όν]αι Η· τῶι κατασκε[υάσαντι] τὸ ἄγαλμα ΔΕ. τῶι γράψαντι ΔΕ. εἰς ἐπικόσμησιν ἐργάταις τοῖς τὸμ μό[λυβδον] [έν]έγκασιν εἰς τὴν ἅμαξαν καὶ ἀπενέγκασιν 〒ΗΙΙΙ· πέτευρα καὶ τῶι γράψαντι [τάς]

- 35 [διε]γγυήσεις και τας συγγραφάς ΔΕ . Φωκίδι είς επικόσμησιν της "Ηρας Δ. πεύ[κη] ... ΙΙΙ· εἰς Θεσμοφόρια ῧς ἐγκύμων ΔΔΤΗ· τεῖ Κόρει καθαρὸν ΔΔΗΙΙΙ· καὶ τῶι Διὶ τ[ῶι] [Εὐβ]ουλεῖ ΔΔΔΗΗ· εἰς τροφήν τῆι ἱερείαι τῆς Δήμητρος ΔΕ· καὶ τεῖ ἱερείαι τῆς Κ[ό-] [ρης] ΔΕ. έπισπλαγχνίδιοι Ε. [ξ]ύλα και κληματίδες Ε. μαγείρωι Η. χοιρος καθά-[ρασ]θαι το ιερόν F. πεύκη και κληματίδες Π. Ευπόρωι περιαλείψαντι τους βωμούς -.
- 40 [νυκ]τοφυλαξίοις χοιρος το ίερον καθάρασθαι Τ. έλαιον επί ακ[ά]ν[θους]? Η. ξύλωμα ΗΤ. [δε]σμών? εἰς τὸ μέγαρον τὸ ἐν τῶι Θεσμοφορίω[ι ..]Η· ἔνδυμα καὶ πέ[πλος?] ΛΥΣΛΝΤΟΣ Λογισταίς· Μαντιθέωι "Απολλοδώρου ΤΑΓΔ·] Νικίαι Εὐέλθοντο[ς ΤΑΓΔ·] "Αστίαι Μνη[σι-] [κλέ]ους Τ^Δ· ³Αναξιθέμιδι Πάχητος Τ^Δ· Πολυξένωι Θαρσαγόρου [Τ^Δ]Δ· σχοινίον [εἰς τ]ὸ γυμνάσιον ΔΗΗ· νυκτοφυλαξίοις εἰς τὰ νομιζόμε[να..] Η· vide.
- vide. ξύλα ΗΙΙΙ. Εἰς Ποσίδεα ΤΗ εἰ[ς] Εἰλειθύ[αια Δ]ΔΔΔ. Στηλών δύο 45 [ΙΔΔ. βατήρων ΔΔΕ. τοῖς ἀπενέγκασι καὶ ἐργασαμέ[νοι]ς ΔΔΔ. ·τ[ῶι] γράψαν-[τι Η]ΗΙ Δ· μολύβδου ΕΤΗ · δέλτου κυπαρισσίνης ΔΕ. τῶι γράψαντι ΔΔΤ. Α.Τ -...ας χοίρον το ίερον καθάρασθαι της Δήμητρος F. πεύκη, κληματίδες Η. vide. [Τοί]ς ἄρασι τὸ σῶμα τὸ προσπεσὸν εἰς τὸ ΕΛΥΚΕΙΟΝ Η· καὶ ᾿Αλκίμωι? ἄραντι τὸ σῶμα τὸ προ[σ-]
- 50 [πε]σόν πρός τόν αἰγιαλόν τόν πρός τῶι ᾿Ασκληπιείωι ΗΗ ΙΙ· ΚΛΕΟΛΛΛΙΩΙ ἄραντι τό σῶμα τό] προσπεσόν πρός την νήσον την ίεραν Η· και Ευπόρωι άραντι τό σώμα τό έκ της στοάς τή[ς] [π]ρός τῶι Ποσιδείωι Η· Σωτηρίχωι ἀνακολυμβήσαντι τὸ σῶμα τὸ ἐμπεσὸν εἰς τὸ ὄρυγμα τὸ [π]ρός τῶι Ἡρακλέωι F· καὶ Σώσωι ἄραντι τὸ σῶμα τὸ προσπεσὸν πρὸς τὸν αἰγιαλὸν τὸν πρός τῶι Θεσμοφορίωι Η. Κοφίνων Η σφόγγων Η. vide.

ελάβομεν δέ και παρά των ταμιών 55 εἶς αθλα T. ταύτας κατηθλήσαμεν μετά τοῦ ἄρχοντος και τοῦ γυμνασιάρχου. vide. Τὰ δὲ ἐνηρόσια Θαλέου καὶ Δωρίου καὶ Χερσονήσου πράξαντες [ἐδ]ώκαμεν τοῖς πρυτάνεσιν είς τά κατά μηνα καί της φιάλης. το δε λοιπον εδομεν τωι ε[πι]στάτει. vide. Εδομεν δε προεισενέγκαντες τοις επιστάταις τοις αίρεθεισιν είς τας θυσίας το άργύ-[ρ]ιον έν τοῖς καθήκουσιν χρόνοις ΐνα συντελώνται αί θυσίαι τοῖς θεοῖς. vide.

60 ΛΟΓΟΣ ΤΩΝ ΕΙΣ ΤΑ ΠΟΣΙΔΕΑ· βοός ΙΑΔΔΗ· τροφή ΔΔΗ· ἱερείων· αἰγῶν ΙΑΔΔΗ· τροφή Η· [κ]ριών δύο Ποσειδώνι 'Ασφαλείωι και 'Ορθωσίωι ΔΔΤΗ· δελφάκιον ΔΔΤΗ· κάπρος ΔΗ· [γλ]υκέως με. ΙΙΙ, χοείς [ΤΙ], τιμή ΔΔΔΔΕΤΗΗ· οίνου Κνιδίων κεραμίων ΔΙΙ, τιμή ΕΗ· άλφίτων [με.] ΙΙΙ, τιμή ΔΗ· ξύλων ΑΤ·ΙΙ, ΙΔΙΙΙ· όξους ΙΙΙ· σταφίδες ΔΗ· άρτύματα ΙΙ· [άλ]ες Ι· έλαι-[ον] Η· κέραμος ΗΗ· ανθρακες ΔΔΗ· αννησσον Η· εργάταις ΔΕ· μαγείροις ΔΗ· επισπ-

- 65 λαγχνίδιοι ΗΙΙΙ· ερεβινθοι Ε΄Η κάρυα ΔΔΕ΄ Ι· ισχάδες [ΔΙ]Η κληματίδες και ρυ-[μοί] Η· τοῖς μή πορευομένοις εἰς ἀπόμοιραν Τ. [οἴνου] Κώιου κεραμίων ΔΔΔΤ, [τιμ]ή ΗΔΕΤ. νικητήριον άμίλλης Δ. δευτερείον Ε.Η. [Εχομ]εν δε το άποτεταγμέ-
 - [νον] ["Η· και των ήμιωβελίω[ν Δ]ΔΔΔ· δερμάτων FT· κεραμ[ίω]ν FTH. vide.

[ΛΟΓ]ΟΣ ΤΩΝ ΕΙΣ ΤΑ ΕΙΛΕΙΘΥΙΑΙΑ· ἀπό τῶν ΔΔΔΔ· πρόβατ[ον] ΔΕ. πυροί ΔΙ· τυρός Ι· έρέβιν-

70 [θοι] Η· σήσαμα vide. μέλι ΗΙ· στεφανώματα !!!· ἀρτοκόπωι ΗΙΙΙ· λάχανα vide?· τάριχος Η· [ό]ψον FT+ κάρυα HIII οΐνος FIII. vide.

ΚΑΙ ΤΑΔΕ ΗΓΟΡΑΣΑΜΕΝ· παρά Μνήσιος [κ]αί Βοήθου σφηκίσκους ΙΔ, τον σφηκίσκον ΙΔ, τιμή ΙΗ Αωρίωνι έργατικόν τών σφ]ηκίσκων Η ΗΙΧΧ· τούτων κατεχρήσθη κελεύοντος αρχιτέκτονος είς την οροφήν τοῦ οἴκου τοῦ καινοῦ τοῦ πρός τῶι Σαραπιείωι σφηκίσκοι ΔΙΙ· καὶ ἐπὶ τὸν Ἰνωπὸν ΙΙ· καὶ εἰς

75 [τ]ο στωΐδιον το προς τωι Σαραπιείωι Ι· και εις την στοάν την προς τωι Ποσιδέωι ΔΔΔΤ· vide. παρά `Αμφικλέους δοκούς στρογγύλας ΙΙΙ, Η Φ , ωστε έπι τον οίκον τον έπι του Κυνθίου· πα-

Τηλέμνηστος (Μ.	Lacroix).	Cf. aus	ssi n. 457,	A, l. 41;	n. 460,
b, l. 14; t, l. 37.					
Εὐβούλη Θεο.	(A, 1.49):	cf. n.	442, A, l.	215, 252-3	3.

- Θεόγνωτος Άλε. (A, l. 53): cf. n. 449, B, l. 13; n. 457, l. 40; n. 463, B, l. 12; déd. n. 1283.
- Μνήσις Φω. (A, l. 52): fermier d'impòts, n. 442, A, l. 152.
 - ²Ορθοκλής ²Ορ. (A, l. 51): cf. au n. 396, A, l. 48.
- Πρωτόμαχος (^{*}Αριστείδου) (A, l. 46) : ci-dessus, s. v. *Αριστείδης.
- Σατυρίων Εὐφι. (A, l. 53): cf. n. 449, B, l. 13; n. 457, l. 40; n. 463, B, l. 12.
- Σωκρίτου τοθ Άρ. κλη. (A, l. 50): cf. n. 449, B, l. 7?
- Τηλέμνηστος ('Αριστείδου) (A, 1, 46) : ci-dessus, s. v. 'Αριστείδης.
- Φίλλακος Θεο. (A, 1. 49 et 50): cf. au n. 442, A, 1. 173, 216. Φίλλιος κλη. (A, 1. 46): cf. au n. 449, B, 1. 11, où un débiteur du nom de Φίλλις est inscrit pour une dette double, et n. 463, B, 1. 11.

Φωκίων Κλεο. (A, l. 51) : cf. au n. 400, l. 29 (locataires).

Entrepreneurs el marchands.

³Αγάθων (B, l. 107): cf. au n. 372, A, l. 110.

Δημήτριος (B, l. 108): cf. un locataire homonyme, n. 442, A, l. 144.

Διόφαντος (B, l. 104) : un locataire de ce nom, n. 442, A, l. 143.

Ζάπυρος (B, l. 73): peut-être le métèque homonyme, chorège, n. 133, l. 10, 13; peut-être aussi est-ce Ζάπυρος ^{*}Ερξίνου (de Lampsaque?), déd. du n° siècle, n. 1216, col. III, l. 4 (et commentaire du n. 708, s. v. Μητρόδωρος ^{*}Ερξί. Λαμψα.), assez vraisemblablement proxène vers la mème époque: n. 788; cf. BCH, XLVIII, 1924, p. 409 (M. Lacroix).

Μειδίας (B, 1. 80): cf. au n. 287, A, l. 117. Πολιάνθης (B, l. 97): cf. n. 407, l. 3. Χρήσιμος (B, l. 98): cf. n. 406, A, l. 49.

Joueuse de flûte.

Φιλουμένη (A, l. 28): cf. n. 442, A, l. 197.

445. Musée de Délos, inv. Γ 287. Petite stèle intacte de marbre bleuâtre. H. 0^m,32; L. en haut 0^m,29, en bas, 0^m,305; Ép. 0^m,065. Trouvée en 1903 entre l'édifice dit « Temple des Taureaux » et le mur oriental du péribole. La surface a souffert à l'angle supérieur de droite. Lettres ornées, de 0^m,003, de même forme à peu près qu'aux n. 442 et suiv. J'ai édité le texte, BCH, XXIX, 1905, p. 524, n. 179 (cf. pl. XXI); A. Jardé en a fait une revision en 1905, et je l'ai relu en 1908 (voir BCH, XXXIV, 1910, p. 142, note 1).

[a. 178]

τυρός Η· ἐρέβινθοι, κύαμοι ΗΗ· σήσαμα Η· μέλι Η· στεφανώ-15 ματα ΙΙΙΙ· ἀρτοκόπωι Η· λάχανα Η· τάριχος Η· ὄψον F⁻I· κάρυα Η· οΐνος F⁻IH.

ΝΙΚΟΥ ΧΩΡΟΝ δε ανεμισθώσαμεν οὐ καθιστάντος τοὺς ἐγγύους ᾿Αχαιοῦ τοῦ Ζηλομένου· κα[ί] ἐμισθώσαντο Λυκομήδης Κριτ[ίου, Χ]αρίστιος ᾿Αντιγόνου τοῦ αὐτοῦ ་མོའ△Ϝ་HIIICT/· καὶ ἐγγύους κατέστη-

20 σαν Εὐέλθοντα Τλησιμένου καὶ Παρμενίωνα Πολυβούλου· καὶ παρέλαβον θύραν αὐλείαν, κλείσιον τεθυρωμένον, θάλαμον ἄθυρον, μυλῶνα, ἀχυρῶνα ἐστυλωμένον, βούστασιν, ἀνδρώνιον, ὑπερώιδιον, προβατῶνα, ἰ-

Dating

Period 4-5 OBS

Suggested date ii-i ändring

No 33 See discussion under no 5.

Suggested date c. 80-30

Period 6

No 34 is a dedication to Apollo by Lochos from Kalymnos, his wife and his children, published by, among others, Segre (1938, 49; 1944-45 29, no 28). He connects it with no 33, which concerns Pamphilos, Parmeniskos' son, naturally Python, Apollodoros' son and with an inscription from Kalymnos where Apollodoros, Python's son, adopted by Kleumachos is honoured (Segre 1938, 48). Both these are dated to the 1st century B.C. Segre thus considers no 34 to be contemporary with the other two. The reason for this date is probably the naming of Apollo Dalios and the epithet 'Kalymnas medeonti', ruler of Kalymnos. Segre (1944-45) compares this inscription with his nos 108-110 and nos 127-130.

S nos 108-110 contains the words 'Apolloni Dalioi Kalymnos medeonti'. S 108 is dated to the Augustan period by mention of Gaius Germanicus and S no 109 and 110 to the 1st century B.C. S nos 127-130 contains the phrase 'Apolloni Kalymnio' and tell of the restoration of dedications to Apollo by P. Servilius Isauricos, proconsul over Asia 46-44. Segre thus considers a date of c. 45 as probable. See also the discussion under no 5.

Fraser has suggested a somewhat later date, the 1st century A.D., but considering this group as a whole I think it is less likely.

Suggested date c. 50-40

Period 6

<u>No 35</u> and no 36 are dedications, no 35 to Athena Alseia and no 36 to Athena Alseia and the Damos. The letters of no 35 are apicated according to the drawing in Maiuri (1925, no 447). The alpha has a straight cross-bar in some cases and a broken in some. The strokes of the lamda, mu, and the ypsilon are curved. The oblique strokes of the kappa are short. The oblique strokes of the ypsilon join at a high point. The omicron is smaller than the other letters and placed in the middle of the line. The omega is somewhat smaller than the other letters and placed at the bottom of the line. The horizontal stroke of the eta is separated from the vertical ones, a trait which occurs in the late Hellenistic and Roman imperial period according to Guarducci (1967, 381).

The iota in the dative form of Athana Alseia is written out, whereas in no 36 it is absent.

Sherwin-White dates this inscription, as well as no 36, to the 1st century B.C. - 1st century A.D. I believe that no 35 may be a little earlier than no 36 and thus I place it in the

nec'd 22.77.88 [12]

Date c. 125-116

Period 5

<u>No 4</u> is fragmentary. In the inscription a daughter of Nikomedes honours Kleinos' son. It has been dated by Sherwin-White to the 2nd to 1st centuries and Fraser thinks that perhaps it is from the late 2nd or early 1st century.

Suggested date ii/i

Period 5

↑ No 5 At the risk of repeating many of the opinions presented by Segre (1938, 48-50; 1944-45, 28-30, 162-63), I think it is necessary to discuss at some length nos 5, 33, 34 and 80 together with two other inscriptions from Kalymnos belonging to the same group (Segre 1944-45, no 137 B and 139).

<u>Ca</u>	<u>tno</u>	<u>Date</u>	<u>Find</u> place		Name	<u>Ded.to</u>	<u>Honours</u> voted	<u>Reason</u> for honour
-	5	S ii−i S-W i⁄i		-	Apollodoros Python's son, ad. by Kleumachos		golden wreath, marble statue	
S	139		nos	•	Apollodoros Python's son, ad. by Kleumachos		golden wreath, gilt statue	euse- beia phil-
	33	S i B.C. Fr i B.C.	Kos		Pamphilos Parmenis- kos' son, nat. Python Apollodo- ros' son	noia and	. ·	
	34	S 50-40	Kos	adop	Lochos Lochos' son, nat. Xenokra- tes' son	Apollo Delios		
	80	S i B.C. S-W i/i P-C undat	Kos		Zopyros, Euphiletos' son	Homonoi	.a.	
S	137B	S i B.C.	Kalym- nos	-		Homonoi	. a	

13,01

Fr = Fraser, opinions expressed in a private letter P-C = Pugliese-Carratelli, <u>PdP</u> 24, 1969, 374-76 S = Segre, Tit. Cal., <u>ASAA</u> NS 6-7, 1944-45 S-W = Sherwin-White, <u>Ancient Cos</u>, 1978

Apollodoros, Python's son, my no 5 and 5 no 139, was honoured by both the Koan and the Kalymnian demos. The Kalymnian demos honoured him for his <u>arete</u>, his piety (<u>eusebeia</u>), his benevolence (<u>philagathia</u>) and his kindness (<u>eunoia</u>). The Koan demos praised his <u>arete</u> and <u>eunoia</u>. Both demoi voted him a golden wreath, the Kalymnians one of the largest kind (ek ton nomon megistoi). The Koans voted him a marble statue and the Kalymnians a gilt statue. Apollodoros appears to have done something valuable to both societies, and maybe most so to the Kalymnians, who voted him the greater honours.

The lettering of the Kalymnian inscription, S 139, is very like the lettering of my no 33. They may well be contemporary.

No 33 is dedicated by Pamphilos/Python to Homonoia and the Damos. S 137B is a dedication to Homonoia between the Kalymnians and the Isthmiotes, dated by Segre to the 1st century B.C. My no 80 is a dedication to Homonoia by an Isthmiote, Zopyros, Euphiletos' son, on behalf of the Isthmiotes and the other citizens. We thus have three dedications to Homonoia from about the same time. One of these, no 33, includes the dedication of a temple (naos) to Homonoia and the Damos.

Three of the four inscriptions concerning adopted sons were found on Kos. The one found on Kalymnos, S 139, concerns Apollodoros, Python's son, who was honoured also on Kos. Thus they all have a Koan connection and that they presumably were adopted into Koan families.

The two men, Apollodoros, Python's son in no 5 and Pamphilos, naturally Python, Apollodoros' son in no 33 must be related as, apart from their names, they both came from Kalymnos which, in this period, was incorporated in the Koan state (Segre 1938, 48-49). I think that Apollodoros is the father (or possibly grand- or great grandfather) of Pamphilos/Python in no 33. I hold it as less probable that he is a son of Pamphilos/Python. If the latter had had a son after being adopted by Parmeniskos, it is more probable that this son would have been given a name taken from his father's 'new' family. Nor would he be called Python's son, but rather Pamphilos' son.

Apollodoros is given an earlier date by Segre (ii-i) than the rest of the group (i B.C.). This is consistent with the hypothesis that Apollodoros is the father or an earlier progenitor of Pamphilos/Python. There are, however, a few problems with the suggestion of an earlier date for the Apollodoros inscriptions. First, Apollodoros is adopted, a trait he shares with the later dated nos 33 and 34. Second, as noted above, the lettering of S 139 is very similar to my no

33 as published by Paton & Hicks (no 61).

Another possibility is that Apollodoros, having reached old age was thanked for his contributions towards society earlier in his career, i.e. before his adoption and therefore is called by his pre-adoptive patronymic.

A more interesting solution would be that both the father(?) and the son(?), one as an old man, the other as a grown man, were adopted by Koans at the same time for special reasons.

That would mean that no 5, 33, 80, S 137B and S 139 could perhaps all have been occasioned by the same series of events. No 34 also may well belong in this context.

Something apparently happened to make it desirable for certain Kalymnians to be adopted by Koan families. I think it is more probable that this something happened before Kos - and Kalymnos - was incorporated into the Roman province of Asia and became subject to provincial jurisdiction c. 30 B.C. (Sherwin-White 1978, 221). After this, events momentous enough to cause the dedication of a temple to Homonoia and the Damos, no 33, would presumably have been dealt with by the Roman magistrates.

Suggested date c. 80-30

Period 6

<u>No 6</u> mentions Junia, Decimus' daughter, Publius' wife. She is, of course, identical with Junia, wife of Publius Servilius Isauricos (Magie 1950, II, 1271, n. 42.4), who was also honoured with a portrait statue in the Asklepieion by the Koan demos (no 49). It should thus be dated to c. 46-44. It is grouped among the sepulchral inscriptions in Paton & Hicks (no 206), but it is doubtful that it is a funerary stone (DISCUSS) probably returned to Rome with her husband. Fresumably it was Junia herself who was portrayed or possibly she had the statue erected as her name is in the nominative.

Suggested date 46-44

Period 6

<u>No 7</u> honours Eirinaios, Theodotos' son. It was published by Maiuri (1925, no 457) who notes 'a causa dell'altezza, non mi e stato possibile ricavare un calco'. I have not found the inscription and so do not know what the letters look like. The type of inscription - honorary, erected by the damos - is most common at a late date. This suggests a late date for no 7, perhaps the 1st century B.C. or the early 1st century A.D.

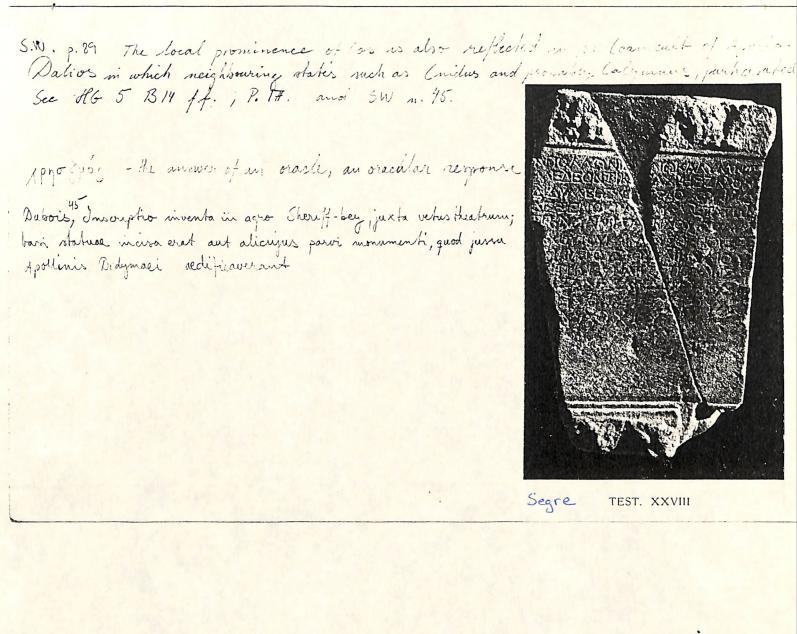
Suggested date i- early i Period 6-7

No 8 is an inscription in Latin wherin Roman citizens on Kos honour Kos Town for its piety to Gaius Julius Caesar. As Kos supported Pompejus in the Civil War I believe this document to be from the time after Caesar's victory over Pompejus, i.e. c.

Out of C	atalogue trom	erstin Hoghammar, Dechou [14.01]
e th	Cat no: 14434	Date: i BC
·	Provenance: Kos town	Period: 6
	BASE DESCRIPTION Square block of marble with Measurements: H. 75 L.	
	Usage: new reused u	unknown
	Findplace: Near the theatr	re, in one of Sherif-bey's wineyards.
	Original location: in sit	tu indicated unknown +
	Type of base: certain indicated un!	known (
	Material of statue:	
	TEXT Type of inscription: dedi Statue of: unknown Erected by: pri Erected in honour of:	To Apollo Delios guardian (ruler) of Kalymnos after the oracle of the Didymaean Lochos, Lochos' son, naturally Xenokrates' son, with the children Nikomedes, Olympichos also called Kleisthenes, Xenokrates also called Bolios, and his wife, Polle, Alexander's daugther and Christopos, son of Lochos, Lochos' son icatory
	Erected to: Apc	ollo
	Sculptor net	given
	Nationality of honorand: Occupation of honorand: Sex of honorand:	
	Nationality of dedicator: Occupation of dedicator:	Koan (Kalymnian)
1994 A 1992	Sex of dedicator:	male and female
		ording to the oracle of the Didymaean
	FUBLISHED	Dubois 1881, no 16; PH, no 60; Segre 7
	Photo: Drawing:	

.. Finns i Kos museum i is soulon ded a lockos sant nous has 'Απόλλωνι [Δα]λίω Καλύμνας *αμεδέοντι, κ*[ατ]ὰ χρησζμόν XOI STAD TI marheten av teatern 3 an av Theref-beys omgander × Διδυμέως, Λό[χο]ς Λόχου φύσ[ει Harmarbas med kornich, sprucken i hva delan δε Ξενοκράτ[0]υς, μετα των τέκνων, Νικομήδους, 'Ολυμπίχου τοῦ καὶ Κλευσθένους, Ξενοκράτους τοῦ καὶ Βωλίου, H. 75, L. 50, Tj. 40 και της γυναικός Πώλλης τ] ης 'Αλεξάνδρου, καὶ . . . All letters of the same size, small aprices. 'I " thus IOXPHETANOY TOU NO ---- OUτο]υ Λόχου. B den dichemenstra Aporthe

Vorwinkerit Kos museum (ent. Begre T.C p. 29) bit T. Cal. Tac. 1 Vand . Cegre the middle part of the 1st c. BC BCH I, 1351, no 16 p. 228; PH 60 That p. 29, no. XXIII, Arto Tab. V Frager 1 AD Rh. Jot. Nor. - areh Hem 3, 1938, 49 (Segle) Dubois 1884, no 19 per. 6



15.01

KOAN AMPHORAS.

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My aim with this tentative study is to seek the economic picture behind the tables of amphora handles. The study is sketchy in the extreme and I have not had time to check the figures. I want to present for discussion the material and whether it can be used the way I have used it.

<u>Problems involved when using Koan amphora handles as a way</u> of reconstructing trade.

1. We know that not all Koan amphoras were stamped as opposed to almost all Knidian and Rhodian - the latter were stamped on both handles -. What was the ratio of stamped to unstamped Koan amphoras? Was it the same in all periods or did it vary?

2. Koan amphoras were stamped from the late 4th century (then very rarely, oral information, Empereur) down to about 70/50. Most stamps seem to date from the 2nd and 1st centuries.

According to Empereur there was a total break in the stamping of Knidian amphoras between 85 and 78 because of the Mithradatic War. After this war stamping reoccurred (but not to the same extent) down to Augustan times, that is, the wars meant disruption of trade.

3. From the end of the 2nd century and particularly from the beginning of the 1st century, amphoras of the Koan type start being produced at various places, for instance Myndos, Halicarnassos, Theangela, Knidos and Rhodes. According to Empereur the clay can be so similar to that of Kos as to make it virtually impossible to see any difference with the eye.

These extra-Koan production centres may also have produced amphoras with name stamps now considered to be Koan.

How many of the so-called Koan handles from this late period are not Koan?

4. Unless the Koan handles published from various sites are dated and a ratio of stamped to unstamped handles is worked out for the different periods we cannot really make an estimate of the Koan wine trade down to the end of the 2nd century.

For the 1st century and later we also have to learn how many of the so called Koan amphora handles really are Koan.

5. Koan potters produced not only the 'classical' double handled amphoras but also other types, for instance, a) imitation of the Rhodian type (Grace, Empereur), b)the socalled Nikandros-group (Grace, Empereur, Savvianou-Petropoulakov thinks these are not Koan) and c)the so called the Sopatros group. These groups have not been included in the 'Koan' group when published.

Do these groups show a similar proportion of stamped to unstamped handles?

What do we today know of the ratio of Koan stamped to unstamped amphoras?

Already in 1949 Miss V. Grace presented us with the fact that many examples of the Koan amphoraas were not stamped (Hesp. Suppl. 8, 1949, 181, 186), an observation since repeated by her several times.

Mr. Empereur presented the results of an 'informal' survey made in 1976 on the southern coast of Kos in an article. He counted 176 double handles, two of which were stamped. In a note he says that the unstamped handles are contemporary with the stamped ones (2nd and 1st cent.). This would give a ratio of 1:44, a figure which he later modifies to 1:30 (oral presentation in Pylos 1984).

In an excavation in Delos, la Maison au nord de l'Ilot de Bronze (date t.a.q. 69), Empereur studied all the Koan handles from the excavation. There were 59, three of which were stamped, the implied ratio of stamped to unstamped amphoras is 1:12 (Empereur, BCH 106, 1982, 226-27, 233).

In using the lower of the two ratios available, i.e. by multiplying all Koan figures in the table presented by S. Sherwin-White by twelve, and by dividing the Rhodian figures by half I hope to come a little closer to reality when presenting a tentative table of the number of Koan and Rhodian amphoras exported. One would thus get a more correct picture of the relative importance of these two wine exporting countries.

Most publications do not date the Koan handles, usually an overall figure is given. Exceptions are publications by Grace -SavVianou-Petropoulakou. An estimate of the development of Koan trade cannot really be given until one has both the dated stamped handles and the ratios stamped unstamped handles for the different periods.

Of a total number of 1925 stamped 'Koan' handles I have the date of about 384, that is, cirka 20%. Of the dated handles more than half come from before c. 108 (see table). I am very grateful to Miss Grace who has given me the date of some previously unpublished Koan handles mainly from the agora excavations in Athens!

Athens 1988-11-21 Kerstin Höghammar

16.01

KOAN ECONOMY

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The importance of the Koan synoecism for the well-being of the community can be seen by the reading of Diodoros Siculus (XV 76,2) 'From this time on (i.e. from the foundation of Kos in 366 and onwards) it grew greater both through the public revenues and through the wealth of private individuals and soon became a match for leading cities.'

Material remains tell the same story; the Asklepieion was planned and built as a unity during the first half of the third century. In Kos town a theatre had been built before 240 and in the huge agora a temple with an adjacent (syn) altar of Dionysos was ready before c. 200 when it was mentioned in an inscription (PH 10 a28).

Agriculture.

Rhodes and Kos are fertile islands and agriculture and farming were always a predominant part of the island's economy in antiquity. Corn, olives and wine, as well as vegetables and fruit were cultivated. Farm animals were also kept.

Trade.

The placing of the 'new' city at the north-eastern end of the island with a good natural harbour meant that it was on the mainroad of trade between the Black Sea area and Rhodes and Egypt. Ships sailing along the coast of Asia Minor put in at the harbour and the levying of harbour dues increased the Koan public income to a (presumably) considerable extent.

Koan trade developed with export of wine , which was considered of good quality, silk and perfume and import of mainly grain (?).

Stamped Koan amphora handles have been found particularly in Alexandria and in different poleis in the Black Sea area. Quite a number have been found on Delos. As yet they are almost non-existant on the Greek mainland except for Athens.

Recently J-Y Empereur (BCH 106, 1982, 226-227) proposed that only a few of the Koan amphora handles were stamped. He suggests a ratio of about of about one to thirty (oral information, Pylos, 1984). In an addendum to the same article he referers to an excavation on Delos where both the stamped and unstamped Koan amphora handles were counted. This context, the t.a.q. of which was 69, gave a ratio of one stamped amphora to twelve unstamped ones. He also considers most of the Koan amphora handles in the Alexandria museum to date to the second and first centuries. The Rhodian handles in the same collection date from approximately the same period (kolla!). A comparison of the statistics furnished by Sherwin-White (1978, 238) gives us a number of about <u>40 000 Rhodian</u> amphoras (the Rhodian handles were almost invariably stamped on both sides!) as yet found in Alexandria. Avestimate based on the ratio of 1:12 gives us a number of c. <u>17 760 Koan</u>

<u>amphoras</u> and a ratio of 1:30 gives us a number of about $\underline{42}$ 000 <u>amphoras</u>. This gives us a totally different picture the import of foreign amphoras with or without content to Alexandria.

Added to this are the recently discovered mountains of locally produced amphora sherds which dwarf any imports.

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The Koan amphoras probably contained Koan wine when shipped to their various destinations as Koan wine was appreciated during antiquity. Recent research has shown Koan amphora finds also in the Roman world of the western Mediterranean during the early Roman Empire (Hesnard, BCH Suppl. 13, 75-79).

Rhodian amphoras very possibly contained non-Rhodian wine when arriving at their destinations. This suggests a different pattern in the distribution of income in Rhodes and Kos. A broader spectrum of society benefited economically on Kos as an amphora found abroad implies work on the island both for the shipper and sailors, the tradesmen, the producers of amphoras and the wineproducers.

A somewhat surprising fact is that a large majority of the amphoras appear to date from the second and first centuries. One would have expected a more even distribution including the third century, when Koan relations with Alexandria were very close.

Another factor contributing to Koan prosperity during almost the entire Hellenistic period was its political stability. In marked contrast to most of mainland Greece and also many island communities we hear of no stasis on the island of Kos. Add to this that the island suffered hardly at all from the many wars rayaging the Hellenistic world. As far as we know Kos suffered enemy troops on its own territory only once just before 200, and then very briefly, before the last fifty years B.C. 238

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Statistics of the distribution of Coan amphorae handles 105

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Original Prov.	Rhodes	Cnid.	Thaso	s Sin.	Herac.	Chers.	Bosp.	Chios	Cos	Pont.	Rom	. <i>IA</i>	UA	TOTAL
Find-place					2	7.4	S	E al	19.1	Sec.	Line			
Panticap.	246	15	58	99	86	4	4	1	20			1	61	595
Phanag.	299	19	56	64	42	3	47		14	•		1	62	607
Chers.	183	13	12	239	33				13		1		29	723
Olbia	376	19		6					6					407
Tyras	310	15	28	93	32	8			39				63	588
Istria	14%	55%	28%	35%	35%	4%			2%				8%	
Odessus	96	2	80	47		7			2			3	44	281
Pella	208	90	255				16	14	15		23	3	434	1058
Iasos	59	5	3						14	1				82
Samos	390	9	1	1				4	21		1	11	62	500
Cos	396	30	5					3	161	3	4		16	618
Syme	3389	407	6					2	9		1	7	345	4166
Rhodes	6978	93	61					18	7	16	11	1	136	7321
Delos	1550	4352	47					142	53	10	627	24	274	7079
Delos	49	173	2					9	7		27	4	13	284
Athens (Pnyx)	43	76	70	(18 inclu	iding Cos	;)				8			45	260
Corone	11/14		11						2?			11	11/14	49
Argos	8	29						1	3					41 .
Alexan.	80,000	860	190					160	1480		980	650	814	85134
Samaria	1978	4	12					6	23	6	4		44	2077
Gezer	621	3	3					4	1?		1		20	653
Marisa	300	1	1						3	1 .			2	308
Nessana	13								20		2		3	38
Antioch	541	7	4						12		7	1	28	600

Coan handles have also been found in the following places: in the Black Sea area, in the region of the Danube, at Callatis, inland at Popesti, Catateni and Crasani; at Abydus; Pergamum; Chios; in the Agora at Athens; at Corinth; Crete; Cyprus; Naucratis in Egypt and at Tarsus in Syria. It is possible that Coan amphorae travelled as far as Arikamedu in India.¹⁰⁶

Table adapted from S. Sherwin-White

Statistics of the distribution of Coan amphorae handles *

Original Prov.	Rhodes	Cnid.	Thasos	Sin.	Herac.	Chers.	Bosp.	Chios	Cos	Pont.	Rom	. <i>IA</i>	UA	TOTA
Find-place		C.Y		Ken A		14		1	W. F		- 6.2			
Panticap.	123	15	58	99	86	4 3	4	1	240			1	61	595
Phanag.	150	19	56	64	42	3	47		168	• •		1	62	607
Chers.	92	13	12	239	33				168 150 72		1		29	723
Olbia	133	19		6					72					407
Tyras	155	15	28	93	32	8			468				63	588
Istria	(7%)	55%	28%	35%	35%	4%			(2%)				8%	
Odessus	43	2	80	47		7			24			3	44	281
Pella	104	90	255				16	14	24 180 168 237 1932		23	3	434	1058
asos	30	5	3						168	1				82
Samos	195	9	1	1				4	234		1	11	62	500
Cos	193	30	5					3	1932	3	4		16	618
lyme	1695	407	6					2	108		1	7	345	4166
Rhodes	3489	93	61					18	84	16	11	1	136	7321
Delos	800	4352	47					142	720	10	627	24	274	7079
Delos		173	2					9			27	4	13	284
Athens (ayora)	2216	12002	674 .						1992					19 16F
Corone	. 7		11									11	11/14	49
Irgos	4	29						1	36					41
lexan.	40000	860	190					160	131 36 19.128		980	650	814	85134
amaria	934	4	12					6	276	6	4		44	2077
Jezer	311	3	3					4	120		1		20	653
larisa	150	1	1						36	1			2	308
lessana	7								240	-	2		3	38
Intioch	271	7	4						240		7	1	28	600

Coan handles have also been found in the following places: in the Black Sea area, in the region of the Danube, at Callatis, inland at Popesti, Catateni and Crasani; at Abydus; Pergamum; Chios; in the Agora at Athens; at Corinth; Crete; Cyprus; Naucratis in Egypt and at Tarsus in Syria. It is possible that Coan amphorae travelled as far as Arikamedu in India.¹⁹⁶ by twelve

Recover numbers directed by half, Keen numbers multiplied

Period	Kos	Athen	Delos	Alexandria	Pranti -	Istria	Tyras	Olbia	Nessana	Naukohis	Samaria	Gyprus	Korchi	Penetrias	Perquinen	Samos	Pella	
300 :- 250		1											21		,,			Ţ.
250-200		21												1		1		1
200.150		621	4					.5				1			1			ľ
150-110	2(2)	51	1	c.120	2		2		Ĵ	12	3							
110 - 60/50		95	<i> </i> ¹¹	c 106 ⁵	7	1	3	え	14	3							1	
60/50 - 1 mg		1																

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KOAN AMPHORAS AND TRADE.

My aim with this tentative study is to try to present an alternative picture of the importance of the Koan wine trade for the Koan community. The figures presented in the tables of various excavation reports/publications for stamped handles are, if one has no knowledge of the amount of unstamped handles found and unfortunately hardly ever reported, very easy to misinterpret in terms of trade.

In using the ratio of stamped to unstamped handles found in an excavation on Delos (1:12) on the entire material of Koan handles my only aim is to break through the common misapprehension that the number of Koan amphoras on various sites was very small as compared with, for instance, those from the neighbouring island of Rhodes. Undoubtedly there was a difference, but not on the scale so easily and so mistakenly seen in the exact numbers of stamped handles found. In using the ratio 1:12 for stamped to unstamped handles I do not think that I overrepresent the implied total number of Koan amphoras at a certain site. I rather suspect that the ratio was even higher during the third and most of the second century, but this remains to be proved. However, even in using the ratio 1:12 one can see important changes in the relative relationship between Kos and Rhodes in for instance the northern and western Black Sea area.

I wish to stress that the figures I present in my calculations do not represent a real number of amphoras found in any place listed, but I believe that my figures come closer to the number of Koan amphoras once there than the figures presented in the tables of stamped handles found.

It would not have been possible for me to produce this text without the information and help given to me by Miss V. Grace and Mr. $J_{-}Y$. Empereur, whom I hereby thank.

Problems involved when using Koan amphora handles as a way of reconstructing trade.

1. Stamped Koan amphoras appear from the late 4th century (then very rarely, oral information, Empereur) and continue down to about Augustan times. Most stamps seem to date from the 2nd and 1st centuries.

According to Miss Grace there was a break in the stamping of Knidian amphoras between 88 and 85 because of the Mithradatic War. After this war stamping reoccurred (but not to the same extent) down to Augustan times, that is, the wars meant disruption of trade (Grace & Savvatianou-Petropoulakou, Delos XXVII, 1970, 322-23). Was there a break in the production on Kos as well or could the island profit on the difficulties of the other wine producing area and increase its exports?

2. We know that far from all Koan amphoras were stamped as

6. XII. 88 fra hus - Höghning opposed to almost all Knidian and Rhodian - the latter were stamped on both handles -. What was the ratio of stamped to unstamped Koan amphoras? Was it the same in all periods or did it vary?

Unless the Koan handles published from various sites are dated and a ratio of stamped to unstamped handles is worked out for the different periods we cannot really make an estimate of the Koan wine trade down to the end of the 2nd century.

For the 1st century and later we also have to learn how many of the so called Koan amphora handles really are Koan.

3. Koan potters produced not only the 'classical' double handled amphoras but also other types, for instance, a) imitation of the Rhodian type (Grace, Empereur), b) the socalled Nikandros-group (Grace, Empereur; - Savvatianou-Petropoulakou thinks that this group is not Koan -) and c) the so called the Sopatros group (Empereur). These groups have not been included in the 'Koan' group when published and are thus not included in my calculations.

Do these groups show a similar proportion of stamped to unstamped handles?

4. From the end of the 2nd century and particularly from the beginning of the 1st century, amphoras of the Koan type start being produced at various places, for instance Myndos, Halicarnassos, Theangela, Knidos and Rhodes. According to Empereur the clay can be so similar to that of Kos as to make it virtually impossible to see any difference with the eye.

These extra-Koan production centres may also have produced amphoras with name stamps now considered to be Koan.

How many of the so-called Koan handles from this late period are not Koan?

5. Koan amphoras contained more wine than for instance Rhodian jars. A Koan jar took over 40 liters whereas a Rhodian one took 25 to 26 liters.

The ratio of Koan stamped to unstamped amphoras.

Already in 1949 Miss V. Grace presented us with the fact that many examples of the Koan amphoras were not stamped, she also notes that the same observation was made by the Alexandrian collector of stamped amphora handles, mr Lucas Benaki (Hesp. Suppl. 8, 1949, 181, 186), an observation since repeated by Miss Grace several times.

In 1962 D. Levi and G. Pugliese-Carratelli published a number of handles from Iasos in Caria. They pointed out that the number of stamped handles from Rhodes found was much larger than from anywhere else, but that perhaps the numerical relationship between imports of wine amphoras as such from Kos and Rhodes had to be modified somewhat because of the finding

of a great number of double handles without stamps apparently from Kos (ASAA, N.S. 23-24, 1961-62, 605).

Mr. Empereur presented the results of an 'informal' survey made in 1976 on the southern coast of Kos in an article. He counted 176 double handles, two of which were stamped. In a note he says that the unstamped handles are contemporary with the stamped ones (2nd and 1st cent.). This would give a ratio of 1:44, a figure which he later modifies to 1:30 (oral presentation in Pylos 1984).

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Most publications do not date the Koan handles, usually an overall figure is given. Exceptions are the later publications by Grace - Savvatianou-Petropoulakou. An estimate of the development of Koan trade cannot really be given until one has both the dated stamped handles and the ratios stamped unstamped handles for the different periods.

As I have already pointed out the ratio of stamped to unstamped Koan amphoras is on the whole unknown. However, I would like to make the experiment of multiplying the figures given in S. Sherwin-White's table (Ancient Cos, 1978, 238) by twelve, the lower ratio presnted by Empereur from the Delos excavation. I am fully aware that the result will not give a true picture of Koan trade as the ratio probably varied at different times and the figures given in Sherwin-White's table are undated (most Koan stamps, however, seem to date to the second and first centuries).

Centres where Koan amphoras seem to predominate.

I will list the places where the calculated number of Koan amphoras is larger than the number of Rhodian jars. The Koan figures are quoted first. In the Black Sea area; Phanagoreia 168-150, Panticapaion 240-123, Chersonessos 156-92, Tyras 468-155, Istria 444-242. I add some places for which Sherwin-White has not given the figures, Myrmekion 192-98, Callatis 192-64 (Gajdukevic, Das Bosporanische Reich. 1971, 182, n. 37; Gramatopol, Poenaru Bordea, Dacia N.S. 13, 1969, 127-37). In Panticapaion, Phanagoreia and Tyras the implied number of Koan amphoras is not only larger than the Rhodian, but the largest number of amphoras imported alltogether as the present evidence stands. The count and identification of unstamped handles may, of course, change this picture. (In Olbia and Odessus the Rhodian figures are higher than the Koan even after the conversion.)

Apart from the Black Sea area the Koan figures are higher at Pella (where Thasian amphoras are most numerous of all) 180-104, Samos 234-195, Iasos on the Karian mainland 168-30, 19.03

Kos 1932-198 and Nessana in Palestine 240-7. The jars in Nessana are however, according to their publisher Miss Grace, very likely to have been reused before being brought there and thus do not bear evidence as to trade between Kos and Nessana.

In a more recently published excavation on Labraunda, Koan amphoras predominate with an implied number 144-12. Most of the Koan handles date to the period 108 to 80, whereas the Rhodian are earlier, c. 275 to 108.

Athens, Delos and Alexandria.

*

In Athens (agora) and Delos the Knidian handles ar e in a vast majority. In Athens the Rhodian handles seem to be more numerous during the late third and early second centuries whereas the Knidian ones dominate from about the middle of the second century or somewhat earlier and onwards. On Delos the Rhodian are much more numerous in the second century, but the Knidian handles dominate from the second quarter of the same century (Delos, Empereur BCH 106, 1982, 224; the Athenian agora, Grace, Hesperia 54, 1985, 7). As has been pointed out by Y. Garlan (Trade in the ancient economy. 1983, 28) the figures for Delos may change if earlier layers are excavated.

In these two centres the figures for Koan and Rhodian amphoras do not differ so much after conversion. For Delos the relationship is 636 implied Koan amphoras and 800 Rhodian (These numbers are based on the figures given in Sherwin-White's table. There are more recent figures published for the Rhodian handles but not for the Koan and I therefore use the older figures.). For the Athenian agora the implied Koan number is 2 096 and the Rhodian number is 2 216. Miss Grace very kindly gave me the opportunity to make a quick count of the Koan stamped amphora handles from the agora - the number of which is 166 - as well as the date of Koan amphora handles found in datable contexts in the agora (see table) - 79 dated handles and jars of a total of 173 -. (I am very grateful to her for this information and also for her kindness to me whenever I visited her.) Most of the datable handles and jars (of which there are seven) come from the early second century. It is thus not unlikely that the import of Koan amphoras was larger before the middle of the second century than after that time.

As the dates of very few of the stamped Koan handles found on **Delos** have been published, only 17 of a total of 55, it is at present impossible to say anything about the chronological development on the island. Thirteen of the seventeen dated stamped handles are late, i.e. early first century, but we know from Delian inscriptions concerning the buying of wine for the festival of the Posidaia that in 180 thirtyfive jars of Koan wine was bought at a price of 105 dr. and in 178 another thirtyfive jars for 100 dr (J.H. Kent, Studies presented to D.M. Robinson. 1953, 128). Also, as has been mentioned above, this picture may change if excavations of the earlier layers at Delos were to take place.

Unfortunately it is not possible to get an idea of the number of unstamped amphoras in any of the above mentioned places.

For Alexandria Miss Grace has gone through 18 000 Rhodian handles bearing stamps with the name of the potters. These handles represent 18 000 amphoras. Between 176 - 146 the turnup of Rhodian amphoras is about 78 per year and then it increases to 227 per year in period from 146 - 108, and from 108 - 88 the yearly turn-up is about 163 (Grace, Hesperia 54, 1985, 42). This means, as has already been pointed out, that Rhodes kept up, and maybe even increased the export of wine amphoras after 166.

The total number of Rhodian amphoras, c. 40 000, is more than double the implied number of Koan ones, 17 760, but the difference is certainly not on the scale as the one so easily percived by a mere provision of the numbers of stamped handles found; 80 000 Rhodian to 1 480 Koan.

According to Empereur the majority of the Koan handles in Alexandria date to the second and first centuries which would make them roughly contemporary with the Rhodian handles there.

The huge amount of unstamped Egyptian amphoras found and reported recently do, however, make all imports small in comparison (Empereur, BCH Suppl. 13, 103-109).

For **Cyprus** I would like to refer to Y. Calvet. He writes that 'From the middle of the third century the stamps from Thasos, Kos and other important centres of production grow more and more rare, they are, after that, hardly represented at all to the exclusive profit of Rhodes during the second century' (Kition-Bamboula I. Les timbres amphoriques. 1982, 53).

Dated Koan handles.

Of a total number of 1925 stamped 'Koan' handles I have the date of about 384, that is, cirka 20%. A very small amount of the dated handles come from the third century. Somewhat over 200 come from c. 200 to 108 and somewhat less than 200 come from the first century. Most of these last are from before c. 50 B.C. (70 B.C.?) These figures agrees with the information given by J-Y Empereur for the Koan handles in Alexandria.

Conclusion.

Even from the little we know about dated Koan stamped amphora handles it is perhaps permissible to conclude that the Koan wine (and amphora) trade was important to the economy of Kos during the second and early first centuries. As for the third and later first century it is more difficult to judge. The stamping of handles seems to have been rarer, at least during the late period and so the number of stamped handles give little information as to the size of trade.

We do know that export of Koan type amphoras continued during the Augustan and early imperial period as such amphoras have been found both in the East and in the West Mediterranean area. But here most remains to be done as to the exact original provenances of these amphoras.

The most important conclusion, however, is the understanding that it is vitally important in further excavations to note also the number of unstamped handles found, and, if possible, to ascertain their origin and date. The completely changed picture of the importance of Koan trade sketched above open exciting possibilities in the research of the economic history of not only Kos, but also other wine producing and wine importing centres.

Athens 1988-11-28 Kerstin Höghammar

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Fyndort											
Olhia		234	71	12	14						436
Tyras	9%/54)	36% (212)	21,5% (127)	6% (35)	3%[17						588
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		Dac		1969	-	· · · · · ·					
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	23(37) 444				5,8 (93)		< 1(< 16)				
· · · · · · ·	9,7 (68) 816	41,8 (298)	257	8.4	4,5 (32)	7,9					713
(Tomis)	29 (3) 36	33,5 (33)	26,0	20,2	8,7 (8)	87					97
Odesus	1,5 (4) 48	33,3 78	18,6	38,7	15 (4)	8,6	45				234
Callatis	16 (192)	64	550	365		-93	24			163	1331
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REVUE D'ARCHÉOLOGIE ET D'HISTOIRE ANCIENNE •

NOUVELLE SÉRIE

XIII 1969

ÉDITIONS DE L'ACADÉMIE DE LA RÉPUBLIQUE SOCIALISTE DE ROUMANIE

AMPHORA STAMPS FROM CALLATIS AND SOUTH DOBRUDJA*

MIHAI GRAMATOPOL and GH. POENARU BORDEA

As a younger branch of the epigraphics, whose important achievements were realized in a recent period, the ceramics epigraphy has brought till now and certainly will bring henceforth too many considerable services to the history. Of a special significance for the hellenistic age are the amphora stamps put on the handles or on the neck of the jars; they afford precious data for the economic history because generally speaking their centres of production can be easily identified, in every case with less dificulties than for any other archaeological material. Consequently it clearly appears that the amphora stamps mean for an archaeologist or a historian a concrete document in establishing the directions and the intensity of the trade relations of a Greek city. These data complete the information otherwise obtained, mainly from the historical sources of the antiquity or from the decrees or funeral inscriptions of a town whose citizens are sometimes mentioned in the inscriptions of other cities¹.

From the standpoint of the material we are concerned with, Callatis by the great number of the amphora stamps discovered, ranks first among the towns founded by Greek colonists on the western coast of the Black Sea.

Although our information is not exhaustive as to the number of stamps taken into account for the other towns of the western coast of the Pontus Euxinus, which we must compare with those from Callatis, we have considered the publishing of the Callatian lot as a necessary step to the carrying out of the corpus of all amphora stamps found in Romania³.

At Tyres a situation was established in 1960 on the basis of 647 stamps³ to which must be added a numer of 66 pieces unaccessible to the author⁴; it gives a total which does not top with much the figure of 700 amphora stamps.

• The commentary was written by Gh. Poenaru Bordea and Mihai Gramatopol; the catalogue (completing, classification, dating and bibliography of the amphora stamps) and the *indices* were drawn up by Mihai Gramatopol.

¹ L. Robert, Les inscriptions grecques de Bulgarie, in Revue de philologie, de littérature et d'histoire ancienne, III, XXXIII (185 of the collection), 11nd fascicle, 1959, pp. 180-181.

² V. Eftimie, Imports of Stamped Amphorae in the Lower VI, 1925, ncs. 59-62. Danubian Regions and a Draft Remanian Corpus of Am-87, 88, 50, 92, 93-99.

DACIA, N.S., Tome XIII, 1969, pp. 127-282, Bucarest

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phora Stamps, in . Dacia ., N. S., III, 1959, pp. 195-215.

⁹ О. G. Salnikov, До питання про торговчыні зв'яяки стародовных поселень на усбережке Днистровського лимпиу з Грецією в VI-II ст. до н.е. (Попередне повідемления) іп Матеріали Археології північного Причорноморя, III. Odessa, 1960, pp. 28–29. ⁴ Gr. Avachian, Stiri nousi dim Tyras, in CNA, V, 1924.

of. Availati, Shri hostin 1-32; ibiden, nos 53-54, p. 37-46, nos. 45, 47-63, and p. 50, nos.69; ibiden, VI, 1925, ncs. 59-62, p. 27-38, nos. 70, 73, 79, 83, 84, 87, 88, 60, 92, 93-99.

As regards Histon to the number of 1081 stamps published in 1957⁵ a more important lot was added, amounting in some years to about 1300⁶ pieces; we consider today the figure as being of approx. 1600 7 items.

Recently the gap in our information about Tomis was surpassed : a first lot of 97 stamps, one of which from the Roman period, was published 8.

For, **Bizon** no attempt was made to gather the material, but even so a figure of 119 items⁹ is known.

Our knowledge about the material discovered at Dionysopolis is for the moment very scanty. Quly two stamps were published 10 and excepting one case 11 the information about other discoveries is not sure.

The situation is better at Odesus whence result 234 amphora stamps published till now 12, two of which from the Roman period 13. At this figure will be added, we hope in a short time, a new lot rich enough¹⁴. In any case the stamps discovered at Varna do not reach yet the amount of 300 pieces.

From Messambria only two stamps¹⁸ are published till now; some dozen will be studied and published henceforth 16.

In spite of the many archaeological researches carried out at Apollonia the number of amphora stamps is very low: 13 items 17.

After this brief review we arrive at the amphora stamps discovered at Callating As a result of the publication of our article, Callatis becomes one of the most important centres

⁸ V. Canarache, Importul amforelor stampilate la Istria, Bucharest, 1957, we obtain this number after the subtraction from the total sum of 1162 stamps, of 81 pieces discovered at Sinoe-Zmeica (nos. 23, 78, 176, 214, 215, 248, 293, 331, 337, 376, 416, 426, 433, 488, 490, 492, 503, 507, 512, 516, 517, 523, 546, 552, 554, 558, 562, 564, 571, 589, 593, 600, 601, 603, 604, 609, 615, 632, 636, 649, 692-694, 700, 703, 705, 720, 723, 745, 773 = 64 pieces), at Tariverdi (nos. 15, 62, 76, 135-138, 297, 303, 497 = 11 pieces), at Baia-Hamangia, (nos. 64, 467, 579, 597, 611, 630 = pieces) which were mingled in the catalogue with those discovered at Histria.

• V. Eftimie, op. cit., p. 198 and the note 5. 7 Information from V. Eftimie-Andronescu who prepares now the lot for the volume . Histria ., III. In the period after 1957, no stamp was published, excepting those in P. Alexandrescu's Necropola tumulard, in . Histria . 11, Bucharest, 1967, p. 192, XXVI, 17 and 18, pl. 77, p. 509 (determined by V. Eftimie-Andronescu).

⁸ M. Gramatopol, Gh. Poenaru Bordea, Amfore slampilate din Tomis, in SCIV, 19, 1968, 1, pp. 41-61.

0. Mărculescu, Bizone-Portul Cavarna, monografie istorica, in AnD, XV, 1934, p. 149, photographs without readings; Idem, Descoperiri arheologice dobrogene, in AnD, XVI, 1935, pp. 127-129, fig. 10-19; K.Shkorpil, Печати върху амфори отъ Черноморското крайбердorcue, in « Izvestiia - Institut », VIII, 1934, nos. 1-26, pp. 28-32; M. Mirtchev, Augophume nevamu om Myses във Варна. Sofia, 1958, поз. 1, 5, 16-17, 33, 43-44 (Thasos), 63, 79, (identified as Thasian), 86-87, 92-93, 98, 105, 117, 120, 125, 134-135, 138, 148, 154, 156, 159, 161. 165, 173 (Rhodes), 180-185, 189-190, 192-196, 202-209, 212-213, 215, 222 (Sinope), 225-226 (Chersonese), 235 (Paros), 237-254, 258, 260, 262, 264 (Heraclea Pontica), 275, 288-290, 296-297, 303-304 (unknown centers) = 85 pieces, among which are also those published by Shkorpil (numbers in round brackets). To these must be added the stamps published by

G. Tontcheva, see M. Mirtchev, G. Tontcheva, D. Dimitrov, Busone-Kapenna, in e Izvestiia-Varna e, XIII, 1962, PP. 37-42, nos. 1-25.

¹⁰ M. Mirtchev, op. cit., no. 23, 188; cf. K. Shkorpil, op. cit., nos. 28-29.

¹¹ It is an amphora from Heraclea Pontica discovered in 1968 with an engraved stamp on the neck : $\Delta O \Lambda O \Upsilon$, determined by Gh. Poenaru Bordea, here mentioned by the kind permission of Mr. P. Petkov.

¹² M. Mirtchev, op. cil., specifies a number of 225 pieces from Varna and surroundings. In fact, only 218 are from Varna. Besides those discovered at Cavarna (cf. note 9) and Baltchic (cf. note 10), the following pieces are to be removed as having different origins : nos. 14, 34, 68, 221, 228, 284. To the Varna lot must be also added a number of 13 pieces published by A. Balkanska, Новооткрити амфорни печати във Варна, in Археология, IV. 1962, 4, pp. 61-65.

¹³ M. Mirtchev, op. cit., nos. 313-314.

¹⁴ The stamps and the intact stamped amphora: will be published by G. Tontcheva. Gh. Poenaru Bordea has examined the whole material in the Varna Museum with the kind permission of G. Tontcheva.

15 А. Aleksieva, Амфорни печати в Бургаския Myzeŭ, in « Izvestiia-Burgas », I, 1950, p. 4, a, nos. 13-14.

¹⁶ Thanks to I. Venedikov and L. Ognenova, Gh. Poe naru Bordea has seen these pieces at Nesebar, put at his disposal by J. Tchimbuleva. At a first examination it seemed to be stamps from Thasos, Rhodes, Cos, Paros and perhaps Sinope. The lot will be published by M. Lazarov, warden of Burgas Museum.

¹⁷ Т. Ivanov, Керамиката от некропола на Аполония, Разкопки и проучивание II, 1948, p. 44, fig. 44 a; A. Aleksieva, op. cit., pp. 46-47, no. 5; T. Ivanov, Антична керамика от некропола на Аполония, in Аполония, разкопите в некропола на Аполония през 1947-1949 2., Sofia, 1963, pp. 260-263, nos. 762-771 a.

on the western coast of Pontus Euxinus, thus giving the possibility of knowing better the imports of stamped jars.

AMPHORA STAMPS FROM CALLATIS AND SOUTH DOBRUDJA

Thanks to the endeavour of Th. Sauciuc-Săveanu, who gathered and published regularly these materials 18 in the archaeological reports or in other papers, even if most of them were and remained in the minute local private collections, the lot offered by the earlier researches is considerable enough and amounts, if our rough estimate is right, to 344 pieces, including O. Tafrali's 19 and later G. Cantacuzino's 20 contributions to this task.

It is also true that a numerous lot of special importance (gathered from excavations) is yet unpublished 21. On the other hand a great part of the published stamps are useless due to the lack of necessary elements to establish their origin; there is no possibility to check the readings because the originals are unrecoverably lost.

However, a reappraisal of these stamps is possible which we shall try to do in the following lines, being firmly convinced that they would find their place among the stamps discovered at Callatis and in the corpus of amphora stamps found in Romania. Some of them, a few pieces, we hope would perhaps at a closer examination be included in the group of various unidentified centers.

The lot we publish now consists of 1106 items discovered at Callatis, most of which in the collection of Constantza Museum except the nos. 20, 58, 65-66, 70, 76, 87, 96-98, 181, 189, 195-197, 243, 306, 313, 316, 360-361, 375, 386-387, 406, 429, 433, 478, 491 492, 498, 521-522, 574, 590, 592, 625, 638, 728, 894, that is a total of 40 pieces. These last ones are in Maria and Dr. G. Severeanu Collection, section of the Museum of History of Bucharest 23.

We have considered necessary to mark « Mangalia 1962 » the lot discovered in the excavations made for the foundation of the new secondary school. On this occasion a restricted research was made too 23. The numbers of this lot are: 654, 707, 708, 717, 804, 814, 833, 838, 842, 844, 854, 859, 867, 965, 969, 1011, 1018, 1083-1084 = 19 pieces differing from the lot marked M.A.C. before the inventory number which lacks at some items. The «Mangalia 1962». lot is originated in an extra muros zone, rich in ceramic discoveries from the hellenistic period, fact which justifies the supposition that this part was inhabited. The extent of this zone is still unknown; it was not included in the area excavated by C. Preda in the last years 24.

18 Th. Sauciuc-Sāveanu, Callalis, I, in . Dacia ., I, 1924, nos. 1-28, pp. 148-156; Callatis, II, in . Dacia . II, 1925, nos. 1-4, pp. 130-131; Callatis, III, in • Da-cia •, III-IV, 1927-1932, the letters c-1, n. o, p., 427-430 and Callatis, IV, the letters a-n, pp. 458--462; Callatis, V, in + Dacia +, V-VI, 1935-1936, nos. 1-45, pp. 250-259 and Callatis, VI, nos. 1-68, pp. 290--304; Callatis, VII, in • Dacia •, VII-VIII, 1937--1940, nos. 1-67, pp. 354-370; Callatis, VIII, in • Dacia +, IX-X, 1941-1944, pp. 243-244; see also, Trei capele de figurine și vreo cileva ansae signatae din Callalis, in AnD, XVIII, 1937, pp. 104-111 and Callatis, in L'ar-chéologie en Roumanie, Bucharest, 1938, pp. 67-68, figs. 92-103 and 105.

 ¹⁹ O. Tafrali, La cité pontique de Callatis, recherches et fouilles, in RA, XXI, 1925, I, p. 274; La cité pontique de Callatis, in AArh, I, 1927, 1, pp. 17-55, nos. 9-14. 17-19, 23-28; Les tumuli de Callatis, in AArh, 1928, p. 48; Noi achizițiuni ale Muzeului de antichități din Iași, in AArh, II, 4, 1930, pp. 29-32, nos. 1-16; Notes sur la Petite Scythie, in AArh, 9-10, 1933-1934, pp. 6-8, nos. 1-12.

30 G. Cantacuzino, Timbres amphoriques inédits trouvés en Roumanie, in « Dacia », III-IV, 1927-1932, nos.

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4-5, pp. 617-618; Timbres amphoriques trouvés à Calla tis, in RHSEE, 1935, p. 298-313; Nouveaux timbres amphoriques trouvés à Callatis, in « Dacia », V-VI, nos. 1-7, pp. 321-327; Trois sceaux thasiens de Callatis concernant les cultes de Thasos, in «Dacia», VII-VIII, pp. 283-291; cf. also Considérations sur les timbres amphoriques découverts en Roumanie sur les côtes du Pont Euxin, in RHSEE, 1939, pp. 44-52.

²¹ R. Vulpe, Noutăți arheologice dobrogene, 1931, in AnD, XII, 1931, fascicle 1-12, pp. 296-297, announces the discovery of 321 amphora stamps in the excavations carried out in the Monte Testaccio; cf. R. Vulpe, Deux terres cuites grecques de Callatis, in . Dacia . V - VI, 1935 --1936, p. 336-337, note 7.

** V. Eftimie, op. cit., p. 202, note 25, indicates a number of 36 stamps.

23 Cornel Popa, at that time warden of Mangalia Museum, supervised the works.

³⁴ The main results are summarized by C. Preda in Callatis, in the collection . Monumentele Patriei noastre ». Bucharest, 1963, for the callatian extra muros ward see. p. 28; Gh. Poenaru Bordea, Un lezaur de monede callaliene din perioada autonomiei, in SCN, IV, 1968, pp. 103-104.

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The other stamps have different origins: a numerous lot was discovered on the occasion of urbanistic works in the stadium and in the park near it 25 ; unfortunately these stamps and the rest of pieces discovered at Mangalia vere afterwards mingled. Some pieces are now in the Mangalia Museum, nos. 119, 175, 206, 718. It is to be mentioned that the stamps quoted before as published and those which we publish now do not exhaust the material found at Callatis.

Together with the stamps discovered in the so-called *Monte Testaccio*, before mentioned, 1 lot of 440 pieces is in the stores of the National Museum of Antiquities in Bucharest, to which must be added the material accidentally found after 1962, now in the Constantza Museum. At the Museum of History of Bucharest there are also 63 pieces²⁸.

Besides these, the underwater researches which we also hope successful in the future and which were initiated by the Central Military Museum in collaboration with the Institute of Archaeology, afforded a number of 50 stamps ²⁷ discovered in the area of the ancient harbour in the surroundings of a wreck supposed of Greek period ²⁸.

Another number of stamps which must be comprised in the general corpus is scattered in several private collections as for instance that of Dr. Horia Slobozeanu²⁹ or Eugen Jebeleanu³⁰, in Bucharest.

An estimate of all amphora stamps formerly published, here published or yet unpublished amounts to 3000 pieces for Callatis³¹. It is possible to object that the lot in the Constantza Museum which constitutes the main material of this work consists mostly of the stamps coming from the excavations directed by Th. Sauciuc-Săveanu ³². For this reason we are obliged to cast a comparative glance at the relations between the lot formerly published and the pieces we publish now.

In order to analyse these relations and to obtain at the same time statistical data, we give a repartition by centers of all the amphora stamps formerly published by Th. Sauciuc-Săveanu, O. Tafrali and G. Cantacuzino.

Maintaining the same order used in the catalogue, we shall begin with the stamps from Thasos, followed by those from Sinope, Rhodes, Heraclea Pontica and from other centers. The stamp will be quoted by specifying the author, the published work, the page and number ³³. Prospectively, with the occasion of the drawing up of the corpus, this first step has to be followed by a more complex and comprehensive development of the material. Only then the classification we have applied here could become conclusive, in the measure it will be proved to be true.

²⁵ C. Preda, Em. Popescu and P. Diaconu, Săpăturile arheologice de la Mangalia (Callatis), in • Materiale •, VIII, 1962, pp. 445-451; as regards the discoveries in the zone of the stadium, cf. M. Gramatopol, Un port comercial la Callatis, in Revista Muzeelor, 1966, 4, pp. 335-336, approx. 500 stamps.

28 V. Eftimie, op. cit., p. 202, note 25.

²⁷ There are stamps from Sinope, Rhodes, Thasos; some pieces seem not to be yet attested at Callatis. The information about these stamps was received from Christian Vladescu; the lot will be published by M. Gramatopol, Gh. Poenaru Bordea and Chr. Vlädescu.

²⁸ Chr. Vlådescu, Cercetårile arheologice subacvatice de la Callatis, In Viața Militară, 1968, 7, pp. 6-7.

²⁹ V. Eftimie, *loc. cit.*, gives the figure of 100 stamps as originated in Callatis.

²⁰ Approx. 150 stamps were examined by M. Gramatopol in 1961. ³¹ We include in this figure the stamps considered by Th. Sauciuc-Sāveanu, *Callatis*, VIII, in \bullet Dacia \bullet , IX-X, pp. 243-244, as too numerous to be listed in an excavation report; he hoped to publish them apart but unfortunately his hopes were not acomplished. We believe that this lot was of 300 pieces approximately, today irreparably lost. Perhaps a certain number of these amphora stamps are to be recovered from private collections of less importance than those just mentioned.

33 V. Eftimie, op. cit., p. 202, note 26.

³³ The realloting of these stamps to the producing centers is not always sure due to the incomplete data in their publication and consequently our determinations are sometimes arbitrary. For example, O. Tafrali, op.*cit.*, in AArh, 9-10, 1933-1934, p. 8 reads $\Theta ACI(\Omega N)$ on a handle in "red clay with black grains as at no. 1 and 2", but at no. 1 and 2 there are stamps from Sinope. In such cases we have put the stamps in the unclassified group.

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THASOS

Th. Sauciuc-Săveanu : « Dacia », I, p. 149, no. 2, p. 150, no.6; « Dacia », II, p. 129, no. 1, p. 130, no. 2, p. 131, no. 3; « Dacia », III—IV, p. 427, c, p. 428—429, g; « Dacia », V—VI, p. 251—252, no. 1, p. 252, nos. 2, 3, p. 252—253, no. 4, p. 253, nos. 5—10, p. 290—291, no. 1, p. 291, nos. 2, 3, p. 291—292, no. 4, p. 292, nos. 5—7, p. 292—293, no. 8, p. 293, nos, 9, 10, p. 302—303, no. 57; « Dacia », VII—VIII, p. 254, no. 5, p. 256, no. 11, p. 264 nos. 55, 56, p. 265, nos. 57—61, p. 265—266, nos. 63—65, p. 270, no. 89; AnD, XVIII,

p. 106, no. 2, p. 106-107, no. 3, p. 107, no. 4. O. Tafrali : AArh, I, 1, p. 38, no. 14, p. 39, no. 19; AArh, II, 4, p. 29-30, no. 1, p. 30, nos. 2-4, p. 31, no. 11, p. 31-32, no. 12; AArh, 9-10, p. 7, nos. 10, 11, p. 7-8, no. 12,

p. 8, no. 13. G. Cantacuzino : «Dacia », VII-VIII, p. 283-285, A, B, C, ; RHSEE, XII, p. 310-313, nos. XVIII-XXI.

SINOPE

Th. Sauciuc-Săveanu : « Dacia », I, p. 151, nos. 9-11, p. 152, nos. 12-14; « Dacia », III-IV, p. 427, d, p. 428, f, p. 430, n, p. 458, b, p. 459, c, d, p. 459-460, e, p. 460, f, p. 460-461, g, p. 461, h, i, j, p. 462, k, l; « Dacia », V-VI, p. 253-254, no. 11, p. 254, nos. 12-15, p. 254-255, no. 16, p. 255, nos. 17-19, p. 256, nos. 23, 24, p. 257, nos. 27, 29-31, p. 295, nos. 17-20, p. 295-296, no. 21, p. 296, nos. 22-25, p. 296-297, no. 26, p. 297, nos. 27-30, p. 298, nos. 32-34, p. 298-299, no. 35, p. 299, nos. 36-39, p. 300, no. 41; « Dacia », VII-VIII, p. 254, nos. 1, 2, 4, p. 255, nos. 6-9, p. 256, nos. 12, 14, p. 256-257, no. 15, p. 257, nos. 17, 19, 20, p. 257-258, no. 21, p. 259, nos. 26-30, p. 260, nos. 31-35, p. 261, nos. 36-39, p. 262, nos. 41-46, p. 263, nos. 49-50, p. 263-264, no. 51, p. 267, nos. 72, 74, p. 267-268, no. 75, p. 268, nos. 76-78, p. 269, nos. 79-81; AnD, XVIII, p. 108, no. 5, p. 108-109, no. 6, p. 109, no. 7, p. 109-110, no. 8, p. 110, nos. 9,

10, p. 111, nos. 12, 13. O. Tafrali: AArh, I, I, p. 39, nos. 18, 23-25; AArh, II, 4, p. 30, no. 5, p. 30-31, no. 6, p. 31, nos. 7, 8, p. 32, nos. 14-16; AArh, 9-10, p. 6, nos. 1-3, p. 6-7, no. 4, p. 7, nos. 7, 8, p. 8, no. 15.

nos. 1, o, p. o, no. 10. G. Cantacuzino : « Dacia », V-VI, p. 321-322, no. I, p. 322-323, no. II, p. 323, no. III, p. 324-325, no. V, p. 325, no. VI, p. 326, no. VII; RHSEE, XII, p. 298-307, nos. I-XII, p. 308-309, no. XV. To these are to be added some producers' stamps published by Th. Sauciuc-Săveanu : « Dacia », V-VI, p. 300, no. 40; « Dacia », VII-VIII, p. 257, no. 16, p. 263, no. 48, p. 264, no. 54; AnD, XVIII, p. 110, no. 11.

RUODES

Th. Sauciuc-Săveanu: « Dacia », I, p. 149, no. 4, p. 153, nos. 17-19, p. 154, no. 21; « Dacia », V-VI, p. 293, nos. 11-14, p. 294, no. 15, p. 300, nos. 42-44, p. 301, no. 48; « Dacia », VII-VIII, p. 258, nos. 23-25, p. 261, no. 40, p. 264, no. 53, p. 266, nos. 66, 67, p. 267, no. 71; AnD, XVIII, p. 105, no. 1.

O. Tafrali : AArh, II, 4, p. 31, no. 9, p. 32, no. 13.

G. Cantacuzino: « Dacia », V-VI, p. 323-324, no. IV.

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HERACLEA PONTICA

Th. Sauciuc-Săveanu : « Dacia », I, p. 151, no. 8, p. 155, nos. 25-27; « Dacia », II, p. 131, no. 4; « Dacia », III-IV, p. 428, e, p. 429-430, j, p. 430, o, p. 458, a, p. 462, n; « Dacia », V-VI, p. 255-256, no. 20, p. 256, no. 26, p. 257-258, no. 32, p. 301, no. 45; « Dacia », IX-X, p. 244.

O. Tafrali : AArh, I, 1, p. 38, nos. 9, 11, 13.

CHERSONESE

G. Cantacuzino: RHSEE, XII, p. 309-310, nos. XVI-XVII.

PAROS

Th. Sauciuc-Săveanu : « Dacia », V-VI, p. 302, no. 51.

COS

Th. Sauciuc-Săveanu : « Dacia », I, p. 150, no. 7, p. 153, nos. 15, 16; « Dacia », V-VI, p. 259, no. 43, p. 301, no. 49.

VARIOUS UNIDENTIFIED CENTRES

Th. Sauciuc-Săveanu: « Dacia », I, p. 150, no. 5, p. 154, nos. 20, 22; « Dacia », V-VI, p. 256, no. 22, p. 301, no. 46, p. 302, nos. 52, 53, 54; « Dacia », VII-VIII, p. 254, no. 3, p. 258, no. 22, p. 263, no. 47, p. 264, no. 52, p. 266, no. 68.

O. Tafrali : AArh, 9-10, p. 7, no. 6.

G. Cantacuzino: • Dacia •, V-VI, p. 327, no. VIII, RHSEE, XII, p. 307-308, nos. XIII-XIV.

For the moment it has been impossible to reassign a number of 55 pieces which we have prefered to leave unclassified instead of an erroneous classification :

Th. Sauciuc-Săveanu, e Dacia *, I, p. 148–149, no . 1, p. 155, nos. 23, 24; e Dacia *, III–IV, p. 429, h, i, p. 430; k, 1, p. 462, m; e Dacia *, V–VI, p. 256, no. 21, p. 257, no. 28, p. 258, nos. 33–40, p. 259, nos. 41, 42, 44, 45, p. 294–295, no. 16, p. 298, no. 31, p. 301, nos. 47, 50, p. 302, nos. 55, 56, p. 303, nos. 58–62, p. 304, nos. 63–68; e Dacia *, VII–VIII, p. 255–256, no. 10, p. 256, no. 13, p. 257, nos. 69, 70, p. 269, no. 82, p. 270, no. 88;

O. Tafrali, AArh, I, 1, p. 38, nos. 10, 12, 17, p. 39, nos. 26-28; AArh, 9-10, p. 7, nos. 5, 9, 14.

As to the comparisons between the old and the new lot, we can observe: there are 65 Thasian stamps in the old lot and 300 pieces in the new one. From these there are comparable ³⁴ approx. 40 pieces in the old lot and 216 in the new lot. The following items from our catalogue are analogous with pieces from the old lot: 60, 67, 82, 135, 139, 141, 143, 144, 199, 206. Of these analogies 3 items (nos. 139, 143, 199) correspond to pieces published by O. Tafrali and G. Cantacuzino.

²⁴ We have considered as comparable only the stamps preserving the essential element of the inscription.

AMPHORA STAMPS FROM CALBARIE INTO

The stamps from Sinope are 155 in the old lot and 395 in the new one. Comparable are approx. 90 in the old lot and 327 in the new. These items from the catalogue are analogous with pieces in the old lot: 305, 314, 317, 318-320, 324, 330, 349-351, 355-356, 358, 359, 367, 375-376, 377-378, 382, 383, 384, 393-394, 411, 425, 426, 433, 452, 463-470, 471-472, 473, 480, 486-487, 491, 511, 521-522, 524, 525-528, 567, 575, 583, 587, 600-601, 607-609, 612, 615-619. From these 40 items, two are analogous (nos. 384, 473) with pieces published by O. Tafrali. In the case of three positions in the catalogue (nos. 377-378, 452, 511), the analogy is only partial, the stamps having different symbols.

The Rhodian stamps are 26 in the old lot and 102 in the new one. The items from the catalogue, nos. 697, 702, 714, 721, 750, 754, 760 are analogous with pieces in the old lot; no. 750 is analogous with a piece published by G. Cantacuzino.

no. 750 is analogous with a piece producte by 20 and 50 and 75 in the new one. Ana-The stamps from Heraclea Pontica are 18 in the old lot and 75 in the new one. Analogous are the items 815 and 818. Only two stamps from Chersonese are surely identified in the old lot. Certainly the Parian stamp of the old lot is analogous with some pieces among the 23 items of the new lot.

the 25 items of the new lot. It was impossible to detect the stamps from Cnidus in the old lot. One of the 5 Coan stamps in the old lot is analogous with no. 956 in the new lot.

As for the stamps classified in the group of various unidentified centres, there are 15 pieces in the old lot, three of them being analogous with three items (nos. 971,

1022, 1042) among the 146 of the new lot. Considering then the situation on a more concrete basis, though not firmly established, the resulting conclusion doesn't meet the possible objection formerly exposed, about the composition of the lot now in the Constantza Museum.

It is to be mentioned that among the analogies of the new Callatian lot there are also stamps published by O. Tafrali, most of which are now stored in the Museum of Archaeology in Iaşi, ³⁵ and by G. Cantacuzino, which we don't know if entered at that time the collections

of the Constantza Museum³⁸. On the other hand among the analogies in the old lot there are some stamps in the Severeanu Collection, as for instance those from Sinope, nos. 375, 433, 491 in our catalogue. We have attempted a closer examination by drawing a parallel between the two lots especially in the case of Sinope which is represented by numerous stamps in both lots. The analogies are: 314, 349-351, 359, 367, 382-383, 393-394, 425, 433 (Severeanu Collection) 463-470, 471-472, 480, 567, in all 12 analogies. At nos. 463-470 there are 8 stamps in the new lot; at nos. 382-383, 393-394, 471-472 two pieces of the same stamp. These seem to be stamps which are frequently met at Callatis.

The fact that nos. 359, 367 have two analogies in the old lot, at O. Tafrali and at Th. Sauciuc-Săveanu, is eloquent. For nos. 393-394 there are two analogies at Th. Sauciuc-Săveanu; no. 433 (Severeanu Collection) has an analogy at Th. Sauciuc-Săveanu and one at G. Cantacuzino; then in these cases too, there are stamps frequently met at Callatis, in-all 5 cases of this category ³⁷.

³⁵ We thank Prof. D. Tudor for this information; he reexamined this material, making the necessary corrections. The manuscript will be used perhaps in drafting the Callatian section of the Romanian corpus of amphora stamps.

³⁶ The stamps published by G. Cantacuzino, *op. cit.*, RHSEE, XII, 1935, 10-12, pp. 298-313, nos. I-XXI were in the collection of the Bucharest Municipal Museum

and consequently they are through the 63 pieces before mentioned, p. 130 the note 26. The analogies in the Severeanu Collection are to be considered only as coincidences. ³⁷ Among those before mentioned but not retained

* Among those before mentioned but not realas possible identities, nos. 317 and 330 have two analogies in Th. Sauciuc-Sāveanu, nos. 525-528 have also two analogies, one in Th. Sauciuc-Sāveanu and one in O. Tafrali.

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It seems also that a great number of stamps from those published by Th. Sauciuc-Săveanu did not enter the collection of the former Mangalia Museum to be transfered later to the Constantza Museum, but remained in those several local private collections where hey were examined by their editor.

Taking into account the foresaid, it is unprobable that the old lot was comprised into the new one. In that case the analogies between the lot we publish here and the old lot would be more numerous. There we can consider these stamps rather "duplicates" without excluding a certain contamination between the two lots. In every case the percentage of the old material in the lot we publish now is scanty, if not insignificant. Surely it is one of the tasks of the corpus to work out for good this problem, we hope in the sense of the facts above mentioned. Coming now to the general figure of the old lot, we summary it here, reminding that we are not sure of the correct determination for all the pieces:

Thasos	=	65	pieces	= 18.8%
Sinope	=	155	- ,,	= 45.%
Rhodes	=	26	,,	= 7.6%
Heraclea	=	18	,,	= 5.2%
Chersonese	=	2		= 0.6%
Paros	=	1	piece	= 0.3%
Cos	=	5	pieces	= 1.4%
Various unidentified centres		15		= 5 %
Unidentified	=	55	,,	= 16 %
Total	_	344	pieces	

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We shall calculate the percentage separately for the new lot and only afterwards we shall try to propose a general situation including the old lot, in the terms which were adscribed to it.

We draw out from our catalogue the general situation, giving the percentage by centres for the lot we publish :

Thasos	_	300	pieces	_	27.15%
Sinope	=	395	•		35.7 %
Rhodes	_	102	,,	=	9.25%
Heraclea	==	75		=	6.8 %
Chersonese	=	43	.,	=	3.9 %
Paros	_	23			2 %
Cnidus	_	11		-	1 %
Cos	=	11		-	1 %
Various centres	==	146		=	13.2 %
		1106			100%

As regards the group of various unidentified centres, it consists, among others, of circular stamps in quarters (nos. 961-983), of circular stamps divided into three fields (nos. 984-985), in two fields (nos. 987-988), of circular stamps with monograms, groups of letters or single letters (nos. 989-1011, 1022). Many scholars believe that these are of Thasian origin 38; in the last years this idea was prevalent although other opinions were also expressed 39. We have not considered the stamps of these categories as Thasians and consequently we have not included them into the calculation of the percentage for Thasos because this assignment is neither unanimously accepted, nor accepted for all the categories under discussion. A special research is to be done in the future on as numerous a material as possible and only this could demonstrate what is and what is not Thasian in the categories of these circular stamps.

In the same group of various unidentified centres were classed the stamps nos. 1083-1084, 1094-1095, which according to Pridik are of Cretan origin 40. We have also included here an important stamp from Abydos, no. 1103, whose first assigning was done with the occasion of the publication of the Histrian lot 41. About the last three stamps, nos. 1104-1106, we shall discuss in other part of this work.

We have not considered as necessary to calculate the percentage for either of the categories above mentioned; the Cretan stamps are to be regarded with reserves. The stamp from Abydos is an unicum and the stamps nos. 1104-1106 are of uncertain origin, as about all the material in the group of various unidentified centres.

The percentages undermentioned are not unchangeable values; even if we should assign to Thasos the stamps classified by us in the group of various unidentified centres this would not change considerably the figures, without taking into account the fact that we do not dispose of all the material discovered at Callatis⁴³. In order to obtain comparable situations we are obliged to proceed to the division by two of the Rhodian handles 43.

Thasos	= 300 pieces	= 28.4%
Sinope	= 395 ,,	= 37.4%
Rhodes	— 51 "	= 4.8%
Heraclea	= 75 ,,	= 7.1%
Chersonese	= 43 "	= 4.1%
Paros	= 23 "	= 2.2%
Cnidus	= 11 "	= 1 %
Cos	= 11 ,,	= 1 %
Various centres	= 146 ,,	= 14 %

³⁸ Anne-Marie Bon and Antoine Bon, Les timbres amphoriques de Thasos, in Etudes thassiennes, IV, Paris, 1957, p. 35 and 43; see also A. Balkanska, Kam eoпроса о колелообразните амфорни nevamu, in « Izvestiia-Varna », 14, 1963, pp. 35-37; for the circular stamps divided in sectors, see I. Iurukova, Biblioteca classica orientalis, II, 1966, 4, col. 203-204.

39 See mainly E. M. Shtaerman, Керамические клейма из Тиры в связи с вопросам неизвестных центров, in KS, XXXVI, 1951. p. 46-48 and M. Mirtchev, op. cil., pp. 9-11 and the French summary; cf. further the p. 138 and 139.

40 In the lot of stamps from Tomis there is also a piece whose Cretan origin was certified by Virginia Grace, M. Gramatopol, Gh. Poenaru Bordea, op. cit., p. 60, no. 95 and p. 46, note 16.

41 V. Canarache, op. cit., p. 305, no. 793; L. Robert, Bulletin épigraphique, in REG, 1958, no. 31, p. 184-185; ibid., 1959, p. 155, no. 30; see also L. Robert, Monnaies antiques en Troade, Geneva-Paris, 1966, p. 51, the note 4.

48 M. Gramatopol, Gh. Poenaru Bordea, op cit., p. 47.

43 Ibidem and the note 19. This method affects unfavourably Rhode sin comparison with Sinope where the system of a second stamp is sometimes used. For the moment the estimation cannot be done equitably and we are obliged to compute in the traditional manner. Perhaps for Sinope we could admit the following solution : to divide by two the number of producers' stamps, adding then to this those stamps having only the names of the astynoms ; to the result is to be added the number of stamps with astynom and producer.

Adding now the old lot, except the unidentified stamps, known from the former publicaions, in order to have a general situation, even if provisional, we obtain the following results :

Thasos	= 365 pieces	= 27.4%
Sinope	= 550 ,,	= 41.3%
Rhodes	= 64 ,,	= 4.8%
Heraclea	= 93 ,,	= 6.9%
Chersonese	= 45 ,,	= 3.4%
Paros	= 24 ,,	= 1.9%
Cnidus	= 11 ,,	= 0.8%
Cos	= 16 ,,	= 1.2%
Various centres	= 163 "	= 12.3%

From the comparison of the lots and from the examination of the final situation, esults the same order of the exporting centres whose amphorae were found at Callatis: Sinope, II Thasos, III Heraclea Pontica, IV Rhodes⁴⁴. The new lot brings the number of Thasian stamps next to that of Sinopean stamps. The discrepancy between these two cenres is greater in the case of the stamps published by Th. Sauciuc-Săveanu, O. Tafrali and 3. Cantacuzino. Before their division by two, the stamps from Rhodes were more numerus than the Heraclean stamps, afterwards they came in a second position.

If we had to apply a certain reduction in the calculation of Sinopean handles a onsiderable approach would take place in the front of the established classification 45.

Even if with only two pieces in the old lot 46, the stamps from Chersonese follow in the ifth row. In the sixth position are the imports from Paros. In the new lot the number of stamps rom Cnidus is equal to that from Cos. Because Coan stamps were identified in the old lot, his centre follows in the seventh row. Due to the fact that it was impossible to identify ts stamps in the old lot in which it seems they were registered 47, Cnidus comes in the eighth osition. After it follow the "Cretan" stamps and a last identified centre, Abydos.

These specifications exposed, we shall now integrate the percentages of the new Callatin lot in the general situation, as known till now, of the Greek colonies on the western coast f the Pontus Euxinus 48. We give in round brackets the percentages resulting from the addiion of the old lot to the new.

48 Perhaps in the manner suggested in note 43, but ich methods remain more or less arbitrary. Only the lowledge of a greater number of certain pairs of stamps both handles could offer a conclusive solution. There ould be a greater approach between Thasos and Sinope more or less of circular stamps left by us in the group of rious, unidentified centres, would be included in Thasos. 48 In the photographs given by Th. Sauciuc-Säveanu, ullatis, in L'archéologie en Roumanie, it is possible to cognise such a stamp, pl. L, fig. 95, right of the second 47 About this Th. Sauciuc-Sāveanu says categorically,

. cit., p. 68 : "Celle-ci entretenait à en juger par les eaux des anses trouvées à Callatis, des relations particurement suivies avec les villes de Thasos, de Rhodes, Cnidos, Cos et d'Istros ou Sinope". Surely, the trade ations betweenCallatis and Cnidus are of less importance. is interesting to underline the idea of a corpus of stamps Scythia Minor expressed by the author in the same arle. G. Cantacuzino too, op. cit., in RHSEE, 1939, pp. - 52, suggests a general Pontic corpus of amphora stamps. ⁴⁰ We follow here the method of calculation used by Salnikov who takes into account only the stamps precisely determined, removing those classified in the group of various, unidentified centres. We remain at the percentages established by this scholar for Tyras which must anyway be revised by adding the stamps published by Avachian, inaccessible to the scholar before mentioned see p. 127, note 3. For Histria, cf. V. Canarache, op. cil., p. 359 and p. 392. For Tomis the situation was established by M. Gramatopol, Gh. Poenaru Bordea, op. cit., p. 48. Calculating the figure for Bizone it clearly appeared to us that the percentages of Salnikov, loc. cit., for Odesus like those of V. Canarache, based only on K. Shkorpil's work, op. cit., p. 392, are wrong. This error was taken over in our work about the amphora stamps from Tomis. Both scholars have given for Odesus a figure based on the total of the material existing in the collections of the Varna Museum. But this reflects the situation of the collection. not of Odesus as an import centre whose percentage is necessarily different. In establishing the percentages for Bizone and Odesus we have used the information specified in the bibliography mentioned in the notes 9 and 12. The method was exactly the same, followed now for Callatis and formerly for Tomis.

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	Tyras	Histria	Tomis	Callatis	Bizone	Odesus	
THASOS	8.4	30.9	20.2	33.0(31.2)	11.7	32.7	
SINOPE	25.7	38.2	26.0	43.4(47)	31.9	18.6	
halvere de la RHODES	41.8	15.1	33.5	5.5(5.4)	11.7	33.3	
HERACLEA	7.9	3.7	8.7	8.3(8)	39.4	8.6	
CHERSONESE	2.0	3.9	_	4.7(3.8)	2.1	2.3	
PAROS		below 1		2.7(2)	2.1	1.5	
CNIDUS	4.5	5.8	8.7	1.2(1)	2.1	1.5	
COS	9.7	2.3	2.9	1.2(1.3)	-	1.5	
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AMPHORA STAMPS FROM CALLATIS AND SOUTH DOBRUDJA

The comparison among these centres brings, in the present stage of our knowledge, some interesting data. At Callatis like at Histria in the first rank are the imports from Sinope followed by Thasos. The secondary role of Rhodes is striking; it comes after Heraclea Pontica whereas at Histria the Rhodian trade plays for all that an important role. The trade with Sinope was very important at Bizone, that is coming second after Heraclea Pontica.

Now it is obvious that at Callatis and at Histria the situation is more different than supposed as compared to the situation of Tomis and Tyras 49, where Rhodes is dominant followed by Sinope, closely in the case of Tomis, remotely in the case of Tyras. In this last centre the trade with Thasos has a quite remote position in contrast with Tomis on whose market the Thasians also played an important role. On the other hand, at Odesus the position of the Sinopean trade, which on the basis of a wrong calculation of the percentages, now corrected, appeared as equal with that of Rhodes and Thasos, remains fairly behind these centres.

As concerns Callatis we must underline the quite unimportant role played by Cnidus whose stamps are coming after those of Chersonese and even of Paros.

These are for the moment the formal differences suggested by the comparison of the percentages which reflect the specific weight of the imports from one centre or an other in the economy of the Greek cities on the western coast of the Pontus Euxinus in a period when stamps were applied on jars. Certainly we speak about the classic and hellenistic periods because the amphora stamps of Roman times are extremely rare on the western coast of the Black Sea and seem to be quite lacking at Callatis⁵⁰.

We shall try now a more adequate understanding of the economic phenomenon, considering it in the light of the chronology of the stamps wherever this was possible to be established. It is true that in the future great progress is to be made in the sense of a more precise dating of the stamps and of checking the present datings on the one hand, and in establishing chronological series for the stamps with known or unknown centres of production, on the other hand. Unfortunately from this point of view the Callatian material cannot bring its expected contribution because we have no possibility to apply the stratigraphic method ⁵¹.

We have shown at proper place that, except some pieces³², the amphora stamps discovered at Callatis, have no indication as to where they were found and that the numerous lot gathered

before p.128, note 13, for Odesus. Cf. further'p.142, note 82. ⁵¹ We have tried to apply at Tomis, cf. M. Gramatopol, Gh. Poenaru Bordea, op. cit., pp. 43-46.

53 See the stamps before mentioned at p. 129 (and also the note 23) which are marked in the catalogue Mangalia 1962 .

⁴⁴ Cf. V. Eftimie, op. cit., pp. 202-203.

⁴⁹ Cf. M. Gramatopol, Gh. Poenaru Bordea, op. cit., p. 49, is to be revised in the sense of those before mentioned Our image of this problem at Callatis was at that time too vague; as regards Odesus we were thoroughly wrong. * *Ibidem*, p. 47, note 18 and p. 61, no. 97, for Tomis. See

on the occasion of the works in the stadium and in the surrounding park was mingled in the ensemble of the collection. Also due to this fact, we were not able to use this rich material in order to obtain new data about the topography of the ancient town, as we have tried to do at Tomis⁵³.

Even so, on the basis of the chronological data available in other cities where stamped amphorae were found, we shall try to draw a sketch, indispensable for historical interpretation. We intend to establish the period and the quantity of the imports from one centre or another, evidently in comparison with the same data of other centers. This investigation will be made for every center apart in order to obtain a final balance sheet. The inquiry is important not only for Callatis but also for the study of the other exporting centers as well as their dialectics of economy on the same market. After all, the comparison with the other importing towns will help us to draw a more actual representation of the trade relations in the western area of the Pontus Euxinus in the IVth-I^{et} centuries B. C. The material discovered at Callatis being very rich in comparison with that of the Greek colonies of the western coast of the Black Sea, the presence of some "novelties" in this numerous lot is quite natural.

A considerable number of stamps have new names of producers, astynoms and eponyms, or new combinations of names and symbols, or other new elements; such stamps were not listed in the principal works used as current bibliography of the catalogue⁵⁴. The purpose of this article is not to study these stamps; the rich bibliography was consequently not exhausted in order to verify whether similar pieces were elsewhere discovered. We believe however useful to put them in relief in the pages dedicated to the chronology.

We begin the analysis before annouced with the stamps from Thasos, in the same order of the centers as in the catalogue. The Thasian stamps are considered to be produced beginning with the Vth century till the IInd, perhaps Ist century B.C. 55. In the lot from Callatis here published, the most ancient stamps dated in the $V^{th} - IV^{th}$ centuries B. C. are lacking. From the old lot are also lacking the stamps having as symbol the kneeling Herakles shooting his bow, that were dated on the basis of the analogy with Thasian coins of the same type around 390 B. C. and the stamps with the legend on three rows that were dated immediately after 370 B. C. 56. According to an opinion 57, the Thasian stamps with legend on three rows were applied on amphorae before 390 B. C. that is before the type with kneeling Herakles; other scholars date them in the second half of the IVth century 58.

The Thasian jars arrived at Callatis are of common types, with symbol, ethnicon and one or rarely two proper names from the second and third (only few pieces) groups, dated respectively between 350-270 and 270-220 B. C. 59 This dating is to be cautiously considered⁶⁰. In fact this is of no practical use. The second group coincides with the datings of the stamps without symbols, at Apollonia. The almost running writing admitted for the third group is to our mind a little earlier. The IV^{th} group dated between 220-180 is not very

53 M. Gramatopol, Gh. Poenaru Bordea, op. cil., pp., 42-43. See also M. Gramatopol, Un port comercial la Callatis. in Revista Muzeelor, 1966, no. 4, pp.335-336. ⁵⁴ See the list of abbreviations at the beginning of the catalogue. 55 Recently. Iulia Krushkol, Клейменные амфоры

и их изучение в СССР, in Klio, 41, 1963, pp. 272-274.

see also V. Canarache, op. cit., pp. 36-37; cf. D. B. She-

lov. Керамические клейма из раскопок Фанагории, in

MIA, 57, 1956, pp. 129-133, who dates both types in

the second quarter of the IVth century. The remote anti-

quity of the Thasian jars was stratigraphicaly verified

58 E. M. Shtaerman, op. cit., p. 35 (apud Grakov),

in 1949 at Phanagoria where they appeared together with Chian amphorae, M. M. Kobilina, Раскопки в Фангории in KS, 37, 1951, p. 234. See at I. Krushkol, op. cit., p. 273 and other examples for the dating in the stratigraphic contexts of certain Thasian stamps in the IVth century. ⁵⁷ The hypothesis of their earlier dating belongs to

Virginia Grace; for the dating before 390 B. C., see V. Canarache op. cit., p. 37.

58 Theophil Ivanov, op. cit., p. 261, no. 762.

⁵⁹ For these chronological groups see V. Canarache ob. cit., pp. 36-39 and fig. 19, p. 38.

⁶⁰ See the very cautious datings for Thasos in V. Eftimie, op. cit., pp. 199-200 and for the bibliography the note 9, p. 199.

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clear. The question is what happened after the beginning of the second century. The sealing would have continued by the circular stamps dated between the $III^{rd} - I^{st}$ centuries B. C.⁶¹, but also between the IVth-IIIrd centuries B. C. ⁶². These were found at Callatis, but are they really produced by Thasos? Our opinion cannot be conclusive; in any case some of the circular stamps could be of Thasian origin. As concerns their dating, in our opinion, the doubt is no more possible. Circular stamps were found at Seuthopolis and were stratigraphically dated for the end of the IVth century and in the IIIrd century B. C. ⁶³. In the excavations at Histria these appeared in the level superposed on the fortifications built in the Vth century B. C. 44. This level is dated before the end of the IVth century B. C.⁶⁵, confirming in this way the early date of the stamps, before proposed.

Most of the Thasian stamps (except some pieces, nos. 6, 9, 10, 102-103, 105, 194) belong to the category with symbol, ethnicon and proper name. The exceptions are rare also in the old lot ⁶⁶. We suppose they can be dated in the second half of the IVth century and generally in the IIIrd century B. C.

The following items from our catalogue, nos. 2, 3, 4, 12, 17, 19, 20, 21, 29, 30, 31, 36, 37, 42, 43, 46-49, 50-51, 52, 54, 72, 73, 74, 80, 87, 88, 89, 91, 92, 93, 96, 98, 99, 200, 203, 204, 205, 209, 210, 211, that is 52 stamps, have combinations symbol + producer unknown in this region and even not listed in the corpus of Thasian stamps. The stamps no. 6 and no. 129 are quite unknown. We mention also the stamps nos. 184, 185 which

have analogies in Bon (without the monogram A) and the stamp no. 186 of the same pro-

ducer whose symbol, the cock, is unknown; this piece has too the monogram A. The stamps, nos. 297-300, Thasian by the clay, are anepigraphic and unknown to Bon⁶⁷.

The most frequent names on the Thasian stamps discovered at Callatis are : Πυθίων 19(30)88. Χαιρέας 10, Θεόπομπος 9(12), 'Ιδνάδης 8(9), Δημάλκης 7(11), Σάτυρος 7(8), Κλεόστρατος 7. 'Αριστοφάνης 6(9), 'Αριστόδικος 6, Πολύων 6, Κύχρις 5(10), Δέαλκος 5.

Sinope is the best represented center on the Callatian market : 298 stamps out of 395 in the catalogue were distributed in the chronological groups established by B. N. Grakov⁶⁹. As consequence of a minute analysis of the Sinopean stamps, a new divison in groups was tried on the basis of a revised chronology, but this seems to have not the chance to meet the general consent of the scholars⁷⁰.

⁶¹ Anne-Marie Bon and Antoine Bon, op. cit., p. 35 and p. 43. ⁶² A. Balkanska, op. cit., in • Izvestiia-Varna •, 14,

1963, pp. 35-37; see chiefly E. M. Shtaerman. op. cit., pp. 46-48, other assigning but the same early dating (IVth century B. C.).

63 A. Balkanska, Die Handelbeziehungen von Seuthopolis, in AAPh, Sofia, 1963, p. 56.

As to the dating of these stamps, Maria Coja was very kind to inform us that at Histria they appear in the sector Z, in contexts da tedat the end of the IVth century. continuing also to be present in the IIIrd century.

⁶⁵ M. Coja, Zidul de apărare al cetății Histria și împrejurările istorice ale distrugerii lui în sec. IV f.e.n. în SCIV, XV, 1964, pp. 383-398; cf. D. M. Pippidi, Strainii de peste mări, în the volume D. M. Pippidi, D. Berciu, Istoria Dobrogei, I, pp. 215-218 and mainly p. 218, the note 149. 68 Th. Sauciuc-Säveanu, in . Dacia . , II, p. 129, no. 1,

p. 131, no. 3. 97 Zofia Szetyllo, Quelques problèmes relatifs à l'iconographie des timbres amphoriques, la représentation des statues, in Travaux du centre d'archéologie méditeranéenne de l'Académie Polonaise des Sciences, vol. 3, pp. 46-80 and Idem, Quelques remarques en marge des éludes sur l'iconographie des timbres amphoriques grecs, in Mélanges offerts & K. Michałowski, Warsaw, 1966, pp. 669-674.

⁶⁶ The first figure indicates the number of types, the second, in round brackets, the number of pieces.

• В. N. Grakov, Древне-греческие клейма с именами acmuno.mos. Moscow, 1928.

70 V. I. Tzehmistrenko, K sonpocy o nepuodusauuu синопских керамических клейм, in SA, 1958, no. 1, p. 56; Idem, Синопские керамические клейма с именами гончарных мастеров, in SA, 1960, no. 3, p. 68 and follow. About these studies see the critical examination of I. B. Brashinski, J'cnexu керамической эпиграфики, in SA. 1961, no. 2, pp. 301-302. Recently, V. I. Tzchmistrenko, O принадлежности вторых имен в синопских KAEUMax, in NE, VII, 1968, pp. 23-36, gives a synopsis of producers, astynoms and symbols on Sinopean amphorae.

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More sure are, to our opinion, the observations about the dates of the beginning and the end I the production of this important center. Thus, it seems, as Grakov himself has shown, that he stamping of the jars begins at Sinope in the middle of the IV^{th} century B. C. and not t its end¹¹. This new dating is especially important for the first group and perhaps for the scond, at least for a part of the stamps from the second group as recently certified by the tratigraphical data¹². In the case of the VI^{th} group, its lower chronological limit is to be stablished in the II^{nd} century B.C. and consequently a number of its stamps must receive ther datings⁷⁰.

Surely such classifications are to be continuously improved by their checking with marials resulting from excavations, found in well dated levels, and with their sequence in accessive archaeological levels. The data supplied by the present classification are not considered absolute. The fact that we cannot verify them in the very numerous lot from Callatis oes not impede us to analyse the situation of the imports from Sinope in the light of his classification.

The Sinopean lot from Callatis is divided in groups as follows :

II nd	group	270 - 220 = 26 pieces
III rd	,,	220 - 180 = 14 ,,
IV th		180 - 150 = 176 ,,
Vth	,,	150 - 120 = 62 ,
VI th	,,	120-70=20 ,,

Three facts concerning the chronology are very important: the imports from Sinope ppear on the Callatian market before the middle of the III^{rd} century B. C. but are scanty ill 180 B. C.; after this date they are numerous in the period 180–150 which comprises 0% of the dated material; after 150, a sudden reduction takes place and becomes more rominent during 120–70 B. C. The situation is different at Histria where the imports 'ere intensified after 180 B. C., remaining relatively high in the following two periods ⁷⁴.

Even should we not be inclined to take as absolute the statistical data resulting from he application of B. N. Grakov's classification still it seems to us that both the great flourshing of the period 180-150 B. C. and the sudden decline after this date are facts to which 'e must pay attention; in the final part of this analysis we shall return to their significances.

⁷¹ В. N. Grakov, Каменское городище на Днепре, MIA, 36, 1954, pp. 90-91 and idem, Kneilmenan reамическая тара эпохи эллинизма как источник для стории производства и тореовли, (manuscript), р. 3. quoted from I. B. Brashinski, op. cit., p. 301, note 73. ⁷⁸ As for exemple, recently, V. I. Pruglo, Cunonckue нфорные клейма из Мирмекия, in KS, 109, 1967. p. 42-48. Considering the stratigraphical observations ade at Olbia, I. B. Brashinski, Komnnenc R posenshoù грепицы из раскопок Ольвийской агоры 1959—1960. Onbeus, Moscow-Leningrad, 1964, pp. 285-313, has ated the first group between 360-330 and the second roup between 320-270 B. C. This established, the same uthor, Экономические связи Синопы в IV-II вв. до .e. in Античный город, Moscow, 1963, р. 133 prooses a new chronology for all the Grakov groups hich he maintains as such. In the absolute chroology the groups could be dated as follows: I 360--320; 11 320-270; 111 270-220; 1V 220-183; V 33-150; VI 150-100 B.C. In our opinion the main drawack of this chronology is the stopping of the stamping rocess at Sinope around 100 B. C. in order to oblige the

other groups to follow the changed dates of the first and second group; in fact the datation is absolute only for the first group. Following the Grakov's chronology, the scholar must however to take into account the Brashinski's new data. A summary of the recent opinions in this matter, at V. Eftimie-Andronescu, *Incercări da schimbare a cronologiei amforelor din Sinope*, paper presented in 1968 at the Archaeological Institute. Only firm stratigraphical data could decide about the justness of these solutions and about the detail changes to be done in the chronological groups, as for instance the transfer of certain stamps from one group to another.

¹⁸ V. Grace, Pnyz: Stamped Wine Jar Fragments, in Hesperia, suppl. X, 1956, p. 165, no. 194. See I. B. Brashinski, op. cit., p. 301, the note 75 (the dissertation of A. A. Neihardt). The difference between the Vth and the VIth groups would disappear in that case.

⁷⁴ V. Canarache, op. cit., pp. 183-188; V. Eftimie, op. cit., in * Dacia *, N. S., III, 1959, pp. 198-199 indicates the highest frequency of Sinopean stamps in the groups V and VI (particularly in the last). For Tomis see M. Gramatopol, Gh. Poenaru Bordea, op. cit., pp. 49-50. 19.16

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Among the numerous Sinopean stamps from Callatis there are many pieces less known till now. Most of them have known producers unattested for the group in which the stamp was classified on the basis of the astynom's name. For these pieces we give in round brackets the groups in which producers with the same names were attested.

Second group: nos. 301 (IV, V, VI), 306 (IV, V, VI), 307 (IV), 309 (I, III, V), 311 (V), 312 (IV, V, VI), 313 (IV), 316 (III, IV, V, VI), 318-320 (IV-V), 326 (III). Two stamps found at Callatis have the unattested till now patronymic of a known astynom: nos. 303 'Aπολλώνιος τοῦ 'Ιστρωνος; 321 Εὐχάριστος τοῦ Διονυσίου.

Third group: nos. 327 (VI), 328 (IV, VI), in Grakov at nominative. The stamp no. 333 has monogram, in Grakov it is without symbol and monogram.

Fourth group : nos. 355-356 (I, 379 (V), 397 (I, III, V), 398 (I, III, V), 399-400 (V), 409 (II, III, V), 426 (II, III), 427-429 (I, III, V), 430, 439, 440 (V), 450 (I, V), 486-487 (V). The novelty of, some stamps is a symbol unknown at the respective astynom : nos. 446, 451, 463-470, 471-472, 473, 484, 494, 511, 512 (II, III), 513, 514, 515-516. The Sinopean lot from Callatis gives in the fourth group the producer Kλέων, absent if not hidden by 'Hρωλέων (in Grakov), nos. 385, 410, 441, (?). Very important is the stamp no. 420 with the unknown astynom 'Aσπων to whom is added the same producer, Kλέων. The producer Κτησικλῆς attested by the item 491 is unknown. To some astynoms the Callatian material gives their patronymics, nos. 482 'Εστιαίος δ Θρα[σιθίωυ][†]; 500 Κρατίσταρχος δ Μένωνος ; 503 Μητριδάτης δ 'Αριστ ; 508 Μιλτιάδης δ Τεισάνδρου ; and 509, the same astynom with another producer. Several problems, vague in Grakov, are precised in the light of this material, nos : 448, 525-528, 529, 545-547, 548-549, 550-551. Fifth group : nos. 517, 530 (IV), 534 (II, IV), 562 (IV), 569 (VI). The stamp no. 552 attests the patronymic of an astynom who in Grakov has no patronymic. Unfortunately the name cannot be completed. At nos. 577 and 578 the patronymic of the astynom Πυθόχρηστος is more probably 'Απολλωνίδης.

Sixth group : nos. 581 (IV), 586 (V) and 596 which gives an unknown symbol for the respective astynom.

Among all the producers' stamps only $N(x\omega v)$, no. 621, is unknown. There are also among the incomplete undated stamps several which seem to have some novelties, but it is not the case to list them here.

The Rhodian stamps are not so numerous at Callatis and, as we have shown, few pieces are datable on the basis of the eponym's name ⁷⁸. We have not used here the dating by the jars profiles, or by the handles which would place the stamps in a group or another ⁷⁸. In final the corpus must complete in this direction too, this preliminary publication. On the other hand such dating has no chance to be sure as long as we have only fragments of handles, often unconclusive as concerns their general shape. The situation of the dated stamps is :

IV th century B. C.	5 pieces (nos. 725, 733, 777-779?)
end of the IV th , begin. of the III rd century	2 "
280-220	1 piece
220-180	7 pieces
180-150	2 ,,
150-100	4 ,,

⁷⁵ In the catalogue, nos. 725, 733 (IVth century);
 698-699 (end of the IVth century-IIIrd century); 712,
 (280-220); 696, 705, 708, 709, 710, 730 (220-180).
 714, 728 (180-150); 702, 703, 707, 718 (150-100).
 ⁷⁶ V. Grace, The Eponyme Named on Rhodian Amphora

Stamps, in Hesperia, XXII, 1953. 2, pp. 116-128, pl. 42: 1st group- IVth cent.; IIIrd group - IIIrd cent.; IIIrd group-1st cent. B. C., used, for instance, by A. Balkanska, op. cit., in Apreonorus, IV, 1962, 4, pp. 61-62.

It is impossible to consider in parallel, as it was done for Tomis 77, the Rhodian and nopean activities on the Callatian market. due to the scanty number of dated Rhodian amps; it is obvious however that the Sinopean imports are dominant whilst the Rhodian e very low in general 78. With reserve as to the dating of other Rhodian stamps, we can ake some remarks. So, the early presence of the ware from this center at Callatis is worth entioning 79. During the period 280-220 only one piece is listed which perhaps comes ter 80. The most important number of dated Rhodian stamps is to be placed during 220-180 . C., that is in the most intense period of the Rhodian trade. which is followed by a slight ccline in the next 80 years: between 180-100 B. C. 6 stamps are dated instead of 7 in ie previous period.

The Rhodian novelties discovered at Callatis also require scholars' attention. Their early opearance in this city, on the one hand, and the fact that the amphora stamps from the pansion period of the Rhodian trade as well as those of the later period are generally well nown, on the other hand, evince the possibility that a great part of these novelties might e dated in the IVth century B. C. and eventually between 320-280 B.C.

Among the stamps with eponyms there are some novelties in the case of 13 pieces. rom these, 6 pieces have complete names. nos: 711. 'Αριστόνικος; 713. 'Αρμία; 715, Δαμόνικος; 28-729, Δημήτριος with the eponym Πρόταρχος; 736, Ηραγόρας. Other two names are ot sure, nos. 717, Δηιξτάνα ΠΑ; 720, Ίαστυδευς. On the stamp no. 734 we read έπι Αία ... upovo?, perhaps two names, while other four stamps give only the beginning of their naies, nos. 706, 'Aρισταγ...; 722-723, 'Iπ...; 732, Φιλτα. Two stamps, nos. 703 and 704 ave other months for their known eponyms.

To the list of producers drawn up by Virginia Grace some new names are to be added : os. 742-743, 'Δγάθων; 744, 'Δγη... Π: 750, 751, 752. three variants with Boloxoc; 753, ούλα, in two rows in a circular stamp: 755. Δημήτριος: 760 (and perhaps 761), Εύρον⁸¹; 69, if it will be verified Mixύονι, corruption from Mixίων; 791. 792. Φίλιππος⁸², 793, Φιλόδαμος nd 794. Φρασίλας.

If for Heraclea Pontica the beginning of the stamping is accepted to be the first half f the IVth century B. C. or even the end of the Vth century⁸³, and the close of its ommercial activity after the middle of the IIIrd century ⁸⁴, it would be difficult to make a hronologic classification without complete jars 85 . In fact the two chronological groups esta-

⁷⁷ M. Gramatopol, Gh. Poenaru Bordea, op. cit., p. 49. ⁷⁸ The Sinopean percentage of 43.4 compared with the

hodian 5.5 is eloquent. In spite of this Rhodes played prominent part in the stamped amphorae trade in the lack Sea, see for exemple D. B. Shelov, K ucmopuu зязей эллинистического Боспора с Родосом, in. SA. XVIII, 1958, pp. 333-336; I. Krushkol, Основные инкты и направления торговли Северного Причерноорья с Родосом в эллинистическую эпоху, in VDI. 957. 4, pp. 110-115; Idem, op. cit., in Klio, 41, 963, pp. 277-280. 79 In the same sense was, at the National Conference

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or archaeology held in Iasi in 1968, C. Preda's speech ased on the material resulted from underwater, archaeoogical researches. For the datings we have used V. Grae's additional list of 1961. Until the Histrian lot will be eexamined and completed with the stamps discovered fter 1954 (V. Eftimie-Andronescu is preparing this mateial), we have an impression that there are not Rhodian tamps from IVth cent., or in every case they are very rare.

⁵⁰ We note that at Tomis no stamp from this period vas registered, cf. M. Gramatopol, Gh. Poenaru Bordea,

op. cil., it seems that they lack also at Histria, cf. V. Ca narache. op. cit., pp. 272-273.

⁸¹ At the stamp no. 761 the completion is very probable: a second line was certainly at the left and at the right of the symbol.

** A stamp with the inscription [DI]AIIIIIOY is known as found at Romula, cf. D. Tudor, Comunicari epigafice, IV, in SCIV, 17, 1966, 3, p. 598, no. 13, fig. 25/12; idem, Oltenia romana, 3, p. 504, no. 161 and p. 122 dated in the IInd - IIIrd cent. Between this stamp and the Callatian stamp which is surely Rhodian is an entirely coincidental occurrence.

83 I. B. Brashinski, op. cit., in SA, 1961, 2, pp. 301-

-302 ; I. S. Krushkol, op. cit., pp. 275-276. ⁸⁴ Cf. further the note 86, I. S. Krushkol, loc. cit. and V. Eftimie, op. cit., in • Dacia •, N. S., III, 1959, p. 201, the first dates them in IVth-IInd cent., the second in IVth-IIInd.

⁸⁵ An exception at Callatis could be the two amphorae mentioned by V. Canarache, op. cit., p. 193, but at the p. 191 it is specified that these were found somewhere near Callatis.

blished, which are to be revised today in the light of the new datings, comprise five types of amphorae: three types dated between 350-300 and two types between 300-250 88 As concerns the stamps we do not know whether they were or not classified in chronological groups.

Consequently the material from Callatis can be generally dated in the IVth century B. C. and in the first half of the IIIrd century. The stamps which seem to be less known are frequent in the last group. There are new names, some to be left still in capital letters : nos. 811, 812, 813, 814, 819-820, 825, 830, 832, 839, 840, 841, 844, 847, 848, 850, 851, 853, 855, 857, 862. Tree stamps (nos. 865-867) are an epigraphic, but on the basis of their particularities are to be classified with much probability also at Heraclea Pontica.

The amphorae from Chersonese have recently been precised 87. The stamps were classified in four chronological groups in which also we shall try to distribute the pieces listed in the following catalogue 88. There is also a short chronology which melts into one group the former IInd and IIIrd groups; it is dated in the second half of the IIIrd century to the beginning of the IInd century. that is within the same limits as the former second and third group, cancelling only the differences of detail 89.

The Callatian material is divided as follows:

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Second group: nos. 874. 875-877. 893. 896-900. 902. 903. 905. 906. Third group: nos. 873, 878-880, 881-883, 888, 901.

The stamps nos, 890-891, theoretically classified in the Ist - IInd groups, were assiened by us to the second group because the stamps from the first group are lacking at Callatis. The stamp no. 892, attested for the IIIrd $-I^{st}$ groups was assigned to the IIIrd group. Taking into account the dated stamps we have the following situation :

second group	250 - 200	•	16 pieces
third group	200-180	•	10 pieces

We can conclude that the ware from Chersonese does not appear on the Callatian market before 250 B. C. and that the imports from this center cease towards 180 B. C.

For the centers which follow, the chronology is not yet well established ⁹⁰. As concerns the amphorae from Cnidus and Cos a late dating (IInd - Ist century) was proposed ; but Cnidus begins the stamping in the IIIrd century B. C.⁹¹. The stamping at Paros could be dated, as it was proposed, in the IIIrd century and at the beginning of the IInd century B.C. 92 Such hesitations are quite natural because the material is not abundant and serious observation is still required. These centers had not played an important role in the Callatian trade but, if a late dating was accepted, in a period when the stamping was less used, the general picture would have to be corrected a little. As regards Cnidus and Cos, especially in the case of the last, amphorae or amphora fragments are easy to recognize, so their searching in the

88 I. B. Zeest, O munax сераклейских амфор, in KS, XXII, 1949, pp. 47-48 based on the works of B. N. Grakov.

87 R. B. Ahmerov, Амфоры древнегреческого Херсонеса, in VDI, 1947, 1, pp. 160-176; see I. S. Krushkol, op. cit., pp. 276-277 and other references. Long before them G. Cantacuzino, op. cit., RHSEE, 1935. pp. 309-310, no. XVI, justly classified a stamp at this center.

88 R. B. Ahmerov, Об астиномных клеймах еллинистического Херсонеса, in VDI, 1949, 4, pp. 99-123.

⁸⁹ About this chronology proposed by A. A. Neihardt in a dissertation yet unpublished, see I. B. Brashinski, op. cit., p. 303.

90 We have not a special work about these amphorae or a chronology in detail; the corpus of the Coan amphora stamps will be prepared by Virginia Grace.

⁹¹ For Cnidus see the bibliogrphy at V. Eftimic, op. cit., in • Dacia •, N. S., III, 1959, pp. 200-201 and note 18; cf. V. Canarache, op. cil., pp. 282-285. For Cos see E. M. Shtaerman, op. cil., pp. 39-49 and V. Canarache, op. cit., pp. 277-279. A corpus of Cnidian amphorae is also necessary to be realized in the future, cf. V. Grace, in Year-book of the American Philosophical Society, 1959, pp. 472-477.

99 I. B. Zeest, Паросская амфора, in KS, XLVIII, 1952, pp. 120-121.

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excavations is to be done in the future, in order to take them into account for a more complete picture of the imports.

Returning now to the Callatian material, it is to be mentioned as less usual the stamp no. 938 from Paros which has the inscription Π APA. The last letter may be also \wedge . In every case the form and the clay of the handle are Parian.

All the material from Cnidus in the catalogue (nos. 939-949) is new and to some measure uncertain, except no. 946. The determination was made on the basis of stamps and of the clay. Surely, we must be cautious in the case of this center.

The Coan stamps bring novelties with nos. 950, 951, 954, 959. Attention must be paid to the monograms which are very rare or even unattested on the double handles.

From the group of various unidentified centers we mention the "Cretan" stamps nos. 1083-1084 and 1094-1095, and the stamp from Abydos, no. 1103, which complete the picture of the exporting centers on the Callatian market. Chronologically the circular stamps divided in fields are dated in the IVth-IIIrd centuries B. C. The stamps nos. 1036-1038, are rather strange: they have signs impossible to explain.

Stamps from Callatis imitating the Rhodian stamps were recorded in the literature of the problem on the occasion of the publishing of a stamp with a difficult reading which was considered Geto-Dacian 93. This stamp, found at Cetăteni, belongs to the same family as the stamps from Cabyle and Delos⁹⁴, but the stamps nos. 1036-1038 found at Callatis imitate, at least the first two items, the stamps with monograms ⁹⁵. The third piece is difficult to classify but it seems to be similar with the two stamps just mentioned than with those from Cetățeni, Cabyle and Delos. For the moment it is quite impossible to have for these three items a satisfactory exegesis. Even it is to be specified that these stamps are neither from the family of Getic anepigraphic stamps put on amphorae which imitate in great number the Rhodian amphorae, a material which is now well known⁹⁶, and which was discussed long time ago 97, nor from the class of Getic stamps with human representations 98. From a formal standpoint there are three main categories of imitations of the Greek stamps:

1 - anepigraphic, with the variant of human representations;

2-illegible, put, as the first, on amphorae imitating the Rhodian amphorae; they are similar with the rectangular stamps:

3 - deriving from the stamps with monograms, like those discovered at Callatis.

As to the first category, they are now undeniably considered as Getic, belonging to well delimited cultural zones like the Walachian plain, where also were discovered the Getic cups with relief decoration ⁹⁹ and the coins of the type Virteju-Bucharest ¹⁰⁰.

productie locală cu imitarea literelor grecești, in SCIV, 18, 1967, 3, pp. 401-420, cf. p. 415 (information from M. Gramatopol) and p. 417.

⁹⁴ A. Balkanska, Местна имитация на ерецки ам-фора nevam, in Археология, V, 1963, 4, p. 42-43, unknown to V. Eftimie-Andronescu. In theory a local production is more probable at Cabyle than at Cetateni. For the piece found at Delos see V. Grace, Timbres amphoriques trouvés à Délos, in BCH, LXXIV, 1952, II, pp. 530-531; V. Eftimie-Andronescu, op. cit., p. 414.

⁹⁵ In the catalogue, nos. 1028-1034.

96 D. Tudor, Amforele grecești ștampilate în Moldova, Muntenia și Oltenia, în Arheologia Moldovei, V. 1967. pp. 37-79.

" D. Tudor, Amfore elenistice descoperite in adincul teritoriului R.P.R. (Referat asupra legăturilor economice

99 V. Eftimie-Andronescu, Stampilă pe o amforă de 🛛 între cetățile sclavagiste grecești și triburile dintre Carpați și Dundre), în Studii și referate privind isloria R.P.R., I, Bucharest, 1954, pp. 81–88. V. Constant, R.P.R., Bucharest, 1954, pp. 81-88; V. Canarache, op. cit., p. 383-390; V. Eftimie, op. cit., in . Dacia ., III, 1959, pp. 205-211, the last two works were based in this respect on the manuscript of D. Tudor, afterwards published in Arheologia Moldovei, V.

98 Al. Vulpe, Reprezentări umane pe cupele getice de la Popesti, in SCIV, 16, 1965, 2, pp. 347-348.

** Ir. Casan-Franga, Contribuții cu privire la cunoașterea ceramicii geto-dacice. Cupele deliene getice pe teritoriul României, in Arheologia Moldovei, V, pp. 7-34.

100 C. Preda, Monedele geto-dacice de lip Virteju-București, in SCN, V, (in press).¶ Clearly defined by these three aspects of the material culture, the population of the south Romania in the IInd - Ist cent. B. C. seems to be strongly hellenised, attaining a high level of development.

The second category is not to be considered Getic on the whole. These stamps are now known in the Greek world at Delos and Callatis¹⁰¹, in the Thracian world at Cabyle¹⁰², a very important center, in Dobrudja at Costinesti¹⁰³ and Albesti¹⁰⁴, consequently the argument that they are not known in the south of the Danube is no more valid. The stamp found at Cetățeni-Muscel is not an unicum among the stamps discovered there or in other Geto-Dacian sites in the north of the Danube¹⁰⁵. This piece may be Getic but it does not mean that all the similar stamps found in such different places are produced in the Geto-Dacian world. When the problem will be reexamined, it would be also necessary to take into account the possibility that these amphorae had been produced by several centers in the period succeeding to the flourishing of the Rhodian trade. Some stamps from this category could be at last theoretically considered as produced by Rhodes in a period when stamping was diminishing and becoming in every way unofficial. The fact does not prevent us to label them as pseudo-Rhodian stamps.

As regards the third category which has given rise to the present classification, an attempt to a complex discussion is difficult because we are unable to precise even the centers producing eventually the prototypes. Part of the stamps with monograms was allotted to Thasos as similar with the circular stamps divided in fields or with the circular stamps with monograms 106; the south Thracian world could be considered as a possible origin of these pieces 107.

The question is if in the case of the imitated stamps we could not suppose even a Callatian origin. Nothing more natural than this question. It is well known that the cereals and the wines played a main role in the life of the Callatians and were the support of the development and of the flourishing of the town in the long period of its ancient history.

Let us refer only to this last produce; there are known many monetary issues representing Dionysos ¹⁰⁸ whose popular worship is attested by the epigraphic sources ¹⁰⁹. It is clear that Dionysos and Demeter, seriously competing with Herakles, the mythic founder of Callatis and of its metropolis¹¹⁰, are two of the most popular deities of the Callatian pantheon.

We think that the wine production was considerable and consequently the need of amphorae for its sale was proportional. So, an amphorae production at Callatis appears as necessary, but, if theoretically its existence could be accepted, the material proof is yet lacking because we have no Callatian amphora stamp to certify the difference between the local production and the imported amphorae.

101 In the catalogue, nos. 1104-1106.

108 Without listing here the bibliography for this center, we sent to the very instructive outline of L. Robert. which deals with the relations among Byzantion, Seuthopolis and Cabyle, in the volume, Les stèles funeraires du Byzance gréco-romain (in collaboration with N. Firatli). Paris, 1964, pp. 156-158.

103 In the catalogue, no. 1170.

104 In the catalogue, no. 1178.

105 It is difficult to recognize this stamp among those published by D. Tudor, op. cit., in Arkeologia Moldovei, V. 1967. It could be one of the two stamps supposed by the author to be local stamps imitating greek stamps, nos. 108-109, at p. 67. It is absolutely sure that it is not one of the local stamps, pp. 76-78, nos. 170-199. It is not impossible to be among those Rhodian stamps which remained undeciphered.

100 See, for exemple, A. Balkanska, op cit., in AAPh, Sofia, 1963, p. 53 and follow.

107 A. Balkanska, op. cit., p. 56, in every case : • tassischen Amphorenkreis .

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108 B. Pick, Die antiken Münzen Nord Griechenlands, I, Die Münzen von Dacien und Moesien, 1, Berlin, 1898. pp. 100-101, nos. 217-224 a, Gh. Poenaru Bordea, op. cit., in SCN, IV, 1968, pp. 103-123. An interpretation in this sense in C. Moisil, Introducere in numismatica Dobrogei, in the volume, Dobrogea, cincizeci de ani de viald romdneasca, Bucharest, 1928, p. 173; D. M. Pippidi, op. cit., in Istoria Dobrogei, I., pp. 193-194. Generally about this problem, L. Lacroix, Les types des monnaies grecques et leurs significations économiques, in Congresso internazionale di numismatica, Rome, 1961, vol. II, Atti (1965), pp. 93-102, and the discussions, p. 102-105.

100 D. M. Pippidi, op. cit., in Istoria Dobrogei, I, pp. 252 -253 and passim; cf. also the article of the same author, Grottes dionysiaques à Callatis, in BCH,LXXXVIII, 1964, I, pp. 151-158.

110 It is clear that Heracleea Pontica was the metropolis of Callatis not Miletus, as Pomponius Mella says (II, 22), cf. D. M. Pippidi, Istoria Dobrogei, I, p. 150. the note 43.

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In the old bibliography there were considered Callatian the amphorae discovered at Callatis, or a great lot of them. This thesis is common to many authors who considered Callatian even the Rhodian stamps and frequently the Sinopean or Heraclean ones¹¹¹.

It is quite clear today that such stamps can no longer be supposed Callatian, but the imitations are not to be a *priori* excluded. These could be Callatian, but the fact is far from being sure. We know that the imitations of the Rhodian stamps are spread over a large space, but at Callatis the Rhodian amphorae played a minor role and in no case could they be taken as prototypes. The reduced proportion of their presence at Callatis is in no way an argument for a local workshop. Their presence inside the Callatian territory, at Costinești and Albești, could be used to demonstrate *ipso facto* the export in the region and consequently to explain their reduced number in the center of production which was Callatis, an attempt which is in our opinion abusive.

With respect to the Callatian territory only Albeşti could have an amphorae import from Callatis because, as results from its geographic position, the site of Costinești was probably supplied directly by sea from the exporting centers. Also the argument of number draws out, we believe, of our discussion the pieces nos. 1136-1138.

We dont't know till now imitations of Sinopean amphorae although it would be normal to be present at Callatis together with Thasian imitations.

In any case a thing is clear: if the town had decided to use stamping in an official way that would not have been for making imitations like those above mentioned¹¹⁸. Such pieces could be as much the result of some poor private enterprises. Extending our research to all the western coast of the Pontus Euxinus, the negative result suggested by the Callatian aspect of the problem is strenghtened. Convincing proofs are lacking and the situation is the same in all other cities of the western coast, north and south of Callatis.

It was supposed a local stamp at Stadkiti Kladenți near Burgas where was an emporion of Apollonia¹¹³. But besides the fact that this was discovered near a kiln, nothing demonstrates it was produced there and not elsewhere. A lead die was found at Varna¹¹⁴ which by impression produced an epigraphic stamp in rectangular tablet. The name inscribed on this die does not appear on the amphora stamps discovered at Odesus. It is a problem to be solved future if this die was used in the stamping of the local produced amphorae in the hellenistic period ¹¹⁸.

¹¹¹ For example O. Tafrali, op. cit., in AArh, I, 1927, p. 35, which is surely a Rhodian stamp; the author suggests that the name 'Aplotow of this stamp is the thesmothet of the Callatian inscription; see also Th. Sauciuc-Saveanu, Callatis, in L'archéologie en Roumanie, p. 68. V. Stefanelli-Clain, Contributo allo studio delle monete di Callatis, in Numismatica, 13, 1947, pp. 4-5 and the notes 10 and 13, p. 7, believes that the monetary magistrate Noococ is to be put in relation with a similar name of two amphora stamps or with Nooolwv from the Callatian inscription of the thyasites, attested also by an amphora stamp. These considerations would be correct if the amphora stamps in discussion would be at their turn Callatian; in fact these are stamps from Heracleea Pontica ; see before in this work, p. 132, the classification by centers of the old materials. The name Noogo appears now again on a Heraclean stamp, catalogue, no. 798.

¹¹⁸ Callatis has not adopted as its own device a Sinopean or Heraclean stamp otherwise many differences would be been observed between the stamps of these centers and those which were for the first time produced then by the Callatian potters. The news are quite natural in the numerous lots which were recently published. The Histrian lot, for exemple, has brought many unknown

Thasian stamps, as A. and A. M. Bon remark in a review of Canarache's work in REA, 1958, pp. 467-473. or J. and L. Robert, in *Bulletin épigraphique*, in RÉG, LXXII, 1958, p. 154, no. 32.

¹¹³ A. Aleksieva, op. cit., in • Izvestiia Burgas •, I, 1950, p. 49, го. 11. pl VI, 5; about the role of emporion of this site, see I. Galabov, Археологические приноси за историяата на ерад Бурсас, in • Izvestiia-Burgas •, I, 1950, pp. 249-250.

I, 1950, pp. 249-250. ¹¹⁴ M. Mirtchev, *op. cit.*, p. 5, pl. XL, 5, an unprecised late dating.

¹¹⁶ As regards the materials used for dies there are many hypotheses more or less founded : see for instance V. Canarache, op. cit., pp. 360–363. It was recently discovered a die foramphora stamps, cf. V. Grace, Fr. Salviat, *Sceau thasien à marquer les amphores*, in BCH, LXXXVI, 1962, II, pp. 510–516, which has ascertained one thing : there were used dies in ceramics. It is to be elucidated in what measure other materials were used. The object given by V. Canarache, op. cit., p. 363, fig. 62 as a die for stamping amphorae is an ox anklebone which was used more probably as a knucklebone. There are also two pieces without inscription, published by N. I. Sokolski, *Kensu*, in *Armuvnusti eopod*, 1963, p. 106, fig. 5/6. On the basis of the material which was studied so far, with the reserve of a new discovery, we could affirm that no regular stamping on local produced amphorae was performed at Callatis or in other Greek colony on the western coast of the Pontus Euxinus. This does not mean that a local amphorae production is escluded; every attempt to demonstrate this fact will be welcome.

The number of the stamped amphorae is high enough in a wine producer city and an apparent contradiction is striking us. Without answering completely to this problem we mention only that besides the wine, the amphorae transported other wares as oil or preserved fish ¹¹⁶, that they sometimes arrived empty¹¹⁷, that the qualities of the wines ¹¹⁸ differed from region to region and that the number of the imported amphorae is also high in other cities of the Greek world, well-known as wine producers.

We have the best reason to consider of a great importance the material added now to the lot of archaeological information used by the researches in building up the ancient history of Callatis. At the end of this analysis which was not pushed to its last possibilities and consequences, it appears to us as necessary to accompany the publication of the amphora stamps found at Callatis by a sketch of the development of some historical data as supplied by the material.

The imported stamped amphorae are present at Callatis from the IVth century B. C. The oldest categories of Thasian stamps are lacking, consequently the amphorae of this center appear a little later than at Histria, that is in the second half of the IVth century. The Rhodian amphorae, though less numerous than in other cities, are present at Callatis as far back as in the IVth century B. C.

It seems to us, and the fact is not without importance, that the main role in the imports of this period was played by the amphorae arrived from Heraclea Pontica, metropolis of Callatis, dated from the first half of the IV^{th} cent. or even from the end of the V^{th} cent. B. C. to the middle of the III^{rd} cent. B. C. If these chronological data are right it results that the Heraclean amphorae which are generally at Callatis in the third row after reducing by two the Rhodian stamps, played at the beginning of the importing activity one of the main roles on the Callatian market, if not the first role, as we are inclined to think. Anyhow there were lasting relations with the metropolis in the IV^{th} century B. C. ¹¹⁹.

As time goes on, but especially in the third century B. C., the trade with Thasos whose positions in the Histrian market were already good, increases. But the most important phenomenon is the penetration of the Sinopean amphorae on the Callatian market.

Very slight is the presence of the Rhodian stamps at Callatis; only one stamp that could have been arrived later is dated between 280-220 B.C. and only seven pieces are dated in the culminating point of the Rhodian trade, that is between 220-180 B. C. Even less amphorae arrive in the following periods, we refer, of course, to the datable stamps: there are two between 180-150 and four between 150-100. As regards the period 280-220, the situation at Callatis is as that at Histria and Tomis. More puzzling is the slight

¹¹⁶ Chr. Danoff, Pontus Euzeinos, in RE, suppl. bd.
 JX, col. 984 (Verpackung der Fischkonserven).
 ¹¹⁷ A very plausible hypothesis of A. Shadurska,

¹¹⁷ A very plausible hypothesis of A. Shadurska, Stemplowane i madla amfor, dachówski i inne zabytki ejigrafiki ceramicznej, in K. Michaołwski's book, Mirmeki, I, Warsaw, 1958, pp. 101–115, we have used the French summary, p. 151. The author based her assertion on the fact that imported amphorae were found in the sites which produced wine; she supposes they were filled with this local wine. In every case we must consider as possible the transport of the local wine, that is of Callatian, in the jars coming from the centers of high renown.

118 Polybius, Historiae, IV, 38, 5; D. M. Pippidi, op. cit., in Istoria Dobrogei, I, pp. 165-166.

110 V. Canarache, op. cit., p. 191, the note 3, several finds of Heraclean amphorae around Callatis were taken as argument by V. Effinie, op. cit., in • Dacia •, N. S., III, 1959, p. 203, who rightly has shown that their reduced number, then known, does not illustrate the actual relations between Callatis and its metropolis. number of stamps between 220-180, the *acmé* period of the expansion of the Rhodian trade. The explanation of the first phenomenon is perhaps to be found in the difficulties of the traffic through the Straits in the period when the Celts exerted their pressure upon Byzantion, but more probably in the economic and political history of Rhodes too.

As regards the second phenomenon, that is the slight number of Rhodian stamps dated between 220-180 which were found at Callatis, an explanation could be offered by the consequences of the so-called war for Tomis which put face to face Byzantion and Callatis helped by Histria ¹²⁰.

The event took place in the former period (260 B.C.) and was, as is well known, favourable to the Byzantines who contested to the Callatians the right they supposed to have in controlling Tomis. Even if the defeat of Callatis did not mean for the town a total decay, as it has been proved, it is not less right that we must suppose it put an end to the Callatian claims for Tomis' domination.

How the Byzantines could exploit their victory in the following decades, it is quite difficult to tell because for the moment we have no data to allow much more than unverifiable conjectures. What is sure is that the times were hard and the increasing pretentions of the Celts constrained them to close the Straits rising consequently the reaction of the Rhodians and the war gained by the last ones¹²¹. It seems that in fact the Tomitans were those who benefited by the war of 260 B.C.

We could relate these circumstances to the comparative numerous presence of the Rhodian stamps at Tomis, in the general percentage as in the detail by periods, immediately after those events. This could be the consequence of some concessions made to the Rhodian vanquishers or the effect of the orientation of the transit wares to a harbour favourable to the Byzantines. The slight presence of Rhodian ware at Callatis would receive thus an explanation confirmed by a similar situation at Histria ¹⁹². The facts were undoubtedly more complex. We have to notice that the presence of the Sinopean amphorae begins even in the first group at Callatis and Histria in contrast with Tomis ¹²³.

On the Tomitan market Sinopean amphorae become gradually prevalent in comparison with Rhodian imports. At Histria and Callatis Rhodian wares arrive or more exactly come back after 220 B.C. on the markets where the Sinopeans were already established and steady on their positions. Perhaps the underdevelopment of Tomis explains the absence of early Sinopean wares on its market.

We don't intend to insist upon such phenomena because the schedule of ebb and flow on the market of one city or another in a certain moment of its history requires attentive researches which overstep the bounds of this investigation and which are not yet possible for larger regions.

Nevertheless, in connection with the phenomenon we have tried before to define and explain, it seems that we can accept, on the basis of the known material from Histria and Cal-

¹²⁰ D. M. Pippidi, Contribuții la istoria veche a Romdniei², the article Histria și Callatis în secolele III-II f.e.n., Bucharest, 1967, pp. 32-34; cf. Idem, op. cil., în Istoria Dobrogei, I, p. 222. As regards Memnon as a historical source, see recently Paolo Desideri, Studi di storiografia eracleota, în Studi classici e orientali, XVI, Pisa, 1967, pp. 366-416.

Pisa, 1967. pp. 366-416.
¹²¹ D. M. Pippidi, op. cil., in Istoria Dobrogei, I, p. 222, the note 13 and Contributii³, art cit., p. 44, the note 48, the date 221-219. F. Walbank, Historical Commentary on Polybios, I, 1957, p. 506, proposes as end of the war the autumn of 220; cf. also H. Seyrig, Monnaies hell-

nistiques de Byzance et de Calcédoine, in Essays presented to Stanley Robinson, 1968, p. 107.

¹⁸⁸ From the comparative schedule (above, p. 137) results at Histria a percentage of 15.1% and at Tomis 33.5%. The Rhodian ware at Callatis is only of 5.5% and a number of these stamps are dated in the fourth century, that is not in the period which interests us.

¹³³ V. Canarache, op. cit., p. 182; M. Gramatopol, Gh. Poenaru Bordea, op. cit., pp. 49-50. I. B. Brashinski, op. cit., in Античный еород, 1963, the schedule no. 3, p. 139, based on Th. Sauciuc-Säveanu's reports published in • Dacia •, puts two stamps in the first group. latis, that the penetration of the Sinopean stamped amphorae was facilitated by the declin of the Thasian imports between the end of the IIIrd century and the beginning of the IIrd century B.C.

We have seen that it is very difficult, even impossible, to assign to Thasos stamped amphorae after 180 B. C. It is significant that just after this date, between 180 - 150 B. C., we observe at Callatis an interesting increase of the Sinopean stamped amphorae imports (270-220=26 pieces; 220-180=14 pieces; 180-150=176 pieces) which entirely dominate now the Callatian market ¹²⁴.

Apart from the imports coming from less important centers, even if some of them played a certain role at Callatis after 150 B. C., and taking into account that generally the commercial activity of Rhodes was on decline¹²⁵, we could consider that the imports from Sinope are those that give the measure of the trade capacity of the city.

As we have shown, after 150 B. C. an unexpected decline takes place: 62 pieces between 150-120 B. C. and only 20 pieces between 120 and 70 B. C. It was rightly supposed that in the train of the successes of Mithridate's VI Eupator period, the export of Sinope played a main role ¹²⁶, this fact being put into light on the one hand by the number rather constant of the amphorae imported by Histria ¹²⁷, and on the other by the increase of the imports at Tomis, significant even if supported by as yet a scanty material ¹²⁸.

At Callatis where the Sinopeans appear clearly as absolute masters of the market between 180-150 B. C., it would be normal to record if not an increase like at Tomis, a constant level at least, as was the situation at Histria. The sudden decrease of the imports after 150 B. C. is a sign of an economic decline of Callatis which we cannot yet suficiently explain. However the phenomenon is worth paying attention.

If we really have a crisis at Callatis, it takes place not in the middle of the IIIrd century as it could be supposed on the basis of Memnon's evidence, but about one hundred years later, approximately in the middle of the IInd cent. B. C. ¹²⁹.

¹³⁴ It is interesting to observe that Chersonese ccases at the same time to be present on the Callatian market. The situation is different at Histria where stamps of the Ahmerov's fourth group were discovered, cf. V. Canarache, *op. cil.*, p. 210.

¹³⁵ V. Eftimie, op. cit., in • Dacia •, N. S., III, 1959, p. 198, note 7. Rhodes still tries to export amphorae in the cities of the western coasts of the Black Sea, but juding from their number at Tomis, this export is decreasing. Cf. M. Gramatopol, Gh. Poenaru Bordea, *loc. cit.* before and the note 123 of this work.

¹⁵⁸ Em. Condurachi, La Mer Noire, carrefour des civilisations dans l'antiquité, in NEH, III, publiées à l'occasion du IX⁶ Congrès des Sciences Historiques, Vienne, 1965, Bucarest, 1965, p. 17.

¹³⁷ V. Canarache, op. cil., pp. 183-182; V. Eftimie, op. cil., in • Dacia •, N. S., III, 1959, p. 199, says that the fifth and especially the sixth group indicate high frequencies, but without spectacular increases. As regards Varna, cf. M. Mirtchev, op. cil., the French summary: "Les timbres amphoriques de Sinope datés selon la classification de Grakov, indiquent que les relations commerciales de la côte bulgare de la mer Noire avec cette ville ne peuvent être situées qu'aux environs des années 150-70; époque qui correspont au renforcement de l'influence politique de l'État Pontique, le long de la côte occidentale de la mer Noire". From the commentary, pp. 38-39, and from the catalogue, we can obtain the following situation : IVth group = 9 pieces; Vth group = 24 pieces; Vith group

10 pieces. It is to underline the absence of the stamps from the other groups. The fifth group is the most abundant (comparatively with the situation at Callatis, on the one hand, at Histria and Tomis, on the other). Arranging the material by the places of the finds, we obtain for Od:sus the following situation : the fourth group = 6 pieces ; the fifth group = 9 pieces; the sixth group = 5 pieces, and for Bizone : the fourth group = 2 pieces : the fifth group = 16 pieces; the sixth group = 5 pieces. The stamp no. 221 is to be excluded as discovered at Kicevo. At Bizone the material from the fourth group is less numerous in comparison with the fifth group. The decline observed as regards the sixth group is to be taken into account. Cf. above p.137, note 50, and our correction of the percentages given for Odesus which were in fact representative for all the material in the Varna Museum.

¹¹⁸ M. Gramatopol, Gh. Poenaru Bordea, loc. cit. ¹¹⁹ D. M. Pippidi, op. cit., in Istoria Dobrogei, I, p. 232-239. Idem, in Contribuții³, art. cit., pp. 32-67 and especially p. 53, note 78, arguments of the assertion that Callatis has crossed the crisis of 260 B. C. The date of the numerous inscriptions in connexion with this question is the second half of the IIIrd centrury – the first half of the following, without going beyond the date indicated by the Sinopean stamps as the beginning of the decline at Callatis. About the situation of the Dobrudja in the second century, see D. M. Pippidi, Histria și geții fu secolul al doilea (.e., Obscrații asupra decretului în cinstea lui Agathoeles, fiul lui Antiphilos, în Contribuții, ³, pp. 186-221; cf. Idem, op. cif., în Istoria Dobregei, I, pp. 228--233.

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AMPHORA STAMPS FROM CALLATIS AND SOUTH DOBRUDJA 7.

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MIHAI GRAMATOPOL and GH. POENARU BORDEA

It is possible that even henceforth Callatis — after it had been one of the main centers on the western coast of Pontus Euxinus and the leader of the opposition to Lysimachus, ready to conquer Tomis and continuing to be even after this failure about which we know too little, an active and prosperous city 130 — began to recede before Tomis. Struck perhaps in its territory — an afflicting and full of consequences event — the economy of the town being organically linked with peaceful surroundings, Callatis crosses a difficult period.

Even if the before exposed sketch, resulting from the interpretation of some data not sufficiently certain, will appear as erroneous in some of its aspects, the material on which is based will surely contribute, together with the archaeological researches made at Callatis, to the clearing up of many gaps of the history of the town in the hellenistic period.

From the published material, except that found at Callatis which we have tried to present in these pages, a lot of a certain importance was discovered at Costinești.

The sporadic researches made at Costinești about which we have only scarce information, have led to the discovery of many amphora stamps which remained unpublished ¹³¹. We shall try now indirectly to fill this gap, publishing the stamps accidentally discovered which entered private collections. The most numerous were collected by the late doctor H. Slobozeanu, a very clever antiquary and amateur researcher of the past of Dobrudja, who prepared the publication of the amphora stamps from Costinești in his collection ¹³³.

We have not seen and included in this work some pieces which are now at the general school at Costinești ¹³⁸. The composition of the Costinești lot is :

Thasos	= 3 pieces		
Sinope	= 22 _ ,,		
Rhodes	= 17 "		
Heraclea	= 6		
Chersonese	= 1 piece		
Various centers	8 pieces		
	57 pieces		

Dividing by two the Rhodian stamps and taking out the stamps from various unidentified centers among which a circular stamp divided in four quarters and a pseudo-Rhodian stamp ¹³⁴, we have established for the Costinești lot the following percentages :

Thasos	7.3%
Sinope	53.7 %
Rhodes	22 %
Heraclea	14.6%
Chersonese	2.4%

¹³⁰ Cf. a comparative inquiry based on inscriptions, about the relations of the Pontus Euxinus cities with other regions of the Greek world, which was presented by Gh. Poenaru Bordea at the Archaeological Institute in 1968 under the title: Date numismatice privind legiturile orașelor din Pontul Sting cu Asia Mică în epoca elenistică (în manuscript); here is underlined the role of Callatis in the hellenistic period. About the Greek inscriptions found in Bulgaria or in the connected regions, see L. Robert, op. cit., in e Rev. Phill s. XXXIII, 1959, II, pp. 165-236. We mention here the presence of the Callatian coins in the Mekteplni hoard (Phrygia), buried in 190 B. C., N. Olcay, H. Seyrig, Le trisor de Mehteplni en Phrygie, Paris, 1965, p. 7, nos. 3-4, pl. I, no. 3.

¹³¹ R. Vulpe, Noutăți arheologice dobrogene, 1932-1934, in AnD, XV, 1934, p. 209, 80 stamps in their majority Thasian; V. Canarache, op. cit., pp. 378-379.

¹³⁸ From Gellu Naum collection, 5 pieces (nos. 1119, 1132, 1134, 1139, 1154); from Grigore Ghyka collection, 8 pieces (nos. 1124, 1138, 1141, 1158, 1160, 1161, 1164, 1166), 1166), the other stamps are from H. Slobozeanu collection. Other stamps, according to V. Canarache, op. cit., p. 378, are now in arch. A. Doicescu collection, Bucharest. Some observations about the Greek site at Schitul (Costinești) were made by H. Slobozeanu, I. Țicu, Aşesarea antică de la Schitul, in SCIV, 17, 1966, 4, pp. 579-700.

 ¹³³ V. Canarache, *loc. cil.* This information was confirmed by Al. Popeea, who will publish these pieces.
 ¹³⁴ Nos. 1163 and 1170. The most considerable imports are those from Sinope, followed by Rhodian and Heraclean imports. Thasos and Chersonese have positions of less importance. For the moment we dont't know at Costinești amphora stamps from Paros, Cnidus and Cos.

Among the Sinopean stamps only 16 are datable according to the Grakov's groups: I^{at} group, one piece; II^{nd} group, one piece; III^{rd} group, one piece; V^{th} group, one piece; V^{th} group, five pieces; VI^{th} group, six pieces.

Among the Rhodian stamps with eponyms only four are datable in the chronological groups that cover the period of the $III^{rd} - II^{rd}$ centuries B. C. To these is to be added a Rhodian stamp with the producer's name, which is dated between 180-150 B.C.

We shall not venture on ample considerations only on the data supplied by the material found at Costinesti. As a working hypothesis we incline to admit that Constinesti was provided with wares packed in stamped amphorae directly by sea, this thing being justified by a sensible difference between the Callatian and Costinesti imports. In the period IV^{tb} – IIIrd centuries (the first half, perhaps) Heraclea Pontica plays the first role. There are lacking Rhodian stamps from the IVth century and afterwards they are rare; the Thasian stamps are also rare, but the Sinopean stamped amphorae appear at the same time as at Callatis (the first Grakov group is present). There are at the beginning of the hellenistic period some similitudes with Callatis we must render evident because Costinești seems to develop in the Callatian zone of influence. In the second century the Sinopean imports present a clear cut difference as against Callatis. There is only one Sinopean stamp between 180-150, but a strong increase in the Vth and VIth Grakov's groups, that is five and respectively six pieces. The Rhodian amphorae are during this period on the Costinești market far behind the Sinopean. The numerous Sinopean imports tell us that after 150 B.C. the importance of the site and perhaps of the harbour is increasing. Drawing a parallel between the situation at Costinesti and at Callatis, with all the due prudence, we could think that one takes advantage of the tense circumstances of the other.

Except the comparisons with the strong neighbouring Greek cities, the stamped amphorae imports. at Costinești must be reconsidered on the basis of a greater lot to be analysed, of new comparisons with other sea-side centers ot less importance and of their situation, function of the respective great cities in the neighbourhood.

Among the sites following in the catalogue, only at Moșneni and Albești amphora stamps are known so far ¹³⁵ which remained unpublished together with other archaeological materials ¹³⁶. The sites at Dulcești, 23 August and Arsa did not supply till now other stamps than these we publish here. The situation is not better even for other localities where amphora stamps were discovered; only the finds of few of them have been published ¹³⁷.

As for details in this order, see the catalogue, nos. 1171 and the followings. We have to underline only the fact that in these sites near Callatis the producing centers which were

¹³⁵ For Albeşti, see V. Canarache, op. cit., p. 190, note 30; Moșneni is marked on the map at p. 393; the two localities are also marked on the map of V. Eftimie's article, op. cit., in * Dacia *, N. S., III, 1959.

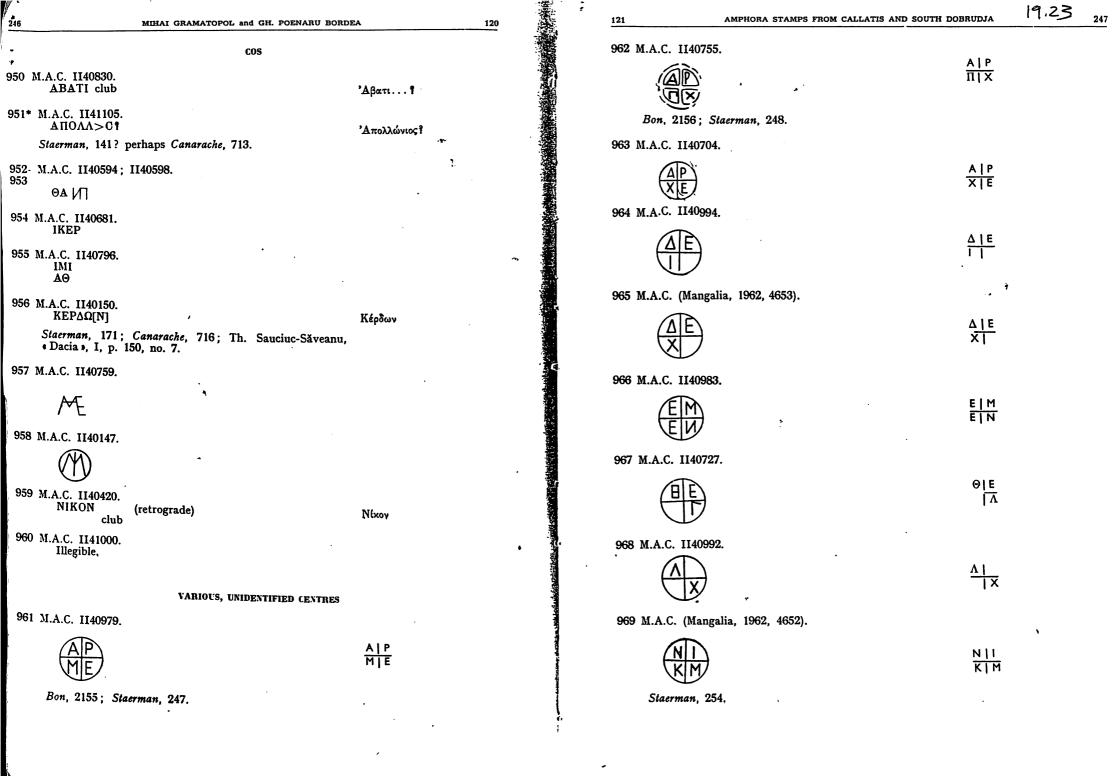
¹³⁶ In both localities, bronze coins of Filip II were found, cf. C. Preda, Triburile geto-dacice și circulația momedelor lui Filip II la Nord de Dundre, in SCIV, VII, 1956, 3-4, p. 277. At Albești two Histrian drachms were found see B. Mitrea, Descoperirile monetare și legăurile de schimb ale Histrici cu populațiile locale în sec. V-IV f.e.n., în Studii clasice, VII, 1965, pp. 147 and 156, no. 9. At Moșteni was found a Roman republican denarjus (information from Alex. Popeea). ¹³⁷ V. Canarache, op. cil., pp. 377-379, cf. above p. 128, note 5. Cf. M. Gramatopol, Gh. Poenaru Bordca, op. cil., p. 47-48 and the notes 21, 22 and 33; cf. also V.Eftimie, op. cil., in • Dacia •, N. S., III, 1959, pp. 204-205. As regards the materials published after this date, see A. Rådulescu, Noi marturii arheologice din epoca elenistica la Nuntași, in SCIV, XII, 1961, 2. pp. 388-389; E. Bujor, The Amphorae Deposit of Islam Geaferca, in • Dacia •, N. S., VI, pp. 475-478; Al. Popeea, Clieva loarte de amford descoperite la Medgidia, in SCIV, 18, 1967, 3, pp. 509-512.

19.22

5 S 2 2 Ţ, 目 Costinești Mosneni 8 Dulcesti • 23 Augus Arsa • CALLATIS <u>Albesti</u> 50 Km Fig. 1

present are : Thasos at Dulcești, Sinope at 23 August, Heraclea Pontica at Dulcești and Arsa, Rhodes at Moșneni and a pseudo-Rhodian stamp at Albești.

The amphora stamps deserve a more assiduous interest and a complete publication to be done in the next future because they are very important for the investigation of the direct or transit trade of the exporting centers in zones which were far off the coasts, being equally important for the research of the dynamics of the relations between the Greeks and the population of Dobrudja in hellenistic times. Even if this desideratum which is a *sine qua non* condition of progress in the economic history will be successfully accomplished, nothing could supplant the systematical archaeological researches in one or some of the sites just mentioned, or in other sites, in order to enrich our knowledge not only about these places but even about Callatis.



Visit E) um Höghamman (ere KOAN : Hoct.)

She suggest I would to Morel, on in his locker of to alloquin in Rhode, be discussed som deting of min with which endid not agree 3 in connection will this work in Carthage.

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23, 7,89

Toducheitou 54 21.01 54351 Ozosadovinen

Thessaloniki 1/2 1990

Dear Miss grace, I am writing to inform you about what happened on Kos when I went there to count amphora handles from the excavation of Mrs Kokkorou - Alevra m Halasarna (Kardamena). First of all I had not taken care to find out that most of the excavation load been done by the ephoria as a rescue excavation before the university of Athens started working there. This means that the absolute majority of the Vhandles have been discarded without further notice and the handles in the storehouse come from a small part of the entire excavation. That is of course a serious problem. Secondly I had allowed myself too little time in Kos, and having checked the handles I had tooked at against those of the find catalogues I found I had not seen all of those excavated. handles I had I think it is too small to make a statistical analysis of. All this means that I, at present, cannot publish my article as much of the discussion bases itself on a ratio between stamped and unstamped handles. Anckily enough I don't think I

21.02

will put it (the article) in a drawer and forget 17. As Kantzia who is epimeletria on Kos has asked her colleagues now excavating on the island to keep all amphora handles from the excavations and I hope to be table allowed to count these and thus obtain a ratio maybe this coming summer, 1990. As you know I have moved to Thessalomki, the size of which is more in my liking than Athens. We have also found a large (125 m2) and comfortable apartment near the forest surrounding the city, but still not too far from the university. I have these past months worked on my thesis which I hope to present in appsala on the 30th May. In connection with the thesis I have a request which I would be very grateful if you could help me with. It concerns Romans on Ros. S. Sherwin -White writes on p. 252 in her volume on Kos' that 'The involvement of Romans, or Italians, in the Coan wine " trade is directly attested by the presence of Latin names, written in Latin, on a number of Coan amphora handles.' She then thanks you for the information. As she does not mention anything about the dates of these handles nor where shey were found nor how many of them there are, I would the to ask you if it would be possible for me to have some information on these points. I would be appreciate such information a lot as there is very little information on Roman residents on hos before c. 50 B.C. and

if some of these handles are earlier, it would be evidence for Roman presence on the island, something everybody takes for granted, but we have hardly any concrete evidence for it. It would also mean that these Romans had the right to own land on Kos also in this period and not only after the advent of Augustus. I hope that both you and Mrs Savoatianou - Petropoulakou are well and that your work is proceeding! I am very sorry that I to not have norther time nor money to go to Athens and see you as I remember our meetings with gratitude and warmth. At the end of Jebruary, probably on the 23rd, I will go to Uppsala to prepare my manuscript for printing. If it is possible for you to answer this letter before then I would be grateful. Otherwise a letter could be sent to me there at the following adobress: K. Höghammar, Inst. f. AKS, bustavianum, 752 20 UPPSALA, Sweden.

I wish you all the best and send my warmest greetings !

yours sincerely,

address: Modukaeitou 54

543 51 BEEEANONIKH

Cerstin Höghammar

22.0 April 12, 1951 Högstommer - noto for lathe the Kom (touble) handles with Latin simp having some context, take for the card file 1 EUPLUS ORPHE SS 10072 house debris S D) Roman House B. Room 1. ELW Type 12 L. EXMACHI very commen, 40 expis in Carlting, (2) (43-15BK) Found & Pompen a Howard, NICE KO ABC 505 Benach Lide Grap (with LK it.) 100 BC 3 PLO. CA. SVD See Schamin TU, p. 46, 20. 95 (4) (Calvet, 1972), with a Rome lup of This each is plate ein Beach 1-200? (5) durie P.SXA SS 8506, brow Small, July, und Roma

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KOAN STUDIES : HÖGHAMMAR