

(2 plutraspin 2 on 5 key Man arbon LESBAN Plant birst une law 8 Man mil Athons, August 21, 1934 Ment EXPRIESS 5 Barban a 9 the Dear Barbara, Just 200 and

1.01

For Thasian shapes: this is a subject undergoing study. Do not use atatements in "Standard Pottery Containers," because they are built on the old Thompson deposit dates. For instance the Thasian amphora illustrated in that article, and there dated early 3rd century, is probably not to be dated at least until ca. 240 B.C. See my Ath. Mitth. article (1974). The Thasian shape sequence needs a thorough reworking. I cannot now show you a marked beforeand-after effect taking place when the change came in the stamps, and at present I doubt that there was one. The change in usage in the stamps continues to be definitive, and to have taken place about 240 B.C.: cf. Delos 27, pp.354-6; and Picture Book 6, 1979 edition, text with fig.s 52 and 54-5, and cf. back page, end. Addendum 1979. I repeat, don't try to use a marked change of shape in Thasian jars before 300 B.C. I don't see in any case what good it would do yt to your argument. The new shape, when it gradually comes, is not like Lesbian.

For where the fragments were found in Thasos, those that I photographed and the one I brought with me, hunting in the "Chronique des fouilles" for 1953 (from BCH 1954). I make a guess that the place was that mentioned on p. 201, where it speaks of a "sondage sur le terrain Bolonis" on the road leading to the Gate of the Silen, presumably inside the city wall, cf. map, fig. 1. The text, p. 201, speaks of "un depot d'amphores d'une forme interessante, connues ailleurs seule" ment dans les fouilles archaiques de Smyrne." You can imagine that that might come from my ha ing told them that the class was first identified by the excavators in Smyrna. Unfortunately, that is how things often end up in other people's print. They go on to say that with these fragments were was a lamp datable in the 4+ century. That's all. Not sure you should use it. Might check with Lilly Kahil. But su lator

1:02

I see that, at least for publication, you must make a statement pretty much as follows:

The fragments were found in THERESE the ancient city of Thasos in 1953 proposed during the investigation of a building site, apparently in the Bolonis lot near the Gate of the Silen: cf. <u>BCH</u> LXXVIII, 1954, p. 201, and see p.196 for these "sondages" made by French archeologists by request of the Greek Archeological Service. The material is reported here by permission/ pf Dr.

Demetrios Lazarides, Ephor of Kavalla (and of Thasos) in 1953, and of Professor Gilbert Picard, present Director of the French School in Athens.

You must write to the two mentioned scholars, and get their permission. Address Picard as you addressed Empereur. Address Lazarides:

> Ephor of Antiquities Patission 360 Athens 903

Lazarides is a friend of mine, and Ficard will probably agree, especially for the Colloquium.

our photographer

I don't know about slides. Craig Mauzy made a few for my paper. I asked him about what you asked, and I think he said the slides would be ok though perhaps not the carousel.

Unrelated: an item cited <u>Hesperia</u> 9, 1940, p. 257 under no. 335 is AP 1494, which is said to have a similar shape to 335. 335 is AP 1491 and as such is cited in my Samian article, <u>Hesperia</u> 1971, note 47, as I believe it to be Samian. AF 1494 however, of which up to now no photo has been published, I think is not Samian but Lesbian. It has no top (a false one imitating 335 has now been taken off) nor yet the lower handle attachments or the part that should have tails, but otherwise body and too complete. A photo has been taken, for M. Dupont's request. If you have not seen his article, <u>Farola del Fassato</u> 1982, you must look at it. My best to you.



Miriam Summerskill President

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RXGOX MATRIXX Director

# INTERCULTURAL ACTION LEARNING PROGRAM

202 North Building P.O. Box 464 Peterborough, N.H. 03458 Tel. 603-924-7535

July 5th, 1984

VSIAN.

Dear Miss Grace and Carolyn,

Yes, it was good to talk to you on the phone. And you sounded like you were just next door.

I thought that I had better touch base about the Colloquium, and it turned out that your subsequent letter (thank you) did have some information that I was unaware of; I knew nothing about he background of the Thasos fragments. I will continue to act as if I knew nothingthe best tact, I think.

As you surmised, my paper will deal with these fragments, and, because of the fehlbrandt, the possibility that Thasian jars were manufactured to carry Lesbian wines. The tone will be a questioning one, however the title for the paper that I submitted is: "Lesbian and Thasian Amphoras; Questions Concerning Collaboration" - suggesting, as you did, that more testing is in order. Hopefully, this will lead to a presentday collaboration. If, as I have gathered, the French are trying to preempt the study of amphoras, this will be a means of working with them rather than against them.

The paper will be based entirely on the final section of my Master's thesis, of which both you and Carolyn have a copy. I'll have trouble even locating the books to check my notes and citations, but there should be plenty of material for a 10 minute paper. Will there be facilities for slides and dual projectors for comparisons? M. Empereur's final communication should cover that, I guess. There will be little mention of literary references beyond the fact that Lesbian wines are referred to into the Imperial Roman period. And the Pseudo-Aristotelian reference to the marketplace in Istria is necessary to illustrate examples of earlier combined efforts. But mainly the thrust will be that the 'red' fractional series can be removed from the developmental sequence easily, that they compare well with the Thasos fragments, that the fehlbrandt is a key piece for obvious reasons, that Lesbian and Thasian stamps have some similarities, that ) a new class of Thasian amphora appeared at about the time that the Lesbian amphoras disappeared, new stamps also, and that Lesbos had a previous history of economic collaboration. In short, it will be my final section rewritten.

Does this meet with your approval? Any other suggestions? If there is anything I can add to ease relations with the French, just say so. I'm starting French tutoring tomorrow to revive my ear and tongue don't want to appear completely stupid when I get there.

I'm looking forward to seeing everyone. I'll need some backgroud as to personna, etc. so will arrive the week before - the 5th or 6th. hill scale defails later. Sincerely, Parbara

2.02.

Dear Miss Grace and Carolyn, ebach /may, Add . 1979

Do man to date of 182. Log B Fat damping glipping Delay PA 354 21 PA 354 21 August 6th, 1984

Thank you both for your letters; I will follow all of your suggestions. I need help in answering some of the questions, however.

1) Is there any other information available to document the new forms of Thasian amphoras and stamps in the late 4th C other than Miss Grace's statement in "Standard Pottery Containers"(p. 182) and the pictures and statements in Amphoras (27,28,52,54,55) If any pictures appear in French publications that I don't know about, could you direct me to them? I planto cite Miss Grace's statements and make and show slides of her pictures, but I'd be glad to include others. I will also get photos of the earlier Thasian amphoras for comparison purposes from the AJA "Early Thasian Amphoras."

2) Is there any way that I can obtain particulars about the sondage where the fehlbrandt was found on Thasos? Where on Thasos was it, for instance? My information gives only the year, 1953, and nothing more. Was the sondage numbered? How do I refer to it, etc? 🛞

3) Will American slides be a problem? The information in the Third Circular states only 24 X 36 (cent.?) or 6 X 6 can be projected, but the standard American slide is 5 X 5 (q.) . I have written M. Empereur asking if a Kodak projector is available as I plan to bring mine in a standard carousel. What do you know about this?

Our hosts on this 'business' trip will be making us hotel reservations some where in the Syntagma area. David will be upholding the business and social end of things(fine with me!) during the Colloquium, but will go with me on the trip to Thasos. After that, we have to check on the INTERALP program on Kalymnos for a few days, then fly home on or about the 23rd. My first concern will be how to extricate myself from social obligations enough before the start of the Colloquium to be able to check in with you people; I think we are being taken directly from the airport to the Veranghis' summer home in Epidavros for their daughter's wedding on the 7th, and how and when I get back to Athens I don't know. Let's just say that I will call Miss GraCE Sunday evening if not sooner.

Anything else I should know? 21, Jui. 84 & my to the sources reported All best, set (2) 1954, p. 201; soutes Babera Jakera nor le terrai Bolonis " on the Babera mont lenting the Sat ? the minute Sample Sample Siles (mint to concel, y. mp. big. 1) from the south dim

Clinkenbeard Box 3 Temple, N.H 03084 U.S.A.

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Miss Virginia Grace American School of Classical Studies 54 Soudias Street Athens 106 76, <u>GREECE</u>

# AEROGRAMME VIA AIRMAIL PAR AVION



Additional message area

ANTERCULTURAL ACTION LEARNING PROGRAM 202 North Building P.O. Box 464 Peterborough, N.H. 03458





2.01

VIA AIR MAIL

Miss Virginia Grace American School of Classical Studies 54 Soudias Street Athens 106 76, GREECE

28. 1.84 LESBIAN 3 Call & Carolin Williams tocavaluns by the Canadia Fristilut in Mythen, on the adopted in the town, found sich deposits of the late Hall. - Pour print. Sy time and continue, way reason to support they will find carlies fills. J. Told there about B. Clinhabert's studios industi her propose that later Lordon fors such an idea, those pages shower & un in Those was it in 1957 by Lilly thingsaid they would like B. Cl. & give the when (and if) the get & dig low hords when the might find Lesbia, The plan & dig next May-gune, if the go the permits-Cording K, was to show the Lesbian they, also varies, no doubt with firing.

American School of Classical Studies 54 Swedias Street, Athens 106 76, Greece

June 15, 1984

ESBIAN

#### Dear Barbara,

What a nice surprise to have a telephone call from you last evening, and what a wonderful connection we had!

Now I find on straightening out in my mind what you said, and after looking a bit through your article and other papers, I find I am not clear as to what you propose to report or discuss in your paper at the colloquium. I thought at first you planned to talk about the fragments found in XMAXXXX Thasos but derived from amphoras of Lesbian shape. This seemed to me an interesting subject though perhaps to be treated with due reserve since I think there may be a general feeling that a little more testing of the clays would be good. I note that one of those testers will be at the colloquium, a Frenchman named Picon. Tact would be wanted also, over the matter of the fragments left in Thasos having been discarded before the next summer: also over my having been allowed to take one piece to Athens without formalities, although that saved it. The Treek service will be well represented at the collequium, and anyhow your paper will be published right away in a BCH Suppl. Of course all that happened a long time ago, and everybody acted with the best intentions. Certainly I did. And the excavation will have been one the Service asked the French to tend to, some place where somebody was digging foundations for a house. And at that time there was no room for storing sherds. I say again, I think the suggestion that the jars were made in Thasos for Lesbian wine at that time is an interesting and not impossible one, although again I would like a bit more scientific checking of pieces. Lately there have been identified a great many ateliers in Thasos for the making of amphoras, although so far as I know the products were all Thasian amphoras. The fehlbrand visible in the photo of the pieces left in Thasos seems a bit of evidence.

As for discussion of literary references, etc., maybe you did enough with them in your article in the Hellenistic number?

General Miller Homestead Sinch I 2A worked p. n. te. General Miller Homestead Temple, N.H. 03084 U.S.A. April 12, 1982 Dear Miss Grace, Bub troy V 2 nic. Caling for - dub

5.01

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ESBIAN

29. 7.82

I've been meaning to write to you for some time now, not only to tell you that, with Maggie's help, the Lesbian amphora article is finally shaping up, but also to tell you that I will be in Athens briefly on April 28th and 29th and hope to catch a glimpse of you or at least talk to you on the telephone. I am to be the lecturer on an Argonaut island cruise, a job I am not particularly looking forward to. With 70 people to look after, I will probably have no freedom whatsoever and won't be able to get away at all. We are scheduled for an afternoon visit to the Acropolis on Wednesday, the 28th, who knows at what time, but I was hoping I could either come early and see you and take you to lunch with a small group of friends ( 2 or 3 probably from the Currier Museum here in Manchester, N.H.), or sneak away afterwards and bring some goodies for tea with you. Would this be alright with you? As soon as we get to the Grande Bretagne that morning and I have some idea of the timing. I will give you a call - I hope the number hasn't changed.

Iassume that Maggie is there in Athens with you now from the note that accompanied the xeroxed article she had her brother send to me. I look forward to seeing her also, and wish her to be included in the invitation to lunch, or whatever transpires. At first I was a little shocked by the conclusions in that article; from the same tests the Brookhaven people seemed to have produced different results than they sent to me. After careful analysis of the language used, I think I'm still on safe ground, however. I have sent the additions to my footnotes on to Princeton.

One new bit from Brookhaven. When I was revising my manuscript, I wrote to D. Brooks and Ed Sayre asking if the 1973 test results still held. I heard nothing for ages, then suddenly received a phone call out of the blue - they'd been away. Dottie Brooks said that, when reviewing all of the testsdone for me, including the ones on the two Thasian sherds, she realized that LA 14, the real maverick of the bunch that related to no others tested so far, correlated most closely to the second of the Thasian sherds- a piece from SS 11639 (late 4th or early 3rd). In my thesis, if you remember, I proposed that Thasos took over the manufacture of the Lesbian amphoras, and this information certainly helps point things in that direction; LA 14 was an Agora piece, gray, showing the bombe' neck bulge. I will get this information in writing event-ually. I will bring the results on the Thasian sherdswith me for her you to copy, also the pictures of the Sicilian jars that I received from P. Pelagatti, alas with no measurements! Also, a belated > 1> 2 thank you for the new pictures of the Rhodian fractional;you think it should be dropped from the Lesbian group because the clay is different, but I think it is additional evidence of another manufacturer.

Sincerely,

Barbara

All for now. Looking forward to seeing you.

400 38

Clinkenbeard General Miller Highway Temple, New Hampshire 03084 A.S.A.



SPS 1978

Miss Virginia R. Grace Agora Excavations American School of Classical Studies 54 Souidias Street Athens 140, GREECE



**AEROGRAMME VIA AIRMAIL PAR AVION** 

2 Second fold

Additional message area

Stoa

# April 3rd, 1982

Dear Barbara,

I hope you got from Mac a photocopy of the publication of the some Brookhaven results (including your Lesbian) which I took for you last December from Richard Jones' copy. I am most sorry that you didn't get it sooner (inept shuffling of my papers from Greece when I returned, and stating work on John Traill's Athenian prosopography computer project are jointly responsible for my not having sent it to you as I intended in January).

Com maggin

I talked to Richard Jones about some Koan analysis we are trying to have done at the Fitch lab, and he mentioned a book he is writing (cataloguing clay types from all the tests he knows about?) in which he quotes these findings from Brookhaven to help establish the composition of Lesbian clay -if the conclusions they come to are different from yours, probably you will want to take this into account in the Hesperia article, if it is not now too late. I'm sure he would be interested to know what you have that Brookhaven did not publish (am I right that your print-out and the results given in the article overlap, but that neither didcusses every sample?) and I think he would be a very useful person to discuss limits and angles of interpretation with. Again, I'm sorry if it comes too late for your immediate purpose....

On the principle of trying not to commit the same sin twice, I am sending you immediately a photograph of the Lesbian jar in the Petrie Museum (University College London), which I ordered from them last fall. There was a misunderstanding about the scale, so I asked Graig Mauzy, the Agora photographer, to reproduce it at 1:10 from the height, taken by the Betrie Museum, of 0.64 -- this seems to agree pretty well with the scale they provided in the photograph. The notes T took (inventery NO = UC 19247) of my visit there say of this jar:

Mentioned in Boardman Gks. Overseas 3rd ed. p. 134, no. 89. UC inventory card says "soaked in resin, ht. 64 cm." Negative already exists. A date is also given for this of Dyn. XXVI, which Dr. Spencer interpreted for me as 660-525 BC. " And, from notes I took when I visited the collection in 1974, I see that the provenance is given as Defeenneh, "presumably Tannis XXXIII 12" -- I think this is a reference to a Petrie \* Checked The pub. in VE's Egypt file and Pl. XXXIII, 12 doesn't look very the it - celtainly not from the shoulder up ... Haven Hoeked at ket (not in publication.

VG mentioned this jar to John Boardman before the new Agera hib) edition, and in reply (dated Nov. 1978) he said that the date of Defenneh, from Cambyses' invasion and the pottery, was \$ 'fairly secure' and that Cook would probably have something to say about it in London CVA vol 8. Dr. Pat Spencer, who gave me the ca 660-525 date, sounded somewhat hesitant about it, and I don't think you should use it. Some more research may give you a better terminus ante quem.

We sup you Acoult whether it has rattails. Dr. Spencer (Department of Egyptology, charles wite atculute them, and has been very helpful in subsequent correspondence & Picture gehelped me by inventorying the handles while I was working on rate Raluel active toof from Memphis, but might be a good person to ask for information A the public de applied for from Dr. G.T. Martin W. ducte he be applied for from Dr. G.T. Martin, Honorary Curator, The Petrie and our hex MB Reference should be made to new edition (1979) of Ampheras rosteril?

Anghesus

XO

-2 -

6.02

speo, the

able to be stretcheeto

525...

alement be some of this will be additional information. It looks as I am sure you already know about this jar, but perhaps though it would fit nicely somewhere between your 2 and 4 --VG points out that the handles seem a fraction kar longer and When the neck slightly thinner than 3; or is it, like 4, a baby?

> For a number of reasons I would like to awaaxka go to Princeton again this spring (I get back to Toronto on April 15), but I fear that as usual there won't turn out to be time ... Anyway, I hope to have news of you and/or Lesbian when I get back.

Yours,

[P.M.W.M.]

6.03

Tuisday March zend (my watch has got confused by the time change and is half a day a head) [dat seemstern been 21. [7.81]

Dear Virginia,

I've been having a positive orgy of throwing paper on the floor, ticlying up the kitchen counter where Dugald has been stockpilling all his /our correspondence for the last two months. The result is two neat heaps, one for him to cope with and one for me - his is larger, but only because it contains all the letters I sent him (except one, not the last, which hasn't arrived yet; The last one, written on May 6, arrived yesterday) - and two pads of paper for writing letters on, in addition to a lovely leaf-pile, suitable for wading in, of waste paper. [Today's mail has just this minute come through the letter slot, not containing my letter to DFM but bringing instead a note, postmarked March 26th from s.G. Pembroke Esq of Bedford (Mege, London ... why do we have to have the worst postal service in the world ?] It seeves strange still to have to write to you, not to be able to talk over drinks or in the car or doining dishes or while you make the sandwiches .... it is hard to believe that I'm here and not there. hiza (who is mostly grey and shedding profusely and has been sick twie on handwood Plans sunce I got back) nearly conned me into making them both late night snacks, but her oftended expression gave her away when I told her sternly that if I fed her now she was to promise not to utter a sound before 7.30 in the morning. ("But I never how? ...."). She raced up a tree off the back porch this morning and then came back and butted me affectionately while stalking along the porch ailing. of course I automatically put out my hand to stop her from falling off and got a look of blank astonishment - I should have been scratching her ears. And I found myself picking two apples out of the fruit bowl for breakfast this morning, I suppose with some idea of squeezing them to make orange Juce ...

The plane trip was its usual homid self - 142 hrs sitting in the same seat with stops at Amsterdam (to take people on) and Montreal (to let people off) with 3 meals and endless dranks. I thought of you and your flight from Extrea and wondered if pressurizing the plane was a good idea except for going up and down when I wished they were better at It — at least my sinuses were behaving better than usual which I attribute partly to having managed not to say good-bye (though I know you think one should) and partly to various clistractions, such as being asked by Hellascars to drive myself out to the airport and leave the car (a brand-new Peugeot Visa (2)) locked in the parking lot to save them sending someone with me, and having my luggage labelled "Handle with care", after signing a waiver form because of its dilapidated condition, and interminable discussions with my two seat-mades (I was in the middle) on the cost of living and Papandreon and what their mothers-in-law gave them for a wedding present (they seemed to think gold was de ngewr).

7.02

Digald met me with the cheerful news that we are not going to Edmanton in September (I had forgotten this unappealing prospect — it seems that they are withdrawing the position be applied for for lack of tunds; I thought Alberta was wealthy....), but is otherwise rather uneasy, partly jablessness, partly worg about his nother and Parkinson's : he applied to the Parkenison's Foundation of Canada for information and got back a brief bibliography, a questionnaire about the patient's degree of disability, and a schütation for funds. In her case the doing she is taking seems to be making her both slow and confused mentally while controlling the tremor well — not a mice choice. She is looking boward to having Dugald there in September and I wouldn't be surprised if he wanted to spend extra time with her.

Bee seems well and on the while pleased at the idea of barsing hompson's in October, and that is finding out what Scarborengh has in mind — there are, ofter all, a great many people in Toronto who will want hear and meet them and that doesn't think the "main campus" will want to be excluded by Scarborengh's "initiative"; the fact remains that he hadn't heard they were coming. The new head of the Toronto Classics Dept., one John Grant, is a Scarborengh man, so probably he will succeed in averting any incipient internexine squabble — it t I remember about and the flowing down effect, but not that he was/is mentally affected ... sounds as though scale origh allege was just as paranoic about the "downtown" part of the University as Enridale (where Dugald is, for another month, at least). Pugald maintains that "downtown" often mails notices about visiting VIPs, lectures to the outlying colleges two days before the date, thus ensuring, given the postal service again, that wore of baser breeds without the city limits can altend....

May 22nd.

More letters, papers etc. The Beast, yer will be pleased to hear, has had much caulling and replacing of screw nails and new paint - also, to my chagrin, a split plank replaced below the water line which I suspect the maxing of having caused by thumping him around during storage since they didn it willnde it in their original estimate. A painter is coming to look at the study's plaster (very cracked) with a view to making # look as degant as Dugald has made the bookcases. The Real old willow pattern is being discontinued by the manufacturers - would we like to stock up on bowls perhaps? The people we rescued from the Channel last summer (when they ran their speed-boat into the cliffs below the wilson lighthouse) are soving each other in order to prove hability and make their insurance pay up - can we tell their lawyer where and how it happened and so press negligence on the part of the diriver? The gardener hasn't been paid for a while and wonders if we would the any extra weeding and/or planting done, weed talker for the dondelions on the lawn etc? (no to weed-killer, because the cats eat the lawn, specially during fur-ball season ... ). The "real" Mrs. Matheson is nervous about sending tan and Peter on such along plane trip all by themselves (and won it say yes or no ...). The girl upstairs has volunteered to feed our cats in the face in the face, but is somewhat nervons about being alone in the house and have we decided what to do about our mail? (What mail?). The suspension dock specialist will meet as at Kensington Porint at 1.00 pm, June 22nd, to examine Inchaleugh with a new to erecting the rear a dock respending the San Fransisco Golden but birdge but, we hope, somewhat cheaper. My bank in Princeton acknowledges receipt of a cheque for \$\$ 250.00. And I have put on my last Videtta-washed garments in order to sally forth on my braycle in search of biffecki to feed Mac + Dugald with. The Japanese cherry on our front lawn is in bloom (also the blac, but the magnotia is over), there are robins digging industriously with

one eye on the cats culled up on the poch, the Maffic rumbles ominionshy and doesn't. houk, there are two lawn-mowers near-by sharling in unisch and an electronic whistle from the direction of the serbway, everyone is wearing shorts, and there is an emption of joggers emerging from the ravine (temperature 65°F).

Yay 23020 1931 am - pm

7104

Interrupted by Mac, arriving to confer. About to be interrupted again to today by Mac, arriving to be here when I telephone you. He is off the a meeting of the hearned Societies of Canada in Halifax tomorrow, and thence to Greece, so he might as well take this too.

Interrupted, before Mac's annival, by the painter, who is Dutch (so we reminisced some) and took one look at the study citling, grentled, and said to call hur again after we'd had the plasterer in .... sigh. we want be here next fall, and possibly not again for more than a few days at a time for years. Life is real, life is earnest and not all creek honey and oranges for breakfast, or gavalen parties, birthday parties, farewell parties [we didn't ask Kevin or Artennis ... ], or visiting your Friends at the seaside, or cating Easter lamb, or chasing obscure sites in the library, or lunch at l'Abreuvoir, or tea and granary floors at the Agora, or talking to cats (ours listen quite attentively but I find them rather dumb - they never make conversation), or reading your article [from Moritz: Gain-mills and Flower in classical Antiquity, Oxford 1958, I gather that adapte was a product of a coarse graviding, not milled for flour, but having had more dove to it than guist threshing ], or, or, or.

ditto pm. (later)

Janet is now cutting my hair (no more pigtails...) and I am confused about turne again, having sust been talking to gen - not quite like being there, but enough to make at feel add again to be here. Didnitask if Eirene has returned, or how claure likes draging, or if you've tried your sleep machine, or if you're drinking cannot juice these days. I think that really would like to go to Phordes - but Regald would too. It is some consolation to be coming back so soon. Dugald and Janet both send you best unshes. I send you Margret - I'm reading M. et le client du same di which has both a guide rates and a grencer ... was that what you were reading the week I left? Haven & come across a Phypeir/stump yet, but I'll recognize it when I see it ... Love, Mague

American School, etc. Athens November 22, 1980

#### Dear Maggie,

You may be astonished to hear - or has she written to you by this time - that on October 29 we had a visit at the ZA from B. Clinkenbeard. I had given her references for Lesbia in the journals Kokalos and Dacia. So she took notes on both in the publications sent here to me, also an address for Paoloa Pelegatti, to get if possible proper photographs of the jars badly illustrated in Kokalos. She and David were here briefly They have millions of friends, such as the Minister of ? (Mr. Zannetakis) whom I met at their house when he had just been released from Hounta incarceration. So I did not see very much of them. She did make gestures toward taking up her article with me, but I urged her to stick to you, which she seemed happy to do. She gave me a very nice present, a jar of jelly she had made herself from wild American grapes. They did come one evening for a drink at my place, I guess with Katherine Bouton, the girl who has married my nephew Danny Menaker, and was here getting up Arkhanes in Crete and the Sakellarakises. Katherine spent one night with Mary, then she went to Crete, and on returning stayed in a hotel. Hm. We did see quite a lot of each other however. It suddenly turned cold here, yesterday I guess, and Mary has her feather bed installed (one of your pillows, protected). She got right in, last night, and became ROOTED.

Thank Mac for his note with useful references. I'm glad to infer that you both YHARXETE SIZ TH ZOR.

9

Dear Barbara,

LESBIAN

An offprint I have received from P. Pelegatti, "L'attivita della Soprintendenza alle Antichita della Sicilia Arivatziar Orientalda," <u>Kokalos XII-XXIII</u>, 1976-1977, pp.519-550, states 15 on p. 525 that three amphoras on pl. LXXVI, hos. 13 - 10, are Lesbian. I am wondering if your attention has been called to these, perhaps by Carbline K. ? They are supposed to be of archaic and classic periods I believe. For me they would fill out the Lesbhan series with something more complete than I knew about for the carly period. It would be nice if you could see them, or, failing that, get some better photos. She does not seem to make any statements about the fabric (except to assign the jars to classes, like Lesbian).

I hope you and David and the children are well. Here we have had what I found a bad summer, unusual heat for of unusual duration. Since it got a bit cooler, I really feel as if I light still do domething in this life. Agora news you may know: this year the actual digging was done by American students, as students have done the same in Israel and England, maybe other places. They did not receive their transportation from the US, but a modest per diem here. They used the rooms of the College Year in Athens, which are free in summer, i.e. not occupied. They worked very hard in the sun, and had lots of esprit de corps (including a song and and a T-shirt). Leslie Shear was very pleased, said they worked meet better than any team he had had. Real workmen here are much more expensive, but also almost impossible to find -Notices that faituple woor auguant retiring No susation (mids, ) believe, but useful one

Copy to Poll. W. Math son

the second second

April 26, 1980

Prof. James R McCredie, Prof. of Classical Archaeology, The Institute of Fine Arts, N.Y. University, 1 E 78th Street, New York 10028

Dear Mr McCredie,

3

I enclose a letter to Barbara Clinkenbeard with 3 photographs to do with her Lesbian article. Unfortunately, we don't seem to have her new address -- could we ask you to send them on to her?

Sorry to put you to this trouble,

Yours sincerely,

PMW Matheson

April 26, 1980

Dear Barbara,

\*

It seems a long time since we talked about Lesbian in Princeton, and I have had in my possession for, I'm sorry to say, some time two photographs you may like to have of 'Cl 46' (in Rhodes), one taken by me in colour showing it next to a putative older brother (MZ 486, clearly not Lesbian but bery similar in style to Cl 46 -see note on p. 11 of your draft of the article annotated by me for VG, line 9), and a very nice one of the stamp on the neck, taken by VG on the same trip to Rhodes, June 1979. Hope they help to decide Gl. 46's fate, and that you've been finding time, despite the move etc, to do some work on the Lesbian article.

I find a note in the file to say when writing that the catalogue of jars (inventory numbers with article numbers) should not include the old Cl numbers, though we assumed it should when we talked in Princeton.

I am sorry not to have written sooner; I haven't been back to Princeton recently, though I had some news of you (but not of the article...) in a brief conversation with J. McCredie at the trade conference in Philadelphia this fall -- perhaps you too have been busy with other things.

Another trip to Rhodes, more capacity meaurements, more photographing and recording of Rhodian, is about to take place when Mac (my brother) arrives in May, and clearly the two months I have here this time are going to seem no bonger than last spring's one. Aside from a certain amount of gearing-up (clearing out the mending room, for instance) for the summer's excavation inside the old mill on Hadrian Street (still being demolished) in search of the Stoa of the Herms, things at the Agora seem much as usual.

Greetings also from VG.

Yours,

\* Herewith also photo of The stamp on ME 486's neck (reaching wreath 3) -V6's print (of Aug. 5, 1975) shows the placing on the neck though the colour one doesn't wach. Photo taken June 1979 also, badly developed here.

Conversation with B. Clin kenbourd,		27. vi. 79
Prysiceton 7. v. 79	the design belowing	We will give site built

I saw B.Cl. at the Stillwells (she came in form New tark for the day. Her husband will us larger be with the Am Ex as of this summer (?) and they are moving to New Hampshire in early summer) and we had a hurried conversation about varions aspects of her article on hesbian.

She hopes to work hard on reising this, faithy drastically, in The near firture, having been advised to concentrate on her new archeological intermation and joint a good deal of the references to hesbian unive in literature. We discussed come specific points: ) The will tone down her rehance of Lamb's identification of some Aedric bucchers as hesbion.

2) The gave me & copies of two letters about the Trasian and appavently hesbian fragments (SS 11639 TWDIWW II and shoulder to givent from 1953 soundaged Thasos) and their analysis results at Brookhaven.

3) she gave me p.5 of the footnotes of her and aget draft orticle.

4) I gave her some bibliographical references from 16-5) Since the clay analysis results for bestian seen bot to allow of a definitive statement, BCL. does not want to exclude CL. 46 (in Phodes) unless there are also stylistic grounds for rejecting it. (she likes the stamp). I will send her the photograph I took of it/and its big brother if they turn out. I suggested she should get were clay samples, also of Redhie uch-hestian (e.g. Lanssa bucchero) if pozs. We discussed Richard Jones lab at the British School [OVER]

attached)

(filed with ms)

and she said she would talk to that about this. Since then I have heavel from Jones that he got a good deal of waterial for his files from Brookhaven directly, including her results. 11.02

6) The two managram stamps on the Lisbian jave mentioned in her draft exticle but not in the files here are apparently from Coninth (not stated what actual objects — ie undle jeves, nocks ?, nor the position of the stamp on the objects), and she gave me a spare mobing of each for VG : they are C-71-618 and C-37-2766, Statistic ? quiven to B CC. by Carebyen Kochler, B. Cl. will wichde the all the stamps on hosbian in more detail in her revised acticle (and perhaps in restigated besbian can the objects more thereinghly), including more information about the objects they appear on.

7) Her article should have a concordance of javis and fragments mentioned in it, giving old a. numbers, new article numbers and inventory numbers No. These should be ownited. to s) the asked how reference to the keramierkos material charled provente to be given, and I suggested the write to thiss kinge.

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## BROOKHAVEN NATIONAL LABORATORY

ASSOCIATED UNIVERSITIES, INC., UPTON, L.I., N.Y. 11973

DEPARTMENT OF CHEMISTRY

TELEPHONE: (516) 345-4356

9.70,80

Lastrandrig. Jon in Thasos

This is the comparis between

June 24, 1975

Mrs. David E. Clinkenbeard 940 Park Avenue New York, NY 10028

Dear Mrs. Clinkenbeard:

(his BCDLXI) and a real Three (SS 11639, 5) TT vd iw TV his BCDLX2) against the series of Leader B.Ce, that give his bolt. He (mits). Its Thissing quit the A Leadors some, The neutron activation results on the two Thasian sherds you sent here last November are enclosed. Both Alan Bieber and I have compared the Lester - The results to the so-called "Lesbos manufactured" group with the following pin in Th results. Specimen BCDLX 1, a piece taken from a shoulder fragment of a Agora), is significantly different from the Lesbos group and from speciment from speciment from the lesbos group and from speciment from spe early 3rd BC). In contrast to this, specimen BCDLX 2 for all oxides previously determined for the Lesbos group, except thorium oxide, has concentrations within 95 percent probability of belonging to the Lesbos 2 group. These probabilities are calculated upon the basis of the Student t statistic, as the number of specimens constituting the Lesbos group is small. The thorium oxide deviation is not greatly outside of the 95 percent limits and the spread of thorium in the Lesbos group looks unusually narrow, possibly reflecting a statistically unusual closeness arising from the small number of specimens. Therefore, although the BCDLX 2 concentrations do not agree closely with the mean values of the "Lesbosmanufactured" group, they do not deviate significantly from them. This would seem to indicate that this specimen could well have come from the 2 same source as the Lesbos group specimens. The fact that BCDLX 1 does not match the others in composition could, of course, indicate another source but also could have been the result of an accidental local variation. We should guard against trying to infer too much from this relatively small group of analyses.

We very much hope these data will be helpful to you, and the fact that (9 kind the two specimens are dissimilar to each other is not too disturbing. Chosen 2 Concentration plots for the two specimens and for the Lesbos group are enclosed. They can be most readily compared by superposition over a light Thrain with source. With best regards, as possible like

Edward V. Sayre Day to Lesting Senior Chemist

940 Park Avenue New York, New York 10028 November 15, 1974

Dr. Edward V. Sayre Brookhaven National Laboratory Upton, Long Island, New York

Dear Doctor Sayre:

Enclosed are the two Thasian sherds to be submitted to neutron activation that we discussed over the phone. They were given to me by Virginia Grace at the Athenian Agora on August 6, 1974 and were described by her as follows:

1) Piece taken from shoulder fragment of Lesbian-type jar found in Thasos (1953 sondage; piece brought to Athens Agora).

-2) Piece from SS 11639 Thasian of Julian (late 4th or early 3rd B.C.)

I have the results of the aarlier tests on the Lesbgez Group 1 done in November of 1972 and hope that the results on the two new sherds will correlate a) with the original findings, or b) with each other and not with the original findings. I certainly would appreciate a professional opinion on both the results and correlations, however.

Thank you for making these tests possible , and I hope that their results will be of use to you in your work.

Sincerely yours,

November 3rd, 1978

Dear Barbara,

I don't see much point in apologising for the Ganadian post office anymore, but it is annoying not to have got your letter in time to try, at least, to arrange to meet in October. I hope we can manage this better next time I come down (April or May ? or perhaps sooner. Let me know if there there are times to be avoided at your end.)

Miss Grace and I were both pleased when your letter finally arrived here, and glad that you are working on a revision of the article. We have discussed it a good deal today and yesterday and the result is the enclosed sheets of more commentary and emendation.... I hope they help.

As for the birdseed, which I had <u>not</u> realised was yours when I so kindly informed you of your own measurements, it apparently produced mice and/or maggets and was condemned. Mac won no favour with Spyro by buying more and was made also to provide garbage pails in which to keep it, complete with padlocks; they seem to be using styrofoam mostly now and got a lot of Koan done for me last summer. I don't know either how useful such measurements will be, beyond indicating a general trend within a series; Mac thinks if he gets enough he can do some statistical analysis on the accuracy of the methods and make judgments about absolute values for standard measures on the basis of that: I shall look forward to seeing this in action when he gets around to it.

I see that my query about the Thasian fragments for analysis sounds as if they belonged in your present article; we did realise that they are part of future research (even if I had which fragments a bit muddled -- I take it that they are 1) from a sherd of Leubian-looking (earmarked) pot found on Thasos in 1953, and 2) from a handle from the Agora, SS 11639), and an important part, so would be interested to know if you have yet had any results from analysis of them.

To include in this present article a figure with stamps. not and incised letters all illustrated is perhaps in really helpful (VG thinks they don't really get you anywhere) but they should all be identified by inventory or publication number in a list somewhere in the article. We have identified the following:

Agora SS 10289	incised TI	new ng	2	-	old	01. 34	
SS 10234	oinochos		*	-	old	01. 39	
Kerameikos 1338	incised 2		iter.		old	C1. 33	

12.02

We have not found Lesbian stamps with the omega or MA monogram; they should be added if you are sure they belong. What are they?

(VG finds that she has still no copy of your MA thesis, not even a draught (except for the plates). Could you send her one sometime?) And I am ashamed to admit that I have somehow mislaid page 5 of the footnotes in her copy of the draught of your article (at least it doesn't seem to be with what I sent back to her last summer). Could you supply also a photocopy of that page for the file here?

Please don't be discouraged about the Toronto address; it does work most of the time. I'll look forward to hearing from you after I get back there, preferebly with more manuscript!

Rangie Mathesen

Yours.

As ver vere

US

in best Drector's Rice - 2 -

4.1x.78

More emendations ....

## Text

p. 4 (instead of my previous suggestions for lines 6 to 8) lines 7-8: "where the wine god Dionysus was warshipped, and appeared on Methymna's coins in Imperial times 20." I didn't realise before that Wroth says this about wine

being chiefly produced at Methymna. Not sure his Virgiland Ovid passages prove any more than that wine was abundantly produced there....

Footnote 28% Catalogue of the Greek Coins in the British Museum, Greek Coins of Froas, Acolis and Lesbos, Warwick Wroth, London 1894, p. 1xxvi/

## Pext

p. 6 lines 2-3 Well, actually she accepts Grace's identification, which was made on the basis of cley similarity, because grey ware was wide-spread in the Mediterranean but not in the Black Sea area, so her own idea that these jars might belong to the group of Bosporus wares (also based on clay similarity...) was less convincing. Suggest

vincing. Suggest "with pottery wares of Lesbos, her agreement based on similarity of clay and the fact that these jars are more commonly found in the Mediterranean area than in the Bosporus."

#### Text

p. 7 line 6 Suggest "Black Sea in an early 5th century BC stratum covering the gemains of a building destroyed at the end of the 6th century."

# Footnote 46 Zeest op. cit. p. 73

There is a problem about this, in that the translation of Zeest in the file here (p. 73) ways the stratum 'was formed at the end of the 5th c. BC'. However the Russian seems to me to say 'at the beginning of the 5th c. BC' (my Russian is, alas, still embryonic, but this seems pretty clear...). The reference given here in your MS (p. 74, pl. III, 9a) is in the next section, not yet translated, where your Cl. 15 is discussed, but I don't suppose you'll really need to have this done until you get to the more complete study. Mean while this reference day not below here.

#### Text

p. Il lines 5-9: even if these stamps are not to be shown, full reference to the objects bearing them should be made here or in a footnote (see accompanying letter).

Footnote 55 The coins on the Plates referred to do not illustrate any monograms (being bull ADE, 2 bulls AE, and bull MYTI). There does seem to be a bronze issue with a stamp M (p. 194, no. 120), but in any case the jar in Rhodes with a similar mono-

150 proversity and set

More emendations ... (cont'd)

4.1x.78

gram appears now not to belong to your series (Cl./48 46). See note following on lines 9-12 and fn. 56.

### Pext

p. 11 lines 9-12 : Omit? In fact the BM Catalogue gives lots of monograms and symbols for Lesbian coins (see particularly pp. 176-181 and 184-198 for Methymna and Mytilene); you might want to give some examples of wine-related devices (grapes, oinochoe etc, even 'amphora', though the only one illustrated looks rather Panathenaic)

Footnote 56: Omit?

Catalogue p. 3 under no. 7 last line... Instead of prencinsky suggested "see fig -" ade "see Plate - "

940 Park Avenue New York, N.Y. 10028 October 24, 1978

Mrs. Philippa M.W.Matheson c/O American School of Classical Studies 54 Souidias Street Athens, Greece

Dear Mrs. Matheson,

with PRWM

in Tooleto

The enclosed letter and envelope should explain why you failed to hear from me while you were in Princeton. When I didn't hear from you, I naturally assumed that your plans had changed, so was shocked when my letter came back. A call to the McCredies for the Stillwells number, then to Professor Stillwell didn't solve the mystery of why theletter came back (the address is correct, isn't it?), but I did learn that you had come and gone!

Perhaps it's just as well; I've done very little work on the manuscript since writing to you. My new job as art lecturer for a tour and lecture company here in N.Y. has taken about twice as much time as I expected (typical!), and there have been a great number of family demands recently. I do forsee a break in November, however, so perhaps by the time you return I will have something to send to you.

Do you have any other suggestion? Will you be coming home via New York, by any chance? If so, please let me know and we can make definite plans to get together. I will wait to hear from you -- and will keep working!

My best to all at the Agora.

Yours sincerely,

apara

Mrs. David E. Clinkenbeard

Copper Island, Desbarats, Ontario POR 1E0

July 5th, 1978

Mrs. David E. Clinkenbeard, 940 Park Avenue, New York, N.Y. 10028

Dear Mrs. Clinkenbeard,

Though I have heard a good deal about you (from Miss Grace and Carolyn Koehler, among others) and your amphora activities, we have not, I think, met; I hope you are not too appalled at my having a hand in some editorial work on your MS for <u>Hesperia</u>. I have certainly learned a good deal from reading it and working on it.

I enclose a photocopy of Miss Grace's copy (which I am returning to her) with pencil annotations. Occasionally original brief notes show through sufficiently on the xerox not to need amplification -these are Miss Grace's, and the vast majority of substantive comments are hers in origin. She did not have time to check footnote references and I have discovered that the University of Toronto library could not provide me with Zeest, the BM Catalogue of Greek Coins, Blümner, the Loeb Galen (1), or the Atlas of Munsell you cite, so I haven't been ablZe to check those yet.

I am a little worried about a tendency in your article to suggest that Lamb's discovery of 'a full bucchero period' (a phrase, by the way, which I have not seen in the things of hers I looked up) on Lesbos proves that all Acolic bucchero was manufactured in Lesbos. It would help if she believed this, and of course she may, but she seems careful/ not to say so. (see pencil note p. 16). She mentions 'other Acolic sites' in addition to Lesbos as producers of bucchero (JHS 52, 1932 p. 1), and she publishes material from Larissa to illustrate material from Lesbos without saying that it is Lesbian in origin (op. cit.pp. 9 and 11). It therefore seems unwise to say any where that Lamb considers 'that **immimment** Lesbos was the source of Acolic bucchero' (p. 5) or that the bucchero from Larissa 'is considered by Miss Lamb to be Lesbian' (p. 16). I have marked some other places of this sort, and wonder if

it would not be safer to make the whole argument run more on the lines: 'Of the places where Aeolic bucchero has been found, Lesbos is the most important and the one which shows the greatest similarity in the style of its local ware to the gray amphoras' (is this true?); in any case it is a bit odd to illustrate fragments from Larissa to show stylistic features of Lesbian bucchero to prove that the gray amphoras are Lesbian unless you can show how they are related. All this from pp. 16-17 and accompanying flate. If you agree that usable evidence doesn't really exist to show that Aeolic bucchero in general (and in particular that from Larissa) came from Lesbos, there may be a number of things which could be re-phrased, specially if, as I fear, the other emendations (even if you don't accept them all) will mean quite a lot of re-typing.

- 2 -

The most recent <u>Hesperia</u> style sheet wants Greek names kept in Greek spelling unless they are very common in another, and Arabic numerals for volumes of periodicals, so I have kept an eye out for these. Also made suggestions for making the verse quotations more consistent (with a slash to mark line divisions **inxxx** e.g.)

In the course of the article you have occasion to mention a number of amphoras you are not really publishing (e.g. p.8 'some show evidence of a black wash' and 'later fractionals' on p. 10), but their existence should perhaps be documented (in a footnote, say) with inventory numbers where applicable. One group of these is the ones, well as from no. 7, which bear stamps or incised letters. VG suggests you should show all of these in a figure as well as giving numbers and deposit numbers (see pp. 8 and 11)

You mention a 3rd amphora found with Antissa A and B by Lamb. Would it not be a good idea to say something about what 'Antissa C ' (?) is like?

Various things about capacities of amphoras (which my brother, M.B. Wallace), has been working on for his own purposes -- i.e. trying to establish changes in standards from state to state and period to period): while jars certainly get narrower as they get

taller , their capacities do not seem to remain even'relatively constant: (p. 9) over a long time span. The decrees which we know about did presumably regulate standards from time to time, but we do not know how long any given decree was in force. Capacities have been taken for two of the jars you mention: no. 7 was done with barley in 1954 and no. 8 (Ker HS 163) with birdseed in July 1975. No. 4, the 'fractional' was also done in July 1975 with birdseed (see Catalogue under each item), and there is also a water-measurement for AVG 2171 bis of 5.700 1. We could easily arrange to have capacities of other Lesbian jars done (at least Agora ones) --my brother is collecting information on all sorts and descriptions and commissions students at the school to spend afternoons pouring birdseed or styrofoam pellets into amphoras -- if you wanted to give me a list, and without quite a lot of measurements it would be hard to draw any real conclusions (even with ....) Both Carolyn Koehler and Mrs Will are reported to be having capacities appendices in their forthcoming works; perhaps a more detailed publication of Lesbian could include something similar .... And perhaps you will therefore not want to include them in the present MS.

- 3

About the results of clay analysis: VG wonders about the red Lessian fragments found on Thasos that were taken for analysis, one a rattail body fragment and one a handle from 'Sondage 1953'? I take it these are not the same as LI 11 and LI 22 on the computer printout? (These and LM 17 do not appear in your list on p. 19; in any case, the ones which are not discussed in the article should be omitted from the printout Plate, or something should be said in the text to explain them. And LT 17 appears in the list but <u>not</u> in the printout).

A propos, Mlle Antoinette Hesnard from the École Française in Rome came to see VG while I was there: she has been working on Koan and pseudo-Koan (mostly from Ostia) and has done neutron spectographic analysis on different parts of the same jar to see if they come out the same, and found no difference between the handles and the rest of the jar. In the Catalogue, measurements given should all be in the same order, preferably with spaces left for the ones that are missing. (see Cat. no. 1) I found TD, and specially LW, momentarily puzzling --- if you think anyone else might, how would you fell about Dtoe and Wlip? Or is there some convention about this? It would be nice to standardize these abbreviations someday. (We are using H, Depth, Dmax (or D), HDmax (or HD), Hneck, Dneck for the file of capacities)

4

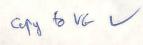
For the Plates, <u>Hesperia</u> sets the captions separately. I have lettered the Plates A,B,C,D,and E and added a caption list on the last page of the Catalogue, though this should be typed up separately. Of course, the lettering is only for reference and will be different in the final version, and you may decide that it would be better to keep the captions arranged with the Plates (instead of adding numbers as I have done), but I think all the details should be given. The profiles Flate is a bit hard to follow when you are comparing the shapes by date, so we have suggested re-arranging it to match the photographs Plate.

I am sending a typed-up copy of all the emendations pencilled in on your xerox to VG along with her xerox copy, so that she can object if I have exceeded my brief or misinterpreted things. I expect to be in Princeton probably in the first or second week of October, and shall then be off to Greece around the 15th. I should be glad to discuss it with you if it would be useful and/or deliver a final version to Marian McAlister (whom I may be talking to also about Kos); in any case I shall look forward to meeting you (either in New York or in Princeton), and will let you know more exact dates when I have them.

If, of course, you have time between then and now to work on it -- I am sorry for my part in the delay. I only hope you will find this more helpful than irritating....

Yours sincerely,

Philippa Mik Matheson



OG UNITE List of emendations (PMWM)

July 4th 1978

- p. 1 Both Vg and I found the first para difficult. The version suggested instead is purely tentative... See overleaf.
- (11. 1-12) Despite the great progress which has been made in the identification and study of ancient wine and storage amphoras, there remain a good many jars and fragments as yet unattributable to an individual exporting state. In addition, there are states which must have exported wine in some quantity, but for which we have insufficient evidence to permit attribution of particular jars.

This has been the problem with the island of Lesbos. Abundant....

p. 2 (1. 1) a shipload of omit. Gk says oinon

(1. 4) comic omit? Achestratos theoretically 'epicus'

- (1. 10) Clearchus Klearchos
- (1. 12) Eubulus Euboulos
- (1. 13) Philyllius Philyllios
- (1. 14) Archestratus Archestratos
- (11. 18-21) all of these....of jar finds Well...they don't all mention all three other wines -- it is Kratinos, who hasn't been mentioned yet, who talks of Mendean. The phrasing of the end of the sentence seemed a bit difficult.

mention of Thasian, & Chian and Mendean wines occurs in these and other 5th and 4th century authors in the same context, and that it has been possible to identify actual jars of appropriate date

- (1. 22) Papyrus records show that A papyrus record of a note written by
- (1. 23) imported Lesbian wines shows that Lesbian wine was shipped to Egypt
- (11. 22-24) The Zenon who did the actual shipping worked in Rhodes and was the brother of the donor of the shipment. Rostovtzeff p.220-221
- (1. 24) B.C.<sup>13</sup> Leucas.<sup>13</sup>
- (1. 25) Erasistratus Erasistratos

- p. 3 (1. 18) the Knidian and Chian other wines
- (1. 20) and that by comparison and quotes Archestratos as saying that by comparison
- (11. 22-27) omit It is only stamped jars of Knidos that begin in the 3rd century BC: no doubt Knidian wine was known before that date. Also VG no longer believes the passage from Stamped Amphora Handles (fn 25). In any case it doesn't seem possible to prove much here, and it could perhaps be left out without affecting your main point, that it was good wine known over a considerable period of time.
- p. 4 ((11. 4-6) reference to how we can know this?
- (11. 6-8) reference? The coins only show a connection betw. Methymna and Dionysos, not that it was the chief wine Lesbian wine-producing state. Surely Mytilene is more often mentioned?
- (1. 8) another Athenaeus reference to also a reference in Athenaeus
- (LL. 9-12) And....considered here. And a pseudo-Aristotelean reference of the early 3rd century B.C.<sup>1</sup> tells us of trade carried on by Pontic merchants in Lesbian wine.
- (1. 13) however omit
- (1. 15) expectations...not unusual it is not unreasonable to expect that a special type of amphora, identifiable as Lesbian, was used for the transport of this commodity.
- (1. 16) The first Miss Grace informs me that the first
- (1. 17) was mentioned came from
- (1. 20) The Lesbian origin of Aeolic bucchero ?too strong? Its origin could be said to be Troy VI (and earlier) (Lamb JHS 52 p. 1) How about "Lesbos, as the chief site of manufacture of Aeolic bucchero, was established..."?
- (11. 24-25<sup>1</sup> p. 5 l. 1) These findings were .....pieces of Rhodes.<sup>36</sup> Böhlau and Schefold take Lamb's description of the classification and scope of bucchero as a basis for their discussion of local gray ware from Larissa; Böhlau has also found pieces of gray ware on Rhodes
- (1. 25) I take it 'assumptions' refers to the Larissa article -- why not mention it here?

p. 5 (1. 3) Aeolic dialect. Aeolic dialect. 36

- (1. 7) proof that Lesbos was the source of Aeolic bucchero not the source of all Aeolic bucchero -- she mentions the NW corner of Asia Minor too -- only of that found in Naukratis
- (1. 8) because ; Lamb doesn't actually use the arguments about the founding of Naukratis, only the letter forms. Safer to omit the 'because'?
- (1. 14) as the place as the major place Böhlau talks of local Larissa gray ware -- I doubt if he would agree that it was made in Lesbos.
- (1. 19-21) In reference notes....Virginia Grace notes There are a number of gray wine jars among the large collection of wine and storage storage amphoras being studied by Virginia Grace in the Stoa of Attalos in the Athenian Agora. On August 29. 1952, Miss Grace noted
- p. 6 (1. 11) a connection....amphora class the conclusion that the gray amphoras were in fact also manufactured there.
- (11 21-22) and is one...at this time omit
- (1. 23) The earliest...excavated The earliest gray amphora fragments were excavated
- (11. 24-26) This corresponds....Old Smyrna, Cook wrote: Lamb's studies show that bucchero ware was being produced on the island of Lesbos at this date, and J.M. Cook writes, concerning the finds at Old Smyrna:
- p. 7 (1. 2) center centre gray grey
- (1. 10)11) group of red examples... well fills. group (5) of smaller red examples (NO. 4) was found together in a well under a gutter of the Stoa of Attalos; gray varieties came also mainly from well fills. ?Or better to rephrase altogether, e.g. "Most of these fars came from wells, with a sizeable group (5) of smaller red examples all being found together in a well under the gutter of the Stoa of Attalos.
- (11 13-16) Examples were found... as 1961 ?shouldn&t there be feferences to these finds?
- (11. 18-19) encourage...represent have identified them as

- (p. 8)
- (1. 3) flat flattened
- (1. 16) a black wash Reference? Should say which ones show this, even if they are not ones you are publishing.
- (11. 15-19) ? Reference to discussion of effect of firing on color. e.g. "(See below p. 11)"
- (11. 19-21) These should be listed with inventory numbers, either here or on p. 11 with reference here
- (1. 21) This method of stamping had been Stamping on the neck is
- (11. 23-24) the second smaller by definite proportions to the first and considered fractionalhe smaller ones considered mik omit -- unless there is some proof of this? Capacities have fixe been taken for nos. 4, 7 and 8, but not for 2.

p. 9 (1. 2) What about Antissa "A"? and no. 6 being possibly fractional (p. 10). Better to say "some small jars" or "small jars are often fired red" cf. VG in Boulter article <u>Hesperia</u> 12.2 1953 p. 104

- (1. 14) having increased being in length during that time span taller.
- (1. 16-17) increases....manufacture has a height of .814m, nearly .04m taller than NO. 2; its date is
- (1. 18) have lengthened a total of are since the manufacture of longer than those of
- (11. 24-27) Assuming....in height. Omit Not what VG says, and the capacities are not at all constant as far as we know (e.g. &xx 7 = 22.870 l and 8 = 17.529 l) I've added these and NO. 4 (14.050 l) to your catalogue, but see letter
- p. 10 (1. 2) later fractionals Include reference to some actually existing later fractionals with "not here published"
- (1. 13) perhaps No. 6 as well. this would not fit with the statement that fractionals are invariably red  $p_{p}$ . 9 top) until after 325 BC

p. 11 (ll. 2-3) a definite pattern of....in the gray amphoras, shape variation in the gray amphoras gives us some indication of a chronological sequence for the series. 14.05

- (1. 5 ff) Nor do the few stamps It would be a good idea to illustrate all the stamps in a separate fig. here (perhaps including the incised pi and sigma), giving inventory nos. and some deposit reference
- (1. 6) stamps add much; stamps add much (see fig. );

5

- (1. 9) MA and MY one with MY (old Cl. 46) has been dropped as Lesbian ? cf. print of a similar one from <u>oikodome chiotache</u> MZ 486 in Rhodes -- of which you have a print from VG Aug. 5 1975 (?)
- p. 12 (1.4) "a full bucchero period" a full bucchero period Omit quotation marks -- this phrase doesn't occur in ref. 35 -somewhere else in Lamb's works perhaps?
- p. 13 (1. 15) "roll handle dattachment of a hydria" 64

"rolled handle-attachment of a (?) hydria

- (1. 16) that "seemed to...century," that seemed "to...century."<sup>64</sup>
- (1. 22) described at described as
- p. 14 (1. 7) the max "one gray and unpolished, partially concealed by the wall" in a Plate photograph. "grey and unpolished," and, in her published photograph, "partly concealed by the wall."
- (bottom of page) (see also pencil note p. 16) Do you think that No. 1 had a flat bottom like amphora A? There should be some discussion here (or on p. 15) of the possibility that peg-tipped jars are a development from flat-based ones, even if only to say that, though the sequence of Antissa A and B, through no. 2 to 5 to 7 and 8 might suggest this, it seems inlikely since no other series shows it, at least of comparable date (is this true?). Or do you want to keep A and B separate from the series? It wd be important if you thought peg-tips ever came from original flat-based ones.
- p. 15 (1. 11) flat flattened
- (11. 12-14) One handle...potter's mark.<sup>72</sup> But Lamb says the 4 "reversed lambda" marks "looking like a potter's mark " were on a panel on the <u>shoulder</u> ?????
- (1. 21) not nor

- p. 16 (1. 6) periods periods
- (end 1st para) No. 1 in amphora series coudin't belong to Antissa A class? (see pencil note p. 14)
- (1. 17) gunmetal" gun-metal"
- (1. 18) grey, sometimes grey, but sometimes
- (1. 19) "grey-washed" "enhanced by a grey wash" "mica present "mica...present
- (1. 20) quantities." quantity."
- (1. 24) adhered made to adhere vessel, 75 ?? (see pencil note fn 75)
- (1. 26) considered by Miss Lamb to be Lesbian,<sup>76</sup> No. She says specifically <u>JHS</u> 1932 p. 3 "we cannot yet either accept or ignore the claims of other centres to have produced their own bucchero," and, in the passage you are citing, that the Larissa examples show the same motive as the Lesbos examples "in another ware". I cannot find anywhere where she says she thinks other bucchero is Lesbian.
- (11. 26 ff)? Suggest reconsidering this argument
- (1. 28) protrude from the vessels '6
- p. 17 (1. 3) (see NOS. 8, (see from Larissa NOS. 8,
- (1. 4) NO. 12, from Methymna No. 12,
- (1. 21) blunt gray toes, and neck blunt gray toes, pieces showing the rattail and

p. 18 (11 3-4) ref.?

- (1. 7) "omades" Gk word -- should be in italics?
- (1. 14) which would... 460 B.C. Omit? On p. 8 you show that NO. 4 dated in the catalogue 520-490 BC, has this bombé neck
- (1. 23) four sherds Only 3 pieces seem to have been tested, and only 2 appear in the printout
- p. 19 (1. 7) wares, <sup>80</sup> clays.<sup>80</sup>
- (11. 11 ff) Should give inventory numbers ? Are these pieces from whole jars?

- 6 -

- p. 19 (cont'd) (1. 18) LT 17 Omit? This does not appear on computer printout?
- p. 21 (l. 10) LT 17 This is not given on the sheet of results --= LM 17 ???? ff
- (1. 12) While LM 18 from Methymna...questionable basis LM 18 perhaps it is included as Lesbian, despite low Sb, on the basis of other correspondences in clay content? (See pencil note p. 23)
- p. 22 (1. 13) (see note 82) note 81?
- p. 23 (1. 9 ff) but LM 21 has a higher Sb content than LM 18 which you say is close enough to be added to the Lesbos group p. 21 ??
- (1. 16) hopefully it is hoped? Or just finish after "is still under way". ?

(bottom) Where are the results of the Thasian pieces?

#### FOOTNOTES

## omit?

2) The Geography of Strabo...1917-33 following <u>Hesperia</u> style sheet (you don't actually quote the translation)

Charaxus Charaxos

- 3) Loeb Editions Loeb Classical Library p. 181 ? London and Cambridge, Mass. 1961. Introduction p. viii. Different editions -- but perhaps it's the same page in the 1927 edition?
- 4) Liddell and Scott No need to include this?
- 5) pomatos/ouk phesin Alexis omit?
- 6) Lesbiou/poion enthade'/ hos polin/kan
- 7) Lesbios, /hon phesin Klearchos. omit?
- 9) [bid., I.2] Loc. cit. Ephippos omit? Lesbion.../ ekpinetai/agan
- 8) (5) Ibid., I.29 Loc cit. Euboulos omit? Thasion e Chion labon/ e LEsbion better to include whole quotation?
  - 10) Phesin de Philyllios hoti omit? sapron, / Thasion,
  - 11) Archestratou omit? phorounta/oigon anthei/pinein
  - 12) dokesei/ouk

- 13) and 1370 and vol. III, p. 1370
- 14) trans. by....1938-56, omit
- 15) = Anthologia Graeca, ed. F. Jacobs, Lipsiae, 1814 vol. II, Bk. xi, 34 p.329. Might be good to quote in Greek?
- 18) 1925, p. 2118; 1925, Band 12 p. 2118
- 19) Mitylenaioi ton par' ....
- 23) gennaios, .../all' ouden t' (omit t') tall'
- 24) mmit?
- 25) omit see p. 3
- 27) Ibid., XIII. 598
- 29) a-b: In a passage....some kind of cup: mentions a lesbioh as a kind of cup (poteriou eidos) and quotes an epigram of Hedylus (ca. 200 BC) as illustration: This sounds as if you believed it was a cupy and as though the Epigrams by Hedylus was a separate publication better to quote this in Greek?
- 30) The Gulick translation...interpretation of the term. VG not happy with this; see suggested version overleaf

30) Loc. cit. Gulick, in his note on this passage (see note 3) prefers Kaibel's interpretation of the word, that the lesbion was "a vessel filled with ointment, the prize of her victory." The fact that a small amphora of variegated glass, in a shape that could well be patterned after that of Lesbian amphora, was found at Antissa in Lesbos (BSA 32, 1931-1932 Fig. 13 no. 1) tends to support this interpretation; V. Grace notes that a number of little glass amphoras have been found, of one of which she has a photograph. M. Blümner...etc connations connotations

- 32) See below, note 38 See VG letter May 4, 1978
- 33) XXXI 31 XXXII 32
- 34) "Grey Wares of Lesbos," "Grey Wares from Lesbos," JHS, JHS 52,
- 35) XXXI 31 "full bucchero period" omit quotation marks as this phrase not used in this place <u>JHS</u>, 1932 to end JHS 52, 1932. p. 2-3: "the 'archaic' examples belong to the seventh centuryxxx and sixth, probably first half"
- 36) Johannes J. II, Berlin ? should be "Band III: Die Kleinfunde." JHS X JHS 10 pp. 126, 128 pp. 126-128.

Contract of the

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- 37) JHS 52 XXXI 31
- 40) XLIX 49

42) (460-440 B.C.) omit Hesperia 22,

44) See above, note 35.

#### \*xxxxxx

- 44) 45) LXXIII 73 45) omit
- XX
- 46a) The finds from this well are to be published by Sally Roberts (or something like this -- some reference should be made. See VG letter May 4, 1978)
- 48) Give full ref. here if fn 25 to be omitted
- 50) Place of publication?
- 51) note 21 with p. 37, n. 21
- 53) omit
- 54) omit
- 55) in light of ensuing research does this mean "since Lamb has found bucchero on Lesbos"? corroborating superimposed letters does this mean "no similar stamps have been found"? Sorry -- U of T doesn't have this...
- 57) should give inventory numbers of these jars? Archaeology 12, AJA 68, AJA62 pp. 163-175 pp 165-173
- 63) Hesperia XL Hesperia 40
- 61) Hephaestus Hephaistos
- 64) XXXI, p. 171 31, pp. 171-172
- 66) Dr. Professor?
- 74) of from JHS 52
- 75) ? This only says that handles w. disks were common "in bronze vases as well" Walters (op, cit. p. 339) does say more about pottery imitating metal techniques, but not about this ware in particular
- 79) p. 52 p. 252
- 84) Is this out yet?

PLATES (see list of captions) Plate B The arrangement of the photographs on the other plate is much easier to follow, and the 2 plates should be the same. Gould this be rearranged to match? Plate C Amphora "A" 1 Amphora "B" 2 1 (Omas 41-42) 3 2 (Omas 32) 4 3 (Omas 64) 5 4 (Omas 32) 6 Plate D Rattail 1 (under 7,8,11,16) 2 (under the rest) 3 Plate E LI 11, LI 22, LM 17, These are not listed on page 19 (Possibly LM 17 is real y the LT 17 you describe on p. 19?) CATALOGUE (1 14)and further details can be found in the Kerameikos reports not a publication? does Miss Knigge approve? NO 1) PH 6.189 m 0.13 m HH D HD 0.032 m NH 0.119 m TD ND LW Make order standard for all, and leave gaps for missing measurements? NO () Capacity: 14.050 1 NO 7) Capacity: 22.070 (last line) stamp letter TT (see fig. ) NO 8) Capacity: 17.529 1 Amphora A NH: .10 m ?p. 14 gives NH as .099 m (last line) XXXI 31 Plate pl. Amphora B (last line) XXXI 31 Sherd Photograph No. 1, No. 2, and No. 3 Omas italics? Plate B Lesbian Amphoras (1:10) Besi from pencil originals by B. Clinkenbeard (1:10) Plate C Amphoras from Antissa (1:10) ???: 1 Mytilene finds (scale?) . 7

CAPTIONS FOR PLATES (Cont'd)

Plate D 1. Rattail (P24876) (where does this photo come from?) 2. From W. Lamb, "Grey Wares from Lesbos" JHS 52, 1932, p. 10 fig. 4, nos. 7 (from Pyrrha), 8, 11, and 43 (from Larissa). 3. From W. Lamb, op. cit. p. 6, fig. 2, nos 8-12, 15 (from Methymna).

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Plate E Neutron Activation Computer Printout; Brookhaven National Laboratory, Long Island, New York.

Acknowledgements

- (l. 13) Epivilitria Epimelitria
- (U. 16-18) permission to study + photograph not the same as permission to publish

(1.9) offerred-offerred

#### LESBIAN WINE AND STORAGE AMPHORAS: A VERIFICATION OF ORIGIN

At any given time in any storeroom or other repository connected with archaeological exploration in the Mediterranean area, numbers of wine and storage amphora fragments, whether pieces, restored jars or whole jars, none bearing identification or comparing with other known amphora classes, sit carefully catalogued and preserved in hopes that future discovery or scholarship will shed light on their origins. It is hoped that new developmental patterns may be discovered that will associate them with other known amphora classes, or that new information, whether from new finds and excavations or from connection with known historical sources, may prompt the recognition of new amphora classes.

The theory that new or unidentified classes of amphoras exist is supported by the dilemma concerning the island of Lesbos. Abundant literary and historical references are available that testify to the excellence, size, and lengthy history of the Lesbos wine industry, yet no wine amphora remains have been found either on the island or elsewhere that are readily attributable to Lesbian origin. If Lesbos is to be compared with other islands and cities with comparable wine industries, the following references indicate that amphora manufacture must have been in operation on Lesbos as it was in these other areas. Blumner states that the significant export of Lesbian wine indicated by these texts assumes the existence of a heavy industry in pottery on the island.<sup>1</sup>

### LITERARY REFERENCES

The references to Lesbian wine cover a wide chronological range -- from Archaic Greek to Roman times. The earliest is referred to by Strabo, who records that in the 7th century B.C., Sappho's brother Charaxus exported

a shipload of wine from Lesbos as far as Naukratis in Egypt.<sup>2</sup> Then Athenaeus, who lived and wrote in Naukratis at the end of the 2nd and the beginning of the 3rd century A.D.<sup>3</sup>, lists in his Deiphosophists, references made to Lesbian wines by comic poets of the 5th and 4th centuries B.C. and later.<sup>4</sup> Athenaeus quotes Alexis as saying that there was "not another wine pleasanter to drink" than Lesbian.<sup>5</sup> Alexis continues by making an allusion to the payment of duty, saying that Bacchus was kind because all Naukratites importing Lesbian wine could do so free of duty, whereas if the wine was sent elsewhere by Naukratites it was confiscated.<sup>6</sup> As an indication of the excellence attributed to the Lesbian wines, Athenaeus has Clearchus insist the they "must have been made by Maron, the Priest of Apollo, himself."<sup>7</sup> Eubulus refers to the wine as "Lesbian distilling nectar,"<sup>8</sup> and Ephippus particularly likes the "Pramnian wines of Lesbos."<sup>9</sup> Philyllius claims that they did not give headaches, 10 and Archestratus, a 4th century writer on symposia urges that "ye must drink old wine, with hoary head..whose moist locks are crowned with a white bouquet grown in Lesbos which the sea waves encircle."<sup>1]</sup> He claims later that the "Lesbian will seem to you to possess the glory of ambrosia rather than wine."<sup>12</sup> It should be noted that all of these 4th and 5th century B.C. authors also refer to Thasian, Chian and Mendean wines, which corresponds with the dating and identification of jar finds originating from these localities.

Papyrus records show that the Egyptian, Zenon, assistant to Appolonius, the estate manager of Ptolemy Philadelphus, imported Lesbian wines in the 3rd century B.C.<sup>13</sup> as well as those from Thasos, Knidus, Chios and Leucas. And the physician Erasistratus of that same century was recorded later by Pliny to have ordered Lesbian wine and to have added the name of Lesbian to that of Thasian and Chian as one of the great wines held in highest esteem subsequent to the great vintages of the Homeric age.<sup>14</sup>

Anollonios.

Knidos on Cuidas

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In the 1st century B.C., Philodemos, a Gaderene from Palestine who lived in Rome and Naples, included the following line in a poem: "Anoint my limbs with saffron and wet my gullet with wine of Mytilene."<sup>15</sup> In an earlier verse he had referred to "wanting no Chian wine again,"<sup>16</sup> his preference being the Mytilenean by comparison. This could be poetic license and reference to times past, but Pliny says later without poetic intent that the "the wine of Lesbos by dint of its own nature smacks of the sea,"<sup>17</sup> and Galen, the physician (ca. 130-200 A.D.), was known to have praised Lesbian wines,<sup>18</sup> all of which suggests that Lesbian wines were known continuously up to Imperial Roman times.

Athenaeus, speaking for himself, remarks that "Mityleneans call the sweet wine of their country 'prodromus'; others say 'protropus'",<sup>19</sup> both of which refer to the first flow of juice from the wine press caused by the weight of the grapes themselves before any pressure is applied. This is more, though indirect, praise of the Lesbian wines, for the first flow from a wine press is always considered the best. Athenaeus also claims that the Lesbian wine has "less astringency and is more diuretic"<sup>20</sup> than the Knidian and Chian, and he recommends the "protropus, the sweet Lesbian," for the stomach.<sup>21</sup> He specifies that "only the purest waters are suitable for adding to Chian and Lesbian wine,"<sup>22</sup> and that by comparison to Lesbian wine, Thasian is simply nothing.<sup>23</sup>

It is not completely clear that these observations were based on Athenaeus' own experience,<sup>24</sup> but his mention of Knidian wines shows that he cannot be quoting the same comic poets as before since Knidian stamped jars begin only in the 3rd century B.C. These continue into the 1st century B.C. and probably into the Imperial Roman period,<sup>25</sup> so Athenaeus may have known Knidian wines at first hand, and therefore Lesbian wines as well.

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Every mention of Lesbian wine is enthusiastic, to say the least, and the island is referred to in ancient texts as "Lesbos of the luscious grapes,"26 or "Lesbos, rich in wine,"<sup>27</sup> or some other admiring metaphor. Little else is known about the wines other than that the grapes were grown in terraced vineyards without props or stakes but were allowed to trail along the ground naturally, and that the wines were produced chiefly in Methymna in the north, where, as indicated by coins from that city, the wine god Dionysus was worshipped.<sup>28</sup> There is another Athenaeus reference to a "lesbion"<sup>29</sup> as some kind of cup, but a difference of opinion exists concerning this.<sup>30</sup> And other references to the trade in Lesbian wine in pseudo-Aristotelian texts of the early 3rd century B.C.<sup>31</sup> are considered more important in specific trade terms, so will not be considered here. Almost all of these references, however, suggest a lucrative wine industry, and, therefore, if Lesbos is presumed to have followed the practices of other contemporary wine-producing states, expectations of a singular wine amphora for the transportation of this commodity are not unusual.

#### PRELIMINARY ARCHEOLOGICAL ASSUMPTIONS

The first suggestion of a wine amphora that could possibly be connected with the Lesbian wine industry was mentioned by J. M. Cook, who associated the gray color of amphoras from his excavations in Old Smyrna, Turkey with that of the Aeolic bucchero pottery excavated on the island of Lesbos and surrounding sites in Asia Minor.<sup>32</sup> The Lesbian origin of Aeolic bucchero was established by W. Lamb from material she excavated from the Lesbian sites at Antissa in 1930-32,<sup>33</sup> and Methymna in 1932,<sup>34</sup> the pottery from both indicating that bucchero was the dominant pottery manufactured at these sites in the 7th and 6th centuries B.C.<sup>35</sup> These findings were reinforced by the assumptions of J. Bot and E. A. Gardner, Bohau having

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found bucchero pieces on Rhodes<sup>36</sup> which he attributed to Aeolian origin because they paralleled those found at Naukratis in Egypt by Gardner which bore inscriptions in Aeolic dialect. One particular inscription was dedicated by a Mytilenean. No dedications from non-Aeolian cities were found on the Naukratis gray vases, and Aeolian and Mytilenean dedications appear on no other types of pottery there. Miss Lamb considers these inscriptions proof that Lesbos was the source of Aeolic bucchero because not only did they state the origin of and bear the names of Mytileaneans resident in Naukratis, but the founding of Naukratis in the 2nd 1/4 of the 6th century falls within her Lesbian bucchero periods, letter forms in Antissa inscriptions correspond with those in the Naukratis vase inscriptions, and Mytilene on Lesbos was the one Aeolian participant in the joint Greek trading organization established at Naukratis<sup>37</sup>. All of this seems to pinpoint Lesbos as the place of manufacture of the gray vases in Aeolis. This evidence, and the fact that the earliest of the literary references to Lesbian wine concerns a shipment of the wine to Naukratis in the 7th century only strengthens Cook's connection of the two types of grayware.

In reference notes dated August 29, 1952 on the "gray" wine jars slowly accumulated by her in the Stoa of Attalos in the Athenian Agora, Virginia Grace notes that "Cook thinks or has thought that the gray jars are Lesbian because of the bucchero and I am inclined to agree."<sup>38</sup> In 1953, when J. K. Anderson reported on two gray handle and rim fragments excavated by him on the Kofina Ridge, Chios, a site relatively close to Lesbos, and an island with known connections with Lesbos in the wine trade,<sup>39</sup> he noted that "these amphoras are almost certainly related to the grey bucchero of Lesbos."<sup>40</sup> I. B. Zeest, in her 1960 article on pottery containers found

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in the Black Sea region, also agrees with Grace's tentative identification of the gray amphoras with pottery wares of Lesbos, her agreement based on the similarity of the clay alone.<sup>41</sup> Yet the connection remained tentative, and when Cedric Boulter published the contents of a mid-fifth century well in the Athenian Agora, a basic description of the class to which two jars belonged written by Virginia Grace was included in the article, but with no mention of Lesbos as the place of origin.<sup>42</sup> Even in the 1961 publication, <u>Amphoras and the Ancient Wine Trade</u> by Virginia Grace, reference to the Lesbian class of amphoras is always accompanied by a question mark;<sup>43</sup> attribution up to this time was based on similarity of clay colors alone with no evidence actually found on the island of Lesbos to support a connection between bucchero and the amphora class.

## THE LESBIAN (?) AMPHORAS

The amphoras here in question, a selected sampling of which (PLATE ) will be used for the purposes of this article preliminary to the full publication of the class, cover a wide chronological range which seems to start in 7th century B.C. but disappears abruptly sometime in the last  $\frac{1}{2}$  of the 4th century B.C. This is quite unusual since it is known that the wine continued to circulate and that other wine producing states such as Rhodes and Knidos greatly expanded their wine and amphora production during the Hellenistic period. This peculiar phenomenon will be the subject of future, separate research and is one of the reasons why the Lesbian class as a whole cannot be published at this time.

The earliest of the amphoras was excavated from a context dated the 3rd <sup>1</sup>/<sub>4</sub> of the 7th century B.C. in the Athenian Agora (NO. 1). This corresponds with Lamb's Lesbian bucchero periods and with a number of J. M. Cook's finds in Old Smyrna.<sup>44</sup> Concerning the finds at Old Smyrna, Cook wrote:

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"study of the archaic amphorae shows that import of wine from Chios and from a center exporting in gray jars can be dated as far back as the eighth century -- in fact to Homeric times."45 I. B. Zeest corroborates the archaic beginnings of the class of gray wine amphoras; a group of gray amphoras belonging to the class was found at Pantikapaion on the Black Sea in a stratum covering the remains of a building destroyed in the 6th century.<sup>46</sup> The bulk of the material was found in the Athenian Agora excavations, however, and included many fragments complete enough to facilitate the restoration of almost whole jars. Among these, a sizeable group (5) of red examples (NO. 4) was found under a gutter of the Stoa of Attalos, while gray varieties came mainly from well fills. Also, reused gray amphoras were found as burial containers by German excavators in the Kerameikos cemetery in Athens (NO. 5). Examples were found in Corinth and in tombs in Egypt and on Rhodes, and necks and handles were brought up from a sunken wreck off the Greek coast south of Athens as recently as 1961. All of these constitute what, over a long period of accumulation, became a group of predominantly gray-colored fragments and jars with stylistic characteristics consistent enough to encourage speculation that they represent a separate and distinct class of amphora.

Besides the general grayness on color, an unusual feature for Greek wine amphoras which are predominantly of earth colors, all of the jars possess cylindrical handles (Profiles, PLATE (or Figures)...) that end at the lower point of attachment to the body in a sort of tail that lies in relief on the shoulder of the vessel.<sup>47</sup> The tail strongly resembles that of a rat, so has been referred to as a rattail. This is a unique feature; most amphora handles are joined smoothly and almost unnoticeably to the shoulders of the jar with perhaps only a finger impression to mark the juncture,<sup>48</sup>

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though Chian amphoras were stamped at this point during one period of their development.<sup>49</sup> Few other classes of amphoras have cylindrical handles either; most are oval or flat in section. Offset ridges can be observed between the rims and necks at almost all developmental periods of this group of amphoras (exception: NO. 3), though in the earliest, 7th century examples the offset is lower, at the midpoint of the upper handle attachments. (NO. 1). An additional offset ridge or groove can sometimes be discerned at the base of the neck also, a feature very pronounced in NO. 1 but missing entirely in NO. 8, dated 350-325 B.C. Many of the later necks (NOS. 4-8) exhibit a bombe' tendency. . that is, a tendency to bulge slightly outward, then in again between the rim and the base of the neck.

Careful comparisons of the jars show that the color actually ranges from light buff-gray (Munsell Y8/1) through "red" (YR 5/4) to almost black (N 3/ ), though a dull medium gray (N 5/ ) $^{50}$  would be a good standard description. Most pieces appear unslipped, though some show evidence of a black wash . . to increase their "grayness" for identification purposes perhaps? The cores of the pieces as observed at the breakpoints vary from gray to "red" in color also; in many instances the color of the interior of the clay is in direct opposition to the color of the exterior. Six of the known amphoras bear stamps or incised monograms (NO. 7 - an incised \_\_\_\_ ), none of them the same and none appearing on the handles, the usual stamp position, but on the neck instead. This method of stamping had been known to occur at a certain period in Chios and Thasos, <sup>51</sup> but was not widespread. At least two separate sizes of amphora appear, the second smaller by definite proportions to the first and considered fractional by comparison to the larger jars (compare NO. 2 (regular) and NO. 4 (fractional) of overlapping dates). This difference in size is reflected mainly in changes in the body proportions, rather than in those of the necks

in

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(compare neck and handle measurements to body measurements of NOS. 4 and 5). The fractional jars are invariably "red" rather than gray until after 325 B.C., the date assigned to the two latest jars found in Egypt, which are fractional but gray.

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As with other classes of amphoras of Classical and Hellenistic times,52 a continuous tendency towards slimming and elongation can be observed throughout the development of the class. This continual lengthening of the vessels produced accompanying developmental changes in necks, handles, and toes also, as well as in overall height. Observe the difference in height between NOS. 2 (H: .685 m.) and 5 (H: .776 m.), the former a burial jar from the Kerameikos dated c. 500 B.C. and the latter from the same site but from a 470/460 B.C. context. The handles and neck of NO. 5 are .03 m. and .016 m. respectively longer than those on NO. 2, the whole jar NO. 5 having increased  $\cdot$  09 m. in length during that time span. NO. 8, a third Kerameikos jar and the latest one illustrated in this text increases another almost .04 m. in overall height by the time of its manufacture estimated somewhere between 350 and 325 B.C. The handles and neck on NO. 8 have lengthened a total of .12 m. since the manufacture of NO. 1, the earliest 7th century jar illustrated, the increase representing the changes during the 300 years illustrated by existing examples of gray amphoras. Unfortunately, no whole 7th century jars have been found, so the total overall increase in height cannot be determined, but only that between the late 6th century (NO. 2) and latter part of the 4th (NO. 8), a total of .13 meters. Assuming that the capacities of these jars <sup>53</sup> remained relatively constant throughout this time span, the amounts being determined by decree,<sup>54</sup> the decrease in body diameter that accompanied the lengthening process must have compensated for the increase in height. After swelling to a maximum of .412 m. in NO. 5, the bodies shrink steadily to .34 m. in

NO. 7 and finally .32 m. in NO. 8, the change in the latter and later fractionals accomplished by a sudden sharpening of the shoulder angle and the elimination of any rounding of the body at all. It would seem that this tendency toward elongation and slimming was a continuous attempt to ease the handling and weight distribution of the container, as well as to facilitate easier shipping and storage.

The position of the top handle attachments in relation to the rims seems to vary from period to period also. Starting well below the plain lip of NO. 1, the top handle attachments can be seen to encroach more and more on what develops first into a rolled, flat rim (Profiles NOS. 2a - 5a) then becomes a slightly flaring half-roll rim (NOS. 7a - 8a). NOS. 4 and 6 are exceptions to this rule, NO. 4 being a fractional amphora and perhaps No. 6 as well. The top handle attachments finally engulf the rim entirely in No. 7, than fall below a plainer lip again in No. 8 almost a century later. At the same time the flare of the handle curvature can be seen to increase also, reaching an extreme outward flare in NO. 7, then straightening and lengthening into an almost reverse curve in NO. 8 in an attempt to compensate for the extreme length of neck (NH: .242 m. vs. .119 m. in NO. 1). The lower handle attachments move closer and closer to the base of the neck during the lengthening process also and the rattails become more and more elongated at the same time. The slight bombe' curve to the necks can be seen easily in Profiles 4a - 8a. And as with the bodies, the diameters of the toes decrease, too. What starts as an almost flat hollow base that could conceivably support the jar in an upright position in NO. 2 (Profile NO. 2a) narrows and lengthens into a solid, peg toe (Profiles NOS. 4a and 8a). This change appears earlier in the red fractional jars (Profile NO. 4a), which also exhibit an indentation on the bottom of the toe, a feature never apparent in the full size

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amphoras or the later gray fractionals.

But, though a definite pattern of development can be determined both chronologically and through shape variation in the gray amphoras, the variety of find spots only suggests extensive trade distribution rather than information concerning the origin of the amphoras. Nor do the few stamps add much; of the four (the incised sigma and the incised pine or rho on two jars are not considered stamps) one is a stamp containing a squat oinochoe, the second perhaps an omega, and the third and fourth stamped monograms that perhaps could be deciphered as MA and MY in superimposed letters.<sup>55</sup> Nothing is known about Lesbian usage of monograms or symbols in stamping beyond the fact that early coins contained  $\Lambda$  E or M monograms, and that the lyre was a common emblem.<sup>56</sup>

This seems to leave only color as the link between the amphoras and Lesbos. But could the connection between the amphoras and the Lesbian bucchero suggested by Cook be considered reliable if based on color similarities alone? Though color variations exist within the amphora class (NO. 4 -"red"), the greater preponderance of the jars are definitely gray, therefore establishing gray as their identifying color characteristic, or their color of choice. 'Choice' is the key word here, for tests were performed<sup>57</sup> that proved that the gray color of the amphoras was the result of firing or at least cooling the amphoras in a reducing rather than an oxidizing atmosphere, and that pottery of either red or gray could be produced from the same clay. These tests also verified that variations in tone in both the gray amphoras and Lesbian bucchero, particularly the differences between the interior and the exterior colors observed at break points, were the result of difficulties inherent in the firing process, or in other words, that the firing argay pottery could be successful in varying de-

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grees. If the gray color was a matter of choice and not clay, as proved, it would seem reasonable that gray amphoras were manufactured in an area where gray pottery was produced, known, and accepted. And Lamb's excavations on Lesbos indicated "a full bucchero period" in the 7th and 6th centuries B.C.<sup>58</sup> In fact, gray pottery remained popular in areas of the NE Aegean for hundreds of years. That it remained so with the people of Lesbos is a fact still in evidence, for as recently as 1963 potters could be observed firing their water pots either red or black, using the same red clay in both cases.<sup>59</sup> Color similarities did, indeed, seem to be a good reason for connecting the two wares, but only as a good clue or first step in pinpointing the origin of the gray amphoras.

## NEW EFFORTS AND INQUIRY

Thorough consideration of the evidence presented in the preceding sections pointed to the necessity of finding material on the island of Lesbos itself if the attribution of the gray amphoras really were to be substantiated. A connection more solid than that based on clay color alone had to be established between Lesbian bucchero and the gray wine amphoras, and some association with a pottery industry had to be proved. If a heavy pottery industry existed of the magnitude necessary to facilitate a wine export as significant as that indicated by ancient references, some remains of it had to be traceable on the island somehow, whether in archaeological records or local customs and traditions. In an effort to uncover the necessary evidence, a trip to the island was scheduled in August of 1972.

Local tradition was scrutinized first.<sup>60</sup> The fact that a modern pottery industry existed on the island suggested the continuation of an established custom, since in modern as well as ancient times, artisans tend to continue an industry in a specific area and cluster together in pursuing their craft.<sup>61</sup>

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If this were the case in Lesbos, original clay beds might still be in use. Sometime between 1962 and 1968, a white-glazed earthenware pottery with multi-colored floral designs labelled as manufactured in Agiasos, Lesbos, had been introduced to the Athenian tourist market, and samples of the clay used in this ware were obtained in hopes of establishing a link with the ancient clay sources.<sup>62</sup> Another valuable source of information, that of private owners of antiquities, was pursued, but no amount of effort could locate any families who owned ancient artifacts. Many old families often own pieces that have been passed down through successive generations and these collections as well as local citizens with historical interests have been a source of amphoras on many other islands.<sup>63</sup> As far as could be ascertained, however, no jars fitting the general description of "Lesbian" wine amphoras were known to exist on the island.

Permission was obtained from the Greek Archaeological Service to handle and photograph all excavated material housed in the museums on the island. References by W. Lamb to a "roll handled attachment of a (?) hydria"<sup>64</sup> that "seemed to belong to the 7th century," and to three small amphoras, one gray and two red,<sup>65</sup> suggested that reevaluation of the archaic bucchero in terms of the known characteristics of the gray amphoras might provide evidence previously unnoticed or not considered important. Opportunities to examine town sites known to have been connected with wine production or trade, particularly Mytilene and Methymna, were also arranged. The surface of the Methymna site had been described at still littered with sherds.<sup>66</sup> The area had been designated an archaeological site only some three or four years earlier, but many things of value were known to have been and still were being taken from there, few of which found their way into the hands of the Archaeological Service.<sup>67</sup> This being the case, the opportunity of finding new material was a distinct possibility.

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## NEW EVIDENCE AND MATERIAL

The suspicion that reevaluation of the Antissa and Methymna bucchero might produce evidence pertinent to the amphora class proved correct. A squat gray "table"<sup>68</sup> amphora with cylindrical handles that ended at the lower point of attachment in a short rattail was included among the Antissa finds displayed in the Mytilene Museum.<sup>69</sup> (See "Amphora A", ) It proved to be the gray amphora referred to in Miss Lamb's PLATE NO. article on Antissa as the "one gray and unpolished, partially concealed by the wall" in a Plate photograph.<sup>70</sup> Closer investigation revealed further stylistic features comparable to those of the gray wine amphoras. When compared to NO. 1 in the wine amphora series, AMPHORA A displays similar measurements and proportions. The neck heights are very close (.119 m. for NO. 1 as compared to .099 m. for AMPHORA A) and the handle curvatures and diameters are very similar (.032 m. and .024 m. respectively). The rattails are the early, abbreviated form in both cases. Both amphoras have thick lips with flat tops. And both exhibit the early offset groove at the base of the neck at the point of juncture with the body. This is much more pronounced in AMPHORA A, however, and the groove on the neck at the midpoint of the upper handle attachments that distinguishes the 7th century wine amphoras is conspicuously missing. The absence of this feature and the fact that the neck does not flare downwards towards the bottom, but is perfectly straight, are perhaps the only points that differentiate the neck of AMPHORA A from the 7th century wine amphora neck. The straight neck of AMPHORA A swells into a short, perfectly round body ending in a flat base with a barely discernible ring. The ring is really more of a ridge like the one at the base of the amphora neck, and creates the effect of a baseless vessel rather than one with a supporting ring or torus foot like most amphoras of the smaller "table" variety.<sup>71</sup>

AMPHORA B (Antissa K 55; see PLATE NO. ), a slightly larger reddish amphora from the same Antissa context, does have a downward flaring neck like the one in NO. 1 in the amphora series, and is attached to a large ovoid body similar in proportions to those seen in NO. 2. Since the vessel is smaller, however, the body does not elongate into a toe, but tapers slightly as does NO. 2, then ends in a flat base capable of supporting the jar in an upright position, a base, like AMPHORA A, with barely discernible ring or ridge at the bottom. An offset ridge is visible at the point of juncture between neck and body, but unlike either AMPHORA A or the wine amphoras, the rim is a flat-topped thin half roll rather than a thick lip, and the handles are flat and ribbon-like and are joined smoothly to the body without rattails. One handle is incised its entire length with lines that seem to form three rectangular panels, shapes thought by W. Lamb to be a particular potter's mark.<sup>72</sup>

The incidence of cylindrical handles ending in rattails in both AMPHORA A and the wine amphoras should serve to establish a definite connection between the two types of containers. The same is true of the offset ridge at the junction of neck and body that exists in both Antissa amphoras and can be observed in the wine amphoras at various stages in development (PLATE , NOS. 1 and 5). Neither cylindrical handles with rattails not offset ridges between bodies and necks are stylistic features common in either wine or "table" amphoras found elsewhere. Of equal importance, however, are the similarities in proportions of necks to bodies seen in AMPHORA B and NO. 1, and between the bodies alone in AMPHORA B and NO. 2. Each class of wine amphora, regardless of the tendency to elongate during the course of development, has a basic neck and body shape, and the relationship or proportion between the two remains roughly the same throughout each class history.<sup>73</sup> Judging from the

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wariety of known combinations, the shapes and proportions of AMPHORA B and the gray wine amphoras are too similar to be accidental and must therefore be considered additional evédence of connections between the two types of containers. The dates attributed to both the Antissa amphoras and the gray wine amphoras are comparable, the Antissa amphoras coming from 7th and 6th century bucchero periods indicated by Miss Lamb's findings and the wine amphoras from 7th add 6th century contexts. Having been manufactured during the same general time periods, it is impossible to conjecture which type of container influenced the other, but it seems safe to surmise that the common stylistic features and proportions exhibited by the two classes indicate a common origin, on the island of Lesbos.

Other evidence of a less specific nature was also gained from restudying the Lesbian bucchero. The colors in the bucchero were observed to cover the same range as those in the wine amphoras, in fact the description of the bucchero by W. Lamb could apply equally well to the gray amphoras; she described the bucchero as ranging from "silver-grey to gunmetal" with cores "usually grey, sometimes reddish," and clay and surface from "rough" to "polished" to "grey-washed" with "mica present in varying quantities."<sup>74</sup> Also observed was an inclination towards raised or relief decoration applied to the bucchero that was suggestive of the rattails on the amphoras. Described as a possible imitation of the technique of decorating metal vases whereby additional material is welded, riveted or adhered somehow to the original surface of the vessel, 75 additional or raised clay ridges or bars were evident on some bucchero pieces. In similar bucchero ware from Larissa considered by Miss Lamb to be Lesbian.<sup>76</sup> raised horizontal bars that divide the rims into decorative panels protrude from the vessels in much the same way as do the rattails on the am-

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phoras; the same central peak or ridge that forms the rattail and slopes and blends into the main surface on both sides is created in the same manner in these bars (see NOS. 8, 11, and 16, Figure 4, PLATE NO. ; NO. 12, Figure 2, PLATE NO. ) And, "the bars being in relief and loosely attached, break off easily,"<sup>77</sup> an attribute easily applied to the rattails as shown by the impression or outline left on the amphora shoulders where the handles and rattails have broken off (see AMPHORA NO. 8). Also observable in the bucchero is the use of offset ridges below the lips of vessels that is evident in the wine amphoras (NOS. 9-12, Figure 2, PLATE NO. ). Number 15 (Figure 2, PLATE NO. ) is almost the same rim which appears in AMPHORA NO. 6 (NO. 6a, PLATE NO. ). As with AMPHORAS A and B. it is impossible to determine which type of container influenced which when comparing the bucchero and the wine amphoras. It is certainly clear, though, that ample precedent existed in Lesbos for employing the decorative motifs of rattails and offset ridges that appear in the gray amphoras and not in wine amphoras originating elsewhere.

As suspected also, examples from the actual amphora class were found to be available on the island of Lesbos. Numerous sherds exhibiting the colors and stylistic motifs considered "Lesbian" were collected from the surface of the site at Methymna; gray cylindrical handles, elongated blunt gray toes, and neck pieces exhibiting the bombe' bulge were considered the most reliable examples.

More numerous and more readily identifiable were sherds found stored in the Mytilene Museum. All of this material had been recovered from construction sites in the town of Mytilene a few months earlier, and was completely unsorted, unclassified and uncatalogued; "... the pieces from Mytilene...were all found at the excavation of 1972 at the building site

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of the Incurable Children Hospital at the north part of the town, near Epano Skala where an archaic apsidal building from below some remains of Roman buildings (was) uncovered."<sup>78</sup> The apsidal building was believed to be in the area of an ancient hebron where finds have been recovered datable from the 7th century B.C. to the late Roman period.

Photographs 1-4, PLATE NO. , were taken, each one illustrating material from the different boxes, or "omades" (lots), in this instance omades 32, 41, 42 and 64. Omas 32 was found at a depth of 1.85m. below the earth's surface, Omas 41 at 2.0m., Omas 42 at 2.20m., and Omas 64 at 2.30 m. A survey of the material showed most of the jars to have been from about the same period of class development, 400-300 B.C. All of the toes (PLATE NO. , 1 and 2) nf were long and of the narrow diameter without identations, which dates the jars after 480 B.C.; all (4) neck pieces exhibited distinct bombe' tendencies and were gray, which would push the date of the jars past 460 B.C.; and all of the handles (PLATE , 1,2 and 4) encroached on a good half of the roll lip with offset ridges beneath, which would indicate an even later period at the beginning of the 4th century B.C. when the handles dropped below the lip again after encroaching on all of it earlier. The slighter projection of the lip (see NO. 8, Figure 2, PLATE NO. ) and the extreme length and straightness of some of the handle pieces (Photos 1,4) also suggest the later period. It proved impossible to judge the curvature flare of the handles from the small portions of lip attachments available.

## NEUTRON ACTIVATION ANALYSIS

Permission was obtained to remove four sherds from the Mytilene Museum. These were added to a similar number of pieces collected from Methymna as well as three pieces from the Agora collection in Athens, and to the examples, both fired and unfired, of the modern clay used by potters in the centre of the modern pottery industry at Agiasos, Mytilene. The entire collection of fragments was sent to the Brookhaven National Laboratory in Upton, Long Island, New York. There they were subjected to neutron activation analysis. Chemical analysis of the clays in fine pottery ware have had limited results, the clays having been heavily refined and perhaps mixed with other substances and imported clay varieties.<sup>79</sup> But amphoras come under the heading of coarse wares,<sup>80</sup> which are more apt to be made of local unrefined clays. Chances were good, therefore, that true analysis was possible and that a valid comparison of ancient and modern clay sources might result.

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The fragments were labelled and submitted in the following form:<sup>81</sup>

## LESBIAN AMPHORA FRAGMENTS

LA SERIES - (Athenian Agora Excavations)

- LA 12 shoulder piece showing ovoid (rattail) indentation of bottom handle attachment
- LA 13 toe fragment
- LA 14 neck fragment, slightly bombe'
- LT SERIES (Mytilene Museum)
  - LT 15 body fragment
  - LT 16 body fragment
  - LT 17 neck fragment, bombe'
- LM SERIES (Methymna, site surface fragments)
  - LM 18 whole toe
  - LM 19 body fragment
  - LM 20 body fragment
  - LM 21 RED toe fragment
- LI SERIES (modern pottery pieces from Agiasos)
  - LI 01 broken vase, unfired, unglazed
  - LI 02 cup, fired, unglazed

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### Test Results

1) Positive Findings:

The outcome of the neutron activation tests (see Computer Value printouts PLATE NO. ) was both gratifying and puzzling. The single most outstanding finding was the close correlation between the ancient amphora clays and the modern clay samples,<sup>82</sup> a result which can be interpreted to mean that the clay sources for both were on Lesbos and, therefore, that the amphoras were actually manufactured on that island. The agreement between the ancient and modern samples was by no means perfect, but neither did the two modern samples from the same potter agree completely. The major difference between the ancient and modern pottery was the higher sodium content of the ancient clay. Concentration of sodium usually means one of three things: 1) extra sodium as part of the temper, or reinforcing material, used by potters, 2) absorption from the ground in which pottery has been buried, 3) purposeful addition by the potter; recent studies have shown cases where modern potters are known to have thrown a pinch of salt into each batch of clay under preparation,<sup>84</sup> a measure calculated to increase the cohesion of the clay by promoting greater electrostatic attraction between the particles without making the clay stiffer at the same time. 85 Additional tests were performed at Brookhaven using distilled water to leach out the added salt. Negative results proved that the sodium had not been absorbed from the earth surrounding the sherds while buried, so it must have been added by the ancient potters.

Of equal importance was the finding of a high antimony content in the Lesbos pottery as a whole. This was a percentage very distinctive when compared with results from tests on other Aegean pottery (as represented by samples from Attica, Mycenae, Laconia and Knossos). It should be noted, however, that to date no tests of this type have been made on pottery from any part of Asia Minor,

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its coastal areas and other offshore islands (Lesbos being one). Asia Minor is geographically closer to Lesbos than to the other Aegean areas mentioned, and therefore a closer correlation in clays from the two neighboring areas might possibly, though not necessarily, be expected. Future tests could change the unique status produced by the high antimony content now attached to the Lesbian pottery and clays. At present the high antimony content serves as a very distinctive point of identification.

On the basis of the antimony content (other elements having their own comparable ratios also), all the Mytilene pieces (LT series) were judged to be from the same source; samples LT 15, 16, 17 and also LM 20 from Methymna were found to correlate closely. LA 13 from Athens also qualified for this group with a slightly lower antimony content, while LM 18 from Methymna had an even lower antimony content but one close enough for it to be added to the group on a questionable basis. That Mytilene and Methymna sherds should correlate is only to be expected, given the interraction between wine producing cities on the island. That a piece found in Athens was also from the same clay source and that another from Methymna was close enough in chemical makeup to be included seems reasonable if variations in the general clay source are considered. These variations could include differences in the way separate potters prepared their clay, differences within the clay source itself, and varying concentrations of temper used. Altogether, these test results, when added to the stylistic similarities between the amphoras and the Lesbian bucchero, add up to overwhelming support for the assumption that the gray wine amphoras did originate on the island of Lesbos.

## 2) Questionable Results:

Neutron activation results for the other pottery samples were less conclusive.

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Example LA 12 was more similar to other Greek samples tested than to accompanying Lesbian samples. The fact that it was gray and was chosen because it showed an impression where a rattail handle had been attached, and was therefore considered a good, well identified example, could make this test result an indication of another, different source of clay on the island. Evidence of different clay sources located in the same general area but with widely differing chemical patterns have been found in Israel.<sup>87</sup> The fact that widely separated pottery making centres (Agiasos and Mandomados) were known to exist in modern times, so perhaps in ancient times as well, could also lend weight to this theory. Equally inconclusive were the test results on LM 19, described by Dorothea Brooks as "unique"<sup>88</sup> and comparable to no other pottery tested at Brookhaven thus far. Being a body fragment of questionable reliability to begin with (see note 82), it should probably be disregarded completely, But Mrs. Brooks cautioned that, when dealing with heavily tempered materials, there is always the danger of hitting a pocket of temper; such could be the case with this sample. And, like LA 12, it could also be evidence of another clay source on the island, for the differences between LM 19 and LA 12 and the pieces of the Lesbian group were described only as being "unlikely that they were from the same clay source," not necessarily that they were not from Lesbos at all.

3) Negative Results:

The two remaining samples, LA 14 and LM 21, were described as definitely "not from the same general source as the Lesbos group"<sup>89</sup> but information was not sufficient to say more. The results of the tests on these two pieces were therefore not similar to test results on other clay groups either. LA 14 was selected from Agora material not only because of its gray color but because it was an excellent example of the identifying bombe' neck bulge associated with the amphora class. That so identifiable a sample should receive negative

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test results must be considered significant. Less conclusive but also significant were the results on LM 21, a "red" toe from Methymna. Red in color, but long and blunt like the later amphoras (NOS. 7 and 8) and not displaying the depression on the bottom common to the predominantly red group (NO. 4) dating from ca. 500-480 B.C., it was included in the test group as an experiment. Positive results relating a red example to the Lesbos clay group would have helped allay growing suspicions concerning the red amphoras displaying Lesbian characteristics; a red toe with the depression on the bottom would have offered more conclusive evidence, but was unavailable. The negative results obtained from this red toe, however, the low antimony content in particular, suggest that its clay might have originated somewhere other than Lesbos. The possibility that the piece could have been misidentified must always be considered, otherwise the negative test results merely add to a growing body of conflicting evidence which supports the theory that some other area was also manufacturing amphoras with "Lesbian" characteristics. Research on this subject is still under way and will, hopefully, be the basis of another study in the future.

In summary, neutron activation analysis was worthwhile for several reasons. On the positive side, it provided definitive evidence that some of the amphoras displaying the formal characteristics considered "Lesbian" (e.g., gray color, cylindrical handles ending in rattails, bombe' necks, tapering blunt toes) were certainly manufactured on the island of Lesbos. The discovery that Lesbian clay and pottery possess unique chemical features can only be considered an added plus. On the negative side, and equally important, is the evidence that not all amphoras with "Lesbian" characteristics (LA 14) necessarily were made on Lesbos. This latter conclusion warrants further consideration and study.

Barbara G. Clinkenbeard

#### FOOTNOTES

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- 1) M. Blumner, <u>Die Gewarblich Thatigheit der Volker das Klassichen Altertums</u>, Leipzig, 1869, p. 45.
- 2) Strabo, <u>The Geography of Strabo</u>, trans. by Horace Leonard Jones, Loeb Editions, New York, 1917-33, XVII, 1.33 (c. 808):

...τοῦ ἀδελφοῦ αὐτῆς Χαράξου...οἶνον κατάγοντος εἰς Ναύκρατιν Λέσβιον κατ' ἐμπορίαν,...

Michell,H., <u>The Economics of Ancient Greece</u>, Cambridge, England, 1940, p. 294. This fact is referred to by several writers because business reasons for being in Egypt helped promote a relationship between Charaxus and a well-known courtesan there, a relationship loudly deplored by Sappho in her poetry.

- 3) Athenaeus, <u>The Deipnosophists</u>, trans. by Charles B. Gulick,Loeb Editions, London, 1927, p. 181.
- 4) Liddell and Scott, <u>A Greek-English Lexicon, Oxford</u>, 1940, pp. XVII-XXIV; Athenaeus, <u>op. cit.</u>, I.28, 29, 31.
- 5) Ibid., I.28:

Λεσβίου....πώματος ούκ έστιν άλλος οίνος ήδίων πιεῖν, φησιν "Αλεξις.

6) Loc. cit.:

ήδύς γ' ὁ Βρόμιος τὴν ἀτέλειαν Λεσβίου ποιῶν τὸν οἶνον εἰσάγουσιν ἐνθάδε, ὃς ᾶν εἰς ἐτέραν ληφθῆ δ'ἀποστέλλων πόλιν κῶν κύαθον, ἱερὰν ἐγγράφων τὴν οὐσίαν.

## FOOTNOTES - 2

6 cont.) This allusion could have referred to some special trade arrangement between Lesbos and Naukratis.

7) <u>Loc. cit</u>.:

οίνος Λέσβιος, ὂν αὐτὸς ἐποίησεν ὁ Μάρων, μοι δοκῶ, φησὶ Κλέαρχος.

8) Ibid., I.29:

Εύβουλος .... ή Λέσβιον γέροντα νεπταροσταγή.

9) Ibid., I.28:

"Εφιππος.

φιλώ γε Πράμνιον οίνον Λέσβιον...

πολλή δε Λεσβία σταγών έκπίνεται άγαν.

10) <u>Ibid</u>.,I.31:

Φησί δὲ Φιλύλλιος ὅτι παρέξω Λέσβιον, Χῖον σαπρόν, Θάσιον, Βίβλινον, Μενδαῖον, ὥστε μηδένα κραιπαλᾶν.

# 11) <u>Ibid</u>., I.29:

'Αρχεστράτου... ήδη χρη γερακόν, πολιον σφόδρα κρατα φοροῦντα οἶνον, ὑγρὰν χαίταν λευκῷ πεπυκασμένον ἄνθει πίνειν, ἐκ Λέσβου περικύμονος ἐκγεγαῶτα.

## 12) Loc. cit .:

····κεῖνος δὲ δοκήσει οὐκ οΐνψ σοι ἔχειν ὅμοιον γέρας, ἀμβροσία δέ.

#### FOOTNOTES - 3

- 13) Rostovtzeff, M., <u>The Social and Economic History of the Hellenistic World</u>, Oxford, 1941, vol. 1, pp. 226,228, and 1370, n. 53; Michell, <u>op. cit</u>., p. 294.
- Pliny, <u>Natural History</u>, trans. by H. Rackham, Loeb Editions, London, 1938-56, XIV. 73: " - - in summa gloria post Homerica illa de quibus supra diximus fuere Thasium Chiumque, --- his addit Lesbium Erasistrati maximi medici auctoritas, circiter CCCCL anno urbis Romae."

15) Seltman, Charles, Wine in the Ancient World, London, 1957, p. 119.

- 16) Loc. cit.
- 17)Pliny, op. cit., XIV. 74: "Lesbium sponte suae naturae mare sapit; 44"
- 18) Pauly-Wissowa-Kroll, <u>Realencyklopadie der Klassischen Altertumswissenschaft</u>, Lesbos, Stuttgart, 1925, p.2118; Galen, <u>On the Natural Faculties</u>, trans. by Arthur John Brock, Loeb Editions, London, 1916, XIII. 405, XIV. 28k.
- 19) Athenaeus, op. cit., I. 30:

"Οτι Μιτυληναῖον τον πάρ' αύτοῖς γλυκὺν οίνον πρόδρομον καλοῦσι, άλλοι δὲ πρότροπον.

20) Ibid., I. 32:

ό δὲ Λέσβιος στῦψιν μικροτέραν ἕχει καὶ μᾶλλον οὐρεῖται.

21) Ibid., II. 45:

···, μάλιστα δὲ τὸν καλούμενον πρότροπον (τὸν γλυκὺν Λέσβιον) ὅντα εὐστόμαχον.

22) Ibid., I. 33:

•••, ἕτι δὲ τῷ Χίψ καὶ Λεσβίψ τὰ ἀποιότατα τῶν ὑδάτων

22 cont.)

εύθετεĩ.

23) <u>Ibid.</u>, I. 29:
 ἐστὶ δὲ καὶ Θάσιος πίνειν γενναῖος, ...ἀλλ' οὐδὲν π<sup>×</sup>
 Υἅλλφ ἐστὶν ἀπλῶς πρὸς Λέσβιον οἶνον.

24) Seltman, op. cit., pp. 131, 132.

25) Grace, Virginia R., "Stamped Amphora Handles found in 1931-1932," <u>Hesperia</u>, III, 1934, (hereafter cited as "Stamped Amphora Handles"), p. 200.

26) Athenaeus, op. cit., III. 92:

Λέσβον έριστάφυλον.

27) Ibid., [III. 598:

X,

..Λέσβον ές εὕοινον.

28) British Museum, A Catalogue of the Greek Coins in the British Museum, vol.

Troas, Aeolis and Lesbos, London, 1894, p. XVVI, introduction.

29) Athenaeus, <u>op. cit.</u>, XI. 486, a-b: In a passage of the <u>Epigrams</u> by Hedylus (ca. 200 B.C.) a "lesbion" is mentioned in such a manner that the term could only be interpreted, as pointed out by Athenaeus, as some kind of cup: "Callistion, she who could hold her own in the drinking contest with men -- no sham miracle either -- drank up six quarts on an empty stomach; it is her lesbion filled with sweet smell of pure balsam, and made of lustrous glass that is here dedicated to thee, Faphian goddess. Do thou by all means preserve her that once again thy walls may carry the booty of sweet desire inspired by her."

30) Loc. cit.: The Gulick translation of this passage is accompanied by a commentary that refutes Athenaeus' observation and states that a "lesbion" is: "Not a cup, as Athenaeus says, but a vessel filled with ointment, the prize of her victory ... " A photograph is in the files of Virginia Grace,

Stoa of Attalos II, Agora Excavations, Athens (cf. close comparison in <u>BSA</u>, XXXII, Fig. 13, no. 1 from Antissa) of a little vial of variagated glass in a shape that could well be patterned after that of the Lesbion wine amphora, a fact which seems to verify Gulick's interpretation of the term. M. Blümner inferred from the Hedylus epigram that the glass industry may have moved from Alexandria to Lesbos around 200 B.C. (Blümner, <u>op. cit.</u>, pp. 44-45). Yet at the same time other uses of the word "lesbion" with reference to a part of a ship are known (Pauly-Wissowa-Kroll, <u>op. cit</u>., p. 2123), all of which seems to indicate that the term developed idiomatic connations.

31) Rostovtzeff, <u>op. cit</u>., p. 120; Aristotle, "On Marvelous Things Heard," Loeb
Edition of <u>Minor Works</u>, trans. W.S. Hett, London, 1936, 104. 839b, p. 285:
είναι δὲ και τινα τόπον ἐν τοῖς ἀνὰ μέσον διαστήμασιν,
είς ὃν ἀγορᾶς κοινῆς γινομένης πωλεῖσθαι παρὰ μὲν τῶν
ἐκ τοῦ Πόντου ἐμπόρων ἀναβαινόντων τὰ Λέσβια καὶ Χῖα
καὶ Θάσια, παρὰ δὲ τῶν ἐκ τοῦ 'Αδρίου τοὺς Κερκυραϊ32) In a letter from J.M.Cook to Virginia Grace dated December 1st, 1948, files

of V.R.Grace, Stoa of Attalos II, Agora Excavations, Athens.

- 33) Lamb, W., "Antissa," <u>BSA</u>, XXXI, 1930-31, pp. 166-78; "Antissa,"<u>BSA</u>, XXXII, 1931-32, pp. 41-67.
- 34) Lamb, W., "Grey Wares of Lesbos," JHS, 1932, pp. 1-12.
- 35) Lamb, W., "Antissa," <u>BSA</u>, XXXI, p. 169. In a description of Trench P below the Acropolis at Antissa, a whole level of bucchero from 2.5 m. to 2.00-1.75 m. indicating a "full bucchero period" was found. A datable 6th century kantharos was included, and the rest of the bucchero belongs to both 7th and 6th centuries."; "Antissa," <u>JHS</u>, 1932, p. 3:"archaic examples belong to the 7th and 6th centuries, probably the 1st <sup>1</sup>/<sub>2</sub>."

- 36) Walters, Henry Beauchamp, History of Ancient Pottery, vol. I, London, 1905, pp. 339, 347; Boehlau, Johannes and Schefold, K., Larissa am Hermos, die Ergebnisse der Ausgrabungen, 1902-1934, II, Berlin, 1942, pp. 99-128; Gardner, E. A., "Early Greek Vases and African Colonies," JHS X. 1889, pp. 126,-128.
- 37) Lamb, W., JHS, 1932, p. 1, BSA, XXXI, p. 178; Herodotus, The Histories, Penguin Books, Baltimore, 1968, II. 178; Roebuck, Carl Angus, Ionian Trade and Colonization, Cambridge, 1959, p. 135; Boardman, John, The Greeks Overseas, Penguin Books, Baltimore, 1968, pp. 133-135; Michell, op. cit., p. 238.
- 38) Files of Virginia Grace, Stoa of Attalos II, Agora Excavations, Athens.
- 39) Rostovtzeff, op. cit., pp. 245, 228.
- 40) Anderson, J.K., "Excavation of the Kofina Ridge, Chios," BSA XLIX, 1954, p. 139.
- 41) Zeest, I.B., Pottery Containers from the Bosporos, (trans. by P. Broneer, 1972,) Moscow, 1960, p. 74.
- 42) Boulter, Cedric, "Pottery of the Mid-Fifth Century from a Well in the Athenian Agora (460-440 B.C.)," <u>Hesperia</u>,1953, pp. 102-104.
- 43) Grace, V.R., Amphoras and the Ancient Wine Trade, Excavations of the Athenian Agora, Picture Book No. 6, Princeton, 1961, (hereafter cited as Amphoras), nos. 52 and 53 with accompanying text.
- 44) J.M.Cook, "Archaeology in Greece, 1952," JHS, LXXIII, 1953, p. 124.
- 45) Loc. cit.
- Plate III, 9a 46) Zeest, op. cit. , p. 74 and fig. 9a.
- 47) NO. , PLATE NO. : Grace, Amphoras, no. 53.
- 48) Grace, "Stamped Amphora Handles," p. 201.
- 49) Grace, Amphoras, text under no. 44.

16.06

L. M.

50)Munsell, A.H., <u>Atlas of the Munsell Color System</u>, 1907, Neutral and Color Charts.
51) Grace, "Stamped Amphora Handles," p. 201, n. 5; Grace, V.R., "Early Thasian Stamped Amphoras," AJA, vol. 50, 1946, Fig. 4, note 21.

16.07

52) Any in Amphoras by Grace.

- 53) <u>Ibid.</u>, text accompanying no. 26; Grace, V.R., "Standard Pottery Containers of the Ancient Greek World," <u>Hesperia</u>, Suppl. VIII, 1949, p. 178.
- 54) <u>Inscriptiones Graecae</u>, Fascicule II, 1899, Supplement 1939, Berlin, pp. 215-217; Merritt, Wade-Gery and McGregor, <u>The Athenian Tribute Lists</u>, vol. 1, Cambridge, 1939, p. 579.
- 55) British Museum, <u>op. cit.</u>, Pl. XXX, no. 11; XXXII, no. 9; XXXVII, no. 11. In light of ensuing research, these could perhaps be deciphered as MY for Mytilene and MA for Methymna, but no corroborating superimposed letters exist.
- 56) Loc. cit.
- 57) Refiring tests were performed in November of 1959 on two pieces of Lesbian amphoras (one from a fractional "red" jar dated ca. 500 B.C., the other a slice from a full-sized "gray" jar handle dated ca 400 E.C.) by Dr. Marie Farnsworth, a research chemist and author of numerous articles on the techniques involved in Greek pottery (<u>Archaeology</u>, 1959, pp. 242-250; <u>AJA</u>, 1964, pp. 221-228; in collaboration with H. Wisely, <u>AJA</u>, 1958, pp. 163-175.). The two pieces, with parts of each kept as controls, were refired at 900 C. in an oxidizing atmosphere. As predicted, the gray slice turned to a buff color almost identical with the refired red piece and the unrefired red piece. In a letter to Virginia Grace in the Agora files referring to the tests, Dr. Farnsworth stated, "it seems ... that the two pots are identical insofar as material is concerned. The gray

E

was fired and cooled in a reducing atmosphere, and the red may or may not have been fired in a reducing atmosphere, but was allowed to remain oxidized or reoxidized in cooling."

- 58) See note 35.
- 59) Sparkes, Brian A. and Talcott, Lucy, <u>The Athenian Agora, XII, Black and Plain</u> <u>Pottery of the 6th, 5th and 4th Centuries B.C.</u>, Princeton, 1970, p. 190, and note 22.
- 60) Mr. Miltis Paraskevaides, journalist and citizen of Mytilene known for his interest in Lesbian history and antiquities, was most helpful about providing both general and specific background material concerning the island.
- 61) I. e., the Kerameikos, or pottery quarter, in modern and ancient Athens, and ancient Hephaestus Street, still the street of smiths in modern Athens as well.
- 62) Further inquiry produced the name of another traditional pottery centre, the town of Mandomados, but as subsequent investigation proved the road to this village impassable for cars and trucks, mass production seemed likely to have been suspended there in modern times, so investigation was not continued further.
- 63) Grace, V.R., "Samian Amphoras," <u>Hesperia</u> XL, 1971, pp. 52-55. The names of Demosthenes and Nikitas Haviarias, late of Syme, and of Lucas Benaki, late of Athens and Alexandria, are mentioned in this respect.
- 64) Lamb, W., "Antissa," <u>BSA</u> XXXI, p. 171.
- 65) <u>Ibid.</u>, p. 177.
- 66) Information given verbally by Dr. Anna Benjamin, Rutgers University, N.J.
- 67) Kyria Karapiperi, the official in charge of the two rooms in the basement of an old school designated as the Methymna Museum, told of local children checking the site regularly for coins after each rainstorm.

68) "Table" in this context meaning a smaller amphora with attached base to stand on.

- 69) Lamb, W., "Antissa," <u>BSA</u> XXXI, p. 177; this small amphora is unnumbered, so was labeled "Amphora A" for this article.
- 70) Ibid., Plate XXVII, No. 6.
- 71) Folsom, Robert S., Handbook of Greek Pottery, London, 1967, pp. 153-159.
- 72) Lamb, W., "Antissa," <u>BSA</u> XXXI, p. 177; this amphora was labeled "Amphora B" for this article.
- 73) Grace, V.R., Amphoras, Nos. 44, 45-47, 56, 62, 64.
- 74) Lamb, W., "Grey Wares of Lesbos," JHS, 1932, p. 3.
- 75) Ibid., p. 9.
- 76) <u>Loc. cit</u>.
- 77) Loc. cit.
- 78) From a corroborating letter to me from Miss Despina Hadzi, Curator of the Mytilene Museum on the island of Lesbos, dated February 18, 1973.
- 79) Cook, R.M., Greek Painted Pottery, London, 1966, p. 52.
- 80) Noble, Joseph Veach, <u>The Techniques of Painted Attic Pottery</u>, London, 1966, p. 2.
- 81) In assembling the sherds for testing, it was suggested that handle fragments, because thay were usually of reinforced clay, were the least suitable for testing purposes. This was disconcerting, as cylindrical handles being a main identifying characteristic of the amphora class, the collection of sherds tended heavily to handles to make sure they were amphora pieces and not bucchero fragments. Toe pieces and bombe' neck fragments had equal identification merits, but where body fragments, particularly those from Methymna, had to be substituted, it was felt that the material was less reliable. Body fragments from Mytilene were so obviously from amphoras, they did not create the same concern.

- 82) Final report from Brookhaven National Laboratory written by Mrs. Dorothea Brooks and dated March 7, 1973; all subsequent evidence, unless separately noted, is from this source.
- 83) This can perhaps be explained as differences in digging and preparing the same clay for different purposes; that a cup with a delicate handle may have required reinforcement or tempering whereas a more solid bud vase did not.
- 84) From a paper given at the American Chemical Society meeting in Dallas, April, 1973, "Biblical Studies through Activation Analysis" by Dorothea Brooks, et al. (to be published).
- 85) Material obtained verbally from Joseph Veach Noble, Director, The Museum of the City of New York.
- 86) This same variation in sodium concentration between ancient and modern sherds has appeared in the results of other tests made at Brookhaven also. In these tests, the modern clay was also found to have a higher overall concentration of all elements, a result that can be explained by the fact that ancient potters used much more temper in their clay compounds, thereby diluting the basic clay considerably.
- 87) See note 83; Dorothea Brooks stated that "in Israel there were two types of clay used for pottery, both found near each other, but with very different patterns."
- 88) See note 82.
- 89) Loc. cit.

4. 1x.78

16.11

Missing p. 5 of footnotes (not sent by PETWIT July 1973?). Have asked B Cl. 10 provide 2 copy.

23. ix. 79

Bal. gave PTIWTI copy of \$.50f fn. in Princeton May 79. Now added here to Mrs.

## CATALOGUE, A SELECTED SAMPLING OF LESBIAN AMPHORAS ( PLATE NO.

Amphoras in this catalogue are numbered in developmental sequence. Both stylistic changes and context dates, where available, were considered in determining the sequence. Where no context dates were available, approximate dates were determined by stylistic comparison with amphoras in the series by this author.

The jars from the Agora Excavations in Athens are titled by their inventory numbers as well, either "P" (Pottery) or "SS" (Stamped Seal) categories. All Agora dates are those given to the deposits in which the jars were found and will refer to a Deposit Number (example: 0 12: 1 ) which corresponds to a 20 meter square of the Agora excavation area grid. For the most recent and definitive description of the deposits and their dating, see <u>The Athenian Agora</u>, <u>Volume XII, Part 2</u>, "Deposit Summaries," pp. 383-399. Inventory numbers from other excavations and publications are stated where available. The numbers and context dates from the Kerameikos Cemetery excavations were supplied by excavators from the German Archaeological Institute in Athens and further details can be found in Kerameikos reports.

#### AMPHORA SERIES

0 12: 1 ; 3rd 2 7th century B.C.

PH: .189 m. NH: .119 m.

Agora P 22739

NO. 1)

HH: .13 m.

HD: .032 m.

Gray throughout with bits.

One fragment mended from many pieces, part of rim, neck, handle and shoulder preserved; a non-joining fragment of handle with lower attachment added in plaster.

Slightly thickened rim with slight flare, slanting bevelled top. Downward-flaring neck, offset groove below at level of middle of upper handle attachments; second offset groove at base of neck at point of juncture with body.

Cylindrical handles, short, thick, joining neck at top below rim, leaving rim completely free; lower handle attachment comes to a slight ridge toward lower preserved end as though to form a rattail. Published: Brann, F 80, <u>Hesperia</u>, 30, 1961, p. 346. pl. 86, 89.

17.02

CATALOGUE - 2

1

NO. 2)	SW 108 (Kerameiko	<u>s)</u>	ca. 500 B.C. (context with						
	H: .685 m.	D: .393 m.	lekythos)						
	NH: .15 m.	ND: .115 m.							
	HH: .171 m.	TD: .08 m.							
	Clay coarse with	mica, dark buff-gra	y throughout.						
	Whole jar restore	d from pieces, slig	tht plaster restoration, part						
	of lip missing.								
	Wide rim with off	set ridge directly	beneath.						
	Short cylindrical	handles encroachin	ng on lower portion of rim,						
			Wide, squat, ovoid body.						
	Wide toe, flat, c		,,						
		0							
<u>NO. 3</u> )	Agora P 16802		G 15: 1 (main mass of fill);						
	PH: .275 m.	ND: .105 m.	ca. 500 B.C.						
	HH: .174 m.	NH: .15 m.							
	LW: .02 m.	1. Start 1.							
	Very coarse dark gray clay with mica.								
	Neck, one handle intact, other handle, parts of shoulder put together								
	from pieces. Thick cylindrical handles with slight curvature								
	encroaching on lower $\frac{1}{2}$ of rim, ending in a short rattail.								
	Thick roll rim, flat on top, no offset below.								
	,								
NO. 4)	Agora P 24875		Q 12: 3; <u>ca. 520-490 B.C.</u>						
	H: .65 m.	D: .302 m.	( ) , <u></u>						
	NH: .178 m.	TD: .034 m.							
	HH: .183 m.	ND: .120 m.							
	LW: .016 m.	11D. 0120 MIC							
	Clay micaceous buff, slight smear inside.								
	Whole jar mended from many pieces, some plaster restoration.								
	Roll flaring rim with offset ridge below.								
	Cylindrical handles with slight curvature, but pulled in closer to								
	neck at bottom attachment; top attachment clear of rim, bottom ending in long rattail. Bombe' neck leading into distinctly ovoid								
	body that tapers quickly to narrow, flat toe with depression on								
		darents to Harrow	That the with depression on						
	underside.								

CATALOGUE - 3

HW 226 (Kerameikos) dated by context to 470/460 B.C. NO. 5) .776 m. H: D: .412 m. NH: .176 m. ND: .112 m. HH: .20 m. TD: .05 m. LW: .016 m. Fine gray-buff clay with dark gray core, some mica and bits in surface. Whole jar mended from many pieces, slight plaster restoration; jagged cutting in body where opened for infant burial. Narrow, roll rim with offset ridge beneath, flat top. Neck long, bombe'; offset groove at base at point of juncture with body. Long, cylindrical handles of minimum curvature; encroach on a good half of rim, end in long rattail. Ovoid body curving roundly to narrow, flat toe. NO. 6) Agora P 21974 Agora well N 7:3 ; ca. 460-440 B.C. PH: .26 m. ND: .115 m. NH: .17 m. LW: .023 m. HH: .17 m. Buff-gray clay with pitted surface, mica, and large gray core. Neck, rim and handles, upper portion of shoulder all intact. Thick, flaring lip, offset ridge below. Thick, cylindrical handles, short with minimum of curvature that draw in to bottom attachment and end in a very short rattail. Published: Grace apud Boulter, Hesperia, 22, No. 149, p. 102 and pl. 39. NO. 7) Agora SS 10289 B 19: 11 (upper fill): H: .742 m. D: .34 m. ca. 425-400 B.C. NH: .192 m. LW: .012 m. HH: .225 m. Clay light gray with darker areas, bits. Whole jar, neck and handles intact, body mended from many pieces, some plaster restoration; top of rim and one handle worn away; part of toe broken off. Very narrow roll rim with offset ridge beneath. Long neck, bombe', with offset groove at base point of juncture

with body; stamp below rim deeply incised before firing:

Suc proj.

# CATALOGUE - 4

Cylindrical handles with extreme curvature encroaching to top of rim, pulling into bottom attachment close to base of neck, ending in long rattail.

17.04

Ovoid body curving quickly from shoulder to narrow toe.

NO. 8)

Mid to second ½ 4th c.B.C. H: .814 m. D: .32 m. by comparison with NOS. 42 NH: .242 m. TD: .037 m. and 43 in Lesbian series. HH: .250 m. Light buff-gray fine clay with bits, no mica. Whole jar, most of neck, part of rim, one handle and body restored from many pieces; part of neck, rim, one handle missing; slight plaster restoration. Narrow, downward-slanting rim with offset ridge below. Very long, bombe' neck. Cylindrical handle with less extreme curvature set close up below rim at upper attachment; lower half of handle makes almost reverse curve to bottom attachment pulled in close to base of neck; ends in short rattail. Ovoid body tapering in almost straight line from acute shoulder angle

to long, narrow, flat toe.

HS 163 (Kerameikos)

# MYTILENE FINDS (PLATE NO.

AMPHORA A(Antissa - unnumbered)	7th to first $\frac{1}{2}$ of 6th century B.C.
H: .45 m. D: .351 m.	
• . NH: .10 m. ND: .13 m.	
HD: .024 m. TD: .112 m.	
Dark gray clay, unslipped, unpoli	shed.
Whole jar repaired from many piec	
Thick, flat-topped roll rim with	
Short, straight neck with offset	ridge at base of neck at point of
juncture with body.	
Short, cylindrical handles attach	ed at top well below rim and at
bottom ending in short but disting	ct rattail.
Slight ring toe, flat bottom with	slight slope to center. MA XXXI, p. 177, Flate XXVII, no.6.

CATALOGUE - 5

AMPHORA B (Antissa K 55)

7th to 1st  $\frac{1}{2}$  of 6th century B.C.

H: .55 m.	D: .365 m.
NH: .10 m.	ND: .124 m.
HD: .018 m.	TD: .115 m.
HW: .04 m.	
Dark red clay with	bits.
Intact jar except f	for slight repair at bottom.
Half roll flat-topp	ed rim with no offset ridge below.
Short downward-flar	ring neck with offset ridge at base at the point
of juncture with bo	)dy.
Flat handles of min	nimum curvature attached at top well below rim
and smoothly at bot	tom; one handle incised the entire length with
lines that seem to	form three rectangular panel.
Large, ovoid body t	apering slightly to flat bottom.
Very slight downwar	d-flaring ring toe, flat bottom on underside
indented slightly.	
Published: W. Lamb,	"Antissa," <u>BSA</u> XXXI, p. 177

SHERD PHOTOGRAPH NO.1 (Mytilene - Omas 41-42)

Dark gray, almost black clay.

Three sherds, probably from same amphora: 1) long cylindrical handle piece ending in broken rattail, 2) body piece showing bottom of elongated rattail in relief, 3) long hollow toe with flat bottom, two incised lines near base(?).

# SHERD PHOTOGRAPH NO.2 (Mytilene - Omas 32)

Buff gray clay.

Three sherds: 1) curved part of handle (cylindrical) with bit of rim above it, 2) half wall of toe with bottom broken, showing long and hollow to base, 3) bottom part of toe showing part of one wall and flat bottom, hollow.

# SHERD PHOTOGRAPH NO.3 - (Mytilene - Omas 64)

Gray clay.

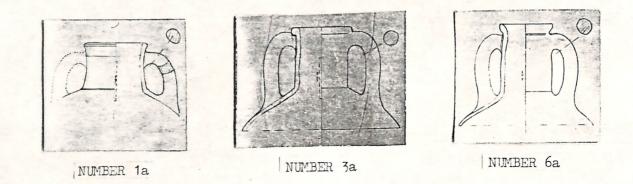
Four sherds: 1) rim and upper handle attachment piece showing offset ridge, cylindrical handle, 2) base handle attachment ending in broken rattail, 3) and 4) two bombe' neck wall pieces.

# CATALOGUE - 6

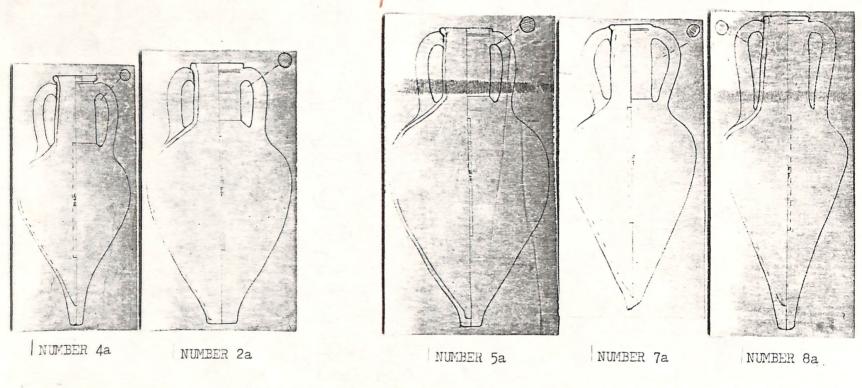
# SHERD PHOTOGRAPH NO. 4 (Mytilene - Omas 32)

Gray clay.

Six sherds: 1) and 2) two long cylindrical handle pieces, 3) one lower handle attachment ending in broken rattail, 4) one curved part of cylindrical handle with portion of lip above and beside it showing offset ridge, 5) and 6) two lip and neck wall pieces showing offset ridge. LESBIAN AMPHORA PROFILES



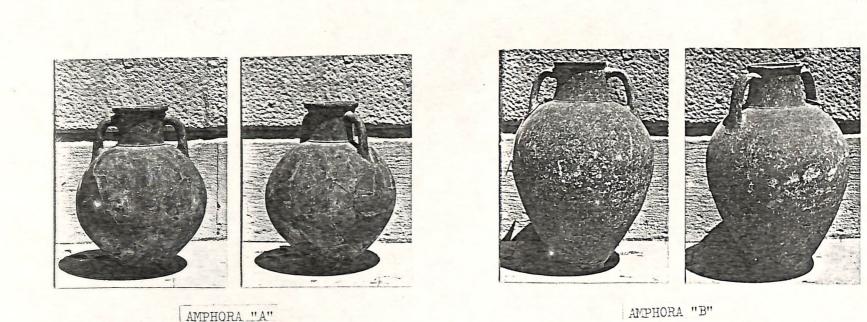
Publication drawings by Helen Bezi from pencil originals by B. Clinkenbeard



LESBIAN AMPHORAS: Barbara G. Clinkenbeard

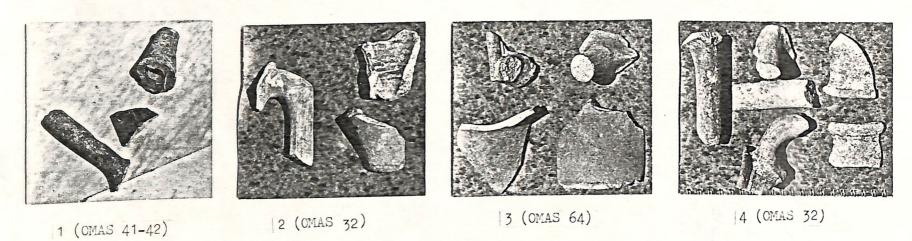
11:10

15



AMPHORA "A"

ANTISSA MATERIAL

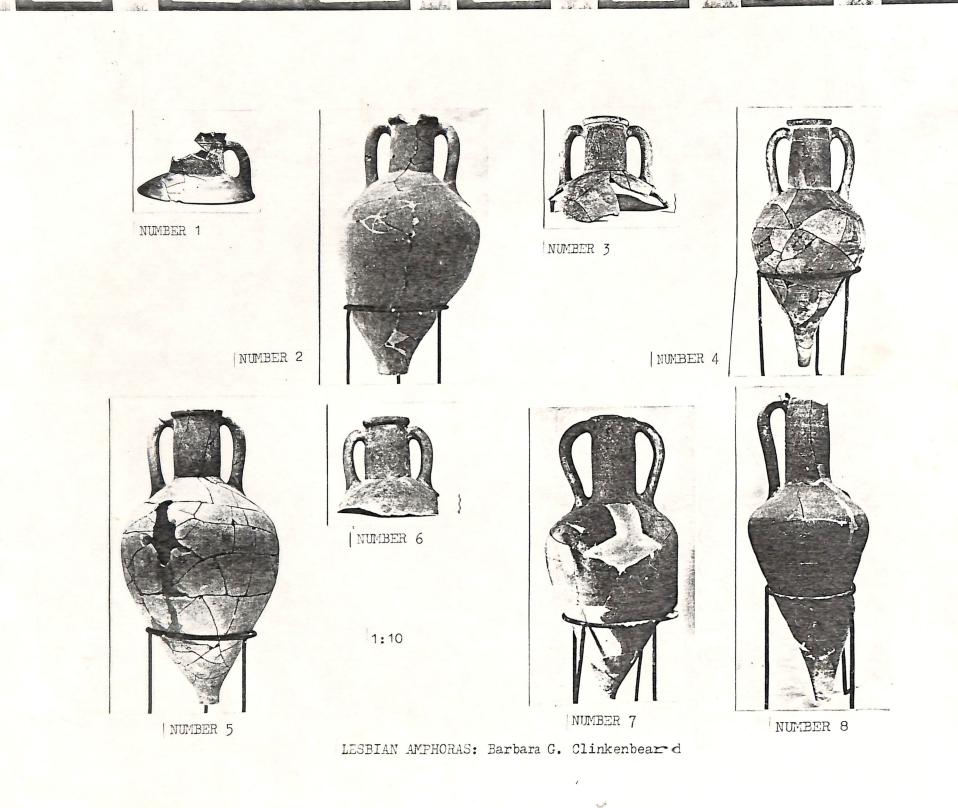


MYTILENE FINDS

LESBIAN AMPHORAS: Barbara G. Clinkenbeard

17.08

1:10



SAMPLE-	ELEMENT	NA	K	RB	CS		SC	LAP	CE	EU
Swill C.	S	iodium	POTASSIUM	RUBIDIU	M.CESIUM		SCANDIUM	LANTHANU	MUERIUM	EUROPIL
A12-LESRGE2-64-1-		959-	2,210	-87,478	5,623	384,475		39,963	87,091	
A13 LESPGEZ GP. 1		2,146	3.322	120:797	15,924	739.327	25,889	43,528	91.075	1.742
ALA-LESRGEZ-GP-1-		1.121-		-113;693	8,701	497:191		44,516	91,895	1;76
101 LESPGEZ GP. 1		.240	2,207	121;755	12,933	467,313		76,290	131.702	3,32
Sta-LESRGEZ-GP-1-		296	2,255	-134 693	14,746	- 506,120		89 707	156.748	3,72
1 2 LESHGEZ GP. 1		437	2,980	167:976	10,775.	533.132		64,015	119,538	2,43
122-LESROEZ-OP-1				-1587933-	12,060-	621,817	37,308	- 68 893		
M17 LESPGEZ GP. 1		1.395	2,904	146;161	12,980	800,138	26,818	54,514	112.278	1,92
118-LESRGEZ-GP-1		1-807		148:782	7,954	1998.597		53;941	107.521	1;64
M19 LFSBGFZ OP. 1		2,641	5,321	155:429	9,217	3130.049	19,451	897613	202.015	2.26
M20-LESRGE2-GP-1-		1-149-		-152:864	20,078	1310,223	29,953	53 951	111.874	1,86
121 LESPGEZ GP. 1		.718	2,976	131:517	6,243	745,752		48,080	102.811	1,78
121 LESKGEZ GR 1		1,537	S_010			902,986	31,599	- 461700	98,790	
F16 LESHGEZ GP. 1		1.912	2,910	148:815		1037,502		45,766	92,442	1,67
TIO LESPOLZ GE, I		10.76								
SAMPLE	ELEMENT =	HE	TH	TA	CR	MN	FE	co		
SAMPLE	HO	ENUM J	HORIUM T	ANTALUM	CHROMIUN	MANGANI	SEL IRON!	COBALT		MANTIM
12 LESAGEZ GP. 1		4.874	13,096	1:548	1519,761	796.210	8,886	83,562	T581	2,23
13-LESPGEZ-64-1			-21 : 624		- 164,275	1012.907	5,527	43:920	,448	2,91
14 LESPGEZ GP. 1		5.379	14,807	1:065	516,957	581. 028	7,881	46:036	1670	2,57
Ot LESKGEZ-GPT-1-		5-511	-20,583			- 2383.24	- 9,295	43,492	- 1,095	4;90
11 LESPGEZ GP. 1		.382	22,820	2:932	4114.292	2838. 306	10,413	55,355	1,100	5,58
-2-LESHGE2-GP7-1-			-22,699	21098	319,538	1346 . 113	8,279	291526	1847	5,48
22 LESRGEZ GP, 1		5.613	22,925	2:284	316,700	1468. 161	8,682	35,191	7987	5,63
17-LESAGEZ 6P; 1			-20,150 .	- 1:885	221,494	1025.72	6 544	27:500	1650	4,77
18 LESBGEZ GPT 1		5,444	28.639	1:002	211,427	11 83.884		25,774	1594	1,71
10 LESDGEZ GP 1			-43, 996	17686	63,465	1491.35.		17,877	546 -	2;53
		5,364	20,941	17/51	243,946	957.56	5 6,193	26,490	1 653	4,69
		1.144		17758	231,511	436 . 74		24,535	1719	1,73
		0 - 7 -				1432. 87	7,619	35:256	- 1553	4,59
20 LESBGEZ GP 1 21 LESBGEZ GP 1 15 LESBGEZ GP 1		5,105	18,296	1:529	313,941	1430. 017	1 01,	0-1200	1000	

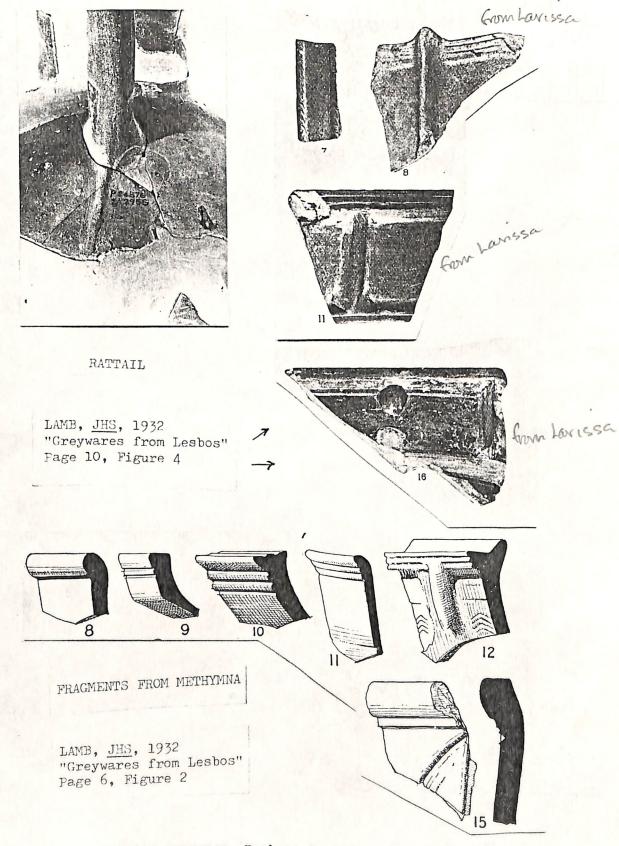
FINAL CALCULATION OF ELEMENT CUNCENTRATIONS IN SAMPLES OF BRUTAL RUN OF 11/30/72 ON LESBGEZ GP; 1

NEUTRON ACTIVATION COMPUTER PRINTOUT

LESBIAN AMPHORAS: Barbara G. Clinkenbeard

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