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AEGINA
Society and Politics

Thomas J. Figueira

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AEGINA

SOCIETY AND ECONOMY

THOMAS J. FIGUEIRA

TO

THE MEMORY OF

MY FATHER

CHARLES FIGUEIRA

Preface

This work is a revision of Part I of my 1977 doctoral dissertation for the University of Pennsylvania. The original work, entitled Aegina and Athens in the Archaic and Classical Periods: a Socio-Political Investigation, attempted to fuse two inquiries. One, to which topic this work is largely devoted, was an investigation of Aegina's social institutions, with an eye toward explaining that island's political and military vitality. Its other topic for study was more purely political history. By far, the dominating feature of Aeginetan history was the island's confrontation with her larger neighbor, Athens. It was a premise of my thesis that this long conflict could only be understood in light of the institutional continuities and disparities between the two cities.

Part I appears here alone in more finished form for several reasons. Considerations of scale (as this makes a work of independent size itself) urged separate publication. Yet, more important was my concern with the preliminary work that was necessary to lay bare Aeginetan political history. As so often in the investigation of the history of Archaic poleis, a chronology must be established before proceeding to analysis. This would make for an unwieldy work, and a series of papers on both chronology and on other questions of preliminary but critical bearing on Athenian-Aeginetan interrelations is in the process of publication

or preparation. Therefore, I have postponed publication of Part II of my dissertation, about which, in any case, my ideas have changed significantly in detail.

For those who have read the original dissertation, it is fitting to give some idea of the revisions which Part I has here undergone. In general organization and in the theses which were argued, this work follows along much the same lines. I have attempted to present here the ancient evidence much more fully. The first chapter treats in greater detail the comparative material concerning Aegina's agriculture and population. Chapter 2 has undergone the greatest alteration, and has been largely rewritten. The discussions of the minting efforts of Pheidon of Argos and of the Aeginetan standard are new, and much material, previously sketched in outline, has been presented in tabular form. I have had the good fortune to have been able to look at new work on Aeginetan coinage, both published and unpublished. Chapter 3 has been split in two, but has been changed only in detail. Chapter 4 of the original thesis has become Chapter 5. The most significant change to it has been the introduction of some additional material from Pindar's Aeginetan odes.

I should hereby like to thank the original supervisor of my dissertation, Professor Michael H. Jameson, now of Stanford University, and the first reader, Professor Martin Ostwald of Swarthmore College and the University of Pennsylvania. I should like to express my thanks here once more to those who supported and encouraged my original research at the University of Pennsylvania,

Oxford University, and the American School of Classical Studies in Athens. I would like again to acknowledge the kindness of Dr. Colin M. Kraay, Keeper of the Heberden Coin Room of the Ashmolean Museum, during my stay in Oxford in 1976. Mrs. Leslie Beer has been most generous in sharing her ideas and drafts from her (as yet) unpublished work on Aeginetan coinage, and I thank her for her permission to quote from this work, and for her invaluable advice. Professor W.R. Connor of Princeton University, the editor of this series, was most supportive during the preparation of this work, and gave me many useful criticisms and suggestions. Particular thanks are due to my wife, Sarah, who has saved me from many errors and been so helpful in the production of the manuscript. The Fulbright Foundation, with a fellowship to Greece in 1976/77; Dickinson College of Carlisle, Pa.; and Rutgers University of New Brunswick, N.J. (the latter two with Faculty Research Grants) provided support for the revision process. Rutgers University has also provided funds for typing and computer text editing.

All errors are, of course, my own. Also, the nature of the computer editing program which has been used precludes the inclusion of quotations in Greek script. Therefore, I have transliterated all Greek. I claim no great consistency in the spelling of Greek names. Those with which I felt most comfortable in Latin form or whose Latin form is most familiar have been so treated. Others have been left in more strict Greek transliteration.

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List of Abbreviations

AltÄ	Alt-Ägina, ed. H. Walter; Wurster, W., Der Apollontempel, Alt-Ägina 1.1, (Mainz, 1974) ----, & Felten, F., Die spätrömische Akropolis: Alt-Ägina 1 (Mainz, 1975)
ASI	Ancient Society and Institutions: Studies Presented to Victor Ehrenberg on his 75th Birthday, ed. E. Badian, (Oxford, 1966)
ATL	Meritt, B.D., Wade-Gery, H.T., & McGregor, M.F., The Athenian Tribute Lists, 4 vols., (Cambridge, Mass., & Princeton, N.J., 1939-53)
Buck, GD^2	Buck, C.D., The Greek Dialects^2, (Chicago, 1955)
CAH	The Cambridge Ancient History, ed. J.B. Bury, S.A. Cook, F.E. Adcock, vols. 4-6, (Cambridge, 1926-7)
Clark & Haswell, Subsistence Agriculture	Clark, C., & Haswell, M., The Economics of Subsistence Agriculture^2, (London, 1968)
CPG	Corpus Paroemiographorum Graecorum, ed. E.L. A Leutsch & F.G. Schneidewin, (Göttingen, 1839)
Dittenberger, Syll.^{3}	Sylloge Inscriptionum Graecarum^3, ed. W. Dittenberger, 4 vols., (Leipzig, 1915-24)
EGC	Essays in Greek Coinage Presented to Stanley Robinson, ed. C.M. Kraay & G.K. Jenkins, (Oxford, 1968)
FGH	Die Fragmente der griechischer Historiker, ed. F. Jacoby, 14 vols., (Leiden, 1923-58)
FHG	Fragmenta Historicorum Graecorum, ed. C. & T. Müller, 5 vols., (Paris, 1841-70)

Finley, "Classical Greece"	"Classical Greece", The Proceedings of the Second International Conference of Economic History: Trade and Politics in the Ancient World, Aix-en-Provence, (Paris & the Hague, 1965) 11-35
GGM	Geographi Graeci Minores, ed. C. Müller, 2 vols., (Paris, 1882)
GHI	Tod, M.N., A Selection of Greek Historical Inscriptions, vol. 2, (Oxford, 1948)
GSK	Busolt, G., & Swoboda, H., Griechische Staatskunde, 2 vols., (Munich, 1920, 1926)
HCT	Gomme, A.W., Andrewes, A., & Dover, K.J., A Historical Commentary on Thucydides, 4 vols., (Oxford, 1945-70)
IC	Inscriptiones Creticae, ed. M. Guarducci, 4 vols., (Rome, 1935-50)
IG I^2	Inscriptiones Graecae: Inscriptiones Atticae Euclidis anno anterioris edito minor, ed. Fr. Hiller von Gaertringen, (Berlin, 1924)
IG II^2	Inscriptiones Graecae: Inscriptiones Atticae Euclidis anno posteriores, ed. J. Kirchner, (Berlin, 1913-40)
IG IV	Inscriptiones Graecae: Aeginae, Pityonesi, Cecryphaliae, Argolidis vol. 4, ed. Mn. Fränkel, (Berlin, 1902)
Kraay, ACGC	Kraay, C.M., Archaic and Classical Greek Coins, (Oxford, 1976)
LSAG	Jeffery, L.H., The Local Scripts of Archaic Greece, (Oxford, 1961)
Müller, LA	Müller, C.O., Liber Aegineticorum, (Berlin, 1817)
NA	Numismatique antique, ed. J.M. Dentzer, P. Gauthier, & T. Hackens, (Louvain, 1975)

OCD	Oxford Classical Dictionary[2], ed. N.G.L. Hammond & H.H. Scullard, (Oxford, 1970)
PECS	Princeton Encyclopaedia of Classical Sites, ed. R. Stillwell, (Princeton, 1976)
PGGA	Les problèmes de la guerre en Grèce ancienne, ed. J. Vernant, (Paris-LaHaye, 1968)
PTGA	Les problèmes de la terre en Grèce ancienne, ed. M.I. Finley, (Paris, 1973)
RE	Paulys Real-Encyclopädie der klassischen Altertumswissenschaft, ed. G. Wissowa, K. Ziegler, W. Kroll, & K. Mittelhaus, (Stuttgart & Munich, 1894-1972)
SGHI	A Selection of Greek Historical Inscriptions to the End of the Fifth Century, ed. R. Meiggs, & D.M. Lewis, (Oxford, 1969)
Welter, A[1], A[2]	Welter, G., Aigina, (Berlin, 1938) = Aigina[2], ed. G.P. Koulikourdes, (Athens, 1964)
West, IE	Iambi et Elegi Graeci: ante Alexandrum cantati, ed. M.L. West, 2 vols., (Oxford, 1971-2)
Winterscheidt, Aig.	Winterscheidt, H., Aigina: eine Untersuchung über seine Gesellschaft und Wirtschaft, (Diss., Köln, 1938)

Fragments of Attic comic writers are from Fragments of Attic Comedy, ed. J.M. Edmonds, 3 vols., (Leiden, 1957-61). Citations of scholia of Pindar are from Scholia Vetera in Pindari Carmina, ed. A.B. Drachmann, 3 vols., (Amsterdam, 1927). Otherwise, collections of fragments and scholia are cited with their editor in parentheses. Standard abbreviations have been used for journals.

Introduction

Perhaps it is pardonable to make a beginning with the standard disclaimer that this is not a history of Aegina, but rather a historical work that has Aegina as its subject. For Aegina, we lack the raw data from which historical surveys are constructed. Only a few of the island's political leaders are even so much as names to us. The interplay of factions or of politically active families is a mystery. The very substance of political history, decision-making and the policy alternatives that are its material, can be glimpsed only dimly and fitfully. The civic institutional structure is largely unknown.[1] Without the improbable discovery of many new inscriptions, legislation, institutions, and foreign affairs in connected form are irrecoverable. The darkness that shrouds the organization of governmental bodies also obscures family life, education, and class structure. Moreover, to discuss an ancient economy is a task that is ideally undertaken with a body of statistical data for material. Since we are without the capacity to speak quantitatively about this subject, only the broadest trends,

OCD	Oxford Classical Dictionary[2], ed. N.G.L. Hammond, & H.H. Scullard, (Oxford, 1970)
PECS	Princeton Encyclopaedia of Classical Sites, ed. R. Stillwell, (Princeton, 1976)
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and the crudest conjectures, can be suggested in our estimates o
the intensity of various types of economic activity.

Athens alone has a documentation rich enough (in some periods
to justify an attempt at political history, although success i
scarcely guaranteed. The emphasis on Athens apparent in th
surviving ancient literature has not been sufficiently balanced b
archaeological efforts, themselves conditioned in their focus b
the importance of Athens in literary sources. In any case
archaeology can seldom bring to light information useful in writin
political history. Most of the data that lies ready to th
archaeologist's spade (architectural remains, ceramic material
coins, and succinct inscriptions) provides a basis generall
unsuited for narrative history as it is commonly understood.
the other poleis in the Archaic and Classical Periods, only Spar
has "histories" consistently written of it, works that attempt t
shed light upon many aspects of Spartan life, as well as trying
give a description of what the Spartans did at home or abroad
specific periods. Yet even Sparta lies near the threshold bel
which continuous or detailed political history is precluded. Th
decision, whether the evidence concerning Sparta falls above
below this threshold, is best left to those who have endeavored
write histories of Sparta. Other cities too remain enigmas to
in most crucial dimensions of their history.

Fortunately, a relatively large amount of archaeologic
material and of scattered literary evidence offers information
Aegina, but one must be clear about the sorts of questions whic
the evidence illuminates. In the realm of diplomatic or milita

history, it is certainly possible to make tentative conclusions about such matters of significance as the date and context of Aeginetan independence from Epidaurus, or Aegina's relationship to Sparta during the sixth and fifth centuries.[2] However, it is noteworthy that these questions are in the context of regional or general Greek phenomena or situations. Not enough specific information is in our possession about Aegina to permit the answering, or in many cases, merely the setting, of other important questions. One would like to be able to evaluate properly all the ramifications of Aeginetan involvement in Crete, where the Aeginetans had a role that was doubtless commercial, and on one occasion, military (Hdt. 3.59). An equally significant topic, the interrelations of Aegina and Samos, is a puzzle, of which the few surviving clues suggest the importance, but little more.[3] In other words, when we approach the history of a single polis, we are paradoxically spared one affliction of ancient writers, so much better equipped by tradition with evidence, namely provinciality. If more of the local historical tradition had survived - and one gets an impression of its character from the Pindar scholia - our focus in the study of Aegina would be necessarily more parochial. For, to the modern, it is apparent that Aeginetan history can only be explored in pan-Hellenic terms, given the present state of the evidence. A comparative approach is unavoidable.

Therefore, it will always be necessary to have both Aegina's analogues and counter-images explicitly or tacitly in view, especially when one speaks about institutions and economic life. Thus, the study of any Archaic polis tends to become a

reinterpretation of the entire Archaic world, in which that cit
must find its place. For example, it will be necessary to spea
about colonization, in which Aegina for the most part did no
participate, in order to gauge properly long distance trade,
which the Aeginetans seem to have played an important role
Comparative material must be selectively applied, in order t
discover parallel patterns into which one may incorporate th
scatter of surviving data, so few that scholars of the Archai
Period are notoriously reluctant to disregard the most garble
passage or discard even the latest of testimonia.[4] Even so, it
is difficult to rule out many of the plausible hypotheses and t
promote one as being nearest to the truth. There are too few soli
facts and too many good suppositions, among which often only
capricious choice can be made.

Detailed information exists about Aegina primarily on accou
of the island's history of confrontation with Athens. Often, in th
sources portraying episodes of this conflict, there are insight
into Aegina's stance relative to other states (e.g., the dependenc
of Aegina on Epidaurus (Hdt. 5.83.1)), or even into the island'
internal politics (e.g., the uprising of the demos under Nicodrom
(Hdt. 6.88-91)). However, it is chiefly the significance of th
very conflict with Athens which sustains the energy committed to
investigation of Aeginetan history. For the prosperity and eventu
survival of the Aeginetan state, the status of the confrontatio
with Athens was the critical factor at any specific time. Th
wealth and influence of Aegina never recovered from the near
generation-long hiatus in habitation by the Aeginetans of thei

island which followed their expulsion by the Athenians in 431, and their replacement by cleruchs (Thuc. 2.27). This was merely the definitive punctuation to the decline of Aeginetan fortunes inaugurated by the defeat, with heavy material and human loss, in the military struggle with Athens and thereafter by reduction to tribute-paying subject status within the Athenian Empire (Thuc. 1.108.3-4). Aegina's commercial development and ability to undertake actions overseas depended both on the attitude of the Athenian leadership toward Aegina and on Athenian ability to project power outward, which in turn was dependent on the efficiency with which Athenian institutions mediated tensions between societal groups.

Concomitantly, the Aeginetan question was at the center of Athenian political calculations regarding foreign policy for many generations. Clearly, Themistocles, who framed his naval reforms to counter Aeginetan maritime power, and Pericles, who termed the island the "eyesore of the Peiraeus", did not underestimate Aegina's importance. Arguably (though perhaps less apparently), Aristeides, Cimon, and Thucydides Melesiou recognized that the position which Athens took toward her neighbor Aegina was indissolubly linked with the tone and direction of her foreign policy in general.[5] If imperialism is defined as any attempt through political, military, or economic means to influence the behavior of another state, Aegina was both an obstacle to and a testing ground for Athenian imperialism. The sea was the medium through which Athenian imperialism was to be expressed, so that, until Aegina's subjugation, the situation of so strong a naval

power very near to the shores of Attica was the fundamental weakness in Athens' military situation.

Less obviously, but with no less significance, the fear of Aeginetan Medism or Aegina's ability to come in on the side of any potential adversary of Athens (e.g., Thebes) appears to have motivated the Athenians to revamp their governmental apparatus. Themistocles' naval bill, directed against Aegina, changed the role of the state treasury in warfare and lessened the authority of the upper classes in the administration of the Athenian fleet.[6] It was on Aegina that Athens took the first steps at exporting her political order by supporting the members of the demos in their revolt. Here, the Greek world embarked upon a road that was to lead to the ideologization of warfare, a leitmotif of the Peloponnesian War. Also, the changing Athenian stance toward Aegina is an expression of small changes in Athenian foreign policy. The island appears prominently as this policy's focus moves from the period of Solon, when Athens' neighbors were viewed chiefly in light of the impact of their actions on the socio-economic crisis raging internally (however difficult it is to draw even tentative conclusions about this); to the dynastic preoccupations of Peisistratus and his sons; from the Peisistratids' good neighbor policy to the time of conflict with Athens' neighbors in the decades after the Cleisthenic reforms; from this struggle for regional hegemony to the Pan-Hellenic emphasis of Xerxes' invasion and of the years of heady expansion after the establishment of the Delian League; and finally, from the anti-Persian crusade to an attempt to balance the needs of the Delian League against the

alluring prospect of sway on the Greek mainland. All these trends and gradual shifts are enmeshed in the history of relations between Aegina and Athens.

Yet, this conflict between Aegina and Athens is not easily understood in the context of a struggle between a larger power and its smaller neighbor.[7] It was common for cities threatened by nearby aggressors to look to more distant champions as allies. Aegina, from the period of her independence from Epidaurus, stood aloof from entangling alliances, except for the modest reinforcements which she received from her ally Argos on two occasions.[8] Nor was the independence of Aegina a mere byproduct of Athenian weakness, for both strong and weak governments at Athens alike met in Aegina a formidable adversary. The Athens of Cleisthenes, which had defeated attacks by Thebes and Chalcis, found Aegina intractable. Also, the Marathonomakhoi were not able to subjugate Aegina to Athenian dominion. When this situation is compared with the disparity in size and resources between these two states, a complex of problems immediately comes to the forefront. Aegina had little land, and no appreciable natural resources. Obviously, the fact that Aegina was a formidable opponent of the Athenians suggests that the island was both prosperous and populous. Moreover, this impression is reinforced by the literary sources which characterize Aegina as a wealthy state.[9] Aegina cannot, therefore, have been an institutional analogue of Athens. The Aeginetans must have organized their society along very different lines from the Athenians; otherwise, their capacity to maintain their political independence cannot be

understood. The Aeginetans must have used their resource base in a fashion radically different from that of Athens.

In a homogeneous culture, with simple technology, numbers are translatable into military power. This raises the question how Aegina could support a population larger than expected. It directs our attention to the discontinuities between Aegina and Athens. While the ancient literary sources speak about Aeginetan prosperity, and the wealthy Aeginetan political elite, two areas in particular appear to be graphic demonstrations that the line of evolution taken by Aegina was atypical. First, a consideration of the relationship between the size of Aegina's population and the island's agricultural resources suggests that Aegina's economy differed from that of most Greek cities in the preponderance of non-agricultural economic activity, and that the process by which the island reached its fifth century population was unusual. In the second place, Aeginetan coinage, in the dissemination of its standard, in the size of its issues, and in its distribution implies a complex web of interchanges between Aeginetans and many other Greeks. Much of the discussion to follow is an exploration of possible patterns for the development of Aeginetan society in light of the evidence from population and coinage.

Just as Aegina was not the typical small Greek city situated at the margin of a more powerful political entity, so too were the Aeginetans not the vanguard or precursors of Sparta and her Peloponnesian allies as opponents of Athens. Aeginetan interaction with the Peloponnesus was more commercial than political. Institutionally, Aegina stood as much at variance with these

predominantly agricultural states as she did to Athens. Again and again, one is reminded that Aegina's insularity was not only geographical in scope, but was reflected in the island's internal order. Adaptations remained viable for the Aeginetans which would have been impractical for the mainland states. In addition, the Aeginetans performed functions both for themselves and for the other Greeks which would have been difficult for others to perform efficiently. Thus, the Peloponnesians serve as another contrasting pattern of development to that assumed by the Aeginetans.

The purpose of this work is to discover where Aegina and Athens, and Aegina and other Greek states, diverged from each other in their institutional evolution and to estimate the part played by fundamental early differentiations in explaining the observable disparities of the Classical Period. Critical to this process is a decision concerning the standards to be chosen for evaluating Aegina. Are Athens and Sparta normative?[10] Do they provide the comparative material to supplement the lacunae in our sources dealing with Aegina? Naturally, one works from the elaborated and explicitly stated to the obscure and hidden. Nevertheless, each institutional situation must be examined individually to determine what data from Greek experience represent the norm. Since it is obvious that there was considerable variation among poleis, inquiry is directed toward the situations of those cities which provide true grounds for comparison. Therefore, it falls to the investigator of Aegina to determine, for instance, whether the fact that metics had a sizeable share of Athenian trade is indicative of likely conditions on Aegina, or whether the sort of dependent rural

labor common in the Peloponnesus (typified by the Spartan Helot
urges an anticipation of the same phenomenon on Aegina.

There is no axiom that states that Aegina is to be measure
against Athens, or that fifth and fourth century Athenian societ
represents the canonical interpretation of the major themes o
Greek civilization. Doubtless, Athenian democracy was a stabl
institutional configuration, given the political history of Attic
But there is no reason to think that, in other states whos
internal make-up and political history differed from that o
Attica, some form of what came to be called oligarchy was not
"climax" form (to borrow the terminology of ecology). In othe
words, in many poleis, oligarchy was the constitutional arrangeme
offering the greatest stability, and commanding the greate
internal acquiescence, if not consent, of the inhabitants. Howeve
the term "oligarchy", while it is a useful one for the descripti
of the opposition that emerged to Athenian democracy and to
pro-Athenian or Athenian-sponsored governments during
Peloponnesian War, is far too inclusive to be of much help
classifying Greek societies. Although the classification
constitutions as oligarchical has its basis in Classic
philosophical thought, it never lost its polemical fifth centu
grounding.11 Therefore, it is more abstract than empirical,
inasmuch as the phenomena of political institutions are
intractable to be included under this systemization. Thus,
attempt will be made here to argue that any particular soci
pattern ought to be assumed for Aegina on the basis of the analo
with other aristocratic oligarchies. Both Sparta and Corinth mig

be loosely termed "oligarchies", but they differed from each other dramatically, and, it will be argued, provide only partial analogies to possible Aeginetan realities.

A major problem in confronting the problem of the development of Greek society is that the modern vantage point is an adaptation of the perspectives prominent in the literature of the Classical Period. Much of the vitality of Archaic Greece lay in the variety of viable autonomous political units comprising the Greek world. Archaic cities or proto-cities were of sufficiently limited dimensions to allow self-administered changes, often of a fairly radical character. Witness the extent of the Solonic reforms. The Greek world was, on the other hand, homogenous enough (in language, in religion, and, initially, in ethos, the latter predominantly aristocratic) that successful adaptations could be imitated. Thus, innovations that answered some perceived need or conferred some benefit were disseminated to many political units. Colonization, the alphabet, and coinage were significant innovations, originating in geographically circumscribed sectors of the Greek world, which were generally assumed. Conversely, Helotage, the specific manifestation of rural dependent labor (in itself a common phenomenon) which was crystallized at Sparta, was not adaptable to other cities' experience, and, therefore, remained an anomaly. The ability of Archaic Greece to occupy more territory, to sustain a greater number of inhabitants, and to grow more prosperous was the result of this almost experimental environment. This is preeminently a feature of Archaic Greece (before 480), but we are forced to judge this period of greater creative ferment by using

data collected or formalized in the Classical Period, a time of consolidation and retrenchment.

In the sixth century, the Greeks became embroiled with non-Greek peoples, with whose territory Greek cities marched. S the Greeks in Asia Minor were the victims of first Lydian and then far more significantly, of Persian aggression. In Egypt, Amasis led the native reaction of the Egyptian warrior class to Greek penetration of Egyptian life. In the second half of the sixth century, Carthaginian and Etruscan resistance was to make the western Mediterranean a far less hospitable place for the Greeks. The decline of Ionia was by far the most important of these changes. The shift of the center of the Greek world back toward the Greek homeland was contemporaneous with the confinement to a few cities of creative energy. It will be argued that, commercially this shift was advantageous to Aegina, but there is no doubt that commercially and culturally, it was so to Athens. The intellectual accomplishments of fifth and fourth century Athens, the heir of Ionia, should not blind us to Athens' position as the successor of the Greek world opened up for Athens the role as patron of intellectual movements begun abroad. The pressure on the fringes Hellenism against Persia. The acquisition of the Empire made of Athens the center for patronage in Greece, accelerating the flow of creative energy toward Attica. This makes the task of coping with the history of an Archaic city particularly acute, because it is very difficult to think about the lost alternatives that were not taken by the Athenians. A city such as Aegina tends to be looked at as an abortive stage on the road to the development of Classical

Athens. For Aegina, this predicament is particularly striking because of the island's proximity to Athens and its rivalry with that state.

Although it is attractive to visualize the development of Archaic poleis in terms of natural history, and thus to speak of the "evolution" of social institutions, or of "adaptations" to different socio-political challenges, the trends under analysis (while they operate over long periods from a life-scale perspective) are not truly akin to the gradual operation of natural forces over geological time. To counterbalance gradual institutional elaboration, one ought to direct attention to catastrophic change. Misadventures caused by violent military encounters suspended or overwhelmed the operation of other factors. Moreover, the development of Archaic institutions was not always from the simple to the complex. For example, it is possible to make a good case that early aristocratic warfare was a more complex phenomenon, both in the psychological mechanisms of aggression and in the variety of tasks in combat which could be performed by the warrior, than the hoplite warfare that later became standard. Yet, in most cases, the adoption of the hoplite phalanx as the sole tactical formation was an advantageous simplification, beneficial militarily and for the changes that it encouraged in political institutions.[12]

These considerations warn us that care ought to be exercised to avoid putting up the straw man of Archaic, "primitive", Aegina as a counterpart to Classical, "advanced", Athens. The eventual failure of Aegina to uphold her independence in the face of Athens

ought not to prejudice the investigation of the viability of t
social order of that state.

Our discussion must in this context firmly rebuff a specif
example of the skewed perspective on the Archaic Age, namely t
view that Athens was the most economically advanced of Greek pole
before the Hellenistic Age.[13] It is seldom maintained any
longer that Athens was a commercial republic following the dictat
of a mercantilist government or political elite.[14] No longer
commanding credence is the notion that the Peloponnesian War h
its roots in a struggle between Athens and Corinth over tra
routes and access to supplies of vital raw materials. Even thou
the role of commerce and industry at Athens be correctly judge
that Athens represented the general limit reached institutiona
in commerce and industry lingers residually.[15] Nevertheless,
sixth century Athens was a community dependent on primary industr
on agriculture (specialized in so far as olive oil was exported
and on mining. While a shift to craft and trade took place in
fifth century, the decisive change was from private to politic
and governmental activity. Concerning the relationship between t
Athenian economy and Athenian imperialism, in the fifth centur
the Athenians profited from their Empire primarily through dire
exploitation, i.e., taxation and exaction of services, and n
through a policy of economic aggrandizement.

The injection of mercantilism into the exploration of the
topics merely confuses the issue. There is little evidence
support the view that Athens, or any other Greek state, throu
legislation concerning the economy (e.g., tariffs or exclusiona

stipulations), consistently tried to make colonial economies out of even subject states. This is not surprising since patterns of trade and employment were difficult to control in an environment of small political entities without a more highly evolved bureaucracy or record-keeping. From Adam Smith's The Wealth of Nations to Milton Friedman's Capitalism and Freedom, sharp criticism of their efficacy has been directed at policies that intend to strengthen the local economy by exclusionary legislation. Yet, precluding mercantilism in a Greek guise does not rule out intense participation by a city's political elite in trade, nor does it rule out actions of an obvious political or military character when a form of economic activity was confronted with a direct threat of the same nature. Gradual changes, being imperceptible, would have provoked no response.

There are several important controversies that affect an appraisal of Archaic society. They will be touched upon in our discussion, of which the following deserve to be noted here. The centrality of the institution of chattel slave labor to the forces shaping Greek social organization is one of these topics.[16] Another is the significance of early cultural and linguistic differences between different Greek ethnic or dialectical groups for their political and constitutional history.[17] A third debate, which has a particular bearing on Archaic Aegina, is the inquiry into the viability of modern parallels for ancient economic activity, which controversy is conventionally said to be between the "primitivists" and the "modernists".[18] The treatment of these subjects will be on the basis of the data specifically

available for Aegina, and in the context of hypotheses that have a general relevance to an investigation of Aeginetan society.

Regarding the exploration of valid points of comparison for economic patterns prevailing in Archaic Greece, it is noteworthy that Aegina has received considerable attention.[19] There may well be generalizations that deserve to be made from Aegina's situation to that of other Greek cities that evolved similarly, but these will be noted only where the comparison is revealing about Aegina.

Nonetheless, brief remarks are appropriate concerning the classification of Greek economic life. As has been offered above, it is likely that there was considerable variety among Archaic poleis in almost every significant activity. Few would still argue that Archaic Aegina is to be reconstructed on the pattern of the great commercial and craft centers of late Medieval or early modern Europe.[20] It is futile to search for the familiar features of modern industrialized capitalist or market economies in Archaic Greece. Similarly, Archaic poleis do not have their true points of comparison in peasant communities. The village-based life of the empire states of the Near East, and of the bureaucratic Mycenaean palaces, is far removed, with its traditionalism and inertia and weakly developed concepts of property and of the individual, from the social phenomena to be studied in Archaic Greece.[21] Certainly, in energy use and transportation, and in technology, Archaic Greece, or rather all of Classical antiquity, has many points of similarity with subsistence economies.[22] It will, however, be suggested that in some institutions, like colonization

or long distance trade, relatively advanced features can be glimpsed. Greece is properly an intermediate society between a primitive agriculturalist society, and a modern economy. This intermediacy does not mean that Greek society was a stage in the development toward the modern world, but that it was conceptually intermediate, in that it partook of qualities of both. The essence of this intermediacy is that it entailed only a partial differentiation (when compared to modern society) of work and of social roles.

However, it ought to be made clear that this work will not adopt any deterministic system of causation, whether it claim primacy for economic factors or those of any other type. Environmental, political, military, and economic factors (to describe them crudely) all interact. In a specific situation, influences of one type may predominate and shape institutions in every facet of life. Throughout, the action of human volition is the moving force for change or stability. Here, the lack of evidence about the specific actions of individuals is again a severe handicap. It compels investigation to be formulated in terms of motive forces operating over such lengths of time that they seem to dwarf individual decision-making.

These observations have a methodological significance. M.I. Finley has astutely observed that a third social science mediate between anthropology, focused on primitive cultures, and sociology, framed for the analysis of complex contemporary societies (where control of statistical data is all important), should be applied to an investigation of Greek society.[23] From the description of

the difficulties inherent in studying Archaic society discussed above, Finley's remarks take on special point. The following is meant as an essay along these lines.

Introduction: Footnotes

1. See M.I. Finley ("Myth, Memory, and History", History and Theory 4 (1965) 281-302 = The Use and Abuse of History, (London, 1974), 11-33, esp. 18-20), especially on the nature of the archaeological discussion with which Thucydides opens his work (1.1-18).

2. See T.J. Figueira, "Aeginetan Membership in the Peloponnesian League", CP 76 (1981).

3. The Samian campaign against Aegina in the reign of Amphicrates; the confrontation with exiled Samian aristocrats at Cydonia (Hdt. 3.59); and also the possession of individual sanctuaries by both cities at Naucratis (Hdt. 2.178.3).

4. For the difficulties in the use of comparative material, one may compare G. Vallet, Rhegium et Zancle, Bibl. d'écoles fr. d'Athènes et de Rome, (Paris, 1958) and F. Villard, La céramique grecque de Marseilles, VI^e-IV^e siècle: essai d'histoire économique, (Paris, 1960). These studies on the Archaic and Classical society and economy of individual cities go far afield to discuss, in the case of the former, land routes across southern Italy (166-78), the trade between Corinth and Syracuse (161-5), and for the latter, the pottery finds in Etruria (e.g., 15-18, 74-5, 123-5). Rhegium et Zancle takes a diachronic approach which partially breaks down in the discussion of contemporary pottery (139-52) and coins (325-55). La céramique grecque adopts a synchronic organization of material.

5. Themistocles, on the naval bill: e.g., Hdt. 7.144; Thuc. 1.14.3; Plut. Them. 4; Ath. Pol. 22.7; Pericles, on Aegina the "eyesore of the Peiraeus": Plut. Per. 8.5; Aris. Rhet. 3.1411a. Thucydides' father, Melesias, trained Aeginetan aristocratic wrestlers (Pi. Ol. 8.54-66; Nem. 4.93-6; Nem. 6.64-6). Thucydides loaned money to the Aeginetans (Marcell. Vit. Thuc. 24; Vit. Anon. Thuc. 7). Cimon, an in-law of Thucydides (Ath. Pol. 28.2; Plut. Per. 11.1; Schol. Ael. Arist. 3.446 (Dindorf)) or his father Miltiades may have encouraged Pherecydes to alter the genealogy of Philaios (FGH 3 F 2), their ancestor, in order to avoid giving offense to the Aeginetans. See G.L. Huxley, "The Date of Pherecydes of Athens", GRBS 14 (1973) 137-43.

6. If we assume that Themistocles replaced the naucraric system. Cf. Polyaen. Strat. 1.30.6. See J. Labarbe, La loi navale de Themistocle, (Paris, 1957), 43-4.

7. Cf. M. Amit, "Athens and Aegina", Great and Small Poleis, (Brussels, 1973), 9-60

8. Hdt. 5.86.4-87.2; 6.92.2-3. But 6.92.1-2 shows the Aeginetans' independence from Argos in their refusal to pay a 500 T fine

levied on them for their participation in Cleomenes' campaign against Argos.

9. See below pp. 167-8.

10. For an example of the disproportionate role of Athenian evidence for Greek social history, see R. Bogaert, Banques et banquiers dans les cités grecques, (Leiden, 1968). There, the Athenian banker Pasion is discussed for 70 pp., and Phormio for c. 30 pp., while no other banker is even mentioned on more than 10 pp. From all indications, banking was very variable in its organization.

11. For "oligarkhia", see A. Debrunner, "Demokratia", Festschrift für Edouard Tieche, (Bonn, 1947), 11-24, esp. 15-17.

12. One thinks of the cooperative social virtues, as defined by A.W.H. Adkins (Moral Values and Political Behavior in Ancient Greece, (New York, 1972), 15-16), that were encouraged by hoplite military tactics.

13. See H. Michell, The Economics of Ancient Greece, (New York, 1940), 253-5. See also A.J. French, The Growth of the Athenian Economy, (London, 1964), and M.I. Finley's review of French in The Economic Journal 75 (1968) 849-51.

14. See R.L. Beaumont, "Greek Influence in the Adriatic Sea before the Fourth Century", JHS 56 (1936) 159-204, esp. 181-6. Cf. p. 205-13; Finley, "Classical Greece", 13-17. Kagan, The Outbreak of the Peloponnesian War, (Ithaca, 1969),

15. Note the cautionary remarks of A. Andrewes (Greek Society, (London, 1967), 156): "...the general position of these states (Corinth and Aegina) was, presumably, more like that of Athens than that of the more purely agricultural Dorian states".

16. For K. Marx' view on Classical slavery, see Formen, die der kapitalischer Produktion vorhergehen = Precapitalist Economic Formations, tr. J. Cohen, intro. E. Hobsbawm, (London, 1964), and for a Neo-Marxist approach, see P. Anderson, Passages from Antiquity to Feudalism, (London, 1974). Cf. C.G. Starr, "An Overdose of Slavery", Journal of Economic History 18 (1958) 17-32.

17. See E. Will, Doriens et Ioniens, (Paris, 1956), the most recent study.

18. For an overview, see Will, "Trois quarts de siècle de recherches sur l'économie grecque antique", Annales 9 (1954) 7-22; M.M. Austin & P. Vidal-Naquet, Economic and Social History in Ancient Greece: An Introduction, (Berkeley, 1977), 3-18; H.W. Pearson, "The Secular Debate on Economic Primitivism", Trade and Market in the Early Empires, (Glencoe, Ill., 1957), ed. K. Polanyi, C.M. Arensberg, & H.W. Pearson,

3-11.

19. For a primitivist perspective, see J. Hasebroeck, Staat und Handel im alten Griechenland, (Tübingen, 1928) = Trade and Politics in Ancient Greece, (London, 1933); Id., Griechische Wirtschafts- und Gesellschaftsgeschichte bis zur Perserzeit, (Tübingen, 1931). Hasebroeck's student, H. Winterscheidt, wrote his dissertation (Aigina: Eine Untersuchung über seine Gesellschaft und Wirtschaft, (Diss. Köln, 1938)) to elaborate Hasebroeck, with specific relation to Aegina. For a perspective that emphasized the "modern" features of the ancient Greek economy, see E. Meyer, "Die wirtschaftliche Entwicklung des Altertums", Kleine Schriften, (Halle, 1924), 1.81-168; 112-15 (for Aegina); H. Blümner, Die gewerbliche Thätigkeit der Völker des klassischen Altertums, (Leipzig, 1869), 88-90; B. Büchsenschütz, Besitz und Erwerb im griechischen Alterthume, (Halle, 1869), passim.

20. Cf. Blümner, Gewerbliche Thätigkeit, 88-9, "Nicht ohne Grund hat man die Aigineten mit der Nürnbergern des Mittelalters verglichen".

21. On strong vs. weak property, cf. K. Wittfogel, Oriental Despotism, (New Haven, 1957), 78-85.

22. On technology, see Finley, "Technical Innovation and Economic Progress in the Ancient World", EHR s. 2, 18 (1965) 29-45; for transportation, see C. Clark & M. Haswell, Subsistence Agriculture, 191-214.

23. See Finley, "Anthropology and the Classics", The Use and Abuse of History, 107-19, esp. 118-19.

Chapter 1: Agriculture and Population

In a large part it is the incongruity of the impression of Aegina's political and military strength, when confronted with the physical resources of the island, that renders Aegina's economy a topic of interest. One facet of this interest lies in the possibility that Aegina may represent an extreme specimen of economic patterns and institutions existing elsewhere. The place to start is with a consideration of the contribution of Aeginetan agriculture to the subsistence of the island's inhabitants. From this analysis, one should conclude that non-agricultural sources of income were necessary for Aegina's population to feed itself. Aegina manned a fleet of at least fifty triremes in the early fifth century. This suggests a population of c. 40,000 for the island. As Aegina could only support c. 4000 at subsistence (and average consumption was higher than minimum subsistence), the Aeginetans were faced with a considerable shortfall in foodstuffs each year, perhaps as much as 100+ T.

A) Agricultural Output

The land area of Aegina and its satellite islands has an extent of 85.9 km^2. In the island's current use, 29.6 km^2 or 34% was under cultivation or potentially cultivatible in 1961.[1] In comparison with all Greece in that year, this is a relatively high percentage for arable land.[2] Winterscheidt thought that the ancient totals were higher; his highest cited estimate is 50%.[3] In his calculation of this figure, as well as in his treatment of soil fertility, he assumed that some of the thinner soils would be supplemented by marling. Unfortunately, while marling is technically feasible due to a sub-surface stratum of limestone, and has been utilized in the modern period, there is little evidence that such a practice was followed in the Classical (let alone the Archaic) Period.[4]

Strabo describes the Aeginetans being given their name of Myrmidons because they spread the soil from the depths on the thin top soil layer (Strabo 8.6.16 C375). Winterscheidt believes that this refers to lime being brought to the surface. Strabo does not seem to have envisaged this as marling, and he certainly possessed a vocabulary to convey this concept. His source (one interested in Aeginetan economic development) sought to give a naturalistic definition (from the analogy of ants excavating their tunnels) of the Aeginetans as "ant-men". It is unlikely that the name, which goes back to a period when the population was so low on Aegina that it must have put little pressure on the resources of arable land, actually records a legitimate Archaic agricultural process (cf. Hes. fr. 205 (Merkelbach-West)). Basically, the same story, though

in a somewhat more detailed variant, was told by the Aeginetan historian Theagenes (FGH 300 F 1 = Schol. Pi. Nem. 3.21), who may be Strabo's source, if only through an intermediary. Theagenes has the Aeginetans spreading soil over ta georgia as one detail in a story meant to describe the evolution of the Aeginetans from primitives (akataskeuous). They lived in caves (the orugmata of Strabo), and stored their food there. They spread the soil dug up from the caves on their fields. Aeacus and his followers, who brought laws and a political order to the Aeginetans, called these aborigines Myrmidons from their mode of life. This account is obviously both rationalizing and etymologizing, and it is impossible to extract a single detail as an observation about primitive agricultural technique. Theagenes sets this practice in Aeginetan prehistory (before Aeacus), at a time when he explicitly observes that the island had a small population. Neither Theagenes nor Strabo should be taken as evidence for intensive agriculture through marling. The rationalizing explanations for the name "Myrmidons" were framed to explain the myth which told of Zeus populating Aegina from ants (e.g., Apollod. 3.158; Ovid. Meta. 7.650-4; Tzetzes, Chil. 7.133.306-10; Schol. Pi. Nem. 3.21). As has been said, some versions made sense of Myrmidons by finding an analogy between the activities of the Aeginetans and the behavior of ants. Another version saw the primitive character of Aeginetan life in their inability to build ships (Tzetzes, Chil. 7.133.312-21). Theagenes seems a witness to both variants, but his emphasis is clearly on Aeginetan primitivism.

In other cultures autochthonous status has been conceptualized on a mythic plane through a means of a totem animal either living in the earth or closely associated with it.[5] As common sense advises that islands become inhabited from the mainland, the mythographers of island states sought to justify the communal feeling of the fellow citizens through a myth of common origin and of autochthony. The identification of the Aeginetans as Myrmidons was a bold formulation, allowing the claim that other places became inhabited from Aegina rather than Aegina being settled from elsewhere.

Let us compromise between Winterscheidt's estimate for arable land and the figure for 1961, taking 45% or 38.6 km^2 of the total acreage as a maximum, a generous estimate at that. If an annual yield per ha. (hectare) of 0.624 mt. (metric ton) can be assumed, and half of the arable land was held fallow each year, the method of field rotation most common in the ancient sources, 1204 mt. of wheat equivalent can be estimated.[6] From a total of 1204, at least one-fifth to provide seed for the next crop, on the average, must be subtracted. The return of five to one is an overestimate of ancient agricultural efficiency.[7] Thus, 963 mt. was the total potential for the consumable output, if one ignores waste (perhaps c. 15%?). For biological subsistence, the figure of 250 kg. of wheat equivalent per annum per capita will be adopted. It is important to emphasize that, for this figure, subsistence is to be understood in these terms: a bare minimum of clothing, seasonal weight loss, high susceptibility to disease, and a rather limited ability for physical activity.[8] In these

terms, Aegina could support 4046 people at the level of subsistence.

This pattern of food consumption has value mainly as a theoretical tool, rather than as a description of historical reality. The evidence on ancient minima for consumption of food gives amounts considerably higher than the biological minimum as observed in modern tribal societies. This evidence suggests a minimum between 250 and 300 kg. of wheat equivalent per annum for grain consumption.[9] It does not account for consumption of foodstuffs in other forms, in good times afforded even slaves, and additional clothing above a bare minimum. The ancient figures for the rations of slaves are particularly telling, as they can be taken to represent what was held to be a practical minimum. These seem to suggest a higher consumption of foodstuffs than the biological minimum.[10] As shall be discussed below, it is possible to estimate per capita agricultural production for Archaic and Classical Greece by analogy.

Foodstuffs other than grain represent a profitable trade-off when demand for grain needed for subsistence has been satisfied or when they can be translated into additional income by trading abroad. For internal consumption, wine or olives represent acreage that can be shifted to production of non-essential foodstuffs when the needs of subsistence are fulfilled. That the Greeks considered wine and olive oil to be necessities merely demonstrates that for the greater part they had left mere biological subsistence somewhat behind them.

Nor should fishing be looked for as playing a significant role in making up short-falls in agricultural production. The Mediterranean in its eastern basin is not well endowed with shallow shelves or with the combination of cold and warm ocean currents which customarily have supported populations from the sea.[11] Undoubtedly, there were Aeginetan fishermen in the Saronic Gulf and surrounding waters, but to imagine that they provided more than a variety to the diet and the modest supplement of a good protein source is unsupported. The rich fishing grounds of the Sea of Marmara and of the Black Sea are, however, another matter. Such resources would have become exploitable as Aeginetan overseas activity grew, but it is agricultural Aegina whose subsistence is the focus here.

Furthermore, it is not Aegina that is associated with the establishment of cities and factories in the Sea of Marmara and the Black Sea, but Megara, Samos, and Miletus.[12] Moreover, it does not seem that the Sea of Marmara began to be settled with colonies until after 700, and the Black Sea until the last quarter of the seventh century. Archaeological returns from this area seem to give the lie to the inflated colony foundation dates found in the Eusebian chronographic tradition.[13] The information on the colonization of the Black Sea will be discussed below. It seems to suggest that the Aeginetans cannot have been a factor there until the end of the sixth or the beginning of the fifth century. Yet, the tunny fisheries of the Bosporus and the sturgeon of the South Russian limans could have been tapped before other trade with the Sea of Marmara and the Black Sea became active. The question then

becomes whether Aeginetans (probably not yet in the Black Sea f
trade or piracy) would have come there for fishing. There
insufficient evidence to come to a decision.

As for a supplement of grain production with meat and chees
this has a marginal impact on farming populations near subsistenc
In the first place, there is not a great deal of wasteland
Aegina to devote to stock-raising. Historically, a high rate
meat consumption is characteristic of young societies befo
gradual increments in population have taken place, whereupon ev
marginal land is brought into cultivation.[14] Primitive
pastoralists use between 0.5 and 1.0 km. of pasture for e
person. Were this ratio to hold good roughly for Archaic and ea
Classical Aegina, it would mean that only an insignificant numb
of people could be supported, even if it were possible to use th
whole island, though mountainous and bare in many places f
grazing. Therefore, these other forms of subsistence need not co
into these calculations, as their potential contribution is ea
than offset by the high estimates for acreage and yield.
Aeginetans probably received a part of their subsistence fr
livestock and fishing, but these endeavors cannot be viewed
alternatives to commercial or industrial activity as contributor
to the support of Aegina's large population.

The ancient evidence is consonant with this interpretati
Strabo calls the island a moderately fertile one (Strabo 8.6.
C375: "krithophoros de hikanos"). He is right, if one assumes th
he is turning his attention to the rich volcanic soils which by
Roman Period may have been devoted to grain production, whi

thinner soils were given over to the olive and the vine, to which they were better suited.[15] But this situation is the concomitant of a low population, putting little pressure on food resources. The witness of Ephorus that the sterility of the island's soil drove its inhabitants to the sea reflects the situation in the Archaic Period, where population would force a maximum of land into what was probably an overuse, giving the impression of low overall yields (Ephorus FGH 70 F176 = Strabo 8.6.16 C376).

B) Population

Concerning the other side of the food equation on Aegina, the population, military manpower is most informative. Aeginetan manpower is to be estimated primarily from the number of ships manned by the island. These are the testimonia. In 519, the Aeginetans had enough ships to overpower the Samian exiles, who had 40 ships in 525 (Hdt. 3.44.2). In the Athenian/ Aeginetan war, fought c. Marathon, 70 Aeginetan ships faced an Athenian fleet of 70 (Hdt. 6.92.1). Aegina contributed 18 ships to the Greek fleet at Artemesium and 30 to the fleet at Salamis, but Herodotus says that the Aeginetans had other ships in reserve with which to defend their coasts (Hdt. 8.46.1). Moreover, the Aeginetan total contribution must have exceeded 40, as their contribution, according to Pausanias, was second to that of the Athenians, and thus larger than the Corinthian squadron of 40 (Paus. 2.29.5). In the climactic naval battle in which the Aeginetans succumbed to Athenian domination in 457/6, the Athenians took 70 ships of Aegina

and her allies (Thuc. 1.105.2). The Aeginetans possessed more ships then those lost in this battle because ships were given up to Athens by the surrender agreement (Thuc. 1.108.4).

An analysis of this evidence, indicates that the standing fleet of Aegina numbered around 70 ships in the fifth century. This precise figure is attested for c. 490. The figure of 70 for the Aeginetan fleet c. Marathon should not be tampered with. It is unlikely that the figure of 70 is an emendation and that another number had been extruded from the text by the figure of 70 Athenian ships of the previous sentence.[16] That the fleets were of similar strengths is made probable by details of the episode. That the Athenians believed it necessary to jeopardize the whole enterprise by a purchase of ships from Corinth, which in the event caused a crucial delay, suggests that they expected to meet an Aeginetan fleet of about 70. Moreover, the indecisive fighting may be taken to argue that both sides had approximately equal contingents.

These ships are consistently referred to by Herodotus as *nees*, but this word does not necessarily prejudice the case about their identification as penteconters or triremes.[17] Both Aegina and Athens in this period manned fleets which may have been composed of both triremes and penteconters.[18] This is quite likely, given Thucydides' statement that it was only just before the Persian War that fleets of triremes began to predominate (Thuc. 1.14.2), Thucydides ought not to be pressed to exclude large numbers of triremes in the forces in the late 490's and early 480's.[19] Large-scale expenditures on fleets and fortifications are

characteristic of this period, probably springing from added opportunities for large government expenditure consequent on the widespread minting of coinage, itself supported by the exploitation of new sources of silver.[20]

The Aeginetans probably had a fleet of at least 70 ships during their final struggle with Athens. The captured ships alone numbered 70, and this figure does not account for those sunk or escapees. A good part of Aegina's manpower must have escaped, as the city was able to man its walls and so stand a siege of 18 months. It is unlikely that the allies of Aegina mentioned in the text contributed greatly in this battle. If by allies the naval states of the Peloponnesian League are meant, they could provide little help, as they had fought the Athenians only a short time before at Cecryphaleia, and had been beaten soundly. The Aeginetans were uninvolved in that battle, as, according to Thucydides, the outbreak of Aeginetan/Athenian hostilities was after Cecryphaleia.[21] The Aeginetans were assisted by what aid the Peloponnesians could still give them, and were perhaps reinforced by modest contingents from allies in the southern Aegean.[22]

Certainly the most telling corroborative material for a standing Aeginetan fleet of c. 60-70 ships is that 50-60 shipsheds should be restored in the Aeginetan military harbor dating from the 480's.[23] This would again indicate a fleet of around 70 triremes, since, by comparison with the military harbors of the Peiraeus, a city's standing fleet is usually considered to be somewhat in excess of its shed facilities.[24]

The Aeginetan mobilization for Salamis, which is anomalous deserves special comment. A complete tally of ships manned during the Salamis campaign would be most revealing since it could be taken to represent very nearly the maximum number of ships that could be launched by Aegina with her own manpower. 480 was a year of full mobilization in the Aegean. However, the Aeginetans did not commit their whole fleet to the allied armada at Salamis (Hdt. 8.46.1). They reserved part of their fleet for coast defense, presumably owing to the exposed condition of the island, and contributed only their best ships to the common fleet.

What then is one to make of the number of ships reserved? An estimate depends on an appraisal of what a reserve meant in the strategic and international plans of the city. To our knowledge the Persians never made the obvious move of dispatching a raiding contingent to the Peloponnesus in order to weaken the resolve of the allies to remain at Salamis and not disperse to their individual cities. However, if such a contingent would have been met by an Aeginetan squadron, and perhaps by a Corinthian force, the Persian omission becomes more understandable. Corinth, which had sold 20 ships to Athens during the Nicodromus coup, ought to have had a total strength of more than the 40 ships sent to Salamis. This is borne out by the high ship mobilization figures of Corinth later in this century, for which a growth in population does not give sufficient accounting.[25]

Moreover, the Aeginetan contingent at Salamis itself may have been larger than 30 at the end. Herodotus' total for the entire Greek fleet is 12 larger than the sum of the individual

contingents. It is possible that the difference is to be made up by some or all of the Aeginetan reserve. Aegina would have been one of the first places endangered by a withdrawal to the Isthmus, or a Greek defeat at Salamis. So the Aeginetans may have decided for some late reinforcements. They would then have increased their contribution to the Greek cause by increments: 18 at Artemesion, 30 initially at Salamis, and 40+(?) in the battle.[26]

Aegina, in this year of full naval mobilization in the eastern Mediterranean by Greek and Persian alike, was not able to draw to any great extent upon external sources of experienced Greek rowers, either those of her allies or of itinerant sailors for hire. The full scale market for hired rowers, which was wooed by the Athenians and the Spartans with Persian aid during the Ionian War, should not be retrojected into the early fifth century (Thuc. 8.29; 45.2). Several prerequisites can be traced for the evolution of this market. The large-scale reserves of funds which made possible an all-hired complement (because citizens must necessarily receive the same pay as those hired) for a large part of the campaigning season (at least three months) were not available in the early fifth century. Neither the treasury of the Delian League nor that of the Great King was at hand. By the beginning of the Peloponnesian War, a fleet of 70 ships (for service abroad) cost 210 T to keep at sea for three months (Thuc. 3.17.4; cf. 6.8.1; 6.31.3).[27] This was a crushing burden.

Moreover, the conversion of the contributions of Athenian allies from ships to tribute demobilized the sailors of the naval forces of most of the Aegean, releasing experienced men for service

in the Athenian navy, and later in the navies of Athens' enemies. In 480, this pool of sailors from a large part of the Empire was not available. For every Ionian and Cycladic sailor that one assumes took service with the Greek fleet at Salamis, an additional sailor is needed to make up the men needed to man Xerxes' Greek ships, themselves many in number. Hypothesizing Aegean rowers in the Aeginetan fleet, at least from the cities of the future Athenian Empire, does not solve the manpower problem; it merely shifts its focus. In addition, the commercial development of the Peiraeus drew potential naval personnel to Athens for reason of peacetime opportunities. This created Athens' large metic population, and allowed for a wartime shift from the merchant marine to naval use. Finally, if the Corcyraean complaints to the Athenians about Corinthian hiring of rowers in the Empire is any indication, then it was not generally permitted for citizens or subjects to serve under foreign flags (Thuc. 1.35.3). Hence, one need not be surprised at the Athenian threat to mutilate the hands of any hired rowers (from the Empire?) whom they took serving in the Spartan fleet (Xen. Hell. 2.1.31; Plut. Lys. 9). The fleets of the late sixth and early fifth centuries were manned by men who were not paid, a conclusion that may be partially warranted by the impromptu character of the financial measures which several sources describe as having taken place before the manning of the Athenian fleet at Salamis (Kleidemos FGH 323 F 21 (ap. Plut. Them. 10.6); Ath. Pol. 23.1).

It is unlikely that the hired rowers alone, and not the citizens, would receive pay. Hired rowers, therefore, in general

raise the cost of conducting naval warfare. Even if the hired rowers alone received pay, it would merely force a shift of one element of our population/wealth calculation for Aegina. Depending on whether he earned 3 ob. or 1 dr. a day, a sailor would only need to serve from 66 to 131 days to support a family of four at subsistence.[28] Thus, the supposition of hired rowers shifts the terms of a calculation of population and food on Aegina without altering its significance. In this case non-agricultural sources of income supported the subsistence of foreign rowers and their families who were not resident on Aegina. The existence of hired rowers would be another witness to the non-agricultural character of Aegina's wealth and military power. Therefore, within limits, the Aeginetans' requirement for citizen rowers can be lowered in an estimate by hypothesizing hired rowers. Yet, this adjustment must be compensated for by a higher total or per capita wealth for the community.

Slave rowers were another source of manpower for Greek fleets. There was conscription of slaves for warfare in times of emergency. Aegina was a state with a large slave population. There is some evidence from Chios and Corcyra, other states with large slave populations, that slaves may have been used extensively in navies other than the Athenian.[29] Also, in the Athenian navy itself, there is evidence for slaves being purchased to replace rowers during campaign and, in the last, dark days of the Peloponnesian War, as an emergency manpower measure.[30] The policy could not be casually employed, as slaves would have to receive training with their shipmates before being able to serve.

When slaves were used as rowers as an emergency measure, the would have to receive, at least, their freedom, so as to provide an incentive for their fighting.[31] The actual cases in the surviving source material where this has taken place are very few but one must not rule out the possibility that this practice was common away from Athens. As regards Aegina, the emergency practice (purchase and freeing of slaves) appears too costly to have been resorted to very frequently. The Aeginetans seem to have manned the fleet at a stable, relatively high number during the first half of the fifth century. This makes the explanation of an emergency measure for any single specific ship number unlikely.

However, as a regular non-emergency measure, slaves used as rowers may have been treated differently, and their procurement may have taken unknown patterns. The organization of slave rowers in states outside of Athens may have been similar to the practices used generally in public employment of slave workers for mining or public works, with contractors supplying work gangs.[32] Any remarks on such a procedure must be speculative because comparative evidence is lacking.

On Aegina, if ships were commanded and equipped by members of the political elite, then they or their clients may have regularly supplemented the free Aeginetans in warship crews with gangs of specially trained slaves (or freedmen?). Slaves procured by such a system and hired rowers were perhaps two exclusive procurement systems. The use of slaves in the military conferred an advantage on those states which were wealthy but had small populations, since money could thus be converted into manpower. Moreover, the use of

dependents kept both patronage and administration of the fleet in the hands of the wealthy, and so a strong navy was compatible with an oligarchic political order.

Though, in the realm of military history, slaves as rowers in the Aeginetan fleet may remain a mystery to us, their employment has little impact on our consideration of population, food supplies, and wealth. A system using slaves regularly perhaps could not depend on repatriating large numbers of slaves, as an emergency procurement system might. Regular use implies regular habitation on the island. Such slaves were simply a part of the lowest social stratum.

In light of all these considerations, it is not inconceivable that the Aeginetans could man a minimum of 50 triremes from the island's resident population. Each trireme would have a complement of 200 men, giving approximately 10,000 as the strength of the fleet.[33] If these 10,000 men were all those available for military service on Aegina, it is possible to offer an approximate estimate of the pool of males out of which this mobilizable force came.[34] If the population was stable, life expectancy at birth was 25 years, and the number of women equal to the number of males, the total population of Aegina was c. 42,000. Who were these 42,000? Aegina's standing fleet was 60-70 ships. That number has been discounted to 50, a difference of 2000-4000 men, in order to make allowance for hired rowers and allies. The manpower picture is complicated by the inference that slave manpower may have been used there more consistently than at Athens. Whether lowering an estimate of the fleet from 60-70 to 50 accounts for slaves' regular

contribution exclusive of emergencies is unknown. Thus, perhaps the preferable definition of the social situation of the 42,000 is that they were Aegina's indigenous or resident population. They were free inhabitants born on the island, slaves that participated in military activity, and freedmen who did not repatriate themselves after manumission. On Aegina, where there may have been a gradient of political classes, to make distinctions between citizen and non-citizen may not be a process leading to enlightenment. Military service was usually accompanied by political rights. Yet, it is hard to believe that all of the 21,000+ males who were the pool out of which military manpower was drawn were citizens even in the sense that contemporary Athenian thetes were. Perhaps a reasonable, but speculative, minimum estimate would give the island a total population of between 35,000 and 45,000, with 7000-10,000 slaves and freedmen.

There is no other gauge that is likely to be as little open to criticism as the ship figures. However, let us try several other scales to see if they are reconcilable with the figure of 42,000. One means of calculation which gives an insight into the size of Aegina's population is the amount of tribute which was paid to Athens after the island's incorporation into the Athenian Empire. Pounds, in a study of urbanization in Classical Greece, estimated the amount of arable land of certain tribute-paying Athenian allies in the Chalcidice. He then compared the total land with the amount of tribute contributed, finding that one talent equals 750 people and then applied it generally to a study of other areas.[35] If one extrapolates, applying this equation to the 30 T of Aeginetan

tribute, it suggests a population of 22,500. The weakness of this approach is that non-agricultural resources must have been of significant weight alongside agricultural output for the determination of tribute assessment. This is borne out by the fact that the amount of arable land possessed by various Aegean islands cannot be shown to be directly proportionate to their tribute. Also, there may be evidence that tribute was not assessed proportionately in the higher tribute bracket, but that a relatively higher percentage of, for example, the wealth of islands with large areas of arable land was taken than that of smaller islands. Land taxes were not universal, perhaps not even common. The famous assessment of Aristeides, of which the fairness was conceded by the allies, must have been based in large part on the traditional receipts (from indirect taxes) of the Empire's cities. There is no certainty that the tribute assessment of the Aeginetans was not punitive. But if it followed the example of Aristeides' assessment, then the 30 T ought to be related indirectly to Aeginetan taxation.

Furthermore, any correlation of tribute to people based on arable land is bound to be somewhat distorting when applied to Aegina, whose economy, it will be argued, had a preponderance of non-agricultural income. This was perhaps accompanied by higher per capita consumption than prevalent in agricultural cities.

Another way to come to an approximation of the population of Aegina, also crude, is to examine the amount of built-up area within Aegina's city wall. The fortifications which seem to date from the 480's would give Aegina an area of about 52 ha. within its

walls.[36] If this figure is multiplied by an average density per ha. of 150-200 persons (which ought to be a minimum population density for an ancient polis), this would give us a population of from 7800-10,400 for the city.[37] The slopes of the hillsides directly on the periphery of the city were possibly heavily populated. Yet, no archaeological survey has been published which might give us an idea of the number and extent of other population sites on the island. The only recourse is to attempt to roughly compare the Aeginetan total and city population to the total city populations of two other cities, Athens and Corinth.

Attica seems to have had a minimum population of about 315,000. The urban area of the city of Athens and of the Peiraeus was, at most, two square miles (5.2 km^2. or 520 ha.).[38] With the same density per ha. used for Aegina, this would give a population of from 76,500 to 102,000 for the urban area of Athens and the Peiraeus. This would represent from 24 to 33% of the total population.

Corinth seems to have contained an urban area of 150 ha. Estimates of the total population of the Corinthia have a lower limit of 74,000, and an upper limit of 100,000.[39] When 150 ha. are multiplied by first 150 persons per ha., our lower limit of urban density, and then by our upper limit of 200 persons per ha., a lower figure of 23,650 and a higher figure of 30,200 are generated for the total urban population. Compare the two figures for the total urban population of 23,650 and 30,200 with our lower estimate of the total population of the Corinthia, 74,000, and the lower figure represents 32% of the total, and the upper figure

41%. If one does the same calculations with the higher figure for the total population, 100,000, a range of 24-30% of the total population being urban is calculated.

If the Athenian figures for the relation of urban to extra-urban population were to hold good, they would point to a total population for Aegina of from 25-30,000. We get similar results concerning the Corinthian proportion of urban to non-urban population, with a somewhat greater range, from 20-30,000.

Pounds found the figures reached by an estimate of the relationship of population to tribute high relative to other gauges of population, while the figures arrived at from calculations of urban density seemed low, but this impression is almost certainly erroneous.[40] The estimate of population as reckoned from tribute is the total population of the polis, while the built-up area leads to an estimate of only the population of the polis center. For some larger cities, where intramural area was estimated by Pounds, city population makes up the following percentages of total population, as estimated on the basis of tribute: Scione, 74%; Torone, 83%; Potidaea, 125%; Olynthus, 900%; Mercyberna, 220%. Olynthus, and probably Mercyberna, her port in the fourth century, can be put aside, since the estimate of the area within their walls is based on the mid-fourth century fortifications. The tribute (from 454/3) is to be connected with the smaller settlement on the site of Olynthus, before the massive immigration there at the foundation of the Chalcidian League (Thuc. 1.58.2). Yet, in the cases of the four other cities, the urban center still has much too great a percentage of the total population for fifth century

poleis, whose livelihood was based on primary industries. Above, percentages of 60% or less have been hypothesized for urban population's share of total population at Corinth and Athens, where industry and commerce were more intense. This suggests that the ratio, 750 persons/1 T of tribute, argued for by Pounds, is too low, and that an estimate of the total population of the Chalcidice should be closer to Beloch's figure of 100,000.[41] Even if the ratio of 750 persons/1 T of tribute is correct, it refers to Aegina after her subjugation to Athens, when it could be assumed that population had already fallen somewhat from its levels in the first half of the fifth century.

The estimates from the amount of tribute paid by the Aeginetans and from the area within the city walls are minima. Both the ratio of 150-200 persons/ha. for urban density, and the 750 persons/T of tribute seem low. Yet, even these rough estimations reinforce the picture of Aegina as the home for a population many times that which could be supported by agriculture alone. It is clear that, although a single figure cannot be credited which will give us within narrow bounds the population of Aegina in the late sixth and early fifth centuries, the greater part of the population of Aegina must have supported itself from sources of income other than agriculture, as the agricultural yield would only support a little over 4000 people.

The view outlined here clearly differs significantly from that of Beloch, who estimated from 2000-2500 adult males.[42] It is obvious that his conclusion was based on the arable land of the island, and on the number of Aeginetans at Plataea (500 hoplites

and 500 light-armed) (Hdt. 9.28.6, 29.2). However, if the Aeginetan fleet had from 60-70 triremes, and each ship had 20-30 epibatai or marines, there would be from 1200-2100 Aeginetan hoplites.[43] The 500 hoplites at Plataea were only a part of the total hoplite force of Aegina, for account must be taken of those with the Aeginetan squadron of unknown size in Leotychidas' fleet of 479. Others must always have been left to protect Aegina, vulnerable to attack from the sea. Winterscheidt subdivided Beloch's 2000-2500 adult males into 1000-1500 hoplites and 1000 citizen rowers. Beloch thought there were as many as 70,000 slaves on Aegina (cf. Athen. 6.272d), but Winterscheidt estimated no more than 2000 slaves were available for service in the fleet.[44] He therefore fails to account for the crews of the remaining warships of the Aeginetan fleet, which even he observes would have needed at least 9000 rowers. Thus, it is likely that Beloch's figure for adult males may not be much greater than the true number of hoplites, to whom one would be tempted to add at least equal numbers both of citizens below the hoplite census and of slaves.

C) Food and Economic Output

Some of the matters associated with the transfer of resources involved in the provisioning of Aegina with basic necessities can now be examined. A figure of 350 kg. of wheat equivalent per capita per annum (310 kg. = 1 koinix of wheat/day) is a reasonable basis for gauging the amount of food which Aegina would need to import. This figure takes into account these considerations: 1) the Greek notion of subsistence, which is higher than the biological minimum;

2) the consumption of other imported foodstuffs with less value as nutrient.

To gain an idea of how much money would be needed to offset the Aeginetan deficit in foodstuffs, consider briefly some of the sketchy price material of the late fifth and early fourth centuries (all figures are per medimnos): wheat: 415/4, 6-6.5 dr. (Attic Stelai I, 137-9); beginning of the 4th century, 6 dr. (IG II^2 1356); 393, 3 dr. (Aristoph. Eccl. 547-8); barley meal: 422, 1 dr. 2 ob. (Aristoph. Vesp. 300-1); end of the 5th century, 2 dr. (Plut. Mor. 470C); 400-363, 2 dr. (DL 6.35); 400-350, 4 dr. (IG II^2 1358).[45] Barley is less nutritious than wheat for an equivalent volume by c. 35%. However, the ancient sources generally seem to suggest that wheat had twice the value of barley. A simple doubling of the barley figure of 422 would give a price for wheat of 2 dr., 4 obols, while the figure from Plutarch would give a price of 4 dr. These estimates do not clash with the figures for wheat of 6 dr.

Other than the 3 dr. figure mentioned in the Ecclesiazousae, wheat seems to have cost between 5 and 6 dr./medimnos from the late fifth century and thereafter, while barley was 2-4 dr./medimnos. It is noteworthy that the lowest prices for wheat and barley are from Aristophanes, where prices are inferred from passages whose point is not really economic. It is possible that the cost is deliberately understated for dramatic or comedic purposes. Yet, the stability of prices for wheat and barley during the fourth century can be deceptive. It may be that the liquidation by the Athenians of their private and public reserves to meet the costs of the

Peloponnesian War raised the amounts of precious metals in circulation, and this caused a general rise in prices, including those for grain. In light of these considerations, 3 dr./medimnos for wheat in the mid-fifth century does not appear to be an unreasonable estimate.[46]

If one assumes that the total population of Aegina was 32,000, and that they were consuming at the rate of 350 kg. of wheat equivalent a year in foodstuffs, Aegina will have needed 11,200 mt. of grain a year. If one subtracts the 963 mt. of Aegina's average yearly agricultural output in wheat equivalent, the shortfall for a population of 32,000 would be be 10,237 mt. or 250,000 medimnoi, and for a population of 42,000, the shortfall would be 13,737 mt. or 335,000 medimnoi. If wheat were in fact selling for 3 dr., it would be necessary for Aegina to import 126 T worth of wheat per year, if its population were 32,000, and 168 T if it were 42,000. These figures are minima, because not all the food imported into Aegina would be grain. Animal products and other agricultural foodstuffs would be more expensive per unit of wheat equivalent. This community, largely without natural resources, must have earned profits of at least 100 T to support itself, even if we imagine that a part of the shortfall in wheat might be made up for by the export of olives and wine. Of course, this problem of importing foodstuffs would be brought to much more manageable proportions if the Aeginetans were involved in the grain trade.

If one turns from the role of imported foodstuffs for Aegina to the part played by non-agricultural activity in the Aeginetan economy, it is worthwhile to compare estimated consumptions for

Aegina with attested per capita consumptions of agricultural and livestock production from modern economies near subsistence. These data have been collected by Clark.[47] They suggest that below 300 kg. of wheat equivalent/person/year (for all agricultural and livestock production), subsistence hand-tool cultivation or grazing predominates. Between 300 and 500 kg., some trade makes its appearance, with 400 kg./person/year as a threshold above which full-time craftsmen appear. Between 500 and 700 kg./person/year agriculture with draft animals and grazing herds is the rule. 700 kg. is another threshold leading into the mixed farming economy where grain or concentrates are fed to animals. However, even modern subsistence economies are interacting with the high technology market economies of the industrialized nations, so that caution is to be recommended. Nonetheless, those Greek communities practicing autarkic agriculture, who did not pay for imported grain with exports should have lain in the range 500-750 kg./person/year for agricultural and livestock production, although they may have lain at its lower end. It is unlikely that output per person of non-agricultural goods and services on Aegina (when expressed in terms of wheat equivalent) were less than the 500 kg./person/year estimated for cities almost exclusively agricultural. If Aegina's population was 42,000, and their output was at least 500 kg./person/year, the total output of Aegina was at least 21,000 mt of wheat equivalent/year. Cereal production (the mainstay of the Greek economy) made up an insignificant proportion of Aegina's total economic output.

D) The Development of Aeginetan Population

Agricultural populations seem to increase at a rate of 0.5-1% per year. In pre-modern societies, much of this increase was periodically set to naught by the intervention of war, famine, and plague.[48] If the population of Aegina is assumed to have been near the level that could be supported by agriculture at subsistence, c. 4000, in 650 (before Aeginetan commerce reached significant proportions), then the hypothetical population of c. 42,000 in c. 480, for instance, can be compared with other hypothetical populations reached by different rates of growth. At a decennial rate of 5%, Aegina's population could have grown to c. 9000 from 650-480. With a 10% decennial rate, there would have been c. 20,000 Aeginetans in 480, and with a 15% rate, Aeginetan inhabitants could have been 41,000 in number. These rates of increase can be compared with an estimated rate of 0.3-0.4 % per annum for world population growth between 1650 and 1750.[49] To account for the entirety of the growth in Aegina's population by natural increase, the annual rate would be well over 1% per year. Yet, such rates in pre-modern societies are not attested. Few estimates for rates sustained over a century or more have been put as high as even 1% per year.[50] Taking sixteenth century Holland, then enjoying extraordinary commercial growth, one finds an estimated annual rate of 0.8%. Where good data exist (primarily seventeenth and eighteenth century) before 1800, decennial rates of growth of 15% for a century or more appear only exceptionally. The exceptions reinforce the impression of limitations of population increase through natural growth, as they are connected with regions

such as the United States, eighteenth century Finland, and the outer provinces of China from 1787-1953. In these examples, immigration has been seen as a significant factor in population increase.[51]

Clark suggests that 1% per year seems to be the upper limit for the number of immigrants a society will accept. He based himself on observations of modern rates of immigration.[52] However, one should be reluctant to apply this limit to Archaic poleis, where immigration took place through the medium of the introduction of slaves. Late Republican Rome provides an extreme case of immigration through the introduction of slaves. There, the rate of addition to the population by slaves reached at least 1.5% per year.[53] This situation, however, is an extreme, because the scale of warfare was so high in the Mediterranean at this time and the general shift of resources from the East toward Italy was the dominating economic phenomenon of the period. There was reciprocal emigration from Italy to the provinces by free Italians. Therefore, it may not be unreasonable to conclude that the annual rate of introduction of slaves into Aegina cannot have exceeded 1.5% per year for any appreciable period.

One would expect rates of immigration through slavery to be somewhat higher than those for free immigrants in order to have had the same result on the rate of increase of the whole population. The imported slaves were possibly predominantly male, and their dependent condition (perhaps even after freedom) created disincentives to procreation. This leads to doubts about extrapolations from available military manpower, such as have been

made above. If at any one time male slaves who could not naturally maintain their numbers and who were replaced by new slaves in each generation made up a sizeable part of the rowers, then the number of dependent females and children must be lower. Under these conditions, the total population might have relatively more males. Numbers of slaves imported in each generation permitted a stable, if not growing, population.

In summary, note that Aeginetan population must have grown by a combination of natural increase and the importation of slaves. A rate of natural increase (0.5%/year) means that the number of children for any number of military-age males was larger than for a stable population. However, this was balanced (or overbalanced) by a disproportionate number of adult dependent males with a lower rate of natural increase. Aegina was the counterpart of colonizing states that by emigration of their inhabitants maintained stable populations. The willingness of the Aeginetans to establish colonies at Cydonia in 519 and in Umbria (after 480?) may indicate that population increase on Aegina was not at a stable rate before 480. The greater part of the growth may have lain between 650-525, so that, even if there was no pressure to send surplus inhabitants abroad, there was no corresponding need to retain population on the island. Yet, this observation deserves to be treated with caution. Aegina's settlements abroad seem to have been established when the city was at peace with Athens, at times when manpower was less needed to man ships against the Athenians.

If the hypothesis of population growth through the agency of importation of slaves is conceded, then the servile background of a

portion of the Aeginetan lower classes ought to be admitted. Nonetheless, care is necessary to avoid hasty assumptions that the descendants of slaves constituted the Aeginetan demos, or that this demos' originally servile origin was its most distinctive feature. The evidence to draw conclusions about changes in social status (relative social mobility) of former slaves is lacking. It is uncertain how permeable other classes on Aegina were to those with slave ancestors. It is likely that the descendants of the island's original inhabitants remained part of the demos, and others from one mischance or another found themselves impoverished. The Aeginetan lower class identified itself as Aeginetan. Otherwise, Herodotus would never have called Nicodromus' followers the demos. Some of these followers continued as a corporate group in Attica, suggesting cohesiveness (Hdt. 6.90).

Aeginetan population did not suddenly leap tenfold. The island's ability to support many times the number supportable by agriculture cannot have been the result of a "windfall", like a victorious war, the discovery of mines, or a fortuitous short-term commercial monopoly (e.g., the discovery of an exotic (west Mediterranean?) source of metals, temporarily unknown to others). Nothing argues that the Aeginetans suddenly purchased great numbers of slaves, or that there was a sudden influx of metic traders and craftsmen. Evidence presented below will delineate the variety of products traded by the Aeginetans. Considering this situation, one becomes aware of the demographic investment (the resources needed to increase productive capital for the sake of supporting greater numbers) inherent with regard to Aegina's population growth.[54]

When the Aeginetans decided to raise more children or to purchase more slaves, they had at least an intuitive appraisal of their ability to increase their income to support additional mouths, and this is a testimony to Aegina's vitality.[55] Hypotheses concerning the growth of Aegina's population ought to draw attention toward the long-term, evolutionary features of the Aeginetan economy.

The role of imported slaves in Aeginetan population growth is not surprising. The institution of slavery was important for the economic development of Archaic Greece because it provided a mechanism by which people could be concentrated to undertake tasks for which such a concentration of labor was indispensable. Slavery supplemented slow natural rates of increase. Importation of slaves avoided some of the dangers inherent in anticipating greater wealth. Slaves could be sold abroad in bad times to cut expenses, to liquidate productive capacity as it were. So too perhaps could freedmen be expelled. If all of population growth had been provided by natural increase, an Archaic polis would be saddled with greater numbers of poor citizens. A polis like Aegina could export hard times, much as modern industrial states in the European Economic Community export unemployment by repatriating Gastarbeiter. The attraction of slave labor for a small island like Aegina was in this sense great.

The analysis given above supplements the debate between primitivists and modernists on the subject of Aeginetan agriculture.[56] They debated whether the island was a fertile one or not, but fertility ought not to be a central consideration.

Though the island possessed good farmland in the north and northeast, Aegina must have subsisted to a large degree on imported food, paid for by non-agricultural production.

Chapter 1: Footnotes

1. Ethnike Hyperesia tes Hellados (Office National de Statistique), Katanome tes Ektaseos tes Khoras kata Basikes Kategorias Khreseos, Prokapographika Stoikheia, 19 Martiou, 1961, 3.1 (Athens, 1962), 29. J. Beloch (Die Bevölkerung der griechisch-römischen Welt, (Leipzig, 1886),121-3) estimates 100 km. for Aegina's total land by adding in Cecryphaleia. It is not necessary here to complicate computation by its inclusion. It is not surely known to have been an Aeginetan possession. Its addition to Aegina's arable land would be negligible. Any contribution by the neighboring islands to Aeginetan subsistence is more then offset by the generous proportion assumed for the amount of arable land.

2. Katanome, 5

3. Winterscheidt, Aig., 8-9; P. Boblaye, "Description de l'île d'Egine", Nouvelles Annales des Voyages 2 (1834) 277-330, esp. 325: 50%; G. Welter, "Ausgrabungen", Forsch. und Fortschritt 7 (1931) 181-2, 261-2, esp. 181: 33%.

4. See A. Jardé, Les céréales dans l'antiquité grecque, (Paris, 1925), 28-30; P. Guiraud, Propriété foncière en Grèce, (Paris, 1893), 465-8. It is noteworthy that Theophrastus (De Caus. Plant. 3.20.1-4) does not mention marling in connection with his discussion of soils, since the use of natron (potassium or sodium nitrate) was known to him (2.5.3; 3.17.8; 6.10.9). The only evidence suggesting an early mineral augmentation of the soil is from interpretation of the root of the name of the Attic festival Skirophoria, but this is usually rejected (H.W. Parke, Festivals of the Athenians, (Ithaca, 1977), 156-61; Jacoby, FGH Komm. 3b 1.285-94 on Philochoros FGH 328 F 14-16). See Pliny, NH 17.4.42-8 for a discussion of Roman marling techniques, where a leucargillon is mentioned as having been used at Megara (42). Cf. Winterscheidt, Aig., 6-7.

5. A. Goldenwasser, "Totemism", The Encyclopedia of the Social Sciences, 14 (New York, 1934), 559-67

6. Wheat equivalent, or the value of other goods expressed in wheat, is a convenient yardstick for coping with low technology agricultural economies. It is useful for reducing other foodstuffs to a common measure of consumption, and for comparing per capita consumption in different societies. Output of wheat/ha. is taken from Jardé, Les Céréales, 33-60. The lower limit of Jardé's scale (8-12 hl./ha.) has been adopted in light of very much lower figures for British wheat production, which did not reach 0.64 mt./ha. until 1550 (M.K. Bennett, "British Wheat Yield for Seven Centuries", Econ. Hist. 3.10 (1935) 12-29). Columella suggests that average Italian land requires 5 modii of wheat/iugerum, and returns less than 5 to 1, which gives a slightly higher yield/ha. than adopted here (2.9.1; 3.3.4). This would be more than offset by

the assumption of a 5 to 1 return on seed. Barley would have been, in all likelihood, the grain raised on Aegina, as in most places in central Greece. This does not alter these calculations. Although barley was as much as 25% more productive on lands best suited to it (and least suited to wheat) (N. Jasny, "Competition among Grains in Classical Antiquity", AHR 47 (1941-2) 747-64), the figure for output here is estimated on the basis of land suited to wheat. Therefore, it is unlikely that even the best barley land surpassed it in nutritive terms in output. The density of grain for a particular volume varies with the variety of wheat. Jardé adopted the weight of 78 kg./hl. Cf. G. Rickman, The Corn Supply of Ancient Rome, (Oxford, 1980), 1-13. (See Pliny, NH 18.2.66). Compare also various modern outputs in 1948: Greece, 1.02 mt.; Cyprus, 0.64 mt.; India, 0.66 mt.; Bolivia, 0.72 mt.; for barley: Greece, 1.01 mt.; Mexico, 0.7 mt.; Uruguay, 0.88 mt.; Hungary, 1.44 mt. (Production Yearbook 12 (1958) 32-3, 37, Food and Agriculture Association of the U.N.). See also R. Barker & D. Winkelmann, "Cereal Grains", Agricultural Policy in Developing Countries, ed. N. Islam (New York, 1974), 129-63. For Greek systems of fallowing, see Jardé, op. cit., 83-7, where "green fallowing", i.e., the fallow crop is plowed in, is considered exceptional, and bare fallow the common procedure. Guiraud (op. cit., 472-4) recognizes that bare fallowing is implied in Xen. Oecon. 16.11-12, and that there was only reluctant use of crop rotation (Theoph. De Caus. Plant. 3.20.7). Sowing cereals yearly on the same field was deprecated (Suda, s.v. Romaia kalame aroun", #2348 (Adler)). For fallowing in the Roman World: K.D. White, Roman Farming, (Ithaca, 1970), 115-24. See Columella 2.9.4; 2.9.15; 2.10.7; 2.12.7. On Aegina in the Archaic and early Classical Period crop rotation would have provided merely variety to the diet.

7. K. Hopkins, Conquerors and Slaves, (Cambridge, 1978), 16-17. In antiquity, with weak statistical imput, it was not uncommon for astronomically high returns on seed to be posited (Hdt. 1.193; Theoph. HP 8.7.4; Strabo 7.4.6 C311; 15.3.11 C731; 16.1.14 C742). See A. Jardé, "Pentekontakhous", REA 12 (1910) 373-6. Columella's figure (3.3.4) gives a 4 to 1 return for Italy, but in a polemical passage, where he is urging the profits of viticulture. Varro (RR 1.44.1-2) reports 10 to 1 in Italy; 15 to 1 in Etruria, and higher figures abroad. On Columella, see R.P. Duncan-Jones, The Economy of the Roman Empire, (Cambridge, 1974), 33-59, esp. 48-50. B.H. Slicher Van Bath (Yield Ratios, 810-1820, (Wageningen, 1963), for wheat 800-1700, 30-41; barley, 111-18) has collected a large amount of comparative material, from which it is clear that more than 5 to 1 as an average yield is unreasonable. Cf. K.D. White, "Wheat Farming in Roman Times", Antiquity 37 (1963) 207-10.

8. For subsistence at 250-300 kg. wheat equivalent/person/year, see Clark & Haswell, Subsistence Agriculture, 57-62. This includes at least 210 kg. wheat equivalent in grain and 15

natural fiber. See also J. Meyer, "The Dimensions of Human Hunger", Scientific American 235.3 (1976) 40-50

9. A koinix of wheat/day is given by Herodotus as the daily ration of Xerxes' army, and so is presumably a customary figure (7.187.2). This implies an annual rate of 310 kg. of wheat (cf. Athen. 3.98e). The Spartans trapped on Sphacteria in 425 by the Athenians received 2 koinikes of barley meal, 2 kotylai of wine and a portion of meat daily (Thuc. 4.16.1). Their Helot companions received half this ration. Barley has only 60% the weight of wheat (M.I. Klayman, "International Index Numbers of Food and Agricultural Production", Monthly Bulletin of Agricultural Economics and Statistics 9 (1960) 12-14, FAO). Yet, the barley was provided in the form of alphita or "barley meal", which means that some milling (removal of the hull) had taken place (for alphita, see L.A. Moritz, Grain-Mills and Flour in Classical Antiquity, (Oxford, 1958), 147-50). Wheat sold as grain was not yet reduced by milling, on the average a c. 15% reduction in weight. It is speculative to estimate the amount of reduction in weight that the barley underwent to become alphita, but presumably the indigestible hull (c. 13% of the weight) and the pericarp, testa, and aleuron (c. 8-15%) were removed (partially in the case of the latter). Even Africans living near to subsistence mill off 10% of the grain (Clark & Haswell, Subsistence Agriculture, 57-8). Blocked barley is reduced up to c. 72% of the whole grain. See N.L. Kent, Technology of Cereals, (Oxford, 1975), 29-40, 235-9; S. Matz, Cereal Science, (Westport, Conn., 1969), 97-117. For ancient extraction rates, see Moritz, op. cit., 184-209. Therefore, 2 medimnoi of alphita = 1.43 medimnoi of wheat if the wheat is to be milled to a 10% loss. 1 koinix of wheat/day = 310 kg./year; 2 koinikes barley/day = 443 kg. wheat equivalent/year. Thus, the Spartan Helots were receiving 221 kg. of wheat equivalent/year during the Sphacteria truce, and this is very near to subsistence in and of itself. Cato (De Ag. Cult. 56) gives the rations to be supplied to slaves: slaves confined to light work, 3 modii/month; field slaves, 4-4.5 mod./mon.; chain gang workers, 4.8-6 mod./mon. (as estimated from the bread ration in Cato by Rickman, Grain Supply, 143-55). 3 mod./mon. = 243 kg./year; 4-4.5 mod./mon. = 324-64 kg./year; 4.8-6 mod./mon. = 388-485 kg./year. Not surprisingly, Roman rations are higher than the Greek. Spartan kings received 2 koinikes of alphita when they could not attend mess (Hdt. 6.57.2). Corinthian slaves were called "koinikometrees" (Athen. 6.272b), presumably because their ration was 1 koinix of barley/day. Their per capita consumption lay between 225-300 kg. wheat equivalent when one reckons in the value of other foodstuffs. Contrast this to the monthly contribution of a Spartan Homoios to his mess (Athen. 4.141c; Plut. Lyc. 12): 1.5 medimnoi of barley; 8-12 khoes of wine; 5 mn. of cheese; 2.5 mn. of figs; opsonion worth 10 Aeginetan obols. The grain alone = 476 kg. of wheat equivalent if it is whole barley, 523 if it is alphita. When the Athenian prisoners taken after the defeat of

the Syracusan expedition were held in the Syracusan quarries, they received 0.5 koinix of barley/day, a starvation ration (Thuc. 7.87.2; Plut. Nic. 29).

10. Clark & Haswell, Subsistence Agriculture, 63-73

11. F. Braudel, The Mediterranean, (London, 1973), 1.138-9; Capitalism and Material Life: 1400-1800, (London, 1973), 146-7.

12. J. Boardman, The Greeks Overseas[2], (Harmondsworth, 1973), 232-54.

13. R. Carpenter ("The Greek Penetration of the Black Sea", AJA 52 (1948) 1-10) argued that the development of the penteconter was necessary for the navigation of the Black Sea; cf. B. Labaree, "How the Greeks Sailed into the Black Sea", AJA 61 (1957) 29-33. A.J. Graham ("The Date of the Greek Penetration of the Black Sea", BICS 5 (1958) 25-39, esp. 28-31) effectively argued against the view of Carpenter. If the generalization of the penteconter had any relevance to the settlement of the Black Sea, it was because these hostile coasts could only be explored by bands of armed men. The earliest Greek colony on the north shore of the Black Sea was at Berezan Island, c. 625 (A. Kocybala, Greek Colonies of the North Shore of the Black Sea, (Diss., University of Pennsylvania, 1978), 203-13). Sinope was founded in the last quarter of the seventh century (R.M. Cook, "Ionia and Greece, 800-600 B.C.", JHS 66 (1946) 67-98, esp. 77). Graham (op. cit., 33-8) has collected literary and mythological evidence for Greek activity in the Black Sea before c. 650, but whether this reflects exploration before colonization is problematic. However, Graham is correct (op. cit., 33) to emphasize the distinction between the Propontis and the Black Sea. See Graham, "Patterns of Greek Colonzation", JHS 96 (1976) 35-47.

14. F. Braudel, Capitalism and Material Life, 66-8, 125-37

15. A. Philippson, Die griechische Landschaften, (Frankfurt am Main, 1950-9), 3.52-3

16. See H. Macan, A Commentary on Herodotus IV-VI, (London, 1895), 1.348

17. Cf. the passages cited in J.E. Powell, A Lexicon to Herodotus, (Cambridge, 1938), s.v."neus", 232. See M. Amit, Athens and the Sea, (Brussels, 1965), 19-20. It would be very interesting to know whether Charon of Lampsacus' transposition of triremes for Herodotus' "ships" in the narrative of the Athenian expeditionary force in support of the Ionian rebels rests on independent evidence (FGH 262 F 10).

18. M. Amit, Great and Small Poleis, esp. 34-5. Amit makes much of the transition from what he believes were the 70 penteconters

of the Aeginetan fleet c. Marathon to the 30 triremes at Salamis, but this impression is almost certainly fallacious.

19. Thucydides' remarks on the first trireme navies, very condensed in expression, are difficult to interpret. Yet, the impression, allowable by Thucydides' wording, that Athens and Aegina did not possess trireme navies until the time of the Themistoclean building program, is incorrect. In this passage, Thucydides is grappling with an apparent contradiction, namely the early invention of the trireme and the surprisingly late appearance of large trireme navies. Thus, he takes pains to indicate that the Sicilian tyrants and the Corcyreans came to possess the first trireme navies shortly before the Persian Wars, by which he means the whole sequence of hostilities with Persia. This is clear from the mention of the establishment of navies before the death of Darius, which probably is meant to include building before Marathon. At Lade large numbers of triremes were manned by the Ionians. Presumably, this was known to Thucydides. He may have included the Ionian Revolt in the "Persian Wars", at least in this passage. The scale of the first large trireme navies can be conjectured from the fact that Herodotus could plausibly portray Gelon (7.158.4) as offering 200 triremes against Persia, and that the Corcyraeans could dispatch as many as 60 triremes as an expeditionary force to await the outcome of the Persia/Hellenic League confrontation (7.168.4). Thucydides, in 1.14.3, goes on to discuss the navies of Athens and Aegina. Here, he may be anticipating the reader's query why he did not include those two famous navies, which had met in combat, among the first large trireme navies. He reminds the reader that these navies were small, a reasonable conclusion if the navies of Gelon or of the Corcyraeans are a standard of measurement. That the navies of Athens and Aegina still had many penteconters can be accepted, but Thucydides' mention of the Themistoclean building program at the close of this passage does not provide a lower limit for the almost exclusive use of the penteconter in these fleets.

20. One realizes from Thucydides' remarks that certain large capital expenditures (e.g., trireme fleets) are a phenomenon of the generation before Salamis. Thus, they are intimately involved in the vastly increased rate of coinage of this period in several cities (e.g., Athens, Corinth, Aegina), which, in turn, is related to the tapping of new sources of silver or to the intensive use of those already known. Thasos also increases the strength of her fleet and fortifications in this period (Hdt. 6.46.2).

21. See T.J. Figueira, "Aeginetan Membership in the Peloponnesian League", CP 76 (1981).

22. E.g., Melos, Siphnos, and the Cretans

23. Welter, A[1], 38-9, 48-50; Id., "Aeginetica XIII-XXIV", AA "Neuere 53 (1938) 480-540, esp. 480-5; P. Knoblauch, Untersuchungen an den Hafen von Ägina", BJ 169 (1969) 76-9.

24. See J.S. Morrison & R.T. Williams, Greek Oared Ships, (Cambridge, 1968), esp. "Ship Sheds" by D.J. Blackman, 181-92.

25. Thuc. 1.29.1: 75 ships (15 destroyed by the Corcyraeans); Thuc. 1.46.1: 86 ships in a fleet of 150 with allies and satellites less than two years later

26. The total of the individual contingents in the Greek fleet at Salamis in Herodotus numbers 366, while his own total is 378 (8.48). It is possible that the number is to be made up by late arrivals from Aegina. See R.W. Macan, Herodotus, VII-IX, (London, 1895-1908), 1.2.427, 433, where it is suggested that late Aeginetans made up the difference. He also suggests that, if seaworthiness was the criterion for inclusion in the Aeginetan squadron of 30 at Salamis, the 18 ships that served at Artemesium may have returned to Aegina after their service. To Macan, the total Aeginetan fleet would be c. 60 triremes (the 18 at Artemesium, the 30 at Salamis, and 10 late arrivals).

27. See W.K. Pritchett, The Greek State at War, (Berkeley, 1971-4), 1.7-14, for the view that military pay at Athens was introduced sometime during the Pentecontaeteia. If the Aeginetans adopted military pay as a reaction to Athens, it would allow for a somewhat larger Aeginetan fleet around mid-century. Unfortunately, there is no figure for the number of ships that confronted Athens in the final naval battle in 457. By the time of the Peloponnesian War, the cost of manning a trireme (at least for distant expeditions) was T/month, as the Segestans provide 60 T in uncoined silver for 1 month's pay for 60 triremes (Thuc. 6.8.1). See also S.K. Eddy, "Athens' Peacetime Navy in the Age of Pericles", CRBS 9 (1968) 141-56 (1 dr./day/rower); Pritchett, op. cit., 2.1-4 (regularly 3 ob./day/rower; 1 dr./day/rower on extraordinary occasions).

28. For the purposes of calculation, let us first assume that Pritchett was correct, in that the Athenian sailor only received 3 ob./day (see n. 27 above). Also, one should hold that the Aeginetans (if they were dependent to any great extent upon hired rowers after the Persian Wars) would have had to match the daily wage which was current in this period at Athens. A further assumption ought to be that hired rowers would have had to be used a minimum of three months a year to maintain their skills, their ability to work as a unit, and their availability to the state for service as necessary. Each rower would cost the state 45 dr. for this period. If one koinix of wheat/day/person (310 kg./year) maintained a family then making no adjustment for less consumption by females and children, one estimates 30 medimnoi, 20 koinikes of wheat would feed a family of four at subsistence. As 3 ob./medimnos of wheat is a working figure that will be suggested for the cost of a medimnos of wheat at the middle of the 5th century, it would take a sailor earning 3 ob./day c. 131 days to earn enough food for his family, and a sailor earning 1 dr./day 66 days.

29. A large number of the Corcyraean prisoners held by the Corinthians appear to have been slaves (Thuc. 1.55.1). A number of Chiot slaves on the ships of revolted Chios serving with the Athenians were given freedom by them (Thuc. 8.15.2). See HCT 1.196.

30. IG II[2] 1951. Early discussions: B.D. Meritt, "An Athenian Naval Catalogue", AJA 31 (1927) 462-70; J. Sundwall, "Liste athenischer Marinebesatzungen", AA (1915) 124-37. Most recently, see D.R. Laing, A New Interpretation of the Athenian Naval Catalogue IG II[2] 1951, (Diss., Cincinnati, 1965). The stone is a copy of some normal bureaucratic record of the complement of eight trireme crews (Laing, op. cit., 47-8, 50). The crews were extraordinary in the high number of slaves per ship, at least 20%, and, in one case, 40% (Laing, op. cit., 92-3). In comparison, citizens made up, on the average, a constant 30-40% of the crews, with the proportion of metics and xenoi varying over greater range. A. Korte ("Eine Verlustliste aus der Schlacht bei den Arginusen?", PhilW 52 (1932) cols. 1027-32) sees as the inscription's occasion a dedicatory monument for the ships lost without survivors at Arginoussae. H. Pope ("Erechtheus and the Erechtheids", Studies Presented to David M. Robinson, (St. Louis, 1951), 2.1044-51, esp. 1047-9) sees here a record of a small expedition to Eretria during the rule of the Four Hundred in 411 (Thuc. 8.95). Laing views the inscription as a commemoration of the eight ships that escaped Aegospotami with Conon, and returned to become the nucleus of the revived fleet of the 390's, as so expensive an inscription can only have been put up at the restored democracy's state expense. The large number of slaves reflects the desperate problems in manpower procurement of the Ionian War also exhibited by the state purchase of slaves before Arginoussae (Xen. Hell. 1.6.24). Note the replacement of sailors with slaves from the captured Sicilian city of Hykkara during the Sicilian campaign (Thuc. 7.13.2). For us, the important question is how the state obtained the slaves to man these ships. The freeing of public slaves was an obvious device, but their services were otherwise valuable and their numbers limited. Another alternative would have been compulsory purchase and/or hire of slaves from their masters, but this might be limited by the dire financial straits of the government, which may have made purchase prices and wages almost nominal. That taxation may have played a role is perhaps to be seen in the slaves who are identified by the names of their masters, members of the triremes' crews (about 10% of each crew: Laing, op. cit., 145-8). Laing suggests that these were the personal attendants

of officers and marines. This is unacceptable unless they doubled as rowers, since triremes carry little room for non-combatant personnel. They seem to represent a group listed separately in each trireme's catalogue, following the ordinary slave rowers. This suggests that it had become required of certain Athenians and metics (those of the Zeugite class and above) to supply a slave rower(s) to serve beside them. Thus, Laing's two classes of slaves become one group serving in the stead of citizen rowers drawn from many masters, which I interpret to be those purchased and set free, and another group still under the personal control of their masters, who provided them for the state's use.

31. R.L. Sargent, "The Use of Slaves in Warfare", CP 22 (1927) 201-12, 264-79; Y. Garlan, War in Antiquity, (London, 1975), 78-82

32. B. Jordan argued that huperesia (usually interpreted as the petty officers of a trireme) was used for a ship's complement of slave rowers. This would provide evidence for a significant contribution by slaves to Athenian naval manpower, as huperesia features prominently in 5th and 4th century discussions of the Athenian navy (The Athenian Navy in the Classical Period, (Berkeley, 1972), 240-59; Id., "The Meaning of the Technical Term hyperesia in Naval Contexts of the Fifth and Fourth Century B.C.", CSCA 2 (1969) 183-207). The sole support for this view is an entry in the Lexicon Gudianum (s.v. "huperesia "). However, this hypothesis compels a strained interpretation of the Classical evidence (cf. Thuc. 1.143.1; 6.31.3; 8.1.2), and is to be rejected. See Y. Garlan, "Quelques travaux recents sur esclaves Grecques en temps de guerre", Annales Littéraires de l'Université de Besancon (1974) 15-27, esp. 17-27.

33. On ships' complements: Morrison & Williams, Oared Ships, 254-9; L. Casson, Ships and Seamanship in the Ancient World, (Princeton, 1974) 302-6. Cf. Hdt. 7.184.1; Thuc. 6.8.1. discounting of the number of triremes from the defensible figure of 70 to 50 makes allowance for several factors discussed above: modest contributions of allied states; the presence of some hired rowers; and the use of slaves, some of whom left the island on the achievement of freedom. Another possibility is that, under great pressure, some ships were manned with less than full complements. See M.H. Jameson, "The Provisions for Mobilization in the Themistocles Decree", Historia 12 (1963) 385-405, esp. 393-4.

34. In order to estimate total population from military manpower, several variables must be assigned tentative values. Life expectancy in 6th and 5th century Greece probably lay between 20 and 30 years (cf. K. Hopkins, "On the Probable Age Structure of the Roman Population", Population Studies 20 (1966) 245-64). Here an estimate in the middle of the probable range, 25 years at birth, will be assumed for the purposes of

calculation. Though there is little evidence with a direct bearing on the question, the ages 20-55 can be taken to delimit the group available for active military service. Possibly, some outside these limits (especially between 17 and 20) would serve, but these would be offset by those 20-55 incapable of performing strenuous rowing. At zero population growth, males 20-55 are 48% of all males, giving c. 21,000 for the pool out of which Aegina drew naval manpower. See A.J. Coale & P. Demeny, Regional Model Life Tables and Stable Populations, (Princeton, 1966), 124-30. Life expectancies of 20 or 30 years at birth do not alter the results significantly. In the former case, the number of males would be c. 800 less. Although the number of women is here assumed to be equal to men, this is not necessarily true. In modern western societies, the ratio of males to females seldom exceeds 105/100, but in non-western cultures, the number of males is often much higher than females. See B.J. Bogue, Principles of Demography, (New York, 1969), 165-70; F.M. Salziano, "Genetic Aspects of the Demography of American Indians and Eskimos", The Structure of Human Populations, (Oxford, 1972), 234-51, esp. 240-1.

35. N.G. Pounds, "Urbanism in Classical Antiquity", American Association of Geographers 59 (1969) 135-57

36. The area enclosed by Aegina's city walls is an estimate based on the hypothetical line for the fortification's perimeter suggested by Welter (AA (1938) 480-5).

37. The figure of 150-200 persons/ha. is derived from the estimates of J.C. Russell (Late Ancient and Medieval Population, (Philadelphia, 1958),67), and should be treated as a minimum. Apparently, the relatively low population density of Greek cities is emphasized by the Doxiades Institute as stated from correspondence with C. Clark (Population Growth and Land Use, (London, 1977), 339-41, 348). Athens had a density of 200/ha. according to Doxiades and his colleagues. However, Russell dealt with late Roman antiquity and post-plague Europe, two periods when depopulation can be imagined to have taken place. Much higher figures for density for various historical and socio-economic contexts have been collected by Clark: Paris, 1329, 550/ha.; central London, 1695, 550/ha.; Calcutta, 1885, 285/ha.. Hopkins (Conquerors and Slaves, 96-8) seems to estimate a density of 365/ha. (500,000 total population) to 730/ha. (1,000,000) for Augustan Rome.

38. A.W. Gomme, The Population of Athens in the Fifth and Fourth Centuries, (Oxford, 1933), 1-27, esp. Chart 1, p. 26. Gomme believes this figure to be a minimum (see also J. Labarbe, La loi navale de Themistocle, (Paris, 1957). For the urban area of Athens: W.G. Forrest, The Emergence of Greek Democracy, (London, 1966), 30-1; J. Travlos, Poleodomike Exellixis ton Athenon, (Athens, 1960), 71. The Peiraeus' somewhat large

circuit wall encloses a nearly equal area, because of the space taken up by the harbors. Population figures for Attica and the Corinthia are total populations. If credit is given to Aegina's ship mobilization figures, a figure which gives a greater density for the island than for Attica or the Corinthia will always be generated. No prima facie consideration makes this observation inconceivable.

39. Corinthian population figures: M. Sakellariou & N. Faraklas, Corinthia-Cleonea, (Athens, 1971), 72, 91-2 esp. 140-3.

40. Pounds, AAG (1969) 142

41. Taking the higher figure of Beloch for the population of the Chalcidice, 100,000 (Bevölkerung, 202-17), the amount of population per T of tribute would be 1500, giving Aegina a population of 45,000.

42. Beloch, Bevölkerung, 122-3. Winterscheidt gives a low estimate of 6000-7000 for the total population of the citizen class on Aegina, extrapolating from Beloch's 2000-2500 adult males. However, it is difficult to see the significance of the 300 hoplite reinforcements dispatched to Aegina in 458 by the Corinthians and Epidaurians (Thuc. 1.105.3). Their number has no relation to Aeginetan population. It could have been dictated by a number of factors: the amount of money on hand to pay for them; the willingness of the Peloponnesians to sacrifice troops (probably irrecoverable if Aegina were taken) in a gesture of good faith to encourage Aeginetan resistance; or the military role in which these troops were expected to be used. Cf. Winterscheidt, Aig., 39; Beloch, "Griechische Aufgebote", Klio 5 (1905) 341-74, esp. 364. Higher estimates of Aegina's population come from Müller, LA 128-9: 5000 males capable of military service, 40-50,000 inhabitants, figures also estimated by E. Cavaignac, "La population du Peloponnese aux Ve et IVe siècles", Klio 12 (1912) 201-80, esp. 244.

43. For Aeginetan marines: Hdt. 7.181.2; 8.90.2. Numbers, 40/ship in the Chian fleet at Lade (Hdt. 6.15.1); 30/ship (in addition to native marines) in the Persian fleet at Salamis (7. 184.2); 14/ship (Plut. Them. 14.1) or 10/ship (SGHI #23, 1.24) in the Athenian fleet at Salamis. For the view that fleets in the first half of the 5th century used many epibatai, see B. Jordan, Athenian Navy, 184-95. Cf. Jameson, Historia (1963) 391-2, 397-8.

44. Winterscheidt, Aig., 39-41; Beloch, Bevölkerung, 84-5. For the numbers of Aeginetan slaves, see below pp. 211-13.

45. W.K. Pritchett, "Attic Stelai", Hesperia 25 (1956) 178-328, esp. 185-6, 189, 194-8. F. Heichelheim, RE Supplbd. 6, s.v. "sitos", cols. 819-92, esp. 887-8. See also L. Spaventa, Novellis, I Prezzi in Grecia e a Roma, (Rome, 1934), 49-50;

J.A.O. Larsen, Economic Survey of Rome, (Baltimore, 1938), 4.383-4.

46. Rickman (Grain Supply, 152-5) observes that wheat cost 4-5 ses./mod. (4-6 dr./medimnoi) in late Republican Italy. Barley was a common food, especially among the lower classes, at Athens (Athen. 4.137e; 4.149B; Aristoph. Ach. 834; Eq. 1166; Vesp. 610). See D.A. Amyx, "Pelike by the Geras Painter", AJA 49 (1945) 508-18, esp. 516. Barley was somewhat disparaged as a food: Aes. Ag. 1041; CPG 1.4 (Zen. 1.82); Aristoph. Vesp. 715-24; Pax 449; Poseidonios FHG 3 F 41, pp. 269-70. Although barley seems to have been valued at half the price of wheat, this price reflects the preference of the buyers, not the intrinsic nutritive correlation of the two grains; see n. 9 above.

47. Clark & Haswell (Subsistence Agriculture, 64-5). Compare the outputs of certain undeveloped (or Third World) countries (op. cit., 77-8) in 1960: Ethiopia, 489; Egypt, 529; Sudan, 634; Congo, 402; Jordan, 435. In the early 18th century, when French agricultural production was at 680 kg./wheat equivalent/person/year, the non-agricultural sector of the population was 4-6% of the total. See J. Toutain, Le produit de l'agriculture francaise de 1700 a 1958; Cahiers de l'institut de science économique applique, #115 (1961), Tables 141, 148.

48. C.M. Cipolla, The Economic History of World Population, (London, 1967), 81-2.

49. Cipolla, World Population, 101

50. Clark, Population Growth, 69-98, esp. 86-7 on Holland.

51. Clark, Population Growth, 99-101; on China, 78; on Finland, 91; on the United States, 99.

52. Clark, Population Growth, 104-22

53. Hopkins (Conquerors and Slaves, 7-8, 68-9) has over 2 million slaves imported into Italy between 60-8 B.C. Comparison between the Roman Republic and Aegina is undercut by the latter's small size, inasmuch as a few boatlaods of slaves represented an appreciable influx, at least in the late 7th and early 6th century. It is important to emphasize the rates of importation of slaves for a century or more.

54. R. Pressat, Population, (London, 1970), 104-7.

55. In pre-modern society, there was a preoccupation with insuring both succession and security in old age. A growing population suggests that the procedure of balancing property against heirs was affected by expectations of growth. See J. Goody, "Strategies of Heirship", Comparative Studies in Society and History 15 (1973) 3-20.

56. Among those insisting that a livelihood based on agriculture could not predominate on Aegina were H. Blümner, Die gewerbliche Tätigkeit der Völker des klassischen Altertums, (Leipzig, 1869), 89; E. Meyer, "Die wirtschaftliche Entwicklung des Altertums, Kleine Schriften, (Halle, 1924), 1.113. Cf. Winterscheidt, Alg., 4-9.

Chapter 2: Coinage and Revenue

The coinage of Aegina offers a perplexing aspect to the scholar intent upon investigating the contacts of the Aeginetans with other Greeks. It demands attention by its great size and early appearance, as well as for the historical resonances which its literary associations seem to proffer. Yet, almost every aspect of Aegina's coinage is problematic, as shall be seen. Moreover, the commercial and fiscal ramifications of any possible minting pattern seem quite hypothetical. The earliest issues of Archaic coinage are spottily represented by contemporaneous (or nearly contemporaneous) hoards. Thus, any estimate of what may be learned from this coinage about Aeginetan society must stand tentatively. It is in this spirit that the discussion to follow is offered.

A) Pheidon and the Beginnings of Aeginetan Coinage

A complex of traditional data revolves around the priority of Aeginetan coinage and around the role of Pheidon of Argos as its initiator, or as the inventor of coinage itself.[1] The import of these traditions is far from unequivocal. Both the members of

the equation, Pheidon and Aeginetan coinage, have chronologies subject to debate. According to Herodotus, our earliest source, Pheidon instituted a system of measures (6.127.3). The tradition in its fully elaborated form states that Pheidon struck the first coins on Aegina. His minting is associated with a demonetization. Pheidon called in earlier iron currency in the form of spits, and issued coins. The spits were then dedicated by him in the Argive Heraion. The lexicographer Orion (s.v. "obolos") is our source for this full statement, a part of which, at least, goes back to Herakleides Pontikos (fr. 152 (Wehrli)). Ephorus notes that Pheidon struck the first coins on Aegina (Ephorus FGH 70 F 176). Pollux has Pheidon cited in his list of the inventors of coinage (9.83). Aelian credits Aegina as the origin of coinage without mentioning Pheidon (VH 12.10). It is unreasonable to assert a priori that all those who connected Pheidon and the beginning of coinage would have vouched for the detailed version presented by Orion. Conceivably, Herodotus knew of Pheidon simply as the originator of a system of measures.[2] If Aelian is taken pied à lettre, another independent tradition may have had Aegina as the origin of coinage without Pheidon's participation.

Does Herodotus' brief notice on this subject indicate that this was all that he knew of the tradition? The context, the list of Agariste's suitors, gives a late seventh or even early sixth century date for Pheidon, but Herodotus may have been incorrect that Leokydes, the Argive suitor, had Pheidon the tyrant for a father.[3] The Herodotean date for Pheidon cannot axiomatically be ruled out. It will accomodate a link with Aeginetan coinage if

(and only if) one opts for an early archaeological date (c. 580) for the inauguration of the minting. Yet, the Herodotean date for Pheidon is irreconcilable with the rest of the tradition concerning Pheidon's minting activities on Aegina. The motif of the replacement of spits with coins and the very choice of Aegina for his coining suggests that Pheidon was ruling the island. It is not likely that a late seventh/early sixth century Pheidon can have done so. In the late seventh century Aegina was a dependency of Epidaurus and her tyrant Prokles, hostile to Argos.[4] Thereupon, the Aeginetans successfully revolted from Epidaurian hegemony (Hdt. 5.82-8; Duris FGH 76 F 24). The early conflict between Athens and Aegina, which is perhaps to be dated c. 610-590, does not mention Pheidon. There the Argives aid the Aeginetans as allies, not masters. Moreover, the Aeginetan sanctuary (although undiscovered) at Naucratis, where with Samos and Miletus Aegina alone possessed an independent cult site, suggests an independent Aegina by 550, when architectural remains suggest that Naucratis achieved its importance (Hdt. 2.178.3). The issuance of a coinage, especially a very early one such as this, should be prima facie evidence for political independence. Therefore, one cannot save the tradition (Pheidon's inauguration of Aeginetan coinage) by adopting the apparent Herodotean date for the Argive ruler, as Aegina would appear to have been independent by this time. In any case, is it not a more natural assumption that, if an Argive tyrant were to initiate a coinage, it ought to have been Argive?

Another complication concerns the Pheidonian measures and the Aeginetan standard. In a fourth century inscription, Apollonia

sends an amount of grain to Delphi measured in Pheidonian medimnoi. These differ from their Delphian counterparts by a ratio of five to eight. If Delphi used the Aeginetan standard, not only for coins, but for other weights, Pheidonian metra differed from the Aeginetan.[5]

Ephorus, our earliest clear witness to Pheidon's coining on Aegina, did not place Pheidon in a late seventh or early sixth century context.[6] To him, Pheidon was tenth in descent from Temenos, the Heraclid who conquered Argos. His Spartan equivalent was Anaxandridas, active at the end of the eighth century.[7] The most significant obstacle to evaluating Ephorus' testimony on the start of Aeginetan coinage lies in discerning whether Ephorus believed that only the first silver coinage was Aeginetan, or absolutely the first coinage. In the latter case, archaeological evidence shows that the first coins were from Asia Minor, either Lydian or Ionian. His statement is at variance with the earlier tradition represented by Xenophanes and Herodotus, who attributed the invention to the Lydians (Xenophanes 21 B4 (DK) (= Poll. 9.83); Hdt. 1.94.1). Ephorus in one fragment seems to confine Pheidon's invention to silver coinage (FGH 70 F 176), but in another he speaks of to te allo kai to arguron (FGH 70 F 115). The latter passage is a heavily compressed description of Pheidon's career, put by Strabo in a passage primarily about Elis and Sparta (8.3.33 C358). The customary interpretation is that to allo means gold and silver". This is an extraordinary manner of expressing the commonplace idea. The context is a discussion of Pheidon's accomplishments, not a treatment of the originators of coinages in

various metals, where to allo would have its obvious antecedent among previous references to gold. Nor is it easy to discern what coinage gave a basis to this notion of Pheidon as the first coiner of gold. Though Aegina is unmentioned here, Ephorus is obviously thinking of Aeginetan silver coinage. So, the introduction of gold coinage in the passage without the specification of its city of origin is jarring. Thus, to allo seems inexplicable in the wording of the passage, and it is impossible to rediscover Ephorus' original train of thought.[8] Once the to te allo is withdrawn from consideration, there is no reason to doubt that fr. 176 (where the context is a description of early Aegina) represents the correct view of Ephorus, that Pheidon minted the first silver on Aegina. The archaeological record does not speak with complete clarity, but does not refute the contention that Aeginetan silver was the first. Early Ionian and Lydian coinage was in electrum, and silver was not struck until somewhat later, under Croesus. The questions to be asked are when this occurred under Croesus, and whether Aeginetan silver is early enough to precede this Lydian silver.[9]

If Pheidon is a seventh century figure, and the origin of Aeginetan turtles is sixth century, how is the tradition of Pheidon's Aeginetan currency to be explained? Brown saw here a Greek propensity to compile lists of inventors.[10] Ephorus is credited with a book of Heuremata (FGH 70 T 1, 2, 33d). However, coinage is not some instrument of everyday life with an untraceable source (like the double anchor attributed by Ephorus (F 42, 42a) to Anacharsis). The organization of the Aeginetan mint was a discrete

political act, dateable at least in principle. It is no more absurd to assign an author to it than for the Athenians to attribute ostracism to Cleisthenes or their first homicide code to Draco. Pheidon was associated with a system of measures in a well-grounded tradition which there is no reason to doubt. To Brown, Pheidon was magnified in the fourth century to amplify the Argive antecedents of the Argead royal house of Macedonia. Although there is a hint of this in Theopompus (FGH 115 F 393), there is no evidence that the Argead/Pheidon link was emphasized by Ephorus, nor that he was anxious to enhance the legitimacy of the Macedonian royal family. The view of Ephorus as an Isocratean publicist for Macedonian imperialism is unfounded.[11] The connection of the Argeads with Pheidon would only have been worthwhile if Pheidon was already a great figure before the Macedonian theme came to the foreground. The Macedonian royal house was originally traced to Perdiccas, a very vague figure indeed. Doubtless, when their Argive provenience was first broadcast by the Argeads and their flatterers, a more famous or well-attested Temenid would have seemed too bold a claim. A more shadowy figure, about whom anything could be affirmed and nothing denied, was an obvious choice. Karanos, a brother or son of Pheidon, was a later candidate for the Temenid founder of the Argeads. But even so, in one variant of Karanos' stemma, Pheidon is unmentioned. The incorporation of Pheidon into the story was a secondary development, giving greater dignity to the Argeads' Temenid pedigree, when Macedon's military power grew under Philip, and with it, the number of pro-Macedonian Greek literati.

Ephorus was drawn by various factors to seek an explanation of the origins of Aeginetan coinage. Numerous Archaic Aeginetan coins continued to circulate in the fourth century. Tradition named the Aeginetan turtle the "coin of the Peloponnesus". This should have been known to Ephorus, as would have been the widespread use of the Aeginetan standard.[12] Early Ionian electrum was not still in circulation in such an amount to make the same impression.[13] Among the Aeginetan coins still circulating in Ephorus' day, some looked obviously more primitive than others. Since the Aeginetan coin type remained so static, it was easy to recognize these coins as Aeginetan, and to guess that they were very old. Other odd, very old coins were not as easily assignable to a series.

The notice that Aeginetan turtles were the "coin of the Peloponnesus" bids us to consider the economic dimension of Ephorus' views. Stories such as the one putting Aeginetan peddlers in the heart of the Peloponnesus in the early Archaic Period were probably known to him (Paus. 8.5.8). He emphasized the commercial/maritime aspects of Aeginetan life and wealth.[14] Ephorus clearly mentions Aeginetan coinage in connection with a socio-economic explanation (the island's infertility) for the creation of an emporion on the island. To Ephorus, the origin of Aeginetan coinage was at least partially an economic phenomenon. A variant tradition about the origin of coinage suggests that economic considerations played a role in some solutions of the question. The Etymologicum Magnum has Pheidon minting coins on Euboea (s.v. "Euboikon nomisma") (Gaisford 388.54-7). There is no other connection between Pheidon and Euboea. Euboea seemed a likely

candidate for the invention of coinage because of the economic importance of its chief cities, Chalcis and Eretria. Their colonizing activities kept their reputation for economic importance alive. An Euboean invention of coinage is a literary derivative of the Pheidon/Aegina tradition, not prompted by any impression made by still-circulating Euboean coins.

It is unfortunately unanswerable whether Aelian, who speaks of the Aeginetan origin of silver coinage without the agency of Pheidon, represents an independent tradition (VH 12.10). Ephorus' views on Aeginetan prosperity suggest that, to him, it was as important that the first coining occurred on Aegina as that Pheidon did it. Several explanations can be imagined why Pheidon came to be envisaged as the inventor of coinage. The tradition that had the Peloponnesian system of weights as his work is one transparent cause. Pheidon, according to Ephorus, reunited the Temenid inheritance, the Argive share of the Peloponnesus (FGH 70 F 115). Aegina was considered a part of the inheritance, so that supposing Pheidon to be operating in some official capacity there was understandable (Paus. 2.26.1-2; 29.5). Behind the incorporation of Aegina into the Temenid inheritance on a mythological plane lay the reality of Argive/Aeginetan friendship extending into the fifth century (Hdt. 6.92.1). However, it is necessary to investigate the association of Pheidon with spit-coinage to judge where the Aeginetan coinage of Pheidon fit into Ephorus' formulation of Peloponnesian history.

The description of Pheidon's demonetizing coinage, consisting of iron spits, and replacing it with silver coins cannot be true

(cf. Poll. 9.77). The story indicates the extent to which fourth century Greeks found it inconceivable for society to operate without a system of money. Iron spits make an impossible substitute for coins for several functional reasons besides their clumsiness and vulnerability to corrosion. The material remains demonstrate that they were without uniformity. A lack of uniformity precluded their receiving value from a political authority. Their value could not escape the subjective value placed on them by their owner. Thus, they were personal property in a sense in which coins can never be, in that the personality of their owner was involved in their estimation.[15] Also, iron spits could not be grouped hierarchically in an ascending order of value. True money is inconceivable without the concept of the whole and its fractions (whether these have a physical existence or not), employed for calculating value. Spits were useful of themselves, while only the material of coins had usage, which distorted the spits' role as the measure against which goods were judged. Spits were not the exclusive or basic measure of worth; rather, they stood with tripods, cauldrons, and other items, albeit common, by which things were evaluated in the Dark Ages and Archaic Period.[16] The context within which such goods are mentioned in epic poetry suggests that they kept religious associations, and did not wholeheartedly belong to the profane sphere.[17] Therefore, it is hardly likely that Pheidon did away with an iron spit money and replaced it with silver coins.

The inscriptional and archaeological evidence bears this out, as there are no clear examples of spit money. The later Greek

notion of an iron spit currency was fostered by the etymological derivation of obelos, fractional coin, from obelos, spit. Drachma was explained as "handful" of spits. This observation is a common one from the fourth century on, as seen in Aristotle and Herakleides Pontikos (Herakleides fr. 152 (Wehrli); Aris. apud Poll. 9.77). Drachma may have been the word used in some areas of Greece to express a group or bundle of spits, but evidence is scanty. There is no justification for the view that the drachma was a set amount or that it had a quasi-monetary function, or any function outside of ritual activity.[18] That six spits fill the hand while six coins do not does not demand that six spits was a pre-monetary unit. The factor six reappears in the 60 mn. of the talent, and shows traces of Near Eastern provenience in the linking of a decimal and a sexagesimal form of reckoning. Yet, along with the obol and the drachma appear the talent, mna, and the fractional names such as the trites. This suggests a composite system of nomenclature, necessary to describe a novel social experience. This argues that the use of spits was not truly parallel to the new uses people were discovering for coins. The Ionians, the first Greek users of coinage, did not speak of obols and drachmai. This suggests that the drachma/obol pair was used by mainland Greeks analagously to convey the new fractional quality of money. A clinching argument is the description by Herodotus of Rhodopis' dedication of iron spits at Delphi, which he describes as unprecedented (2.135). It is unlikely that he meant by this that dedications of spits were unknown to him. Rather, the conversion by Rhodopis of a tenth of her property into iron spits was novel. Thus, spits were not used as money, as they were not convertible,

Therefore, one should resist trying to make sense of the Pheidon/spit coinage story by hypothesizing, as Kraay has done, that Pheidon established the amount of silver that could be accepted as equal to a drachma of six spits.[19] This is a piece of legislation hardly understandable in an Archaic context. Pheidon was certainly not setting up equivalencies for goods exchanged among private citizens, at a time when barter and gift-exchange predominated in local trade. How could such a promulgation be policed? Certainly, the Argive government did not collect taxes in the form of spits. There was no advantage in their doing so. The accumulation of such amounts of iron conferred on the government no benefit, but, rather, the inconvenience of converting it to other goods (by whose agency?), for which it had no need. It is very improbable that the value of silver and iron in terms of each other remained the same over any appreciable geographical region, or for any period of time.[20] In an economy so near subsistence, where overseas trade was intermittent and uncertain, local factors must have defined accessibility to metals, both precious and base. Such economic conditions, along with political instability (when fighting on the Lelantine plain could cut off Euboean iron sources, or a battle lost with Sparta could drain off reserves of precious metals for ransoms), should have created widely fluctuating exchange rates. Whatever initial historical justification for the story about Pheidon calling in spit currency and emitting the first coins, it cannot have been an establishment of the exchange rate between silver and iron.

An obvious connection of Pheidon with coinage in the form of iron spits and a notion of iron spits as a measure of value lay in the survival of dedications of Archaic spits into later periods. Possibly, a particularly noteworthy dedication of spits had been made by Pheidon in the Argive Heraion, where one grandiose ex-voto of this type has been found.[21] If the dedication bore an inscription showing the dedicator to have been a Pheidon (it need not have been the Argive tyrant), it is easy to imagine how the story of calling in the spit currency got its start. If another dedication of spits survived on Aegina, either in the name of Pheidon, or of sufficient similarity to an Heraion dedication, it would explain how a dedication of spits in the Argolid got connected with Aegina. But this would be a desperate remedy, and it would still not explain how the connection between Pheidon and Aeginetan coins originated. To answer this puzzle, it is necessary to consider another important factor in the evolution of the notion of an Archaic currency of iron spits.

The use of an iron currency at Sparta in the historical period is attested. The "coin" was an iron bar, called a *pelanor* (Hsch. s.v. "pelanor"), which was equal to an obol (Nikand. *Alex*. 488). It differed from an iron spit in that it was treated with vinegar to render it useless (Plut. *Lyc*. 9.2; *Lys*. 17.2).[22] Like other institutions of a primitive appearance at Sparta (cf. the *krypteia* or the age classes), iron currency was not merely a survival of a widespread Archaic practice. It was rather a re-working of pre-monetary economic behavior to meet the challenge to Spartan society that was perceived in the dissemination of coinage

throughout Greece. This iron currency was not pre-money. It was rather counter-money. This is clear when one considers that on a psychological plane, Spartans seem to have evaluated goods in terms of money. This gave them their reputation for avarice, as their acquisitiveness (no lack of sophistication in seeking out monetary gain) seemed so at odds with the public absence of coinage.[23] Iron coinage was advantageous to Sparta for several reasons. It cut down public manifestations of differences in wealth. It interrupted social mobility, or forced movement between classes to be cast in more purely ideological, rather than economic terms. It heightened the distinction between socially acceptable visible goods, and insubstantial invisible goods.

Ephorus was conscious of the creation of iron currency as a deliberate step to set Sparta apart from the coin-using Greek world. This can be seen in his discussion of the late fifth century attempt to revive the currency legislation in its full vigor. In the same passage where he cites Ephorus, Plutarch digresses to make the familiar remark that all early currency had been iron spits, and brings forward the etymological argument.[24] There is a good chance that a discussion of the spit coinage appeared in Theopompus and/or Ephorus, both cited by Plutarch for the name of an ephor active in the debate in the fifth century. That money in the form of spit coinage was very much in the air during the fourth century could perhaps be judged from Aristotle and Herakleides Pontikos.

Ephorus used the rivalry of Argos and Sparta for the mastery of the Peloponnesus as a principle of organization in Book 1, which

treated the history of the three Dorian kingdoms of the Peloponnesus: Sparta, Argos, and Messenia.[25] His treatment of Pheidon emphasizes that Argive's seizure of the Peloponnesian hegemony and the subsequent Spartan efforts (seconded by Elis) to regain it (FGH 70 F 115). The Aeginetan turtles were the "coin of the Peloponnesus", while Sparta set herself apart from the rest of the Peloponnesians by her iron currency. Aegina was associated with Argos, and a leading Peloponnesian emporion. There may have been a great temptation for Ephorus to subsume the invention of coinage to his theme of Argive/Spartan rivalry. If Pheidon made some change in iron currency, a conclusion perhaps suggested by a surviving dedication at the Heraion, then he could have been hypothesized to have inaugurated Aeginetan coinage. His act was a deliberate attempt to start Peloponnesian history off in a direction other than that of Sparta, and could be juxtaposed with his anti-Spartan expansionism. In other words, while Lycurgus created iron currency to protect Sparta from greed for gold and silver, Pheidon began the movement toward a more modern Greek economy by the first striking of silver (cf. Plut. Lyc. 9.2-5; Xen. Rep. Lac. 9.5-6). Andrewes believes that Ephorus portrayed Messenia and Argos falling into decline because their kings could not control the demos, while Lycurgus arrested stasis at Sparta. To Ephorus, Pheidon temporarily interrupted Spartan hegemony.[26] If the interpretation presented here is correct, not all of Pheidon's accomplishments were treated as evanescent by Ephorus. Doubtless most of the elements of the story of Pheidon's minting activity on Aegina may have pre-existed Ephorus' work, but it does not seem far-fetched to

make him the first to make Pheidon's calling in of iron spits and minting Aeginetan silver the incident's centerpiece.[27]

Another possibility, though less probable, deserves to be borne in mind. This is that a Pheidon did initiate Aeginetan coinage, but that this was not the tyrant of Argos. A member of the Aeginetan aristocracy, who took the name or claimed descent from a famous figure in the political history of Aegina's friend Argos, would be one candidate. Another would be the Pheidon of Corinth mentioned by Aristotle as an early nomothetes, whose enactments were calculated to maintain the number of oikoi.[28] There is no evidence that his legislation was still in force in fifth century Corinth. An opportunity for his legislation was during the reign of Periander, when it could perhaps be connected with Periander's own sumptuary laws. However, such legislation looks more oligarchical than tyrannical. It may belong in the early stages of the post-tyrannical oligarchy, perhaps between the fall of the Cypselids in 586 and the alliance with Sparta, c. 560-550.[29] The supposition that the Pheidon who originated coinage was the Corinthian, rather than the Argive, would explain the variant tradition that the first coins were struck by Pheidon at Corinth, where he established his measures (Schol. Pi. Ol. 13.27d). Pheidon of Corinth could be associated with Aristis of Cleonae (attested in an inscription from c. 560), who may have been an exiled Temenid, and the brother of Herodotus' Leokydes.[30] It would not be surprising that Aegina, perhaps closely allied with Argos in the time of Pheidon, would be friendly to exiled Temenids after Meltas the grandson of Pheidon had lost the throne (Paus.

2.19.2). However, the dating of a Corinthian Pheidon, even though a Temenid, raises difficulties, in that exiled Temenids might well have been on good terms with Corinth, living in Cleonae or in Corinth itself. Yet, the only period when Corinth could have had such influence on Aegina that a Corinthian would have acted in an official guise there was when Prokles, tyrant of Epidaurus, controlled Aegina (cf. Plut. Mor. 403C-E).[31] Periander was married to his daughter, and he seems to have been an ally of Corinth. The fall of Prokles and Aeginetan independence are probably to be dated shortly before 600. This would give a hypothetical date for Pheidon of Corinth's activity on Aegina in the late seventh century. Such a conclusion would necessitate a very early date for the beginnings of Aeginetan coinage, and should probably be resisted. To the best of our knowledge, after Aegina's independence, the island was no longer friendly to Corinth (Hdt. 6.89).

B) The Aeginetan Standard

Table 2.1 outlines the states which used the Aeginetan standard for their own coinage, along with the dates for the inception of these various coinages, taken from Kraay's recent survey.[32] In parentheses are hypothetical attributions. In square brackets stand previous standards used by the cities, if there were any.

Certain considerations about the standard should be made clear at the outset, as some of its aspects do not bear on early Classical or Archaic Aegina. First of all, the Aeginetan standard

Table 2.1

The Aeginetan Standard

States	Date
Unattributed Silver Issues (Asia Minor) (Cyme, Cos, Chios, Cnidos, Caria) [Milesian]	c. 550
Camirus	550
Boeotian League (followed by the series of Thebes, Tanagra)	550-500
Cnidos [Milesian]	c. 520
Phocis	c. 510-500
Heraea	c./ante 500
Elis	c./ante 500
Delphi	c. 500
Early Cycladic silver (Naxos, Siphnos, Paros, Coressia, Carthaea, & Iulis on Ceos, Andros, Thera)	c. 500
Southern Caria	c. 500
Mantineia	early 5th cen.
Argos	slightly ante c. 475
Arcadian League	post c. 480
Thessalian League (Larissa, Crannon [Persian], Perrhaeboi, Pharcodon, Pherae, Scotussa)	post c. 480
Teos	post c. 480
Sicyon	ante c. 450
Gortyn	450-425
Phaistos	450-425
Phlius	5th century
Euboean League (Eretria, Chalcis, Carystus) [Euboean]	c. 411
Abdera [Abderite]	post 411
Maroneia [Abderite]	post 411
Troezen	ante end 5th
Knossos	late 5th
Opuntian Locris	c. 380

takes on an existence quite separate from the economic life of the island. When the standard was already in use by many cities, it was adopted by other cities that wished to coin on the same standard as their neighbors. Following their Phocian and Boeotian neighbors, the Locrians began to mint on the Aeginetan standard in the early fourth century, when Aegina was no longer a commercial factor. Also, since the Aeginetan standard prevailed among the Peloponnesian allies of Sparta, and served as a measure of value in official documents, states rebelling from Athens during the Peloponnesian War coined on the Aeginetan standard (Xen. Hell. 5.2.21-2, cf. SGHI #67 (LSAG #197); in the alliance between Argos and Athens: Thuc. 5.47.6). They did this so that their financial dealings with Sparta and her allies for support of the war effort would be eased by mutual convertibility.[33] Aegina was occupied by an Athenian cleruchy by this time.

Certain other preliminary observations also deserve to be made. The spread of the Aeginetan standard crosses several clear dialectical, political, and ethnic boundaries. It cannot, therefore, be traced to an underlying weight system preexisting coinage (e.g., the adoption of the Pheidonian standard). It is hardly likely that seventh century legislation would be accepted so widely for political reasons, and no economic reasons are conceivable. The Aeginetan standard was employed by the end of the fifth century in a contiguous area including most of the Peloponnesus, central Greece, Thessaly, the Cyclades, the Dodecanese, southwest Asia Minor, and Crete. Within this larger region, there were important but limited blocks of territory using

other standards, such as the Corinthian at Corinth, the Attic/Euboeic at Athens and in Euboea, and the Milesian in, for example, Rhodes. The standard is not found in the world of Greek colonies (cf. the Corinthian or Milesian). This should reinforce the idea that the colonial movement by and large bypassed Aegina, and supports the supposition that Aeginetan trade in some significant sense was not enmeshed in the network of Greek colonial settlement.

The greater part of those cities adopting the Aeginetan standard early (in the sixth century) did so because the coinage with which they were most familiar was Aeginetan turtles. Doubtless, the dissemination of this standard had an additive quality. Early coiners on the Aeginetan standard added to the importance of the standard in their sub-region (e.g., the northeast Peloponnesus), and that made it more likely that their neighbors would follow their lead. This phenomenon did not have a political basis. Sparta was not encouraging the standard among her allies. The Spartan government was disinterested in coinage at home, and the League was without any fiscal dimension until the Peloponnesian War (Thuc. 1.19). Until the last months of her independence, Aegina stood aloof from the Peloponnesian League, and was more clearly aligned with Argos in the Peloponnesian power structure.[34] The popularity of the Aeginetan standard among Sparta's allies is testimony to the remarkable non-political influence of the Aeginetans on the Archaic Peloponnesus. Wealthy Corinth was a leading entrepot and a pioneer in colonization, whose manufactured products will have circulated widely in the

Peloponnesus. Under the Cypselid dynasty, Corinth had had marked political influence in the northern Peloponnesus. Thereafter, she was an ally of Sparta, with the strongest voice after the hegemon among the allies.[35] Yet, the Aeginetans provide the model weight standard for the Peloponnesians. This suggests (as does the relatively meager output of Corinthian coinage when compared with the Aeginetan) that the patterns of interaction between the Peloponnesian states on the one hand and either Aegina or Corinth on the other must have been very different. While commercial interaction between Corinth and the rest of the Peloponnesus is undeniable, any hypothetical reconstruction ought to explain the prevalence of the Aeginetan standard to the near exclusion of the Corinthian.[36]

Aegina's political connections, limited in scope, explain little about the Aeginetan standard. Aegina was a dependency and later an ally of Argos; a dependency and later an enemy of Epidaurus. From the period of her independence, she was at odds with Corinth and Athens. Some political ties (perhaps to be glimpsed in her membership in the Calaurian Amphictyony) with the small coastal states of eastern mainland Greece can be supposed. Aegina's position in Crete may have subsequently had politico-military characteristics to go along with the commercial. The Aeginetan intervention at Cydonia is a hint of this. The lack of wider political ambitions for the Aeginetans served to make their standard more attractive. It could be adopted without suggesting a token of submission to surrounding, more imperialistic states. The decision by Aegina to aid Thebes against Athens in c.

506 indicates that Aegina's interaction with Boeotia had been non-political until this stage. Spartan influence, suggested by Kraay, makes an inadequate explanation of the spread of the standard there.[37] Spartan political activity north of the Isthmus only begins with Cleomenes' interventions at Athens and in the dispute between Plataea and Thebes in the late sixth century (Hdt. 5.64, 72, 74-6, 90-3). Central Greece was overrun too quickly by Xerxes for Spartan influence to have been exercised through the Hellenic League. After Leotychidas' disappointing Thessalian expedition of the early 470's (Hdt. 6.72; Paus. 3.7.9-10), Sparta showed no strength in this area until the latter half of the First Peloponnesian War, when she was forced to intervene to counter Athens' growing position there (Thuc. 1.107.2; Diod. 11.80.1-2, 81.3). From this period, the self-interested cooperation of Thebes with the Peloponnesian League has its inception.[38] The leading Euboean cities of Chalcis and Eretria play a role in the region comparable to that of Corinth at the Isthmus. They were colonial powers standing at the crossroad that was at the narrowing of the Euripos. Like Corinth, their wealth was balanced by political power. Their political importance in the early Archaic Period is witnessed by the tradition on the Lelantine War.[39] More to the point, Chalcis was closely linked to the Boeotian League by the end of the sixth century, and an enemy of Athens (Hdt. 5.74.2, 77). Eretria since the time of Peisistratus had been Athens' friend.[40] Thus, the dissemination of the Aeginetan standard was once more a non-political phenomenon. Euboean economic influence was operating in the region of central Greece along lines different from those of Aegina.

Larissa began coining on the Persian standard, perhaps when Persian control was growing in the northern Aegean in the late sixth century, and certainly by Mardonius' expedition in the late 490's.[41] Yet, after the repelling of Xerxes' expeditionary force, Larissa begins to coin on the Aeginetan standard and thus comes into line with her neighbors. Political influence (that of Persia) seems in this case to give way to the economic influence of Aegina. Compare the case of Delos, coining from 540-530 on the Attic standard, a witness to Peisistratid intervention there. The other Cycladic states coin on the Aeginetan standard.[42] The interaction of the Aeginetan standard and Aeginetan commercial activity is clearly discernible on Crete, where other indications support our conclusions. It is not a sufficient explanation to note that the Aeginetan standard was established by the priority of Aeginetan coins in the area. This will not explain the appearance of other standards such as the Attic/Euboeic or the Corinthian, nor why these did not spread. A key factor was convertibility. The acceptance of the Aeginetan standard facilitated exchanges with Aeginetans in the first place, and later with others using the standard. Yet, can the appearance of other standards within the regions where the Aeginetan was prevalent be explained by commercial rivalries? No, rather the economic forces encouraging the dissemination of the standard were locally dominated by political influences. Single large (relatively) economies could go their own way in order to have a local coinage on an independent standard for reasons of prestige. In these relatively large economies, foreign exchange was less important, because a greater

percentage of transactions took place between locals. Elsewhere, commerce obscured political considerations. Why the Aeginetan and not the Corinthian standard? An answer to this can only be generated out of a more complete picture of the Aeginetan economy. Several factors can, however, be suggested here: 1) The scale of transactions is important. Many small transactions create greater exchange difficulties (both individual and social) and stimulate the adoption of the standard suited to the greatest number of transactions rather than those with the greatest value. 2) The locale of interchanges is motivating. The average citizen has more opportunities to deal with a foreign trader who comes to him than those to whom he must travel. 3) Certain goods are important for the role they play in the social and political consolidation of particular groups. Their impact varies with the political importance of those groups. 4) Alternate networks of distribution of goods may have operated. Some branch-like networks, with intermediary local or regional centers, affected money standards and exchange. Some types of goods were circulated by more direct trade over distances; others used peripheral or "port of trade" systems; in still others, itinerant retailers may have predominated. Combinations of these systems make classification difficult.

The influences that led to the spread of the Aeginetan standard were not merely coastal or peripheral in character. The standard not only appears in the islands where Aeginetan sea-borne traders can have been expected to have brought it, but also appears in Arcadia, Boeotia, and Phocis, where trade by sea, at least

directly, is not an obvious factor. This can be thought of in connection with the peddler character of Aeginetan trade, and particularly with the notice of Pausanias on Aeginetan traders penetrating Arcadia through Elis.

C) The Classification and Dating of Aeginetan Coins

Some form of turtle served as the badge for the obverse. Conventionally, those with smooth shells have been named turtles, while those with segmented shells, tortoises. The reverse bore an incuse square, which was gradually formalized, becoming what is called a skew. The general design of the obverse and reverse remained much the same until the middle of the fifth century, when the tortoise became standard for the obverse and a more modern treatment on artistic grounds was established. Generally, the treatment was conservative aesthetically, changing slowly, and often in details. The coins are anepigraphic in our period. Possibly, coins survive struck from no great percentage of the obverse dies, so that problems of classification are magnified. All these characteristics of the coinage complicate classification. This situation limits the exactitude of suggested chronologies, and, with them, estimates of the output of Aegina's mint. Classification depends on the intuitive ranking of specific features, and on a judgment of the comparability of the same feature on slightly different classes of coins. Though there are slight differences among various authors on terminology, some conventions have evolved, and will be followed here.[43]

Table 2.2

The Classification and Dating of Aeginetan Coins

		Holloway (Brown's classes 1-4, dates in parantheses)	
Cl. 1	obv.	turtle	c. 580
Cl. 2	rev.	incuse square like Ionian electrum	(640-590)
Per. 1	obv.	proto-heavy, proto-trefoil collars, proto-tortoise	c. 575-550
	rev.	Union Jack (lumpy surface around incuse	
Per. 2	obv.	thin collar turtles	c. 550-500
	rev.	Union Jack, five triangles, mill sail (lumpy surface in earlier phases)	(c. 500-490)
Per. 3	obv.	heavy collar turtle, trefoil collar turtle	c. 500 to before early 470's
	rev.	like Per. 2 (smooth surface around incuse)	(c. 590-490)
Cl. 4	obv.	heavy collar turtles, trefoil collar turtle	early 480's - early 470's
	rev.	early skew	(c. 490-458)
Cl. 5	obv.	large T-back turtle	early 470's - mid-fifth century
	rev.	large skew	(c. 490-458)

Holloway's Classes	Price & Waggoner	
Cl. 1		c. 550-530/25
Cl. 2 (Per. 1)		
Per. 2	Group I: thin collar/rough rev.	530-520/10
	Groups II, III, IV: thin collar/organized rev.	510-485
Per. 3	Groups III, IV, V, VI: heavy, trefoil collars/rev. proto-skew	500/490-480
Cl. 4	Group VII: rev. small skew	after 485
Cl. 5	Large T-back/large skew	after 480
	Beer	
Cl. 1		560-510
Cl. 2 (Per. 1)		
Per. 2	Organized variety of incuse Union Jack rev.	530-525
	Per. II: transitional obv.; fat, globular turtles w/ straight collar; shield-shaped w/ thin collar; some tortoises; rev. pre-skew	510-480
Per. 3	Earliest trefoil and T-back turtles; rev. gradually evolving to skew	500-490
Cl. 4	Formalization of skew	485-480
Cl. 5	Per. III	479-457
	Per. IV: tortoises	457-431

The early literature on the dating of the beginnings of Aeginetan coinage was revolutionized by the redating of the earliest Ionian electrum. Jacobstal and Robinson studied the Basis treasure, a deposit lying below the foundation of the pre-Croesus Artemision at Ephesus.[44] Here, very primitive coins were found alongside coin-like dumps which seemed to represent the latest stages of pre-coinage developmemt. This deposit was dated to the end of the seventh century by Jacobstal, on the basis of the dates for other objects found on the site. The earliest Aeginetan coins, as shown by two coins with reverses similar to that of early Ionian coins, were derived from Ionian electrum. As it is not the earliest Ionian coins from which the earliest Aeginetan are derivative and even the earliest turtles are relatively advanced when compared to the first Ionian coins, the beginning of the Aeginetan series ought to be put, therefore, after 600.[45]

As yet, there is no clear numismatic evidence to argue against the literary tradition that had Aeginetan silver as the first coined. How long the early period of Aeginetan coinage lasted is indeterminable, as the evidence of hoards before c. 520 is lacking. Hoards of the end of the sixth century clearly show turtles of more advanced designs (e.g., Holloway's Class 2, Period 2).[46] Thus, there must be an estimate not only for the first issues of these later designs (which differ between 550 and 530/25), but also for those classes represented by the occasional coin from Class 1 or Class 2, Period 1 that survive in later hoards. Connected is the matter of the appraisal of the date for the Matala or Dunbabin hoard, namely whether it is to be put before 525, or to be dated at

the end of the sixth century or even at the beginning of the fifth.[47] How long before the earliest surviving hoards Aeginetan coinage had its beginnings is conjecture. However, it is safe to conclude that Aeginetan coins need no longer be dated so early that they must precede Solon's reforms. It is unlikely that the Wappenmünzen are even this early.[48] The estimates of the beginning date for Aegina's minting recorded in Table 2.2 are speculative. Holloway's date of 580 seems a practical upper limit, while, as in the case of so many Archaic coinages, Price and Waggoner's date of 550 can be taken as a lower limit.

The earliest Aeginetan coinage consists of the two coins with reverses like that of Ionian electrum, and Holloway's Class 2, Period 1 (Groups A, B, and C), considered by him the "Early Linked Series".[49] To Holloway, these coins are die linked to an extent indiscernible in later turtles. Whether these coins provide so stark a contrast to the conditions of die linkage manifested later is debatable, but Holloway's main point is tenable.[50] The mint in its earliest years had a small output. Also, there was considerable variety in the style of the obverses (die links exist connecting obverses of different styles). To him this suggested a period of experimentation and intermittent activity. This makes indeterminate the span of time over which the earliest Aeginetan coins are to be spaced.

The discovery of coinage was not a sudden, once and for all, occurrence, but rather a process extending over a hundred years that can perhaps be conceptualized as having taken place in three stages. In the late seventh century, electrum coinage was first

minted in Asia Minor. The Aeginetans created the first silver coins in the second quarter of the sixth century, and in the last third of the same century, coinage became prevalent for the first time. This last stage, which often fails to receive its due appreciation, was of equal, if not greater significance. Coinage was initially adopted for reasons other then its usefulness in private sector economic activity.[51] Electrum is a gold/silver alloy, appreciably more valuable than silver. Even small electrum coins were too valuable to mediate modest-scale transactions. The innovation of coinage should have as its background late seventh century Ionia, under pressure from the Mermnad kingdom of Lydia. Even Lydian coinage ought to be viewed in a Greek context because it was probably fiscal interaction with the Greek cities that encouraged this innovation, which other Near Eastern empires seem to have done without. The payment of mercenaries or of tribute to the Lydians have both been put forward as the circumstances that prompted the origination of coinage.[52] However, in such an unsettled international situation as this there are other contexts where sizeable payments to considerable numbers may have had to have been regularized, e.g., sharing expenditures among or distributing reparations to those (either cities or individuals) who suffered disproportionately at the hands of the Lydians, or state procurements of grain to feed a population (as at Miletus) cut off from its agricultural territory. Ionia was riven by factional disputes at this time. The succession of tyrants and more or less closed oligarchies may have entailed redistributions of wealth.

To see the possible candidates for the initiation of coinage as either the state or private bankers exclusively creates a false dichotomy in a period when public offices were filled by the wealthy or by aristocrats. The fifth century debate over the use of the Delian League's reserve funds for the physical embellishment of Athens indicates that the development of a state treasury (as against a mere common fund) was always partial. The political elite may not have already drawn a boundary between their private resources and the funds administered by them on behalf of the community. Many transactions (i.e. transfers of goods by any medium) still involved gift exchange or patronage-like distributions. It may have been impossible to distinguish where private redistribution of precious metals to fellow citizens to subsidize their subsistence or military activity ended and where taxation or government expropriation began. Greeks in service of the Mermnads complicate the analysis of coinage's beginnings, as they stood in an indeterminate stance between civic magistrates and private agents. If by bankers those with accumulations of wealth, who conditionally made this available to others, are meant, clearly banking was not then a function differentiated from the aristocracy's customary mode of political behavior.

The earliest electrum issues give a very varied appearance. The assignment of a single issue to a single city appears chancy, and the public character of the symbols on the coins is not always readily accessible.[53] One hypothesis for the origin of coinage sees politically important individuals as its popularizers, rather than a piece of governmental policy in the modern sense. It was

Perhaps regularization of payments rather than of receipts that first made coinage attractive as a means to bring the distribution of funds into greater social visibility. If rates of coining remained low at first (a span of decades), then it is unlikely that payments to the state in coin had as yet come to predominate.

It appears that a half century or more lay between the first electrum issues and the start of silver coinage. This emphasizes that the transference of the practice of coining electrum to silver was not one that patently recommended itself to all. Electrum is a naturally occurring alloy of gold and silver. In this form, its value could be anticipated by those receiving it. However, the precise proportion of gold to silver was not ascertainable. This opened the way to creating mixtures of the two metals in proportions wnere the gold content was lower, and thereby the value of coins less than it appeared. In part, it may have been the possibilities for fraud or political manipulation that conditioned the early uses of electrum. In coin form, some political or quasi-political authority guaranteed the value of the metal transferred. That guarantee had force where the authority of the issuer held sway, and in those transactions which were given protection by their character. Regularity and repetition along conventional lines acted to reinforce the trust of the recipients of the coins. Thus, the commercial significance of electrum coins was perhaps recognizable, but was confined to situations where similar transactions were repeated, where price was established by tradition, or where alternate partners were not available.[54]

Those that began to coin in silver broadened the impact of coinage on society. Silver was of less value than electrum, so that the range of transactions that could be mediated through coinage was substantially increased. Physical tests could uncover simple deceptions such as plating. The high level of purity of the Athenian and Aeginetan coinages, for instance, suggests that their reputation depended in some part on their value having remained stable for some time.[55] Electrum was a regional phenomenon, but sources of silver, many already known to the Greeks, were more widely spread. Silver coinage allowed, therefore, for inter-regional trade. Its spread allowed backward areas to collect their surpluses over subsistence and exchange them for foreign goods which could not be procured otherwise. These advantages operate regardless of whether coins circulated between cities by weight rather than through some form of exchange. The divisible and hierarchical character of coins, and their prominence as a sole measure of value, made for clear and consistent evaluations, and this facilitated the circulation of goods. Silver coinage's acceptance as a universal standard of value was facilitated by the fact that silver (not gold or electrum) was the form in which early Archaic Greeks treasurized wealth. However, it remains an open question how many of these possibilities can have been envisaged by the first Aeginetans to coin. Did the Aeginetans merely adopt in a metal to which they had access the Ionian habit of coining, or did they already foresee that the change to silver was significant? At this stage, several factors with a bearing on these connected topics deserve to be brought forward.

1) Ionian electrum is difficult to attribute to specific cities. There are some typological continuities, but none as strong as the continuing Aeginetan use of the turtle as their symbol. Perhaps this indicates nothing more than that the Aeginetan oligarchy was more stable than the governments of Ionia, successively buffeted by Lydian and Persian imperialism. Yet, a silver coinage of an eastern Aegean power such as Samos shows much greater continuity. This raises the possibility that silver coinage, from its inception on Aegina, was somehow more firmly in the context of the state than were previous electrum issues.[56]

2) Aegina shows few of the motivating factors that have been proposed for the beginnings of coinage in Ionia. No tribute needed to be paid; no mercenaries had to be hired. This raises a further query why the Aeginetans and not others were the pioneers of silver coinage. A set of circumstances special to Aegina and not Ionia need to be sought to elucidate this matter.

3) Aeginetan independence and the coalescence of the island's political elite were events of the last portion of the seventh century, or of the very beginning of the sixth. They were, therefore, coeval with the invention of coinage in Ionia, and probably no more than a generation before the striking of the first turtles.

To chart the areas of uncertainty regarding the socio-political context of the advent of Aeginetan coinage suggests that a satisfactory answer cannot be adduced from the evidence of the coins alone. This is a topic to be resumed after a consideration of the data from different sources on Aeginetan society in the sixth century.

D) The Output of the Aeginetan Mint

The arrival of prevalent coinage was as noteworthy a happening as the inception of coinage. To appreciate the ramifications of such an observation, it is necessary to gauge the output of the Aeginetan mint. Table 2.3 presents the data on the number of coins, dies, and die links from the staters included by Holloway in his catalogue. Brown's Class 1 (Holloway's Groups A, B, and C) have been left aside. They were obviously limited issues, and their output is unremarkable. Let the reader note that the classes of Table 2.3 are Holloway's catalogue classes, which differ from his classes used on Table 2.2. His results were based on a study of 1067 staters.[57] Here discussion will be limited to coins which Holloway included in a dated class, and which were not so worn as to preclude judgment about their relation to other dies.

Two bits of evidence here suggest that the output of the Aeginetan mint was very large. 1) Very few coins were identified by Holloway for each die; on the average, 1.2 coins/die. 2) Only a small percentage of the predictable die links (where more than one obverse die appears with the same reverse) have been recognized. To understand the interpretation of these points, a short digression to discuss ancient minting techniques is in order.

Any estimate of output depends on the fact that coins surviving are a random selection of the coins minted by any one city. Obverse dies which were fixed in the striking procedure had a longer life than reverse dies, which had to receive the force of the striking blow. A simple pattern, which is attested, had a single obverse die successively wearing out several reverses. Other

patterns show several obverses to have been simultaneously in use, with each sharing reverses occasionally. Lapses and resumption of minting, as well as temporary heavy loads, complicate the simple model.[58] However, the simple pattern will be assumed as a working basis, because there is insufficient data to show that Aeginetan minting diverged from it. This assumption should not distort the results.

When most of the die links are known, most of the dies in the series have been discovered. The number of coins known per die is a concomitant phenomenon. The more coins per die, the greater opportunity to discover one reverse die which appears with two obverses. As more of the dies in a coinage are discovered, the number of die duplicates (coins with the same obverse and reverse dies) also increases. When the number of dies used in a series of coins can be estimated, it is possible to estimate the size of the series. If few coins and dies relative to the total output exist, the accuracy of the estimate is lessened.

Sellwood, who attempted to duplicate ancient minting techniques, opted for a minimum of 10,000 for the average production of a single obverse die in hot striking (at least 5-8000 for cold striking). Raven, who worked on the Amphictyonic coinage of Delphi, was able to correlate numismatic evidence with epigraphical data. Some incomplete inscriptional evidence exists on the amount of bullion taken in by treasury officials at Delphi and emitted during the period 336-331. Thus, he was able to estimate different outputs for various emendations of the figures missing from the inscription, and for estimates of the percentage of

fractional coinage in the whole issue. haven opted for a minimum of 10,000/obverse die. Thompson, in her study of the new silver coinage of Athens, estimated c. 6000. Let us take 10,000/die as the basis for our estimates, but remember that the chances are greater that the output per die was larger than smaller.[59] Flawed dies that broke down quickly can be ignored. Where few coins are known per die (as for Aeginetan turtles), there is little chance of coins appearing from dies with a small output to throw off the reckoning.

Several statistical methods permit an estimate of the number of obverse or reverse dies from the number of coins surviving per die, the number of die duplicates, or the number of die links. So few die links have been found for the turtles of Holloway's Class 2, Period 2 that our information falls below the threshold at which good estimates can be made. Table 2.3 outlines the raw data to be gleaned from Holloway's catalogue. The dating is artificial and my own. The dates given on the Table claim no predictive ability concerning when any particular coin was struck. The Table is framed in light of two assumptions. Holloway's dates for the beginning of catalogue classes 5 and following (c. 550) are too high, and ought to be brought down to c. 530/25. However, redating should be accompanied by a complete reclassification. As this is not appropriate here, class 13 has been made a breakoff point between sixth and fifth century coins. Doubtless, an examination of the condition of the flan surrounding the reverse would allow further distinctions in the pre-500 coins. Similarly, if one accepts price and Waggoner's distinction between those coins with proto-skew

reverses and those with the small skew, to be dated after 485, it would be possible for us to gain a clearer appraisal of the high minting activity on Aegina in the 480's.[60] For the purposes of this estimate an attribution of class 16 to 500-480 and 17 to 490-80 will be used, which, while a good guess, must be treated as an assumption. Therefore, figures on Tables 2.3 and 2.4 must be taken as rough indicators rather than exact predictions.

The dies identified in Holloway's catalogue (where an evaluation could be made) will of themselves give us a sizeable coinage and annual rate of coining. Table 2.4 makes use of two techniques, coins surviving per die and die duplicates (related to the surviving coins per die), to estimate the size of Aegina's coinage. These estimates give very high rates of coining indeed. The estimated outputs challenge both the traditional observation of die links on Aeginetan coins and historical assumptions concerning Archaic and early Classical economies. Yet, Aeginetan society was perhaps the first in Greece to become fully monetized, so that the fact that rates of coining may be high is not surprising. The spread of the Aeginetan standard argues that these coins soon became a very important measure of value in many other states. If Aeginetan turtles were a preferred way for the aristocracies of late sixth century Greece to hold treasure, then higher amounts than justifiable by the size of Aegina's economy and by the extent of state expenditures may not be unexpected. With Aeginetan coins circulating as an official coinage (alone or with the local currency), Aeginetan coins remained in a wider orbit of circulation than otherwise customary for Greek currencies, and the supply of

Table 2.3

Some Features of Known Aeginetan Coins

Class	Date	#/coins	#/obv.	#/per die	#/duplicates	#(%) die links
5-13	530-500	323	252	1.3	34	4 (1.6)
14,16	500-480	208	157	1.3	10	0
17	490-480	133	129	1.0	12	1 (0.8)
18	479-457	80	53	1.5	11	9 (17)
Total (5-18)		744	591	1.3	67	14 (2.4)
Total (5-17)		664	538	1.2	56	5 (1)

Table 2.4

The Output of Aeginetan Coinage

Actual Dies

Period	Total Output (Aeg. T/Attic T)	Annual Output
530-500	840/1193	28/40
500-480	523/743	26/37
490-480	430/611	43/61
479-457	177/241	8/11
530-480	1793/2547	36/51

On the basis of die duplicates

Period	Rev. Dies	Total Output	Annual Output
530-500	1530+262	2550/3621	85/121
500-480	2153+680	3588/5095	179/254
490-480	732+211	1220/732	122/173
479-457	287+87	478/679	23/33
530-480	3931+525	6552/9304	131/186

Die Duplicates: $x = \frac{y\,(y-1)}{2P}$

Where x = Total Obverse Dies; y = Known Coins; P = Die Duplicates (Coins with the same obverse and reverse die)[61]

Error: x+ x. P/P Output: 8000/reverse die

Aeginetan Talent = 1.42 Attic T

On the basis of coins per die[62]

Period	Estimate(Aeg.T)	10% missed	25%	50%
530-510	2546-3517	1680-2390	1141-1458	615-705
500-480	1377-2069	944-1425	667-914	369-454
490-480	*5667-62953	1534-3933	748-1235	327-445
479-457	337-568	270-426	194-293	123-156
Total: 530-480	6286-8169	4246-5240	2689-3143	1358-1505

money was not merely related to the conditions in a single city, but to the scale of transactions in many poleis.[63] By putting silver in a widely accepted form, the Aeginetans added to the value (as measured in other goods) of the silver (initially in the form of bullion) which they received. The dissemination of the turtles as a standard measure of wealth and value enhanced the role of the Aeginetans as middlemen in the silver trade.

Certainly, Aeginetan coinage should not have circulated precisely as did Athenian owls. They were the medium by which Laurion silver was exported, which permitted Athens to import goods (e.g., grain and slaves). Athens was rare in that, for her, the flow of coins was generally outward. These coins, carried by Athenians and others, were spread not only within the Greek world, but in Egypt and the Near East. In the Near East, they appear alongside jewelry and bullion. Many, having value merely by their weight, were cut through or gouged as a test.[64] Many more were presumably melted down. Aeginetan coins also appear in Near Eastern and Egyptian hoards, a few making their way even as far as Afghanistan. However, Kraay seems to be correct in his contention that many Aeginetan coins went out of the Greek world when they were too old to be of value, or when there was no longer an independent Aegina to draw them homeward.[65] There is no reason to think that the turtles were a preferred medium for exporting silver outside the Greek world, or for non-Greeks to hold onto silver. It is not necessary, therefore, to assume that proportionally as great a percentage of the Aeginetan output was sent outside Greece and melted down. Most coins remained where

their value was greatest, on Aegina and in those areas where they were a quasi-official or official coinage. There was no stimulus for Aeginetan turtles to become a preferred means for carrying silver to Egypt. Therefore, the silver in Aeginetan coins was being recycled by reminting, when old staters were melted down and new ones were struck.

The estimates drawn from the number of coins per obverse die deserve special comment. Very few die links were listed by Holloway in his catalogue, and few have been observed and listed elsewhere by others. Out of the 114 coins of the Asyut Hoard, few linkages have been observed, and this can be compared to that of other coinages of obviously more limited size.[66] The die links are so few that they do not provide a basis for an extrapolation on output. In the case of the starred entry in Table 2.4, the high number of coins per die has led to an astronomical estimate. There are, however, some grounds for disquiet concerning die links and the classification of Aeginetan coins. The type remained the same, and it is a simple one. Many of the surviving coins are old and badly worn. An empirical basis has been given to disquiet over the picture of few die links among the turtles by L. Beer.[67] Taking over the coining apparatus used by Sellwood in his experiments in ancient minting techniques, she has attempted to duplicate the methods by which Aeginetan coins were struck. She has observed that, for example, a classifying feature of the turtles like the thickness of the collar can be seen to vary from coin to coin of the same die. Beer has supplemented these observations with a study of the surviving turtles, and states that from her

reclassification efforts, she has been able to note markedly more die links than those outlined in Holloway's dissertation, where the condition of the coins allows a good comparison.

One should not prejudge the publication of her results, but a few general observations on these problems are in order. The question of what truly distinguishes one die from another may only be capable of answer if the whole life is simulated for several dies. Those dies showing variation over a few coins (less than 500?) may be precisely those which would break down first, and thus be of least account in an estimate of output. It is also possible that over the life of a die, what appear significant variations among the coins first struck may not hold up throughout a whole run of average duration. Another factor is that one of our difficulties in classifying Aeginetan coins by die links may have been that the dies were used for a long time. Knobs disappear from their shells, and the incuse pattern of the reverse may lose its character, and on some coins, needs to be recut or touched up.[68] If the use of worn or recut dies suggests that dies had longer than usual lives, then these estimates (deliberately low) of the number of coins minted in total and per die must be revised upward. The impression given by old or worn coins found in the hoards outside the Greek world may be unrepresentative of the mixture of coins circulating at the same time in Greece. The older worn coins which had lost their token value were a convenient means to export bullion. A priori the sample of coins circulating in Greece can be expected to have been on the average more recent and less worn. There is a preference by hoarders to reserve old coins

that had lost their power to buy goods and to pay taxes. Therefore, Table 2.4 has been designed with an eye toward balancing the effect of overestimating the number of dies. On Table 2.4, the output for Aeginetan coinage has been estimated for the hypotheses that alternatively 10%, 25%, and 50% of the dies listed as independent in Holloway's catalogue were actually unrecognized duplicates of other dies listed. Thus, the amount of known dies is lessened, and with it, estimates of output. These percentages are purely hypothetical (Holloway observed very few coins per die). If, in fact, there were 25% or 50% fewer dies than Holloway has listed, one must conclude that the ordinary practices of identifying dies are ineffective regarding Aeginetan coins. The stability of the coin type, simplicity of design, or the condition of the coins might be causes. At any rate, it is important to emphasize that, even with the number of dies being 50% less than are listed, a rate of coinage can still be hypothesized for Aegina that is nearly unequalled.

E) Output and Politics

How is the large Aeginetan output to be related to the economic life of the city? The origin of coinage did not lie in an effort to facilitate commercial transactions, at least of the casual or clearly private type. The initial absence of fractional coinage indicates the rather high lower limit of transaction size.[68] At the same time, the impact of coinage on economic life was limited because there was not enough of it to make it a regular medium in most transactions. The third stage in the development of coinage was its growth in prevalence and output.

The presence of Aeginetan fractional coinage in a range of values from the end of the sixth century was important, as it allowed coinage to become the predominant medium of exchange for most transactions.[69] Greek cities with plentiful fractions are few, and where they exist, they are testimony to the penetration of currency into the economic life of the community. The position of Aeginetan coinage in the Peloponnesus may explain the limited range of values for some local coinages. Some cities began to coin fractions because Aeginetan staters were plentiful and used for large transactions and disbursements.[70]

On Aegina, the availability of plentiful coinage in a range of values was reached in the last quarter of the sixth century. The amount of coinage expresses the amount of politically or officially sanctioned interchanges that could take place, either between the government and a private citizen or between private citizens. Elsewhere, money was popular among governments and ruling classes because it permitted the manipulation of coins' weight and purity and periodic demonetization.[71] These motives cannot have been important for the Aeginetans, as they did not make up a part of their armory of financial measures. It did provide the underpinning for a growth in government expenditure that can be noted on Aegina at this time.[72] There is no reason to think that before money became prevalent there was even any generalized stimulus to hold one's wealth or resources in coin form. Therefore, the rate of minting does not narrowly reflect the economic fortunes of the community. Attractive though the hypothesis may be that Aeginetan coining is to be linked to the growing importance and

profitability of Egyptian trade around mid-century, it is impossible to see how such profits can have so clearly affected minting.[73] Rather, coining has a retrospective quality in its evidence on the economic condition of a polis. Prosperous times allow for an increasing amount of wealth to be held in various forms by individuals. In time, this general prosperity encourages the community and its leaders to undertake costly projects. These draw on savings and elevate government expenditure, and thereby the output of coins. The issuance of a great amount of coins after 530 does not tell us that Aegina became much more prosperous at this time, nor merely that late sixth century Aegina was wealthy. It does suggest that, for some time before 530, Aeginetan wealth was appreciable, and could be drawn upon for spending at the end of the century.

A part of the attractiveness for minting more coins to pay for state projects, and a reason for the feasability of such public works, was that coins allowed not only for a regularizing of the polis' payment structure, but for the creation of a larger, more effective system of taxation. States presumably only accepted payment in their own coin.[74] Often, this was accompanied by an insistence that only their own coins or other recognized money circulate as legal tender in their own market(s). The divisible and hierarchical character of coinage offered a means to establish taxes on commercial or economic activity, even though it be low-grade. The monetization of the economy permitted taxes on things difficult to deal with otherwise (the land, par excellence), since these things could be evaluated in terms of coin, of which the growing prevalence insured that taxes could be paid.

The regularizing of the form in which taxes were to be paid was an important innovation in its own right. The scanty surviving evidence points toward the appearance of rules about the form in which taxes were to be paid in the last quarter of the sixth century. Such a stipulation would need a growth in the amount of coinage in circulation. Bullion would have to be minted and put into circulation, perhaps drawn from cult treasures. At least for Aegina, the political uses to which the ruling oligarchy put its funds may have encouraged the movement toward higher rates of output.

Greek minters charged a fee for the conversion of bullion (and foreign, worn, or obsolescent coinage) into new coins.[75] The greater the number of transactions, both between Aeginetans and others, and between non-Aeginetans, that were conducted in Aeginetan coin, the greater the circulation of Aeginetan money. As the coins wore out, they were melted down and reminted, with the Aeginetan government profiting from the popularity abroad of its coinage. In those cities where a government bank carried on exchange, or where banking lay in the hands of the political elite, the provision of local coinage in a full range of values and an insistence on its use contributed to the profits of the bankers. This may have encouraged some cities to increase the amount of coinage in circulation.

How many of these developments were envisaged by those who embarked upon the large spending and presumably higher taxation in late sixth century Aegina can only be a subject for speculation. The government presumably had reserves of silver in the form of

offerings to the various divine and heroic cults worshipped on the island.[76] These offerings, if turned into coin, would raise the amount of coinage circulating on Aegina, thus allowing the government to raise taxes. How this may have worked politically in oligarchic Aegina will be suggested below.[77] There is little Greek evidence on the awareness of politicians of the need for an adequate supply of money in circulation. There are some data that suggest that in the late Republic and Principate there was some understanding of this phenomenon, though interpretation of the evidence is controversial. To what extent Roman "economics" goes back to Hellenistic or earlier Greek statesmanship is uncertain.[78]

One other factor that could have brought the community's economic life more directly into connection with the average production of coins was voluntary deposits of bullion at the mint by individuals in return for coinage. Once more, the Roman evidence is important, and it suggests that this was not common practice. But any statement regarding Aegina must take care of the vague line that may have lain between public officials and wealthy members of the community. One thinks of compulsory loans which could have acted as liturgies, or a state bank underwriting some of the aristocracy's activities. Certain patronage functions of the aristocracy may have operated best when coinage was plentiful, and the Aeginetan oligarchs, aware of this, may have encouraged the conversion of silver into coinage.

Large state projects helped raise state revenues by raising the money supply and by underwriting the ability to pay taxes,

which, in turn, allowed state expenditures to grow, so that coinage never dropped back to earlier levels even between large public works. Yet, these geometric, temporary increases in state expenditure were episodic in their effect on rates of coining. Coining may have reached sharp peaks when hoarded silver, belonging to the state or individuals, had to be converted to meet the expenses of a war (e.g., the Cydonian expedition), or some large project (e.g., the equipping of the war harbor). The periodic appearance of another motif, the segmented shell, may be due to another minting authority (a governmental organ like the *thearoi* or some group of temple personnel) helping to supplement the efforts of the treasury (or whatever one is to call the central minting authority). They may have had their own traditions in the design of coins, and revived them when they became active.[79]

Present classification schemes are too crude, and hoard evidence too scanty, to warrant a reconstruction of minute differentiations in output showing the mint's operation varying closely with government expenditure. Two broad periods of peak activity can perhaps be hypothesized. A division seems to be between turtles before 500/490 and those after, though Holloway's distinction between thick and thin collar turtles is not proof to criticism.[80] A priori, one would expect high expenditures in the late sixth century, when, on the Cape Colonna Hill, the Apollo Temple, the Thearion, and perhaps some of the smaller buildings were built, and also the Aphaia Sanctuary was redone. Another peak was in the 480's when the new city fortifications and the war harbor were built.[81] Yet, it is clear that many of the coins of

Holloway's Period III (Price and Waggoner's Groups III, IV, V, and VI) were minted to meet the expenses of military preparations against Athens and eventually against Persia in the 480's.

The trefoil collar turtles with early skew reverses are to be associated with these latter expenditures, according to Holloway. Workmanship suffered during the 480's, as the mint turned out coins at high rates to meet the Persian (and, one should add, Athenian) threat. This phenomenon can be well documented from the Myrina hoard of 1970, where, out of 149 coins, 22 were certainly overstruck, 13 show traces of overstriking, and 7 were double struck, perhaps an indication of hurried, high-volume coining. Here, overstriking is an indication that coins were being emitted as quickly as possible, and that normal procedures of the mint were being superseded. Some proto-tortoises were also struck at this time, which may be another sign of high output. Of the 13 overstruck coins that were identified by Caramessini-Oeconomides, Aeginetan turtles provided the flans for 11 (along with one coin from Teos and one from Koressia). However, it is difficult to be precise about the time of minting of the earliest coins of this hoard. Some coins possess reverses that show the partial evolution of the Union Jack reverse, called "early skew", "proto-skew", or "transitional". A comparison with Athens is worthwhile. Clearly, the naval program of the 480's mobilized large funds. Yet, the quality of Athenian coins, in external appearance, did not suffer until after 480.[82] The Persian invasion devastated Attica. The beginnings of rebuilding and the operations of the Delian League necessitated great outlays that strained the community's resources.

Expenditures remained high, but the community was less able to pay for them because of damage, predominantly to the silver industry, through devastation and through flight or emergency emancipation of slaves.

The date of 479 and afterwards is generally accepted for the T-back turtles with the large skew reverse. The current evidence demonstrates that this was a coinage of relatively limited size, so that it is scarcely probable that it was emitted to pay for the military structures.[63] A date in the 480's should then be preferred. Aeginetan coining stayed high after 500. This is possibly to be connected with the changeover in warship type in the Aeginetan fleet from penteconter to trireme which ought to have taken place gradually down to 480.

A correlation of expenditure and coining rather than prosperity and coining puts the high rates estimated for Aegina in perspective. These rates do not mirror Aeginetan profits reaching unprecedented heights. Large reserves collected over the late seventh and the sixth centuries were turned into money to pay for high visibility prestige projects or into spending necessary in the troubled political climate of the early fifth century. This pattern of accumulation of surpluses and minting in times of extravagance or stress is not peculiar to Aegina. Thompson observed that, paradoxically, rates of coining in the series of new Athenian silver are highest when Athens no longer possessed Delos and other cleruchies.[64] Again, the surpluses of fat years were being used to augment the outlay of funds in lean economic years, when the city must increase its expenditure and its rate of coining.

Several points are to be made about the output of Aeginetan coinage after Salamis. Accepting that the T-back/large skew coinage began in 479, and that it was of no great size, we have a valuable bit of evidence about Aegina in the 470's and 460's.[65] The low rate of minting accomodates the notion of a prosperous Aegina, with few fears of foreign threats. The still-circulating, pre-Salamis coinage, along with newer coins, sufficed for government expenditure. There was no desperate need to convert reserves to meet a long-term challenge This coinage has traditionally been thought to have ended in 457/6, when Aegina succumbed to the Athenian siege. There was once thought thereupon to have been a long hiatus in coining until the tortoise coinage began after the restoration of the Aeginetans to their island at the end of the Peloponnesian war. However, a tortoise stater was discovered overstruck by King Azbaal of Citium in Cyprus.[66] As he is clearly a fifth century Cypriot ruler, the theory was then brought forward that the Aeginetan mint was reorganized after the incorporation of the island into the Athenian Empire. As more fifth century hoards have been discovered, the impression of this coinage as a small one is being corrected.[67] It is a sizeable coinage, which is as might be expected, given the expenditure of the Aeginetan state for the payment of tribute, and possibly for repair of the damage done by the Athenians to the island. The segmented shell for the turtle was a type that had had a limited employment previously. One explanation for its adoption at this time was suggested by Rago, who wished to see it as a move imposed by the Athenians to symbolize the eclipse of Aegina as a naval

power.[88] This is an absurdity, to attribute to the Athenians a sort of profitless vindictiveness, an open demonstration to the Greek world of Athenian imperialism. Rather, more simplistic sorts of connotations appear to be the rule on Greek coins. This change is a bit too elusive for the Athenians to have derived their requisite satisfaction. The hypothesis fails to reconcile the political adoption of the tortoise after the Athenian conquest of the island with its earlier appearance as a type.

Two reasons can perhaps be generated on internal grounds to explain the change in type, one fiscal, the other administrative. They could be complementary, but need not be. The change must be considered against the background of constancy and change in coin types. There have traditionally been several reasons for changes in type. One is a change in political regime, either a new ruler, a new constitution, or subordination to another polis. Another reason is that earlier issues had become discredited as currency, due to debasement or manipulation of the standard. A change of standard for legitimate reasons (e.g., facility of exchange) can also be envisaged. A final reason is the fiscal device known as demonetization, where a government invalidated all existing coinage and forced those paying taxes to have recourse to the treasury for new coin.[89] Thus, the government reaped the profit of increased minting through the minting fee and held the option of further gain through debasement of the newly issued coins.

Great coining states of the Archaic and Classical Period had remarkably stable coin types. Athenian coins were minted within a range of purity probably as narrow as possible considering

contemporary metallurgy, so that variation is usually accidental. This constancy of type and purity was advantageous. Recipients of the coins could trust that they were receiving a foreseeable amount of silver. Aeginetan coins are also relatively pure, though not within the narrow range of the Athenian.[90] The Aeginetans should have recognized the commercial advantages in a stable coinage. The recognized status of the turtles in other areas of Greece depended on their continued quality. It is possible that the change to the tortoise at this time was a demonetization. Coins had their greatest value in their home city, where their uses were multiple. They tended to be drawn back there.[91] Aeginetan coinage provides a partial exception. Minted in quantities greater than necessary for home purposes, many coins went abroad to pay for the foodstuffs, metals, and other goods which the Aeginetans imported. The attraction of the home city on them was counterbalanced by the large number that remained in circulation abroad, where non-Aeginetans used them. When the Aeginetans were assessed a 30 T tribute by the Athenians, they were put in a difficult predicament. This tribute had to be paid in Athenian coin.[92] The Aeginetans, therefore, had the problem of converting receipts in Aeginetan staters into Athenian coins. Raising funds may have been complicated by war damage to Aegina and its trade. Plenty of Athenian owls circulated, assured by the large output rate of the early fifth century. In most cases, poleis paying tribute needed only to tap through money-changers this reservoir of Athenian money. Also, the Athenian fleet put very many Athenian coins in the hands of allied sailors serving on campaigns of the Delian League.

However, Aegina may have been a special case. Her own citizens and their taxes were bringing in the still plentiful turtles, but money-changers and bankers were not as anxious to get them. The volume of Aeginetan trade had fallen, and there was less demand for these coins to do business with Aeginetans. Therefore, Aeginetan money needed to be discounted in order to be exchanged for Athenian tetradrachms. They were being treated, perhaps, very much like bullion. The change from a turtle to a tortoise was an answer to this dilemma. It would add to the island's revenues by the levying of a minting fee on those who needed to acquire the new money to pay Aeginetan taxes. It would create a relatively limited coinage much in demand among money-changers, since it could be cycled back to Aegina, where it was now the medium for paying taxes. Abroad, those Aeginetan merchants who remained active could continue to use the turtles, of which there were still large numbers circulating. Their trading partners (e.g., the Cretans) still desired to acquire them. Indeed, Aegina may have continued to issue turtles for use abroad. An overlap between the two classes of coinage is possible.[93]

Why was the segmented shell adopted for the new coinage? It had appeared for at least two periods since the inception of the mint. At times of high minting rates, other organs of government might have been assigned responsibility for supplementing the amount of coinage being produced. Proto-tortoises with reverses that are transitional to the small skew seem to date from the 480's, when rates of coining were very high, to all appearances. Is it possible that, in the mint reorganization, an intermittent

mint was now given entire responsibility for the production of coins? Next, a reason must be generated for the shift in responsibility when subjugation by the Athenians does not seem to have brought other constitutional changes. Some changes, however, were mandated by the terms of the treaty with Athens. The disbanding of the Aeginetan navy was stipulated by treaty. Perhaps the responsibility for minting coins had to be shifted, because the previously responsible governmental organ was now extinct. Conceivably, a treasurer in control of monies used to equip and man the Aeginetan fleet had had the responsibility for the mint previously. Without a fleet, the mint became the business of others.

This institution can be paralleled at Athens, where the naukraroi were reponsible for supplying Athens with a fleet (Anecd. Bekker 1.283.20; Poll. 8.108). The naukraroi had important financial responsibilities. The Ath. Pol. (8.3) emphasizes their role as treasurers, and cites Solonic laws in support. Their treasury, the naukrarikon arguron, supplied funds for envoys to Delphi, as the kolakretai did later (Androtion FGH 324 F 36). This was undoubtedly one of the oldest financial functions of the polis' government. The naukraroi were given the power to collect taxes (Hsch. s.v. "nauklaros"). If the distinction between sea turtes and tortoises has a symbolic meaning, it would in this hypothesis go back to the earliest days of the Aeginetan mint. Then, most of the minting was done by officials connected with the fleet. Hence, the marine turtle was their badge. Another governmental body also coined at a lower rate, taking the land turtle as a contrast to the maritime officials.

Another matter concerning the tortoise coinage is its date. The date of 457 or afterwards assumes that the mint was reorganized shortly after the conquest of the island. It might seem preferable to some to keep the remodeling of the coinage away from the immediate context of the island's fall. The shift to the tortoise was a modernization, at least from an aesthetic viewpoint. Is it likely to have taken place in the aftermath of the defeat of the island? Whether it is to be moved before 457, or somewhat later, is uncertain. If before 457, it was unlikely to have been a demonetization, at least under the impact of paying tribute to the Athenians. Its rationale would have to have been the strain of sudden expenditures after the outbreak of the First Peloponnesian War, when Athenian imperialism became threatening to the Aeginetans. Perhaps a better solution would be to put the advent of the coinage some years after the fall of the island. Whether one should suggest 446, the year of the Thirty Years Peace, as Robinson has done, is another question.[94] This would compress the whole output of fifth century tortoises into fifteen years. Moreover, it creates an anomaly in that Aegina, not minting previously, begins to mint after the promulgation of the Coinage Decree. 446 is attractive only if one holds that a special grant of autonomy, of which the right to mint was part, was bestowed in that year. The right to mint was certainly not central to a grant of autonomy, since the Aeginetans were hardly complaining to the Spartans about coinage on the eve of the Peloponnesian War. Stylistic features and chemical composition mark off the fifth century tortoises and group them with the immediately preceding T-back turtles.[95]

Therefore, it is preferable to see only a brief hiatus in the minting of coins at Aegina. The lower date for the fifth century tortoises will have been either the expulsion of the island's inhabitants in 431 or the Athenian assault on the fugitives in the Thyreatis in 424 (Thuc. 4.57.1-3).

F) Finances

The finances of oligarchic Aegina can be hypothesized by analogy. Many things would have been conducted by means of liturgies, e.g., the outfitting of ships, and perhaps their provision during the sixth century (with penteconters in use). Festivals, and the providing of certain cult duties, were probably also carried on in this fashion (Hdt. 5.83.3). Greek states were reluctant to inaugurate direct taxation of individual wealth. With accounting mechanisms primitive, and bureaucracy rudimentary, an income tax was impossible, leaving a tax on total wealth which the Athenians called an eisphora.[96] An eisphora drawing on private reserves cannot be ruled out for Aegina, but its use would have created difficulties. A regular eisphora was a late development in regular use at Athens. Used frequently after the beginning of the Peloponnesian War, it exacerbated class tensions and infuriated the rich thereafter.[97] Thus, it hardly seems a device that would have attracted the wealthy Aeginetans. Moreover, at Athens it was limited to visible goods.[98] Given that, on Aegina, unusually for the Greek world, a great portion of total resources must have been in things other than the land, an eisphora did not have the possibilties that it had elsewhere. Invisible wealth, precious

metals, and objects of value were much more difficult for the ancient taxman to cope with.

On the other hand, lying open to Aegina, a commercial power, was the entire range of port taxes, import and export duties, market taxes, sales taxes, and taxes at the gates.[99] An indication of the profitability of these taxes can be drawn from the amount of tribute paid by the Aeginetans to the Athenians. The Athenian assessment, like any other form of regular taxation, should represent an excess over what is necessary to maintain the physical lives and relative prosperity of those taxed.[100] Regular taxation systems cannot dismantle the economic plant that produces the funds to pay the tax. The premise is that the tribute assessment was not customarily punitive. The Athenians used indemnities and cleruchies to exact reparations from a subject state, rather than grind them down with tribute.[101] However, if any tribute could be posited to be atypically punitive, it was the heavy assessment of Athens' ancient and bitter enemy, Aegina. Nevertheless, if the Aeginetan assessment was punitive, the amount of damage which it was intended to inflict must be put in perspective. The amount of tribute was not so disproportionate to Aegina's ability to pay that the Aeginetans were immediately unable to match the sum. Rather, it is only the last pre-war payment which might have been in deficit. The Aeginetans may have fallen in debt to the Athenian politician, Thucydides Melesiou, but a single Athenian, however rich, could scarcely make up shortfalls in an amount as high as 30 T (Vit. Anon. Thuc. 7; Marcell. Vit. Thuc. 24). If the assessment procedure delivered an unfairly high figure

for Aegina, it is doubtful that the Athenians deliberately meant to make innovations in their tribute system. The negative portrayal of the Aeginetans in both Herodotus and Ephorus, which juxtaposed Aeginetan violence and arrogance with the island's wealth (Hdt. 5.83.1; Diod. 11.70.2; 11.78.3-4), reflects Athenian animosity toward the Aeginetans. This animosity was perhaps tainted with envy of Aegina's prosperity. The anecdote told by Herodotus (9.80) of the Aeginetans cheating Spartan Helots to make their fortune shows the same feeling. Such material conditioned Athenians to put a high estimate on Aeginetan capacity for taxation, and to believe Aeginetan riches were ill-gotten. Therefore, it is reasonable to hold that Aegina's assessment was affected by these beliefs, and remained higher than it normally would have been for another state about whose ability to pay financial records alone stood as evidence. This recreation sees the Athenians levying disproportionate payments from the Aeginetans without seeking to act punitively.

The tribute was not a primary tax, but was collected by the tributaries from their cities. It presumably had some relation to the customary revenue sources of these poleis in their pre-League existence. Otherwise, how could the Athenians gauge a fair or appropriate amount for the tribute? Subsequent to their reduction to tribute-paying status, states passed along a fair proportion of their receipts to Athens.

In 413, during the Ionian War, the Athenians were forced by military exigencies to replace the tribute with a 5% tax on goods passing in and out of the harbors of the Empire (Thuc.

7.26.4).[102] Their expectation of the revenues from this duty was calculated from the sums realized from the tribute of the war years, greatly increased over the pre-War assessment. Aristophanes (Ran. 363) speaks about an eikostologos, the official responsible for collecting the 5% tax, sailing over from a station on Aegina to Athens. Therefore, the 5% duty was collected there. One might assume that the deficit in tribute motivating the Athenians was not so great that the expectation from the market duty (substituting for the tribute) fell short of the pre-War tribute. Tribute had risen steeply since the outbreak of the War, and the 5% duty was to do better than the partial collection of tribute. The largest tribute in the pre-War assessment was the 30 T of the Aeginetans. Thus, these 30 T represent a minimum for the amount that could have been raised by Athens through a 5% tax on imports and exports from the harbor of Aegina, had Aegina still remained an independent state. This would give for the total value of goods passing in and out of Aegina the amount of 600 T, a sizeable sum. If Aegina raised her 30 T of tribute from a series of the customary 2% taxes on various financial and commercial activities, it would give a total for these activities, ignoring the Aeginetan government's internal expenses of tax collecting, of 1500 T. This figure may be compared with the estimates of Aeginetan coining, and should be kept as a background to our discussion of the Aeginetan economy below. Athens, under the impoverished conditions after the Peloponnesian war, raised 36 T from the harbor tax of the Peiraeus, after the skillful intervention of Andocides.[103] Yet, it is worth remembering that the Aeginetans experienced distress in meeting

their requirements to Athens. The Athenian tribute assessment was thus based on an estimation of Aeginetan fiscal resources from before the fall of the island.

G) Hoards

Hoards which contained or did not contain Aeginetan coins must come under investigation to gauge properly the sorts of support which a study of coinage can bring to an understanding of Aeginetan society. An example of the type of insight which we are unlikely to receive, and which it is wrong to look for, can be seen in the purported Aeginetan grain monopoly in Egypt. This theory has been put forward by Sutherland and Milne.[104] The relatively high number of Aeginetan coins in Egypt in Archaic hoards was due, according to them, to an Aeginetan monopoly of the supply of silver to Egypt (presuming, of course, that silver was the possession of the Greeks most coveted by the Egyptians). This gave the Aeginetans an effective monopoly of the import of Egyptian grain into mainland Greece, and thus extremely high profits. Finley, quite rightly, pounced on the hoard evidence as the chief weakness of this theory, as the percentage of Aeginetan coins was not really that great. It has not grown as more hoards were found, after the earlier writings on the subject.[105] It is not easy to see why Aeginetan traders would have been compelled to use their own coins to trade with non-Greeks, who had no monetary economy. The grain trade must have been supervised carefully by Egyptian bureaucrats, and these were unlikely to be overly concerned with what medium the Greeks conveyed silver to them. In any case, true monopolies are almost

always products of political intervention, and do not evolve naturally out of the operation of markets. As will be seen, it is possible that privileges granted by the Egyptians were a factor in the trade at Naucratis.

The hoards listed in Coin Hoards (compiled since the publication of IGCH) support the picture of the circulation of Aeginetan money presented on the Table 2.5 B. The following are apparently Aeginetan in their majority: Coin Hoards 1.5, Aegina (c. 500), 12 total; CH 1.8 Greece (c. 460), 103+; CH 1.12, Aegina (c. 460), 36; CH 3.8, Angistri (Aegina) (c. 450), 8+; CH 3.10, Megalopolis (c. 430), 350, 298 Aeg.; CH 1.52 (=IGCH 150?), Karditsa, 75+.

The picture of the hoard evidence has not changed markedly since Finley wrote. The discovery of the Asyut Hoard (about 15% Aeginetan) has been responsible for a moderate rise in the Aeginetan total. Aeginetan coins represent about 12 % of the Archaic and early Classical Egyptian hoards. They are second to the coins of Athens, which make up about 16% of the hoards. Greek trade with Egypt goes back to the second half of the seventh century, but Greek coins were only minted in numbers in the last quarter of the sixth. The first Egyptian hoard is not much earlier than 500. Therefore, coins can tell us little about trade with Egypt for the greater part of the Archaic Period. If silver was an important commodity in this trade, it moved in some form other than coins. Also, trade with Egypt presumably took its institutional shape by the reign of Amasis, for which period there is no numismatic evidence.

Table 2.5

The Hoard Evidence

A. Egypt

Findspot	IGCH#	Date	Total Coins	Aeg. #/%	Ath. #/%
Egypt	1632	6th cent.	5+	0/0	0/0
Egypt	1634	500	4	0/0	0/0
Fayum	1635	500	2	0/0	0/0
Mit Nahineh	1636	500	23	1/4	0/0
Demanhur	1637	500	165	16/9.7	3/10
Delta	1638	500	30	0/0	2/2.8
Sakha	1639	early 5th	72+	3/4.2	10/13
Benha el Asl	1640	485	77+	4/5.2	0/0
Alexandria	1641	480	4	0/0	0/0
Damietta	1642	480	5+	0/0	0/0
Memphis	1643	480	4	0/0	165/19
Asyut	1644	475	870	133/15.3	34/40.4
Zagazig	1645	470	84	9/10.7	1/6.7
Fayum	1646	460	c. 15	3/20	6/40
Naucratis	1647	450-25	15	1/6.7	221/16
Total			1315+	170/12.4	

B. Greece

Findspot	IGCH#	Date	Total Coins	Aeg. #/%	Ath. #/%
Matala (Crete)	1	c. 550-25	71	70/98.6	0/0
Athens	2	525-15	26	0/0	18/69.2
Euboea	3	530-10	6	0/0	2/33.3
Eleusis	5	520-500	7-8	0/0	6/75
Cyclades	6	500	145+	114/78.6	0/0
Santorin	7	500-490	760	541/71.2	77/77
Pascha	10	500-480 c.	100	0/0	0/0
Isthmia	11	480	135	61/45	63/100
Athens	12	479-78	63	0/0	
Paros	13	early 5th c.	100	Parian	5/100[106]
Sunium	14	480-460	5	0/0	0/0
Olympia (Babes)	15	470	25	25/100	9/100
Attica	16	465	9	0/0	
Corinth	17	470-60	36	100% Corinthian	
Corinth	18	470-50	14	100% Corinthian	
Naupactus	19	460	c. 10	100% Elean	106
Peloponnesus	20	460-50	9	100% Elean	0/0
Paros (Eirini)		460-50	33	33/100	0/0[106]
Koumares	21	450	36	35/97.2	0/0
Myrina	CH 3.12	440	149	149/100	
Kyparissia	23	450-25	41	100% Elean	0/0
Pyrgos	24	450-25	48+	100% Elean	0/0
Corinth	25	430-15	250+	Corinth & Colonies	

Percentages are calculated on the basis of coins & fragments without regard to weight or denomination. Excluded are hoards with no specification of number or composition: Cythera (4); Melos (8) (like Santorin); Cretan (9); Delphi (22).

Two other groups of coins predominate in Egyptian hoards, the Athenian (16%) and the coins of northern Aegean states, either Greek coastal cities or native tribes and dynasts (30%). The northern Aegean area was a silver exporting region. The export character of its coins is apparent from their generally heavy weight, which would have few commercial uses. The Athenian coins are to be interpreted in somewhat the same fashion. They are found in Egypt, and, one might add, in the Near East, because silver was the chief export of Attica. Much of this export was in the form of coins. Clearly, the inhabitants of the northern Aegean area did not personally export their coins to Egypt. Again, the same is possibly true for the Athenian coins. While some may have been carried by Athenian merchants, a portion impossible to isolate, Athenian coins were probably carried by others conveying silver to Egypt. Athenian silver was in the form of coins primarily because Athenians found it to their advantage to put the revenues of the mines into circulation in this manner, not because non-Greeks sought this form of payment.

A partial explanation for the appearance of a relatively large number of Aeginetan coins in Egypt is that there was a large number of Aeginetan coins. Circulating in a region larger than the political sphere of the island itself, some were carried out of the Greek world. However, since the area within which Aeginetan coins were circulating was one where Aeginetan merchants were probably commercial leaders, it is reasonable to assume that Aeginetan coins were carried by Aeginetans.

Aegina was not consuming all the grain imported by her merchants from Egypt. Rather, through Aegina, this grain was reaching other Greeks. They would pay for their purchases in Aeginetan coin or in the coin of other silver-exporting states, whether converted or not. There would be no profit for Aeginetan merchants in converting the silver of their customers into Aeginetan coins. Some coins of heavy weight, such as those of the Thraco-Macedonian area, may have been reserved for large-scale purchases by local grain traders.[107]

Coinage was not an export item to the Aeginetans, but rather a medium of exchange with those abroad who recognized its validity. The coins of the Samian exiles, who settled in Magna Grecia, may be a parallel.[108] These coins are found in the Asyut Hoard, but nowhere else in any number in the eastern Mediterranean. At Asyut, the Zancle coins of the exiles make up about 2% (14) of the hoard. No other western Mediterranean coins make up such a portion (only 9 from Magna Grecia and Sicily). The most reasonable assumption is that the Samian exiles carried these coins to Egypt themselves. However, there is no reason to assume that the presence of Zanclean coins of the Samian exiles ought to suggest that, after their departure from Zancle, they returned eastward. This would hardly have been a propitious moment to have done so. The general direction of emigration was to the West. If the Samian involvement in Egypt was great enough to bring members of a group of exiles across the Mediterranean to continue trade, there is little indication of this trade proportionately in the coins other than the modest percentage they comprise in the Asyut Hoard. Presumably,

Samians carried on their business in Egypt in the coinage of other states, along with their own. Alternatively, they carried on their trade without using silver as the major commodity to pay for Egyptian goods.

Aegina and Samos are bound together by the literary tradition as leading participants in the trade of Naucratis. Is it not then possible that the percentage which Aeginetan coins make up in Egyptian hoards may not do justice to the continuing involvement that an independent Aegina may have had in Egypt? The argument cannot avoid a certain circularity. There was a great number of Aeginetan coins in Egypt, because there were many Aeginetan coins. This reinforces the question of why there were so many Aeginetan coins. The activity of the Aeginetans in the grain trade (a good part of which ought to have been with Egypt) brings us back once more to consider the profits of Egyptian trade.

Until this point the dissemination of Greek coins in the non-Greek world has been the focus. In Greece, a different picture can be portrayed. Kraay has observed that coins do not generally circulate with any frequency outside their own city or its immediate neighborhood. Aeginetan coins can be found to make up the greater part of hoards in the Peloponnesus, central Greece, the Cyclades, and Crete, when it is recognized that local coins predominate within the jurisdiction of the political power issuing them. To recognize the importance of Aeginetan coinage, note the impression obtained from these large hoards: Cyclades (IGCH 6), Santorin (7), Melos (8). Aeginetan coins comprise 50% of the Isthmia hoard in Corinthian territory. Care must be exercised in

any argument from the hoard evidence (see Table 2.5), as it is liable to be changed by one or two large discoveries. The preponderance of Aeginetan coins over other coinages of the region parallels the impression which was received from the appearance of the Aeginetan standard. Consistently, Aeginetan coins alone appear in great numbers outside their home city. Local coinages often predominate in local hoards (note IGCH 19, 20, 23, 24 for Elean coins and IGCH 25 for Corinthian). The minor coinages, even in their local area, appear together with hoards showing an appreciable percentage of Aeginetan coins (Isthmia, IGCH 11; Olympia, IGCH 15). In areas where independent standards existed, and/or important local coinages, like Euboea and Attica, Aeginetan coins do not seem to have penetrated hoards to a similar degree. This is not the place to treat fully the character of Aeginetan commercial activity that contributed to this importance in the hoard evidence. Kraay observed that in Corinth Period II (520-460), that city was dependant on Aeginetan and Athenian coins for her supply of silver.[109]

It is possible that boundaries between areas on different standards led to a certain impermeability to Aeginetan coins, which were exchanged and circulated homeward. Those coins that stayed found their way into the treasury's melting pot rather than into local hoards. The evidence does suggest that Aeginetan staters were a very significant standard of value, and a preferred means of holding wealth throughout this overall region. They could probably be used in a wide range of situations, suggesting that many business transactions were mediated in terms of Aeginetan coins.

This indicates that Aeginetan merchants played a significant role in these dealings, and that Aegina acted as a distribution point for a significant value of the goods circulated. The evidence for this phenomenon is clearest in Crete. Before 450 at the earliest, no Cretan cities minted their own coins. If the Matala Hoard is indicative of the coinage circulating in late Archaic and early Classical Crete, Aeginetan coins were common there. From Archaic inscriptions which mention fines in drachmai, it should be concluded that Aeginetan coinage had official recognition in Crete.[110] Moreover, in the fifth century, pseudo-Aeginetan coins were circulated in Crete, with the Aeginetan colony at Cydonia as the likely point of dissemination.[111] The coins are triobols and obols. Lehider has suggested that they were minted to supply with fractional coins a sufficient supply of staters.[112] This would make of Cydonia a satellite mint of Aegina, making use of craftsmen, presumably slaves brought from the mint at Aegina. This interpretation of pseudo-Aeginetan coinage depends on the fact that the triobols of Robinson's Class b were copied from 1-back turtles of 479-57. Although Aeginetans fleeing to Crete in c. 457 could have minted coins on a model familiar to them (1-back turtles) and not copied the contemporary tortoises of their homeland, the fact that the coinage was limited to triobols argues for its auxiliary or supplementary character.

When Aegina fell under Athenian domination, and had suffered the wounds of the final struggle with Athens, one may conjecture that Aeginetan commercial activity declined in general, and this decline may have been felt on Crete. Fewer of the new tortoises, it

seems, were needed to pay taxes on Aegina, or circulated homeward for the same reason. The governments of leading Cretan cities, accustomed to using Aeginetan coins as their own, minted their own coins on the Aeginetan standard to keep up the regularity of their receipts and disbursements.[113]

Cretan cities overstrike Aeginetan coins with considerable frequency.[114] Consistent overstriking suggests a persistent or chronic shortage of precious metals, and a persistent need to issue coins in a short period, and with the least exertion.[115] 39 Aeginetan coins are known or possible cases used as flans for Cretan coins (Gortyn (20), Phaistos (10), Lyttos (4), Knossos (5)). Another 8 coins exhibit the windmill reverse so common on the turtles, and stand a good chance of also being Aeginetan. Another thirty-five fractional coins were overstruck. They are either Cydoniate or Aeginetan. 8 coins were Cydoniate, pseudo-Aeginetan triobols. Otherwise, the coins most frequently overstruck are from other Cretan cities, as might be expected (Gortyn, 22; Phaistos, 12; Knossos, 39; Lyttos, 23).[116] It should be noted that Aeginetan coins were still circulating in Crete in such numbers as to be overstruck frequently. These overstrikes do not lend themselves to a topical, temporary explanation, as do, for instance, the overstrikes of Cyrenaean coins.[117] These overstrikes took place over more than century. To gauge the importance of overstrikes of Aeginetan coins in Cretan minting, consider LeRider's first period of activity for the major mints, 450-25 to 360-40. For these years, there are 70 Gortynian coins known. Of these, 14 are observable overstrikes, of which 9 were

originally Aeginetan staters, 1 an Aeginetan fraction, and 1 a coin with a windmill reverse. The two other overstrikes that could be identified were Cretan coins. At Phaistos, 35 coins are known, of which 9 were overstruck. 4 of these were Aeginetan staters. From the beginning of coining at Knossos (c. 425) until the second quarter of the third century, 11 coins were overstruck. Used as flans were 5 Aeginetan staters or drachmai, 3 Aeginetan fractions, and 1 coin with a windmill reverse. The other 2 overstrikes could not be attributed to their original mint. These numbers are especially significant when it is remembered that only partially successful overstrikes are identifiable.

There were many Aeginetan coins surviving in Crete that were overstruck after Aegina had declined in importance. With the advent of the Cretan coinages, the turtles did not lose their important position in Crete. The oldest turtles were used as flans for the earliest Cretan coins, and as time elapsed later turtles were overstruck in their turn.[118]

No tortoise staters are known to have been overstruck, which suggests that the turtles minted before 457 were not all being drawn back to Aegina to pay taxes, so that the community could pay tribute to Athens. Perhaps, as has been suggested, the turtles were demonetized on Aegina. This diminished the desire of Aeginetans to carry them homeward, and caused that no tortoises be overstruck, since they were in demand on Aegina. There may have been a demonetization on Aegina, but the pre-457 turtle coinage remained the Aeginetan currency par excellence on Crete. Thus, it was available to be overstruck. Also, the fifth century

pseudo-Aeginetan coins from Cydonia (Robinson's Group B) do not copy the tortoises, but rather pre-457 large skew turtles. The familiarity of this coinage in commercial transactions urged a continuity of the well-known type. This situation reinforces the idea of a demonetization on Aegina, as it shows that remodeling of the Aeginetan coinage was not advantageous in Crete, one of Aegina's leading trading partners. Aeginetan coins continue to appear in economic situations on Crete in sufficient number that it was easier for Cretan mints to overstrike them than melt them down and remint them. Possibly, the commonness of Cretan overstriking suggests that the treasuries of Cretan cities continued to take in Aeginetan coins and those on the Aeginetan standard as valid tender.

It is valid to inquire whether Crete was a unique case for Aeginetan monetary circulation. The role of Aeginetan coins on Crete is noticeable for two reasons. 1) The Cretan cities began to coin so late that the derivative character of their coinage is apparent. 2) Crete was silver-poor and the archaic administration of her poleis encouraged overstriking, with its valuable information about the money circulating in the local economy. The turtles were the coins of the Peloponnesus and it is justifiable to inquire whether their position there was similar to the one which they held in Crete.

H) Countermarks

The phenomenon of countermarks partially overlaps in its interpretation that of overstrikes. Aeginetan coins were frequently

countermarked. Some countermarks, those bearing abbreviations of the names of cities or symbols from cities' coinages, are obviously public in character.[119] This is like overstriking, inasmuch as the coins were presumably marked by the state treasury, to make them legal tender for paying bills. Holloway's list of countermarked Aeginetan coins contains symbols to be associated both with cities coining on the Aeginetan standard and with several that did not (e.g., Athens, Cyrene). Thus, it seems that, in times of crisis or fiscal urgency, treasuries countermarked without regard to standard. Presumably, political power was applied to insure the acquiescence of the money's recipients.[120] That coins so marked were then circulated back to the treasury in the form of taxes, and had to be accepted is a reasonable assumption. Surviving countermarked coins probably give a low estimate of the numbers of total coins countermarked. As countermarked coins returned to government reserves, they were obviously prime candidates for melting down and restriking. The government needed to cycle coins through its hands as quickly as possible. In some cases, where cities countermarked their own coins, it is perhaps a matter of superficially worn coins or coins from series that had been superseded as legal tender that were logical candidates for countermarking. It is also possible that, among those states that accepted Aeginetan coinages on a par with their own, they too may have countermarked outmoded coins. Holloway notes that all the countermarked turtles known to him had their dorsal dots worn off.[121] But, if countermarking is revalidation, countermarked coins would have a longer life. They were recirculated rather than

hoarded. Yet, countermarking in this period was not the regular practice that it was to become in the Hellenistic Period.

Countermarking of Aeginetan coins was perhaps accelerated by the subjugation of the island to Athens in 457. This can be seen clearly in the Myrina hoard and the Olympia (Babes) hoard. At Myrina, there are 42 sure or possible countermarked coins (out of 149), and at Olympia, there are 8 (out of 25).[122] If one emphasizes the revalidating character of countermarking, it is possible to suggest what may have taken place. After 457, when the appearance of Aeginetan coins in circulation altered, becoming more worn, on the average, the appreciation of them by their users also changed. Countermarks were meant to restore value to these coins, which, although more worn, had no obvious replacements, since no other coinage was prepared to take up the role of official or quasi-official coinage. The international character of Aeginetan coinage necessitated its countermarking.

The revalidation aspect of countermarking suggests that the coins had value originally. This can be best appreciated in the case of those countermarks not obviously public.[123] However, one must be careful again about making too clear a distinction between the public and private financial spheres. Countermarking by bankers or money-changers (whom these private citizens presumably were) ought to be interpreted in the context of money changing operations. Money changers presumably marked coins to signify to others and to themselves that a particular coin had been evaluated by them. This evaluation may have been simply a determination of weight, but may often have been more than this. That

countermarking was to some extent in the private sphere suggests that the coins were accepted tokens of value before they became worn. At times, it may have been a signalling to merchants or other money changers that a particular piece was to be conceded value. Therefore, it would not be wrong to imagine that countermarking had its most frequent use in those states with an insufficient supply of coinage. Their money-changers may have countermarked foreign coins to allow them to circulate in the marketplace.[124] This raises once more the matter of state or state-authorized banks which may have had conceded to them this right, much like a power to issue valid money.

1) Trade and Circulation of Money

Hoards which contain Aeginetan coins have told us something about their regions. Is the absence of Aeginetan coins from other areas as eloquent? One thinks first of all of western Greece, where there is some independent evidence for the activity of Aeginetan traders. Aeginetan coins and those of other mainland states, including Corinth, whose activity in the West has traditionally been considered as being large-scale, do not make their appearance in South Italian or Sicilian hoards.[125] The Greek West is split into two separate regions on the basis of the hoard evidence. Hoards are filled with coins of the city from whose territory they are, and other cities of the region.[126] The great exception is the Taranto Hoard, thought to have been buried by a silversmith or money-changer. It has a wide variety of coins from throughout the Greek world.[127] The Taranto Hoard has been thought to have

been carried west by the man who buried it. To adopt Kraay's viewpoint, it is as though the standard Egyptian hoard were carried to southern Italy and combined with a normal-type western hoard.[128] The Taranto Hoard's composition urges great care about the conclusions to be drawn from the other hoards. If the hoard is a silversmith's or banker's (and there may well have been close connections between the two trades) or even a merchant's, then it would be a collection of coinage from precisely the type of person who was in position to receive those coins brought to the west by trade.[129] It does seem an extraordinary chance that this is the deposit of someone in a position to carry a hoard westward, and who was not forced to disperse it in resettlement, but rather added to it a representative group of coins from the west.

In the west, Athenian coins are again evident as export silver. The absence of Corinthian coins is disquieting. Attempts to see them disguised as overstrikes have proven impracticable.[130] The evidence is strong that the greatest impact made by Athenian and Corinthian coins on western hoards was when individuals of those states arrived in considerable number in Sicily. In the former case, this would be during the Peloponnesian war, when large Athenian expeditionary forces operated in Sicily. Since they were defeated, the need to ransom the survivors would also have brought Athenian coins west. Corinthian coins appear in the aftermath of Timoleon's successful upholding of the cause of the Sicilian poleis. he undertook an ambitious program of resettlement, which had its mainland Greek center of operations at

Corinth.[131] Very disquieting is the fact that the splitting of Sicily and southern Italy into two separate zones does not fit in with the ceramic evidence. It shows a very similar complex of pottery types in all Greek cities north of the narrows, those of northern Sicily, and of the west coast of Italy.[132]

The answer to this puzzle is a more nuanced theory of how currency came to be hoarded. Individuals hoard, states do not - at least in the form in which the hoards survive and are forgotten, to be discovered by farmer or archaeologist. hoards may not then reflect accurately the proportions of different coins coming into the region. Coins from distant cities would normally be carried by merchants. If the coins came to a western Greek city that insisted that local business be carried on in local coin, the money the merchants would use would have to be changed. As stated above, coins held their greatest value in their home city. Presumably, native merchants leaving this western Greek city, wherein the foreign currency had been changed with money-changers, would purchase coins of the cities toward which they were going. Also, merchants who were going homeward to mainland Greece, but not bringing back merchandise equivalent to the goods which they had sold, would carry the difference in the form of the coinage of their home city, or of its neighbors. If the money-changers could not recirculate all the foreign money, it would, in all likelihood, remain in the proximity of the marketplace, and thus have a much better chance of falling into the hands of the government through taxes or surrender, and so be melted down to become local coin. If this hypothetical western Greek city did not insist on business in

its own coin, transactions made by foreign merchants would still probably involve large sums of money, most likely to be brokered or handled by local merchants, bankers, or simply the rich, those classes most likely to recirculate the money back to its home region.[133]

It is a truism that hoards tended to be deposited in troubled times rather than in peaceful ones.[134] Many of the western Greek hoards are from the difficult times of the very late sixth and early fifth centuries.[135] In addition, many hoards are from rural areas, those areas which, if our model above is correct, would be least likely to receive foreign currency for hoarding, however great the intensity of trade between their home city and eastern Greece. The model by which one explains the coins in the hands of these rural hoarders is quite different. The probability of their having a coin from city X is not proportionate to the bulk of city X's contacts with the home city of the hoarder, but with the frequency of the contacts between the citizens of city X and the citizens of the hoarder's city. One hundred one-drachma transactions thus may have had a greater impact on the hoard evidence than one one-hundred-drachmai transaction. The probability is that a multiplicity of small transactions will be with neighboring cities. Let it be remembered that, as the number of transactions increases with neighboring cities, so also does their range of types. Interstate transactions such as warfare, piracy, black-market trade, intermarriage, and reciprocal hospitality are prevalent among neighbors.

One piece of evidence internal to the coinage of one of the important western cities itself provides evidence in support of this theory. Kraay observed that a set of late fifth century Crotoniate coins has on the obverse the usual badge of the city, but on the reverse carries insignias which suggest the coin-type of other states.[136] Kraay noted that the weights of these coins seem to have been calculated to very nearly make up the difference in weight between the most common Crotoniate coin and the customary coin of greatest issue of the state whose insignia the Crotoniate coin bears. The failure of the Crotoniate coin to make up the whole difference, one might add, suggests that the money-changer or state bank's fee has already been figured in. An attempt was being made to facilitate the activity of foreign merchants by enabling them to exchange their coins at Croton easily, and without suspicion. A certain amount of calculation was involved, therefore, in an attempt to woo a greater number of merchants to Croton in competition with its neighbors. One of the interesting elements of the phenomenon is that the arrival of these merchants leaves little or no impact on local hoards in the form of coins of the merchants' cities.

Therefore, the western coin hoards do not necessarily preclude the idea that the Aeginetans traded in the west, nor do they necessarily prejudice the question of what role coinage may have had in this trade. The suppositions presented here explain the exceptions to the dominance of local coins in hoards. When Athenians and Corinthians appeared in Sicily in some numbers, they put coins into circulation in accordance with our second or local

model of dispersion. The Taranto hoard now appears as the treasure of someone close to the economic functions carried on in proximity to the marketplace. Not surprisingly, it shows a much more varied mixture of coinages, indicative of the situation in international circulation of money. It also deserves to be noted that in the primary area of dissemination for Aeginetan coinage in mainland and insular Greece, it is again the second or local model of coin dispersion in operation.[137]

J) The Provenience of Aegina's Silver

The sources of the silver used in Aeginetan coins are a subject about which little certainty can be presented at this time. A prioristically, one would expect that Aeginetan coins would have very disparate sources of silver, as befit a commercial people without their own mines. The old view that Aeginetan silver was exclusively Siphnian in origin should not be adopted. In the first place, this depended on the view that the Aeginetans politically controlled this island and her mines of gold and silver worked in the Archaic Period. That view arose from a misinterpretation of a story in Herodotus where the Aeginetans come into conflict with a group of Samian aristocratic exiles who had held Siphnos to ransom (Hdt. 3.57-8). Siphnos produced little coinage, and it would not be strange to imagine that much of her silver fell into the hands of the Aeginetans through trade.[138] The gold content of Aeginetan coins could be a product of the mixing in of Siphnian silver, as the island was famous for its gold mines, but, as shall be seen, the presence of Siphnian gold in Aeginetan coins has not been verified by modern analytical techniques.

Valuable new information on this subject has been presented by a group of investigators working from the Max Planck Gesellschaft für Kernphysik in Heidelberg.[139] They have conducted their tests primarily on coins from the Asyut Hoard, with, in the case of Aegina, the addition of coins purchased on the open market. Two types of chemical tests have been conducted.[140] One estimates the prevalence of trace elements through neutron activation. The other analyzes the ratios to each other of lead isotopes (primarily Pb 206, 207, 208). Lead isotope analysis allows the assigning of coins to their sources, as it has been possible for the investigators to take samples from a great number of Mediterranean silver sources. In their opinion, the proportion of the various lead isotopes in a particular mining district is often unique, and can be paralleled in traces of lead that survive in the coins. However, these analytical techniques are most indicative of provenience if one assumes, as the investigators have done, that the silver in the coins from the Asyut Hoard was in primary use, i.e., it had not been put into coin form previously. Subsequent use somewhat blurs the distinctions to be made. This assumption is rather adventurous, if there is any truth to the high rates of coining which have been hypothesized above. These suggest a recycling of silver by the beginning of the fifth century.

The tests were conducted on a number of Aeginetan coins which exhibited a considerable range of reverse types, from the Union Jack to the small skew. The investigation of trace elements showed the Aeginetan coins possessing clusters of trace elements shared by the coins of Athens, the Orrescioi (a northern Aegean tribe),

Thasos, Corinth, and Zancle. This is not surprising. The Aeginetans amassed silver through trade, and their coinage could be expected to reflect the major silver sources available to the Greeks. Somewhat more detail has been gained by the lead isotope analysis, conducted with the collaboration of N.H. Gale of Oxford.[141] The characteristic relationships of lead isotopes (Pb 208/Pb 206, Pb 207/Pb 206) for the Laurion mining district and for Ayos Sostis, the mining site sampled on Siphnos, have been isolated. Aeginetan coins have been found to fall into both these characteristic patterns, which the investigators call "fields". In the case of Laurion silver, trace element analysis corroborates the provenience of the silver of some Aeginetan coins. 6 out of the 16 coins that are similar to Laurion in lead isotopes are also like Laurion in trace elements. The use by Aeginetans of Laurion silver can therefore be taken as proven.

The evidence for use of Siphnian silver is not as clear. While some Aeginetan coins are like Siphnian in the proportions of their lead isotopes, Siphnian silver is low in gold, but 16 out of the 31 Aeginetan coins analyzed were high in gold content. One possibility is that other mines on Siphnos possessed a higher gold content, which is supported by Herodotus' attribution of gold mines to the Siphnians. However, in 13 of the gold-rich coins, the percentage of tin was positively correlated with the gold content. In their gold and silver content, these coins were similar to Persian sigloi. It has been suggested that this pattern of trace elements (to which a low lead content is in some cases to be added) indicates the derivation of these coins' silver from electrum.

Here, however, one must differ from the suggestions of the investigative team, because it is unlikely that silver derived from electrum can have been primary silver for the Aeginetans. No evidence suggests a vigorous trade between Aegina and western Anatolia. Moreover, it is difficult to imagine what would have been the constituents of this trade, so significant to have had an impact on the composition of Aeginetan staters. The Ionian cities, which had preceded Aegina in importance as commercial centers, ought to have dominated the trade with western Anatolia even in their decadence. Of course, this is to sidestep the question of whether much electrum would have been imported into the Greek world during the troubled years of the early fifth century. Rather, silver from electrum in Aeginetan coins should have been derived through the intermediacy of electrum coins, or other objects in electrum, which were melted down and reminted. Thus, the phenomenon of high gold content is noticeable among Aeginetan staters with Union Jack reverses. It was available in still-circulating electrum coins that predated massive issues on Aegina. As the Ionian cities declined at the end of the sixth century, the importance of Aeginetan trade grew. Electrum already in circulation came into the hands of the Aeginetans and eventually into the hands of their government.

As has been said, in trace elements, Aeginetan coins show clusters shared with the coinage of the Orrescioi and Thasos. The investigators were not able to isolate a characteristic field for the lead isotopes of north Aegean ore sources, which lie between Laurion and Siphnian silver in their pattern of isotopes. Some

Aeginetan coins are similar to these northern Aegean coins. However, it seems uncertain whether their intermediacy between Laurion and Siphnian silver is not to be attributed to their mixing of silver from these two sources in secondary use.

The results of chemical analysis reinforce the picture of the provenience of Aeginetan silver which might have been generated from other considerations. There is, nonetheless, one important exception. Much of Aeginetan silver was from Laurion and Siphnos, presumably coming into Aeginetan hands through trade (and earlier, piratical) activity. The analysis of the Asyut Hoard puts emphasis on the Aeginetans as commercial successors of the Ionians, insofar as electrum coins were melted down and their silver used for turtles. Striking, however, is the absence of Spanish silver, which one might have expected, if only on the basis of Herodotus' comparison of the Aeginetan Sostratus with Colaeus, who made a famous journey to Spain. The investigators sampled ore from Rio Tinto in southern Spain, and found it to show a pattern of lead isotopes that cannot be paralleled in Aeginetan coins. The question thus becomes whether Rio Tinto is typical of southern Spanish ores, which would rule out their input into Aeginetan coins. The results to date have been somewhat unconvincing.[143]

Whatever the final results may be concerning the chemical composition of Aeginetan coins, caution must be used in reasoning from these results. Aegina was an oligarchy, with the elite made up of aristocratic families. To an oligarchy, distinct attractions may have lain in indirect taxes on commercial activity. If Siphnian silver predominated in the composition of Aeginetan coins over any

non-Greek source of silver, it need not necessarily mean that Aeginetan trade in silver was primarily local, or that its greatest profits were local. Laurion or Siphnian silver can have come into the hands of Aeginetans of many social strata if it was circulating in the Cyclades and in adjoining portions of the mainland. Piracy, peddling, the export of Aeginetan metalwork, and the retail business carried on in Aegina itself would have touched many Aeginetans. If Laurion or Siphnian silver became caught up in the network of these transactions, many Aeginetans would possess it. However, the trade to the West may have been in the hands of rather few well-placed individuals like Sostratus, celebrated by Herodotus. It is not hard to imagine that the indirect taxation system on Aegina may have been weighted in favor of the political elite, and to the detriment of the small fry entrepreneurs. Large shipments would have touched on the taxation network a limited number of times or not at all, while the small businesses may have had a proportionally greater rate of taxation. It may be that large entrepreneurs in the metal trade acted as suppliers for Aegina's famous metalworking workshops.

Chapter 2 : Footnotes

1. Ephorus FGH 70 F 115 (Strabo 8.3.33 C358); F 176 (Strabo 8.6.16 C376); Etym. Mag. s.v. "obeliskos" (Gaisford, 613.12-15); Mar. Par. 46 (Jacoby); Orion, Etym. s.v. "obolos" (Sturz, col. 118); Poll. 9.63. See in general: W.L. Brown, "Pheidon's Alleged Aeginetan Coinage", NC s. 6, 10 (1950) 177-204; D. Kagan, "Pheidon's Aeginetan Coinage", TAPA 91 (1960) 121-36. The literature on Pheidon's minting activity is voluminous. See H. Chantraine, "Literaturüberblicke der griechischen Numismatik: Peloponnesos", JNG 8 (1957) 61-120, esp. 70 ff. on Pheidon; S. Kiyonaga, "The Date of the Beginning of Coining in Asia Minor", SNR 52 (1973) 5-16, esp. 9-11. For a translation of Pollux' discussion of Greek coinage and its inventors, see P. Gardiner, "Pollux' Account of Ancient Coins", NC s. 3, 1 (1881) 281-305.

2. Brown, NC (1950) 194-5

3. On Pheidon's date: A. Andrewes, "The Corinthian Actaeon and Pheidon of Argos", CQ 43 (1949) 70-8; L.H. Jeffery, Archaic Greece: The City States, c. 700-500 B.C., (London, 1976), 134-6, 143 n. 3; R.A. Tomlinson, Argos and the Argolid, (London, 1972), 81-4. Cf. for an 8th century date: G.L. Huxley, "Argos et les derniers Tèménides", BCH 82 (1958) 588-601; N. Coldstream, Geometric Greece, (London, 1977), 154-6; for a 6th century date: T. Kelly, A History of Argos down to 500 B.C., (Minneapolis, 1976), 94-111; see also Kagan, TAPA (1960) 121-30. On Leokydes: M. McGregor, "Cleisthenes of Sicyon and the Pan-Hellenic Games", TAPA 72 (1947) 266-87, esp. 275. A 7th century date (before c. 650) will be taken as a working hypothesis for Pheidon. To argue this date demands more time than can be committed to the subject here.

4. Aegina & Epidaurus: Hdt. 5.83.1; Prokles & Aegina: Plut. Mor. 403C-E; Aethlios FGH 536 F 3. See H.T. Wade-Gery, CAH 3.554; Jeffery, Archaic Greece, 151. Probable dates for the beginning of an independent oligarchy on Aegina were 618-610; for the war between Athens and Aegina, c. 595-590.

5. Tod, GHI, #140, 2.119-23. On Pheidonian measures: Aris. fr. 70 (Rose) (Poll. 10.179); Ath. Pol. 10.2; Ephorus FGH 70 F 115; Hdt. 6.127.3; Jerome 1220 = 798 B.C.; Pliny NH 7.56.198; Schol. Pi. Ol. 13.27d (Drachmann)

6. See Kelly, History of Argos, 103-4, for a strong position against economic justifications for Pheidon's coining.

7. See Andrewes, CQ (1949) 71-2.

8. Possibly to te allo was meant in this context to refer to iron currency (either spits or coins), perhaps as though Pheidon's innovations were in two stages, abridged by Strabo.

Alternatively, the word metallon may originally have been modified by kekharagmenon (with nomisma added when the original noun was lost), if "metal", a late meaning, can be translated here (see Liddell-Scott, Greek-English Lexicon, 9 (Oxford, 1940), s.v. "metallon" II, 2nd century A.D.).

9. Hdt. 1.94.1 claims priority for the Lydians for coinage in gold and silver. Present knowledge does not allow a decision between a date early in Croesus' reign for the silver, which would precede a low date, after 550, for the advent of the turtles (see M.J. Price & N. Waggoner, Archaic Greek Coinage: The Asyut Hoard, (Manchester & London, 1975), 122), and a date later in Croesus' reign, c. 550, which maintains the priority of the Aeginetan silver. See C.M. Kraay, "The Asyut Hoard: Some Comments on Chronology", NC s. 7, 17 (1977) 189-98.

10. Brown, NC (1950) 194-5. If the peri heurematon of Ephorus was culled from his historical work as A. Kleinguenther (Protos Heuretes, Philologus Suppl. Bd. 4 (1933) 24, 147 ff.) suggests, the attribution of coinage to Pheidon is unlikely to have been concocted out of wholecloth, or out of a desire to assign inventors to everything. Jacoby assigns F 42-42a (attributing the double anchor to Anacharsis) to a geographical work.

11. Brown, NC (1950) 196, following Busolt, GG^2, 1.616-20. Genealogy of the Argeads: Perdiccas as 1st Argead: Hdt. 8.137-9 (cf. Thuc. 2.100.2); Archelaus as 1st Argead: Eur. frgs. of Arkhelaos (Nauck-Snell, 426-7); Karanos, son of Pheidon: Theopompos FGH 115 F 393; Diod. 7.15-16; Justin 7.7.3; Karanos, brother of Pheidon: Satyrus FHG F 21, 3.164-5; Karanos, unrelated to Pheidon: Synkell. 418 (Dindorf). See Jacoby FGH Komm. 2B, 401-2. Andrewes (CQ (1949) 72) believes that Ephorus' genealogy was free from Macedonian entanglements.

12. The turtles: Poll. 9.74 (& Eupolis fr. 141 (Edmonds)); Hsch. s.v. "khelone"; s.v. "kallikhelonos". Aeginetan standard: Table 2.1, p. 81. For the continued circulation of early Aeginetan coinage, see M. Thompson, O. Morkholm, & C.M. Kraay, eds., An Inventory of Greek Coin Hoards, (New York, 1973), (= IGCH), e.g., IGCH 62; J.N. Svoronos, "Thesauros Nomismaton ek tou Khoriou Muron Karditses", AD 2 (1916) 273-335, esp. 313-17.

13. L. Weidauer, Probleme der frühen Elektronprägung (Typos 1, Fribourg, 1975), "Katalog", 13-41, for the findspots of some early Ionian electrum. Cf. Price, rev., NC. s. 7, 16 (1976) 273-5.

14. FGH 70 F 176

15. See Brown, NC (1950) 190-4. Lack of uniformity of spits: Coldstream, Geometric Greece, 155. Cf. P. Courbin, "Valeur comparée du Fer et de l'Argent lors de l'introduction du monnayage", Annales 14 (1959) 209-33. The spits were truly personal property, as their appearance in graves with weapons, armor, firedogs, and jewelry indicates (Coldstream, op. cit., 146-9; Courbin, Tombes géometriques d'Argos, (Paris, 1974), 489). On the treasure of the Homeric hero, valuable for prestige-holding and gift-exchange, see M.I. Finley, The World of Odysseus, (New York, 1965), 58-9.

16. On cauldrons: Il. 9.123; 23.259, 268, 613, 885; 24.233; Od. 15.84; Hymn to Hermes 61; tripods: Il. 8.290; 11.699; 22.164; 23.264, 485; 24.233; Od. 4.129; 15.84; axes: Il. 23.856, 882. Fines recorded in cauldrons: IC 4.1.1-8, 10, 11, 14, 21; in tripods: IC 4.1.8; see M. Guarducci, "Tripodi, lebeti, obeli", RFIC 72/3 (1944-5) 171-80. IC 4.1.24u, 25,a-b are not clear evidence for obols as currency. G. De Sanctis ("Nuovi studii e scoperte in Gortyna: I. Iscrizioni de Pythion", MA, 297-348, esp. 301-4) argues that these legal inscriptions from Gortyn use cauldrons to stand in place of established amounts of Aeginetan staters (i.e., they had become conventional). Axes as weights: see L.H. Jeffery & A. Morpurgo-Davies, "Poinikastás and Poinikázen: British Museum 1969, 4-2:1, A New Inscription from Crete", Kadmos 9 (1970) 118-55, esp. 144. Cf. Eustathius ad Od. 19.572; Hsch. s.v. "hemipelekkon".

17. L. Gernet, "La notion mythique de la valeur en Grèce", Anthropologie de la Grèce ancienne, (Paris, 1968), 99-137.

18. The epigraphical evidence for spit currency reposes on 3 inscriptions. 1) An inscription from the Heraion at Perachora, originally associated with Pheidon's demonetization and his dedication at the Argive Heraion. See H.T. Wade-Gery in H. Payne, ed., Perachora, 2 vols., (Oxford, 1940-62), 1.257-61. J.G. Milne ("The Perachora Drachma Inscription", CR 58 (1944) 18-19) improbably thought that a silver drachma was displayed (only the word drachma and the invocation of the goddess appear). The inscription is barely, if at all, pre-coinage, c. 600-550 (LSAG, 123). The "drachma" of the inscription warrants nothing more than that a group of spits was dedicated. 2) An inscription from Crisa, perhaps originally from the sanctuary of Athena Pronaia at Delphi, dated to the late seventh century by A.E. Raubitschek ("Another Drachma Inscription", YCIS 11 (1950) 295-6), and to 600-550 by Jeffery (LSAG, 103). The reference to drachmai is an emendation. Note the date. It is significant that the block had round cuttings on the top, for cauldrons (?). See 3) below. 3) A 4th century cult inventory from Thespiae; see M. Feyel & N. Platon, "Inventaire sacrée de Thespies", BCH 62 (1938) 149-166, esp. 160-4. The spits may be bronze (along with most of the other items of the inventory). Plut. Lys. 17 is not evidence for bronze spit currency in Boeotia. The "darchmai" of the inscription were paired with an

equal number of cauldrons. Brown's doubts (NC (1950) 193, 204 n. 70) about the monetary character of the spits are well-founded. See M.N. Tod ("Epigraphical Notes on Greek Coinage III", NC s. 6, 7 (1947) 1-27; "Epigraphical Notes on Greek Coinage", NC s. 6, 20 (1960) 1-24, esp. 16-17) for a discussion of the literary and epigraphical evidence for the terms obol and drachma. Tod observes that "obelos" and its derivatives are used for spits, while "obolos" and its derivatives are often, but not exclusively, used for money. Hsch. s.v. "leptas kai pakheias" seems to indicate the existence of a drachma with more than 6 obols in Archaic Magna Graecia.

19. Kraay, ACGC, 314-6

20. Courbin (Annales (1959) 209-33), chiefly using the Heraion dedication (see note 21 below) and the deposit of spits from Argos Tomb 1, attempts to estimate the weight of "Pheidonian spits" and their value relative to Aeginetan coins. (Cf. C. Seltman, Greek Coins², (London, 1955), 33-8). His calculations are rough (as any would be, given the condition of the spits), and do not substantiate uniformity any greater than that predictable when the common function of the spits is considered. The view that the reconstituted drachma of six spits was equal to an Aeginetan drachma is unsupported, and gives the ratio of one kg. iron = one Aeginetan demi-obol. If there is truth to the 1 dr. = 1 med. of wheat equation during the Solonic Period (Plut. Solon 23.3), the ratio of iron/wheat implied by Courbin's ratio of iron to silver is 1/3.4. In modern economies, 1 kg. iron = 1 kg. wheat. Clark & Haswell (Subsistence Agriculture, 88) believe that iron was much more expensive (expressed in terms of wheat) in subsistence economies, among which they would class Archaic Greece.

21. See C. Waldstein (Argive Heraeum, (Cambridge, Mass., 1902), 1.62), who thought that this may have been Pheidon's very dedication. See also Courbin, Annales 14 (1959) 223-6.

22. Sparta: Poll. 7.105; 9.79; Plut. Lys. 17. The evidence about pelanos (pelanor) is from the context of cult. See L. Ziehen, s.v. "pelanos", RE 19 (1938) col. 250. The pelanor was glossed by Hesychius as a tetrakhalkon, suggesting it was an iron coin. See Tod, "Epigraphical Notes on Greek Coinage II", NC s. 6, 6 (1946) 47-62, esp. 52. See also Poll. 9.78 (Strattis fr. 36 (Edmonds)) for the iron currency of Byzantium, but these are coins.

23. Glaucus of Sparta (Hdt. 6.86a-86c) received silver from a Milesian xenos during a troubled time for Miletus (c. 550 or before). IG V 2.189 (= Buck, GD², #70, 267-8, 5th century) records the deposit of 200 mn. by a Spartan at Tegea. Poseidonius FHG F 43, 3.273 (apud Athen. 6.233e-f) refers to

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Spartans keeping precious metals on deposit in Arcadia. See G.L. Huxley, Early Sparta, (London, 1962), 63, 134 n. 430, 431. Spartan avarice: Tyr. fr. 3a; Plut. Mor. 239D-F; Aris. fr. 44 (Rose) (Plut. Lyc. 9.1-4); Plut. Lyc. 30.1; Xen. Rep. Lac. 14; Diod. 12.8. See E.N. Tigerstedt, The Legend of Sparta in Antiquity, (Stockholm, 1965-74), 1.64, 368 n. 282; 2.91.

24. Plut. Lys. 17.1-3; Ephorus FGH 70 F 205; Theopompus FGH 115 F 332

25. A. Andrewes, "Ephorus Book 1 and Kings of Argos", CQ n.s. 1 (1951) 39-49, esp. 40-42

26. Andrewes, CQ (1951) 42

27. On account of his interest in Aegina and his focus on Argive/Spartan rivalry, Ephorus is attractive as a choice for the one who brought together all the elements of Pheidon's Aeginetan minting activity, although Theopompus or Herakleides Pontikos are possible alternatives among those known to have treated the subject. Herakleides would be assumed to be the 4th century philosopher, not the pupil of Didymus. See Kagan, TAPA (1960) 134; F. Wehrli, Die Schule des Aristoteles: 7, Herakleides Ponticus, (Basel, 1957), 110-1; cf. Jacoby, Das Marmor Parium, (Berlin, 1904), 93.

28. Aris. Pol. 1265b12

29. Periander's sumptuary legislation: Hsch. s.v. "Kypselidon anathema"; Diphilos fr. 32 (Edmonds) (apud Athen. 6.227e-228b); Herakleides fr. 5 FHG 2.213. Cf. Hdt. 5.92e; DL 1.96. See E. Will, Korinthiaka, (Paris, 1955), 510-16; F. Schachermeyr, s.v. "Periandros", RE 19.1, col. 707. Date for Corinth's entrance into Spartan alliance: K. Wickert, Der Peloponnesische Bund von seiner Entstehung bis zum Ende des Archidamischen Krieges, (Königsberg, 1961), 15-17. Cf. Will, op. cit., 632-8. Will (op. cit., 317-20, 480) sees Pheidon of Corinth as pre-Cypselid (i.e., pre-625).

30. SGHI #9. See D.W. Bradeen, "Inscriptions from Nemea", Hesperia 35 (1966) 320-9, esp. 320-1. For the connection between Aristis and Leokydes, see McGregor, TAPA (1941) 275.

31. See n. 4, Chapter 2 above.

32. Kraay, ACGC, Index s.v. "Weight Standards"

33. Eretria: W.P. Wallace, The Euboean League and its Coinage, NNM #134, (New York, 1956), 3, 72-3; Kraay, ACGC, 92; Maroneia: Kraay, ACGC, 157; Abdera: J.M.F. May, The Coinage of Abdera, RNS #3, ed. C.M. Kraay & G.K. Jenkins, (London, 1966), 178-83; Kraay, ACGC, 154-8 Note the contemporary change to the Chian standard at Thasos, see A.B. West, Fifth and Fourth Century

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Coins from the Thracian Coast, NNM #40, (New York, 1929), 15-17, 46-7. Thuc. 8.101.1 has Peloponnesian sailors being paid in Chian staters. The importance of the Chian standard is topical, as Chios was the first significant defector from the Delian League and a headquarters of resistance in the eastern Aegean.

34. See Figueira, "Aeginetan Membership in the Peloponnesian League", CP 76 (1981).

35. Corinthian influence in the Peloponnesian League: intercession on behalf of Athens (Hdt. 5.75.1, 92-5); agitation on the eve of the Peloponnesian War (e.g., Thuc. 1.119-24); after the Peace of Nicias (e.g., Thuc. 5.35-8).

36. Two causes for this phenomenon: 1) Corinth was a passive market where supplies of goods were sought out, while Aegina, not at a natural crossroads, was a point for transshipment. 2) A network for peddling radiated out from Aegina.

37. Kraay, ACGC, 315

38. See P. Cloché, Thèbes de Béotie, (Namur, 1952?), 31-2, 37-42, 66-7, 81-9, 95-101.

39. Thuc. 1.15. See, for example, D.W. Bradeen, "The Lelantine War and Pheidon of Argos", TAPA 78 (1947) 223-41; A.R. Burn, "The So-Called Trade Leagues in Early Greek History and the Lelantine War", JHS 49 (1929) 14-35.

40. Athens and Eretria: relations during the Marathon campaign (Hdt. 6.100); friendship with Peisistratus (Hdt. 1.61.2, 62.1; Ath. Pol. 15.2); marriage ties between Eretrian aristocrats and Athenians, see J.K. Davies, Athenian Propertied Families, (Oxford, 1971), 380-1; T.L. Shear, "Koisyra: Three Women of Athens", Phoenix 12 (1963) 99-112.

41. Larissa's coining on the Persian standard: late 6th century, F. Herrmann, "Die Silbermünzen von Larissa in Thessalien", ZFN 35 (1925) 1 ff.; see also Kraay, ACGC, 115; c. 492, H.W. Westlake, "The Medism of Thessaly", JHS 56 (1936) 12-54.

42. Cyclades in general: Kraay, ACGC, 45. Delos: T. Hackens, "Le monnayage de l'atelier de Delos à l'époque archaïque", BCH Suppl. 1 (1973) 209-26. Hackens sees Delos as open to the influence of the surrounding islands in coinage-style; the standard is an aberration.

43. Brown, NC (1950) 180-90; R.R. Holloway, "An Archaic Hoard from Crete and Early Aeginetan Coinage", ANSMusN 17 (1971) 1-23; Id., The Elder Turtles of Aegina, (Diss., Princeton, 1960) esp. 15-18; Price & Waggoner, Asyut Hoard, 69-76; Leslie Beer, personal communication, April 3, 1980.

44. P. Jacobstal, "The Date of the Ephesian Foundation-Deposit", JHS 71 (1951) 85-95; E.S.G. Robinson, "The Coins from the Ephesian Artemesion Reconsidered", JHS 71 (1951) 156-67; Id., "The Date of the Earliest Coins", NC s. 6, 16 (19569 1-8. Robinson believed the basis by which these early Ionian coins are dated dates c. 600, and gave a generation for the development of coinage down to that point. Weidauer (Elektronprägung, 80-107) has challenged the position of Jacobstal/Robinson on historical, archaeological, and art historical grounds. To her, the basis is no later than 626, and some electrum coins (not the earliest) date c. 660. If Weidauer is correct, the gap between the earliest electrum coins and the earliest silver coins and between the earliest Ionian coins and the earliest Aeginetan coins would have been at least 80 years. Yet, one would be loath to push back the date of the earliest Aeginetan coins in conjunction with the earliest Ionian coins (see Price & Waggoner, Asyut Hoard, 74-6). This would emphasize the point that the evolution from electrum to silver coins was not an obvious one. Silver coinage ought to be put in its own socio-economic context.

45. Brown, NC (1950) 182.

46. IGCH 1, Matala; IGCH 6, Cyclades. See Holloway, ANSMuN (1971) 1-5.

47. C. 550-525: Holloway ANSMuN (1971) 3; c. 500 or at the beginning of the 5th century: Price & Waggoner, Asyut Hoard, 11, 75-6

48. Wappenmünzen, c. 550; owls, 513: Kraay, ACGC, 56-61; Id., "The Archaic Owls of Athens: Classification and Chronology", NC s. 6, 16 (1956) 43-56; Id., "The Early Coinage of Athens", NC 2 (1962) 412-25; Wappenmünzen, 546; owls, 510: W.A. Wallace, "The Early Coinage of Athens and Euboea", NC s. 7, 2 (1962) 23-42; Price & Waggoner, Asyut Hoard, 64-5; owls, 520-513: E.J.P. Raven, "Problems of the Earliest Owls of Athens", EGC, 40-58, esp. 57-8. Cf. R.J. Hopper, "Observations on the Wappenmünzen", EGC, 15-39.

49. Holloway, ANSMuN (1971) 1-3; Id., Elder Turtles, 15-17

50. L. Beer (October 21, 1979) would argue against the impression of much fewer die links among the succeeding issues.

51. Kraay, "Hoards, Small Change, and the Origin of Coinage", JHS 84 (1964) esp. 88-90. Cf. B. Holle, Historical Considerations on the Origin and Spread of Greek Coinage in the Archaic Age, (Diss., Michigan, 1978) 19-21, on electrum fractions.

52. E.M. Cook, "Speculations on the Origin of Coinage", Historia 7 (1958) 257-62

53. High variability of electrum coins: S. Bolin, State and Currency in the Roman Empire, (Stockholm, 1958), 23-37; attribution of electrum coins, see Kraay (ACGC, 20-30) who prefers to see the types as the personal badges of rulers or officials. Cf. Holle, Historical Considerations, 22-4.

54. Kraay (ACGC, 30) observes that the last Ionian electrum issue is to be associated with the Ionian Revolt. Its 10 types have been alloted to the various rebel cities. To Kraay, the absence of a Milesian type suggests that Miletus was the mint for all. Here, payment ought to have been the emphasis, rather than taxation, as the Milesian mint was making available to other cities (to their officials or to Milesian surrogates for them) monies, presumably for the payment of allowances to the sailors manning the huge fleet being prepared by the rebels. See P. Gardner, A History of Ancient Coinage, 700-300 B.C., (Oxford, 1918), 96-8; Seltman, Greek Coins², 87. Note that Hecataeus of Miletus did not propose a large capital levy or other forms of taxation to build up the allied fleet, but a confiscation of the treasures at Branchidae (Hdt. 5.36.3-4). This may suggest that taxation was primitive in early fifth century Ionia.

55. Purity: Athens, less than .1% copper; Aegina, 1.0% to 2.5%. See Kraay & V.M. Emeleus, The Composition of Greek Silver Coins: Analysis by Neutron Activation, (Oxford, 1962), 7. Weight: Holloway, Elder Turtles, 31-5. Cf. Seltman, Athens: its History and Coinage before the Persian Invasion, (Cambridge, 1924), 126-7; C.G. Starr, Athenian Coinage: 480-449 B.C., (Oxford, 1970), 79-81.

56. See J.P. Barron, The Silver Coins of Samos, (London, 1966), 19-39. Note the recurring appearance of the lion mask, the ox forepart, and their variants over several very different political regimes.

57. Holloway, ANSMuN (1971) 13; Id., Elder Turtles, "Catalog", 162-251

58. Raven, EGC, 41-2; Kraay, ACGC, 17-19

59. D.M. Sellwood, "Some Experiments in Greek Minting Technique", NC s. 7, 3 (1963) 217-31, esp. 228-30; Raven, "The Amphictyonic Coinage of Delphi", NC s. 6, 10 (1950) 1-22, esp. 13-15; see also T. Hackens, "Techniques et terminologie de fabrication", NA 3-15; Id., "Le rhythme de la production monetaire dans l'antiquité", NA 189-96. Hackens estimated 7-10,000 as the production of an average die. Cf. M. Thompson, The New Silver Coinage of Athens, (New York, 1961), 709-10.

60. Price & Waggoner, Asyut Hoard, 75-6

61. D.M. Metcalf, "How Large was the Anglo-Saxon Currency", EHR s. 2, 18 (1965) 475-82, esp. 476-7

62. C.S.S. Lyon, "The Estimation of the Number of Dies Employed in a Coinage", Num. Circ. 83 (1965) 180-1. Cf. Hackens, NA, 189-96.

63. Cf. Kraay, JHS (1964) 90-1.

64. Kraay & P.R.S. Moorey, "Two Fifth Century Hoards from the Near East", RN s. 6, 10 (1968) 181-238; Kraay, JHS (1964) 84

65. Kraay, ACGC, 44-7

66. Price & Waggoner, Asyut Hoard, 69-73

67. Beer, personal communication, October 21, 1979

68. Brown NC (1950) 182-3; Holloway, Elder Turtles, 41-2

69. Kraay, JHS (1964) 88-90

70. Kraay, JHS (1964) 87

71. Kraay, "Caulonia and South Italian Problems", NC s. 6, 20 (1960) 53-82, esp. 78-82

72. Beginning of the 6th century: 1st Apollo temple, W.W. Wurster, AltÄ 1.1, 79; before 550-40: Aphaia temple 1, Propylon 2, Altar 3, terrace walls; 510-500: Aphaia temple 2, Propylon 3, Altar 4, terrace walls; see D. Ohly, "Aphaia-Tempel I: die südliche Stützmauer der Temenos Terrasse", AA 85 (1970) 48-71; Id. & E.L. Schwandner, "Aigina, Aphaia-Tempel: Untersuchungen in der spätarchaischen Temenos Terrasse", AA 86 (1971) 505-38; Ohly, Tempel und Heiligtum, (Munich, 1977), 23-32; Welter, A1, 64-70; Id., A2 37-8; Id., "Aeginetica I-XII", AA 53 (1938) 1-33, esp. 1-6; 520: the Thearion: Wurster, AltÄ 1.1, 75-9; 1.2, 32; 520-10: Apollo temple: Wurster, AltÄ 1.1, "Aeginetica 480's: harbor facilities & city walls: Welter, XIII-XXIV", AA 53 (1938) 480-540, esp. 480-5.

73. Holloway, ANSMuN (1971) 14-16; Id., Elder Turtles, 78-82, 96-7

74. Eretrian legal texts (IG XII 9.1273-4 I, II, III, c. 550-25) speak of khremata dokima (see LSAG, 84). Dokimos was used in the sense of "officially recognized" money. See Plato, Laws 742 A-C; cf. Hsch. s.v. "dokimon". See H. Volkmann, "Dokima Khremata", Hermes 74 (1939) 99-102. It appears in [Aris.] Oec. 2.4.1347a in the anecdote about Hippias' demonetization. See E. Vanderpool & W.P. Wallace, "The Sixth Century Laws from Eretria", Hesperia 33 (1964) 381-91. They date the inscriptions to the 3rd quarter of the 6th century, and see them as establishing regulations for the payment of sailors.

Hiller von Gaertringen saw them as establishing customs duties. Cf. SGHI #6 (LSAG, 236-7, c. 575-50) for a Chian law mentioning staters. A 4th century inscription from Olbia (Syll.3 218) sets the rules for the circulation of money in that community. Olbian coinage is to circulate exclusively, and an exchange rate is set for Cyzicene staters. Other coinages are allowed to seek their own rate of exchange. It would be interesting to know whether the Cyzicenes had a set rate because of their importance in Black Sea commerce or because of their being electrum. Tod (NC (1947) 7-8) observes that local money customarily appears in inscriptions without qualification, suggesting that in these cases it was the sole legal tender.

75. Minting charges: "The Coinage Decree", SGHI #45.5, pp. 113-17

76. Welter, A1, 99-122; Id., A2, 88-98. The small buildings on the Colonna Hill, identified by Welter as the Aiakeion and the Phokeion which Pausanias situated on the Aeginetan acropolis, may perhaps be treasuries. H. Walter has suggested that the Colonna Hill is not the site of these buildings (AltÄ 1.1, 6).

77. On banks connected with temples, see R. Bogaert, Banques et banquiers dans les cités grecques, (Leiden, 1968) 288-97.

78. The debate concerning the degree to which the Romans were aware of insufficient coinage in circulation and sought to remedy this situation is tangentially relevant here. A decision in the negative would not, however, prejudice the case for Archaic Greece. Crawford holds that the government did not supplement the coinage in circulation and did not take in money from individuals and convert it into coin for them. See M. Crawford, "Money and Exchange in the Roman World", JRS 60 (1970) 40-8; Id., "La problème de liquidités", Annales 26 (1971) 228-33. Cf. C. Nicolet, "Les variétés de prix et la theorie quantitative de la monnaie à Rome de Ciceron à Pline l'ancien", Annales 26 (1971) 1203-27

79. The proto-tortoises are coeval with the earliest turtles; see Holloway, ANSMuN (1971) 11-14. A later group of tortoises with trefoil collars is contemporary with the later thin collar turtles; see Price & Waggoner, Asyut Hoard, 76.

80. Price & Waggoner, Asyut Hoard, 76-7

81. Holloway, ANSMuN (1971) 8

82. M. Caramessini-Oeconomides, "The 1970 Myrina Hoard of Aeginetan Staters", Greek Numismatics and Archaeology: Essays in Honor of Margaret Thompson, (Wetteren, Belg., 1979), 231-9; Starr, Athenian Coinage, 81-3.

83. On the scale of the T-back turtle coinage: Beer, personal communication, April 3, 1980; Caramessini-Oeconomides, Festschrift Thompson, 238-9.

84. Thompson, New Silver Coinage, 713-14

85. On Aegina after the Persian War, see Figueira, CP (1981).

86. Earlier studies put the first tortoises as early as 480: E. Babelon, Traité des monnaies grecques et romaines, (Paris, 1901-33), 2.1.662; or as late as 404: B.V. Head, Historia Nummorum, (Oxford, 1911), 333. On the tortoise overstruck by Azbaal: S.P. Noe, "Countermarked and Overstruck Coins at the American Numismatic Society", ANSMuN 6 (1954) 85-93, esp. 89-90. Kraay & Emeleus (Composition of Greek Coins, 14) argue for compositional continuity from the later turtles to the tortoises, and discontinuity between the earlier tortoises and later ones. IGCH 1647 (c. 450-25) is the first hoard possessing a tortoise stater. For a date of 446 for the tortoises, see Robinson, "A Hoard of Archaic Greek Coins from Anatolia", NC s. 7, 1 (1961) 107-17, esp. 111.

87. Beer, personal communication, April 3, 1980, for the size of the tortoise coinage. For the type, see R. Rago, "Il cambio di tartaruga ad Egina", RIN 65 (1963) 7-15, esp. 13.

88. Rago, RIN (1963) 14-15

89. [Aris.] Oec. 2.4.1347a4-11 on Hippias' manipulation of money. See R.T. Williams, "The Owls and Hippias", NC s. 7, 6 (1966) 7-13.

90. On composition: Kraay & Emeleus, Composition of Greek Coins, 13-14. The coinage of the 5th century and earlier is to be contrasted with the later tortoises of the 4th century in their relatively high copper content. On the advantages of coin type stability, see Hackens, NA, 189-96.

91. Kraay, JHS (1964) 90-1; Id., NC (1960) 79-80

92. ATL 3.82

93. Robinson (NC (1961) 111) says that an overlap between the later turtles and first tortoises is possible, but improbable, on the basis of the similarity of the reverse skew.

94. Robinson, NC (1961) 111. Cf. Rago (RIN (1963) 13-14), who emphasizes the continuity with the turtles, and suggests a date shortly after the fall of Aegina. See also R. Meiggs, The Athenian Empire, (Oxford, 1972), 184.

95. Rago, RIN (1963) 9-11

96. Eisphora: R. Thomsen, Eisphora, (Copenhagen, 1964), 11-1[illegible] Direct taxation: A.M. Andreades, A History of Greek Public Finance, (Cambridge, 1933), 126-30; also A. Boeckh, The Public Economy of Athens, (London, 1842), 470-7. Thomsen (op. cit., 141-3) holds that the organization of the eisphora was introduced at the same time as Themistocles' reorganization of naval procurement. J.G. Griffith ("A Note on the First Eisphora at Athens", AJAH 2 (1978) 3-7) argues that Thuc. 3.19.1 indicates that in 428/7 the Athenians levied the first eisphora of 200 T, not the first eisphora. See Boeckh, Public Economy, 41; SGHI #58, p 17. Note the considerable difference between the assessed value of Athenian property in 378/7 (5750 T, Polyb. 2.62.6) and the actual value of the property, which G. de Ste. Croix ("Demosthenes' timema and the Athenian Eisphora in the Fourth Century B.C.", C&M 14 (1953) 30-70, esp. 37-8) estimated as c. 12,000 T. This suggests both massive undervaluation of property and the government's inability to enforce an assessment at full capital. See also Thomsen, op. cit., 45-61.

97. Upper class resentment over eisphora: Thomsen, Eisphora, 168-93; cf. Aristoph. Eq. 923-6; Eccl. 1006-7; Lys. 28.3

98. See L. Gernet, "Choses visibles et choses invisibles", RPhil 146 (1956) 79-86 = Anthropologie de la Grèce ancienne, 404-14. To visible goods belongs property par excellence, associated closely with the family. The distinction between movable and immovable goods somewhat parallels that between visible and invisible (Harpocratian s.v. "aphanes ousia"). Exemplary of invisible goods are loans. Money can belong to either class, but, insofar as it is individually acquired and alienated, it stands in the realm of the invisible ([Dem.] 48.22). Land belongs firmly among the visible, and along with other visible goods, enjoyed higher social value (Lys. fr. 24.2). Plato, in the Laws (5.741 E-745 B), banned money from his polis, allowing only visible real property. The eisphora drew on visible property only (Thomsen, Eisphora, 59 ff.). In the Attic orators, charges were levelled at those converting real property to money (sometimes called "converting to invisible property"). Cf. M.I. Finley (Studies in Land and Credit, (New Brunswick, N.J., 1952), 54-6), who says that invisible and visible property are interpreted literally, presumably from a governmental perspective. Cf. Isaeus 8.35, Isoc. 17.7, Dem. 38.7.

99. Andreades, Greek Finance, 137-48, 294-9. Indirect taxes were called eponia, enkuklia, eilimenia, and hekatostai. See Syll.[3] #469, for the 6th century list of taxes from Cyzicus. The inhabitants of Cyme in Aeolis were considered foolish for not having instituted a harbor tax for 300 years (Strabo 13.3.6 C622).

100. That the prewar tribute assessment generally did not impoverish those paying it, but left them revenues for their own use, can be seen from the Athenian ability to raise tribute drastically during the War. On the assessment of 428, see Meiggs, Athenian Empire, 533-7.

101. On cleruchies, see Meiggs, Athenian Empire, 260-2, 530. Samian indemnity: Thuc. 1.117.3; Plut. Per. 28.1; Diod. 12.28.3-4; IG I^2 293 (= SGHI #55) (cf. Nepos Tim. 1.2). Thasian indemnity: Thuc. 1.101.3

102. [Andoc.] 4.11 reports that Alcibiades doubled the tribute, but it is uncertain whether this was before the imposition of the eikoste. See Meiggs, Athenian Empire, 438-9. See Lex. Seg. s.v. "Dekate kai Eikoste". Cf. Poll. 9.30 on the commercial taxes, the general 5% tax and the 10% tax on goods entering and exiting the Euxine. The 5% tax was on both exports and imports, see Boeckh, Public Economy, 325-6. A 2% tax remained in force for the Peiraeus.

103. Andoc. 1.133-4. The 2% was farmed by consortia headed by an arkhones (see also Lyc. In Leoc. 6.19). See Etym. Mag. s.v. "pentekostologoumenon" (Galsford, 660.29-33). Cersebleptes took in 300 T from the harbors of his kingdom (Dem. 23.111). Rhodes in 165 received 166 T income from its harbor, which later fell off to 25 T after the free port at Delos was established (Polyb. 21.7.12). Callistratus raised the harbor duties of Macedonia to 40 T ([Aris.] Oec. 2.22). See Boeckh, Public Economy, 313-19; Andreades, Greek Finances, 296-9. The 2% harbor tax at Athens is well-attested; Dem. 21.133, 34.7-8, 35.28-30; [Dem.] 59.27; Poll. 9.8.

104. On hoard evidence in general, see R.E. Mitchell, "Hoard Evidence and Early Roman Coinage", RIN 75 (1973) 89-110, esp. 92-6. On Aeginetan coins in Egypt: C.H.V. Sutherland, "Coin and Corn: a Note on Greek Commercial Monopolies", AJP 64 (1943) 129-47; J.G. Milne, "The Trade between Greece and Egypt before Alexander the Great", JEA 25 (1939) 177-83. Below, two factors will be introduced whose operation may have played a role in Aeginetan success in Egypt: 1) The default of Samos and Miletus and other Ionian competitors because of political troubles in Asia Minor; 2) The Aeginetan skill in adapting themselves to a "port of trade" role in Egypt.

105. Finley, "Classical Greece", 20-1

106. Olympia (Babes); Paros (Eirini): S. Grunauer von Hoeschelmann, "Zwei Schatzfunde archaischer Statere von Aigina", Chiron 5 (1975) 13-20; Myrina: Caramessini-Oeconomides, Festschrift Thompson, 231-9.

107. On the context of the export of Thraco-Macedonian coins, see Kraay, JHS (1964) 82-3; Id. & Moorey, RN (1968) 226-7.

108. Price & Waggoner, Asyut Hoard, 27; Barron, Silver Coins of Samos, 45. See also Robinson, "Rhegion, Zankle-Messana, and the Samians", JHS 67 (1947) 13-20. It is by no means certain that the Samians ought to be thought of as leaving Zancle at all. Cf. Hdt. 7.164; Thuc. 6.4.5-6.

109. Kraay & Emeleus, Composition of Greek Coins, 16-20, 37

110. An inscription from a law code from Elthynia (near Gortyn), late 6th or early 5th century, mentions fines in drachmai. Elthynia never possessed a coinage, and the inscription dates from before the activity of any Cretan mint. The drachmai are presumably Aeginetan (see G. LeRider, Monnaies cretoises du Ve au Ier siècle av. J.C., (Paris, 1966), 169). An inscription from Axos (IC 1.10.2), a part of a legal code from the late 6th or early 5th century, mentions fines in staters. See L.H. Jeffery, "Comments on Some Archaic Inscriptions", JHS 69 (1949) 25-38, esp. 34-6.

111. Robinson, "Pseudaeginetica", NC s. 5, 8 (1928) 172-98. The findspots are predominantly Cretan. A crescent symbol, otherwise known on Cretan coins, is found on many of these coins. Robinson connects it with Artemis-Dictynna. Holloway (ANSMuN (1971) 17-20) has removed the staters of Robinson's Class A from consideration. These are proto-tortoises, and their association with Crete was erroneous.

112. LeRider, Monnaies cretoises, 173

113. LeRider, Monnaies cretoises, 172. Gortyn and Phaistis begin coining c. 450-25 (op. cit., 162-72).

114. LeRider, Monnaies cretoises, 120-5

115. Overstrikes in general: Sutherland, "Overstrikes and Hoards", NC s. 6, 2 (1942) 1-18, esp. 6. LeRider ("Contremarques et surfrappes dans l'antiquité grecque", NA, 22-56) notes the rarity of overstriking. On countermarks in general, see H. Seyrig, "Antiquités Syriennes: monnaies contremarquees en Syrie", Syria 35 (1958) 187-97. He emphasizes the revalidating and assimilating qualities of countermarking.

116. Cf. Kraay (NC (1960) 66-70) for a discussion of southern Italy, where the coins of neighbors are primarily overstruck.

117. LeRider, Monnaies cretoises, 137-46

118. LeRider, Monnaies cretoises, 71-2

119. Holloway (Elder Turtles, 47-56) lists the following cities as countermarking Aeginetan coins: Aegina (7); Argos (1); Athens (1); Boeotian League (1); Cnidus (5); Chalcidian League (3); Corinth (6); Cleonae or Cranium (1); Cyrene (5); Mantinea or

Heraea (2); Phocis (1); Psophis (1); Rhodes (4); Sicyon (2); Tegea (3). See Grunauer von Hoeschelmann, Chiron (1975) 18. LeRider (NA, 33) notes that 4th century Aeginetan coins were not countermarked. This suggests that their significance was qualitatively different in its circulation from the coinage of the 5th century and earlier. It was more local in its importance, and perhaps without the general recognition that had been accorded to the turtles.

120. Holloway (Elder Turtles, 54-6) cites the case of Aeginetan standard staters known by inscription to have been in the hands of the Athenian treasury (IG I^2 301, 310) which were paid out in the strained financial conditions of the Decelean War by weight.

121. Holloway, Elder Turtles, 52; Grunauer von Hoeschelmann, Chiron (1975) 18

122. Caramessini-Oeconomides, Festschrift Thompson, 231-4; Grunauer von Hoeschelmann, Chiron (1975) 18

123. Holloway, Elder Turtles, App. II, 252-5

124. The money-changers' premium was called a kollubos (the same word was used for the fee charged by a mint). See Tod, "Epigraphical Notes on Greek Coinage", NC s. 6, 5 (1945) 108-16.

125. Hoard evidence: Kraay, JHS (1964) 76-8

126. Kraay, JHS (1964) 76-81

127. Taranto Hoard: IGCH 1874 (c. 508); c. 500-490 (Price & Waggoner, Asyut Hoard, 19. The hoard was composed of c. 600 coins, with 6 kg. of ingots and worked silver. Metapontum (149+), Sybaris (135), Velia (96), Croton (80+), Aegina (15), Corcyra (13), Athens (8) are the most noteworthy cities represented. See E. Babelon, "Trouvaille de Tarente", RN 16 (1912) 1-40, esp. 4-6 for Aegina.

128. P. Orsi (Atti e Memorie dell'Instituto Italiano Numismatica (1919), 29) introduced the view that the Taranto Hoard was a combination of several hoards. See also Kraay, ACGC, 319 n. 5.

129. See Babelon (RN (1912) 38-40), who cites the analogy of the far-travelled Croteniate physician Democedes (Hdt. 3.125, 129), and prefers to associate the hoard with a merchant.

130. Sutherland (NC (1942) 7-10) saw Corinthian coins as a chief source of silver in the West from the evidence of overstrikes, a view that has been satisfactorily refuted by Kraay (NC (1960) 66-74), and by C.J. Jenkins ("A Note on Corinthian Coins in the West", Centennial Publication of the American Numismatic Society, (New York, 1958), ed. M. Ingolt, 367-76).

131. Jenkins, Centennial Publication, 370-4

132. G. Vallet, Rhegium et Zancle, (Paris 1958), 155-68

133. For the circulation of Athenian coinage in the West, in general see La circolazione della Moneta Ateniense in Sicilia e in Magna Greca, AIIN 12-14 Suppl. (1969). Kraay ("Fifth Century Overstrikes at Rhegium and Messena", op. cit., 141-50) notes that the frequency of the appearance of Athenian coins in the West fell after 480. It should be granted that this was because, while Athenian coins went to pay for a variety of imports before 480, output fell after 480 (because of damage done to the mining industry) and money was needed to pay for the operations of the Delian League. As allies circulated these coins back to Athens through tribute or trade, fewer coins escaped to the West.

134. Note the situation in Italy in the late Roman Republic; see Crawford, "Coin Hoards and the Pattern of Violence in the Late Republic", PBSR n.s. 24 (1969) 76-81.

135. South Italy c. 510-490: IGCH 1873-1880

136. Kraay, "Àpropos de monnaies divisionaires de Croton", GNS 8 (1958) 99-102

137. Note here the significance of the combination of a local trade network with long distance trading for an understanding of the importance of Aeginetan coinage.

138. For Siphnian silver in Aeginetan coins: Kraay & Emeleus, Composition of Greek Coins, 8. Siphnian mint: Kraay, ACGC, 45

139. P.A. Schubiger, O. Müller, & W. Gentner, "Neutron Activation Analysis in Ancient Greek Silver Coins and Related Materials", Journal of Radioanalytical Chemistry 39 (1977) 99-112. Gentner, Müller, G.A. Wagner, & K.H. Gale, "Silver Sources of Archaic Greek Coinage", Naturwissenschaften 65 (1978) 273-84.

140. See n. 139 immediately above; Schubiger & Müller, "Trace Elements in Ancient Silver Coins", Radiochem. Radioanal. Letters 24 (1978) 353-62; I.L. Barnes, W.R. Shields, T.J. Murphy, & R.H. Brill, "Isotopic Analysis of Laurium Lead Ores", Advances in Chemistry Series 138 (1974) 1-10.

141. See Gentner, et al., Naturwissenschaften (1978) 78-82.

142. Gentner, et al., Naturwissenschaften (1978) 281-2

143. Cf. Gentner, et al., Naturwissenschaften (1978) 273-4.

Chapter 3: The Socio-Political Orientation of Early Aegina

A) Aegina and the Sea

When one considers the specific forms taken by the institutions of Archaic and early Classical Aegina, the central fact to be confronted is the association of the Aeginetans with the sea. The principle is clearly operative in the attention given by the source material to the Aeginetans as thalassocrats. Combined with the theme of military power at sea is the attribution to the Aeginetans of moral and emotional qualities, predominantly negative, that are associated with naval hegemony. A third dimension of the Aeginetan relationship with the sea is the role of maritime activity in the evolution of Aeginetan society. In this last regard, it is possible to conclude that, in the minds of ancient commentators, it was the facility of the Aeginetans at sailing that made Aegina what it was.

Herodotus strikes all three of these themes with various emphasis. He recounts Aeginetan independence from Epidaurus in these terms: "...having built ships and behaving with arrogance (agnomosune), they revolted from Epidaurus". He then says that the

Aeginetans as thalassocrats conducted a piratical foray against Epidaurus to seize the statues of Damia and Auxesia (5.83.1). The conflict that followed from this action led to the ekhthre palaie between Athens and Aegina. This ancient enmity was the cause for the Aeginetan decision to attack Athens in support of Thebes at the end of the sixth century. Here, Herodotus relates that the Aeginetans, buoyed up by great prosperity (eudaimoniei te megalei eparthentes), and mindful of their hatred toward the Athenians, began an akeruktos polemos against Athens.[1]

A similar pattern of ideas can be discerned in Diodorus' account of the revolt (?) of Aegina from Athens in 464. He observes that: "...this state, often being successful in engagements at sea, both was full of pride (phronema) and well-equipped with both monies and triremes" (11.70.2). He relates the reduction of Aegina in 459 by remarking that the Aeginetans "were made arrogant (pephronematismenous) by previous deeds", and that "they had great experience in and reputation from engagements at sea" (11.78.4). The former account, the so-called revolt, may come from Ephorus, and the latter account almost certainly from Thucydides, although Diodorus has clearly altered the tone of the latter passage by importing into it the characteristic language of the former.[2]

Strabo states that Aegina held the thalassocracy (8.6.16 C375-6). Thalassocracy is also attributed to Aegina before the Themistoclean naval bill by Plutarch (Them. 4.1). Aelius Aristeides mentions that the Aeginetan supremacy in naval warfare was made second only by the accomplishments of the Athenians (1.212 (251D)). Therefore, it is not surprising that, in the Thalassocracy List,

the Aeginetans had their place, holding the thalassocracy between 490 and 480 (e.g., Diod. 7.11.1). Strabo, at least, may be going back to Ephorus, whom he quotes a little later for his explanation of the origination of the Aeginetan emporium (FGH 70 F 176). Pausanias speaks about the great power of the Aeginetans and their naval rivalry with the Athenians. Thereupon, he mentions that their good fortune (eudaimonia) did not last, and that after the Spartans restored them to their island, the Aeginetans could not recover their wealth or their power (2.29.5). Aelian remarks that Aegina once possessed very great power among the Greeks, achieving wealth (euporia khrematon) and prosperity (eukairia). They had naval power (nautike dunamis) (VA 12.10).

Pindar, whose introduction of seafaring into his epinicia for Aeginetans will be discussed below, ought only to be brought up here to point out those passages where power or dominance at sea is at issue. In fr. 1, from an Isthmian ode, the Aeginetans "are like dolphins in the sea in their arete". Aegina in several passages is "famous for ships" (nausiklutos) (fr. 1.1; Nem. 5.9), and "long-oared" (dolikheretmos) (Ol. 8.20). In a very important passage, the sons of Aeacus pray to Zeus that Aegina be "well-manned" (euandros) and "famous for ships" (Nem. 5.9-12). Aegina is described as having acquired a nauprutanis daimon in Paian 6.123.

The literary/historical tradition is consistent, in that seapower and thalassocracy are repeatedly linked with Aegina. In Herodotus and Diodorus, as might be expected, the psychological aspects of Aeginetan seapower are explored. The accent is on

Aeginetan arrogance, as seen in aggression and hostility toward Athens and Epidaurus. In Pindar, as will be shown below, another, diametrically opposed series of associations are made with reference to Aeginetan seapower. There, the stress is on Aeginetan hospitality and justice toward strangers. However, in both cases, the national character of the Aeginetans is expressed through interaction with others undertaken through the sea.

Hesiod fr. 205 (Merkelbach-West), from the "Catalogue of Women", describes the Myrmidons of Aegina as the first of the Greeks to build ships. This suggests that the association between Aegina and seafaring was well-established in the early Archaic Period. If one compares this with the absence of Aegina from Homeric epic (despite the prominence of the Aeacids, Achilles and Ajax), one is tempted to conclude that this association was created in the seventh century, or, at the very earliest, in the late eighth century.[3] Two theories were current in antiquity to explain the causation of the turning by the Aeginetans toward the sea. Theagenes rationalized the myths concerning the rule of Aeacus on Aegina, portraying Aeacus as a culture hero who provided the primitive inhabitants of the island with the skills of advanced civilization (FGH 300 F 1). If Tzetzes (Chil. 7.313-6) goes back to Theagenes, among these arts was seafaring, because there it is described that the aborigines of the island did not yet have the ability to build ships. In the other theory, Ephorus made the island's lack of fertile soil the reason for the Aeginetans' creation of an emporium (FGH 70 F 176). In both cases, the historians were seeking a cause for Aeginetan seafaring, which they

held to be the most important dimension of Aeginetan life and which they believed to be responsible for rich and thalassocratic Archaic and early Classical Aegina. Note that there is no reason to think that these ancient sources made a distinction between military seapower and a flourishing merchant marine. Nor is there reason to think that different types of individuals conducted Aeginetan activity in these two facets of maritime life.

Aegina was a community whose concentration in seaborne endeavors was its most salient characteristic, in a culture where agriculture predominated as a form of livelihood and communities of subsistence agriculturalists were the norm. While most other Archaic states were made up of farmers and those performing ancillary crafts, on Aegina, seafaring took the central place. Equally, the formative role played by agriculture in social evolution elsewhere may well have been performed by maritime activities on Aegina. It remains to be seen whether other endeavors of the Aeginetans (e.g., metalwork or early minting activity) can be seen as auxiliary to that city's central preoccupation with the sea.

B) Aegina and Epidaurus

In order to understand the process of economic development on Aegina, a picture of its earliest social and political pattern must be developed. In the Dark Age of Greece before 750, it may be that Aegina suffered from a discontinuity of population, although convincing evidence is lacking.[4] A possible pattern is one of successive waves of invaders or fugitives inhabiting one or another

part of the island, often contemporaneously with groups of different origin. The only evidence for the habitation of the island in this period is revealed in the island's mythological associations, the legends concerning the Myrmidons.[5] Yet, one would be reluctant to take very great stock of this part of the evidence. Aegina's situation is not discordant with Thucydides' remarks on the instability of population and settlement in exposed places in early Greek history (Thuc. 1.2.1). Circumstances of settlement suggest that the Aeginetans were of mixed origin. Pausanias may record Aeginetan appreciations of this when he speaks of the Dorian invaders of Aegina as sunoikoi of the earlier Aeginetans (Aiginetais tois arkhaiois) (2.29.5).

They did, however, speak the Dorian dialect. Whether the Dorian component predominated from the repopulation of the island after the hiatus in settlement caused by the fall of Mycenaean civilization, or whether the process of Dorianization is in operation here, is not ascertainable. Herodotus recognized that the predominance of the Dorian dialect in the Argolic Acte had been achieved through a process of assimilation (ekdedorientai; 8.73.3). Aegina's situation may have been a good deal like that of her non-Dorian neighbors of the poor states of the Acte. This process, where the Dorian language, cults, and customs are assimilated (which might be called Dorianization) has been theorized at Megara, whose physical character and geographical position do have some similarity to Aegina's.[6] Both states were made up of rocky, agriculturally marginal terrain in great part, and both, in the Dark Ages, were dominated by clearly Dorian states of the

Peloponnesus, Corinth in the case of Megara, and Epidaurus and Argos in the case of Aegina. Against the continuity with the Dorian states of the mainland in dialect may be be set the evidence of the Aeginetan script, of which the letter forms have affinities with Attic.[7]

An examination of the cults of the Isthmus region and of the Peloponnesian Acte opposite Aegina shows a substantial degree of heterogeneity. A group of rituals which had been the inheritance of non-Dorians and perhaps even originally pre-Greek strata of the population were reinterpreted mythologically by the now dominant Dorian-speaking element of the population. However, as at Corinth, where one has the information necessary to come to a conclusion, these reinterpretations do not totally efface the outlines of earlier mythological cult justifications, and still permit one to gain an indication of the heterogeneity of the religious forms in the area. The cults shared by Aegina with her neigbors cut across the Dorian/ non-Dorian boundary.[8]

Mythology records that Aegina was settled by an expedition of Dorians led either by Deiphontes of Epidaurus or by Triakon of Argos. The story seems to have had two variants: one that emphasized the Epidaurian origins of the settlers, and so must be considered to represent a claim by Epidaurus for suzerainty over the island; the other focuses on the prior Argive origin of the settlers, which should be thought of as an Argive claim to leadership over both Epidaurus and Aegina.[9] However, the most significant fact about the mythological forebears of the island's population is that the Aeginetans seem to have looked back to the

pre-Dorian Aeacids (Telamon, Peleus, Ajax, Achilles, Teucer, etc.) as their progenitors.[10] In the Aeginetan odes of Pindar, the prowess of the Aeacids receives repeated mention. The Dorian affiliations of Aegina are mentioned, but they lack the stress given to the Aeacids. However, there was no perceived clash for the Aeginetans between the Aeacids, their Achaean, pre-Dorian forerunners, and their Dorian antecedents. Once Pindar uses the phrase, "land kept in trust (tamieuomenan) by the Dorian people from (eks) (from the time of?) Aeacus."[11] This is a phrase which perhaps defies completely logical analysis, although its emotive force is clear. This may be a recognition of the non-Dorian character, in part, of the island's population, and perhaps stands for an Aeginetan effort to stand with greater independence toward both Epidaurus and Argos by claiming an autochthonous character for its population. The Aeacids were particularly attractive as self-representations in mythological terms. They could be portrayed as leaving Aegina to find a stage more fitting their grandeur. Their participation in the heroic deeds of the epic cycles may compensate for the absence of Aegina in epic, and provide a palliative for the discontinuity in the island's population, which perhaps even the inhabitants perceived. Another factor that argues for heterogeneity among the settlers of Aegina is the presence at both Argos and Epidaurus of dependent elements of the population who may have been non-Dorian in origin.[12]

The dominating datum in the early social history of Aegina was the island's dependency on Epidaurus (Hdt. 5.83.1). It is reported

that the Aeginetans had to travel to Epidaurus to carry on judicial business. Herodotus speaks of ta te alla, which ought to refer to other Aeginetan responsibilities to the Epidaurians. This suggests that the link with Epidaurus was at one time a very close one. Allies do not customarily make similar stipulations. The imperial jurisdiction of Athens was considered a sign of the allies' lack of autonomy and their subjection to Athens (Thuc. 1.77.1-5). The relationship of Aegina to Epidaurus is appropriate to that of a sub-region to the political center of a state. It is like the relationship of Hesiod's Ascra to the "bribe-devouring judges" of Thespiae, or that of Athenian demes to the astu before the institution of the deme dicasts.[13] Among the other dimensions of Aeginetan subjection to Epidaurus implied by Herodotus, some subordination in matters of cult played a role. By their appropriation of the statues of Damia and Auxesia, the Aeginetans were expressing their break with Epidaurus on a religious plane. Perhaps they had been forced to pay certain religious dues, and to participate in ritual activity at Epidaurus. Thereafter, they celebrated the cult of Damia and Auxesia with choral performances. Possibly, the Aeginetans had been compelled to underwrite or participate in such activities at Epidaurus. Herodotus uses apistamai to express the Aeginetan breaking-away from Epidaurus. This is language used elsewhere for revolt (cf. 1.102.2; 1.95.2).

The lower limit for Epidaurian control is provided by the overthrow of Prokles of Epidaurus by his son-in-law Periander. The upper limit of Epidaurian hegemony over Aegina is more difficult to determine. Before Prokles' marriage alliance with the Cypselids of

Corinth (Hdt. 3.50-2; 5.92h.2-4; Paus. 2.28.8; DL 1.94; Pythainetos FGH 299 F 3), Epidaurus was friendly with, if not subject to, Argos. This is demonstrable not only from the control supposedly exercised by Pheidon of Argos over the Temenid inheritance, of which Epidaurus was a part, but also from the foundation stories of Epidaurus, some of which had that city founded by Argives (Paus. 2.26.1-2). Moreover, even into the late fifth century, the Argives claimed the right to collect dues on behalf of Apollo Pythaieus. It is against this background that the marriage of Prokles of Epidaurus to the daughter of Aristocrates of Orchomenos, king of Arcadia, is to be set (DL 1.94; Paus. 8.5.13). The marriage presumably was made when Prokles was a young man and had not yet seized power. At this time, Aristocrates was still an ally of the Messenians, and a friend of Argos, the enemy of Sparta.

After the death of Pheidon, his successors at Argos fell on hard times, which culminated in the expulsion of Meltas, Pheidon's grandson, from his throne.[14] The states of the Argolic Acte became more independent from Argos at this time, a phenomenon not only seen at Epidaurus, but elsewhere. The association of Aegina with Pheidon's apocryphal minting activity, and Aeginetan membership in the Lot of Temenos, suggests an Aeginetan subordination to Argos at some time as their backdrop. Epidaurus became Aegina's hegemon sometime after 650, when Pheidon was dead, Argos was weak, and Prokles had led Epidaurus into friendship with Corinth. How long the period of Argive hegemony over Aegina lasted is unknown. In the sixth century and afterward, Aegina and Argos were allies, but the Argives make no attempt to bring Aegina into

close subjection. It is uncertain whether this indicates anything about the character of earlier Argive hegemony, because Aegina after 600 may have been too strong to have been subjected by Argos.

A league whose principal religious cult was of Apollo Pythaieus is a possible mechanism for Argive hegemony over the Temenid inheritance.[15] Involved in the interpretation of this matter is the relationship of Argos to Asine. Asine was an ancient cult center for Apollo Pythaieus. When the Argives captured Asine, they left the temple to Apollo standing (Paus. 2.28.2; 36.4-5; 3.7.4; 4.34.9). The Asineans fled to Laconia, whereupon they were established by the Spartans at Mothone in Messenia (Paus. 4.14.3; 34.9). Archaeological evidence argues that the sack of Asine took place in the late eighth century.[16] In 419, the Argives used the failure of the Epidaurians to pay requisite dues to Apollo Pythaieus as a pretext for war (Thuc. 5.53; Diod. 12.78.1). Barrett would connect this with an earlier Argive effort to fine Aegina and Sicyon for aid rendered to King Cleomenes of Sparta during the Sepeia campaign (Hdt. 6.92.2).[17] The two attempts share a common feature, inasmuch as Argos was endeavoring to fine members of the Peloponnesian League in both cases. Sicyon had been one of Sparta's allies since the expulsion of her last tyrant, Aeschines, no later than c. 510.[18] Epidaurus had become Sparta's ally by 480, perhaps after Sparta's victory over Argos at Sepeia (no later than c. 494). While Aegina was probably not a member of the Peloponnesian League, the Aeginetan request for Argive aid in c. 491, which was answered by Argive complaints about Aeginetan help to Cleomenes, shows that Aegina was no more than an

ally of Argos at this time. The Argives obviously believed that some supervening relationship existed between themselves and these other states which was not altered by changes of political alliance. Possibly, it was the highly sacralized character of the previous ties which gave them their priority in Argive eyes. While the accusation against Epidaurus was a religious pretext for a political act, the fines against Sicyon and Aegina had their basis in political acts. This suggests that religion and politics were enmeshed in Argive hegemony over the Argolic Acte and nearby Aegina.

More could be known about early Archaic Argive imperialism if the relative date of the sanctuaries of Apollo Pythaieus at Argos and Asine could be determined.[19] The shrine of Apollo Pythaieus in Argos was claimed by the Argives to be the oldest (Paus. 2.24.1; 35.2). Barrett hypothesizes that the cult's most important center continued to be Asine, basing himself on the fact that the Argives left the temple standing at Asine, and that Thucydides mentions that the Argives were hegemones of the cult, a meaningless phrase unless the cult center was not in Argos (Thuc. 5.53).[20] If Asine continued to be the primary locus for the worship of Apollo Pythaieus, this suggests that the Argive cult was derivative. The Argives attempted to validate their claim to hegemony over the cult by building a sanctuary in Argos at a later stage. Yet, at first, they tried to maintain the influence of the cult in the Greek world by exploiting its close association with Asine.

If the cult of Apollo Pythaieus was brought from Asine to Argos after the sack of Asine, and the Argive cult is therefore derivative, this has an impact on a chronology of when the Argives began using the cult in association with their expansion. A consideration of the mythological associations of Apollo Pythaieus and the Asineans sheds light on this. The inhabitants of several towns of the Argolic Acte, including Asine, were Dryopes (Hdt. 8.43, 73.2; Diod. 4.37.2; Callimachus fr. 705 (Pfeiffer); Steph. Byz. s.v. "Druope"; Nic. Dam. FGH 90 F 30). The Dryopes had originally been inhabitants of northern Greece (Steph. Byz. s.v. "Druope"; Strabo 9.5.10 C434; Aris. fr. 441 (Rose); Pliny, NH 4.26; Pherecydes FGH 3 F 19; Strabo 8.6.13 C373; Paus. 4.34.10; 5.1.2; Etym. Mag. s.v. "Asineis", "Druops"), and Doris lay in their territory (Hdt. 1.53.3; 8.31; 8.43). The way by which the Dryopeans came to the Peloponnesus is significant. In one story, they were brigands subdued by Herakles (Diod.. 4.37.1; Apollod. 2.7.3; Pherecydes FGH 3 F 19). Herakles then removed them on Apollo's orders to the Peloponnesus (Paus. 4.34.9). It is transparent on whose behalf this formulation of the story operates. In it, the Asineans have no great claim to any cult of Apollo, for they sinned against his shrine at Delphi. Their conqueror was Herakles, the ancestor of the Temenid kings of Argos. This might be ammunition for Archaic Age claims by the Argives that Asine ought to be subject to them on the grounds of Herakles' subjugation of the Dryopes.

The Asinean version has no mention of brigandage, but rather flight after a defeat by Herakles and the grant of Asine by

Eurystheus (Paus. 4.34.10; Diod. 4.37.2). The introduction of Eurystheus is a significant variation, as he was Herakles' master. His grant ought to have validated the Asineans' claim to their territory in face of the Heraklids. In a story reported by Nicolaus of Damascus (FGH 90 F 30), Deiphontes comes into league with the Dryopes of Asine, Hermione, and Troezen against the Dorians. In the story as it has survived, Deiphontes is justified in this by the treachery of the sons of Temenos, Deiphontes' father-in-law, toward their father. These myths suggest that both sides to the power politics of the Argolid in the eighth and seventh centuries sought to ground their actions in mythology. The prominence which the Dryopes and their relationship to Apollo receives in these stories suggests that the cult of Apollo Pythaieus, that cult of Apollo most firmly associated with the Dryopeans, was central to Argive conceptualizations of their hegemony. The anecdote in Nicolaus about the Dryopeans and Deiphontes suggests that these stories were modified to create counter-propaganda to Argive claims to ownership of the Temenid inheritance.

Pheidon, probably to be dated to the first half of the seventh century, conquered (or, from the Argive perspective, reconquered) the Lot of Temenos. Argive claims to Asine and the cult of Apollo Pythaieus seem to have been formulated by at least the late eighth century. Argive claims in this period were based on supposed conquests by Herakles and his immediate successors. Thus, regarding Aegina, several suppositions take on greater credibility. The stories that had Aegina being founded from Argos are probably eighth or early seventh century formulations to justify contemporary

Argive claims to hegemony over the island. It is very possible that the Argives claimed that the Aeginetans owed them certain duties and deference, as can be seen from the early fifth century fine. This connection may have been sanctified by Aeginetan participation in the cult of Apollo Pythaieus. As shall be discussed below, this may help explain the prominence of the cult of Apollo on the island, and the role in that cult of the thearoi.

From the heterogeneity of Aegina's population, and from the hypothesized Dorianization, it is possible to put into its proper perspective the relationship of Aeginetan institutions to those of the mainland Dorian powers. Aegina was not a small replica of Argos or Sparta, which in simple outlines have an indubitably Dorian ruling class surrounded by dependent groups, perhaps in part of other stocks. This will be clear from a short schematic description of the settlement by the Dorians of the Peloponnesus. This reconstruction is arguable in most details, but has the attraction of providing a framework within which anomalous Dorian states like Aegina can be understood.

After the fall of the great Mycenaean palaces and the social system that supported them, significant depopulation took place, along with substantial fluidity of population.[21] In this situation, it is unlikely that single invasions or encounters were sufficient to settle at one blow who would inhabit the best agricultural land and the most easily defended village sites. Rather, small bands were in confrontation, creating an environment hostile to continuity and to the build-up of population and resources. Some theory must be framed in order to explain how the

Dorians (and related groups like the Eleans), in such a state of flux, managed to dominate the chief agricultural plains of most of the Peloponnesus.

No technical advantage set off the Dark Age Dorians from those inhabitants of the Peloponnesus speaking other dialects. The centralized bureaucracies of the palaces may have weakened the ability of the Mycenaean commons to initiate resistance, but this does not explain how, in the confused period after the palaces' fall, the Dorians were able to prevail. Thus, Müller and others sought intrinsic characteristics as a solution.[22] However, in most cases, differences between Dorians and other Greeks in political or moral culture are not so striking, and are open to explanation by appeal to environmental influences. The key to the success of the Dorians lay in their original organization for warfare and its associated ideology. At Sparta, best attested of the Dorian states, there existed social adaptations for fighting. These institutions' origin could have been a religious and social sub-stratum common to many speakers of Indo-European languages. As a basic feature of the religious and social structure of these groups' ancestors, the "Indo-Europeans", Dumezil hypothesized a tripartite ideology, where warrior functions were differentiated in juxtaposition to sovereign power and natural fertility.[23] Dumezil's interpretation is most illuminating (in Vedic India, early Rome, or pre-Christian Scandanavia) where it provides an explanation of certain persistent patterns of social organization or pervasive themes of mythology and cult. However, tripartite functionalism is not a principal of historical Greek society, nor is it a significant component in Greek cult.[24]

Here, it is not required that the Indo-European character of the Dorians' organization of warfare be explored. Rather, two points are important. One directs attention to certain archaizing phenomena at Sparta, e.g., the year classes, krypteia, communal messes, and marriage by fictive abduction. These institutions in their fully developed form can be explained in terms of their archaic context, but in their primitive state, all had to do with the initiation of young men into patterns of violent behavior on the community's behalf. Moreover, from the perspective of Dumezil's tripartite ideology, Sparta is one Greek polis that does offer impressive comparative material.[25]

Secondly, regardless of the origin of these institutions, the Spartans (and, to an extent, the Cretans) possessed them, while other Greeks did not, except in a very attenuated form. Boeotia provides a point of comparison. There, no evidence suggests that the organization of warfare was at variance with other Greek states. The warrior function is attested only in cult and mythology.[26] In Athens, the warrior as a strictly differentiated figure either in society or in mythology is striking in his absence. A consideration of Mycenaean Greece suggests that the Mycenaeans are to be classed with the Athenians rather than with the Spartans or the Boeotians. The record of the tablets demonstrates that those Greeks who, under the influence of the Minoans, created Mycenaean society had moved away from a highly delineated warrior function. The creation of the palace economy and the bureaucracy which it demanded necessitated the mastering of social skills very different from those of primitive tribal life in the Middle Helladic Period.[27]

When the palace society crumbled for reasons that need not be connected with its organization of warfare, a very different set of skills was again needed. In this situation, where possession of ground was determined by a series of random collisions, the warrior function in its more sharply delineated form was again a distinct advantage. The Dorians, whose dialect may suggest that they were not included within the ambit of Mycenaean civilization, perhaps had a competitive advantage over the remnants of Mycenaean society, which ensured that, when a stable situation was achieved, Dorian-speakers were in large part in possession of the best settlement sites in the Peloponnesus.

In the Archaic Period, unification takes place, to a lesser or greater extent, among those Dorian villages in the best agricultural plains, which enables them to reach out into the periphery of their area and begin to organize it to their own political advantage. However, it may no longer be any unique functional advantage that enables Sparta, for instance, to reduce the periphery of the Lacedaemonian plain into perioecic or Helot status, but simply that Sparta, whose plain afforded her greater agricultural resources, had a larger population to underwrite its expansion. But Aegina, though possibly fought over, was not a prime settlement site, to be assumed to have become the focus of a Dorian band. Aegina became Dorian largely through contact with more populous neighboring states. It did not reach out into its periphery to create a wider political entity, but was reached out for, and brought into the orbit of Argos and/or Epidaurus. Both were at this time becoming stronger, as they filled out the

agricultural land available to them. The maritime activities which were to enrich Aegina were not yet intense enough that she could experience a similar growth in strength. States like Epidaurus and Argos, better supplied with agricultural land, had their attention drawn toward activity on the mainland.[28] There were no pressures to turn them toward the sea. Therefore, Aeginetan institutional development is unlikely to have evolved steadily from foundations lain in the Dark Ages. A marginal community, Aegina was influenced onto lines of development (perhaps discontinuous) by forces not indigenous.

There are few data about the perioecic communities of Laconia. Nor is much known about Tiryns, Mycenae, or Cleonae, which at times stood in a sort of perioecic relationship to Argos. It is probable that certain necessary economic functions (metalwork, pottery, stone-cutting, sailing) were conceded to perioecic monopoly. This specialization would have been family-based, but whether specific trades were also concentrated in certain perioecic towns is unknown, although ship-building may have been effectively monopolized by Gytheum.[29] The Spartan state was differentiated into an agriculturalist-warrior component of the Homoioi, and a perioecic component, which, while it worked the land of its own community, had relegated to it craft and commercial activities. In an accentuation of tendencies found generally where hoplite warfare was the rule, a specialized and segregated group of agriculturalist-warriors occupied the dominant position at Sparta. Such a static political order tolerated a degree of economic development. Although disparity of social role and division of

labor came into being, stability was achieved, since the citizen class remained impervious to social mobility. The results were clearly successful for Archaic Sparta. Her archaistic agricultural ruling class had a homogeneity and an internal acquiescence in its rule which allowed it to expand at the expense of its neighbors.[30] Laconian pottery, metalwork, and, presumably, other arts and crafts, less well-documented, were in a flourishing state.

The situation at Sparta is well-attested. It is easy to discuss Sparta, as the length to which this evolutionary pattern was brought there helps isolate factors which may have been present elsewhere. The institution of perioecic dependence is valuable as an approximate analogy to the relationship between Aegina and Argos and/or Epidaurus. The specific judicial or political situation of the perioeci at Sparta or in Crete does not provide in itself an exact legal analogue.[31]

The life of the Aeginetans was indissoluably bound up with the waters that surround the island. The Aeginetan skill and facility in seafaring is an early fact of their social existence. Note that Aeginetan membership in that shadowy cult organization of the Archaic Period, the Calaurian Amphictyony, whose members (Athens, Aegina, Nauplia, Hermione, Prasiae, Boeotian Orchomenus, and Epidaurus) shared a connection with the waters lying off the eastern shores of the Peloponnesus and central Greece, shows the early maritime preoccupation of the island.[32] The Amphictyony administered the sanctuary of Poseidon on the island of Calauria (in the historical period, a possession of nearby Troezen), on the

south side of the Saronic Gulf, near the Argolic Acte. The group is unique, and has no basis in a political or military alliance.[33] This seems to have been an organization of cities involved in navigation. Only from the perspective of the sea could this group of states be justified as amphictuones, "dwellers around". This navigation was not on behalf of long distance trade or colonization, but for the sake of fishing, trade associated with the marketing of local agricultural goods, and piracy.[34] The scale of the members' activity is demonstrated by the appearance of minor polities like Prasiae and Nauplia. The membership of Orchomenos is curious (some have wished to emend so as to make Arcadian Orchomenos the member), but is historical, as one of the older names for Calauria was Anthedon (Paus. 2.30.7-8; Steph. Byz. s.v. "Anthedon"; Plut. Mor. 295E), not coincidentally the same name as the Boeotian city which stands a good chance of having been Orchomenos' outlet on the sea in the early Archaic Period.[35]

The terminus post quem for the organization would have been the acquisition by Orchomenos of an outlet on the sea. Orchomenos lies c. 30 km. from the sea at its nearest point, and c. 42 km. from Anthedon. In both cases, the travel distance by road would have been appreciably longer. The acquisition by Orchomenos of an outlet on the Euripos depended on the consolidation of hegemony over the Copaic basin, her natural avenue to the east and northeast. This suggests a date around 700, which is consonant with the archaeological remains from Calauria.[36] The membership of Nauplia suggests a date before 600 for the establishment of the Amphictyony, as the Argives captured Nauplia before c. 600. The

appearance together of Epidaurus and Aegina suggests that, at the time of the foundation of the Amphictyony, Epidaurus did not yet control Aegina. If the Calaurian Amphictyony followed the pattern of the Delphic (originally, Anthelan) Amphictyony, dependent communities were autonomous when they joined. Strabo, our only source on the Amphictyony, describes how Sparta and Argos had taken the places of Prasiae (after the Battle of the Champions in c. 546) and Nauplia. Perhaps this suggests that the foundation of the League lay in the eighth century, before Argos became Aegina's hegemon.

Aside from Orchomenos, the list of the Amphictyony's members is more noteworthy for non-members than for the members. The early colonizing states of Corinth, Chalcis, and Eretria do not appear, which makes odd the common tie of the members in navigation. Obviously, there is some principle for inclusion or exclusion, but this does not appear to be political. Perhaps a clue is found in the other name for Calauria, Eirene (Peace), and the existence of an asylum on the island. The Calaurian Amphictyony may have been an organization of the cities which made use of this asylum as a neutral ground for selling slaves, ransoming captives, and petty trade.[37] The absence of the Euboean cities and Corinth may suggest that they were disproportionately the victims of these cities, with their small seafaring population. While membership in the Amphictyony may have begun in a period of Aeginetan independence, it perhaps continued during the years of dependence. The Calaurian Amphictyony may, therefore, have been an organization of which the activities were compatible with a small state involved

in petty maritime activity. The company which Aegina keeps in the Amphictyony substantiates the small scale of Aeginetan maritime activity.

What can be hypothesized about the social and economic orientation of an entity specializing in low-grade seafaring? It is unlikely that it exhibited as sharp as degree of class differentiation as its master city.[38] A part of the perquisites and wealth that went to set off the status of the ruling class of an Archaic polis would have passed outside the Aeginetan community as a whole. A greater communal sense may have existed in the face of the common master than may customarily have existed between the rich and poor elsewhere. Moreover, a degree of evolution in habits and attitudes in a subordinate city may have been permitted to develop, immune to the social pressures for conformity, as the changes may have worked to the profit of the hegemonal state, and internal reactions, whether adverse or not, were not suppressed in the interests of a political elite. The prevailing customs in Aegina's more populous neighbor and hegemon, Argos, influenced the adoption of some traits (e.g., the style of fibulae), but in societal development, dependence had an antithetical impact. It was most profitable for the Argives (or the Epidaurians) for Aegina to be oriented toward the sea, a counter-image to agriculturalist, inward-looking Argos. The maritime commerce of such a dependent community was probably varied, small-scale, and opportunistic, best-fitted to supply the needs of the hegemonal consumer.

Aegina was unique in that, among "perioecic" communities (with the exception of Megara), it won independence. This is perhaps a tribute to both Aeginetan strength and the weakness of Epidaurus, the state controlling Aegina immediately before its independence (in the late seventh century). Epidaurus has nearly four times the land area suitable for agriculture as Aegina, a disparity not so great as that between Sparta and the individual Laconian towns, or between Argos and some of the small towns which it brought under its control.[39] Both Sparta and Argos underwent significant changes in order to maintain regional hegemony, the former by restructuring or, rather, re-archaizing her institutions, the latter by constitutional experimentation, alternatives not available to Epidaurus, buffeted by Corinthian and Argive rivalries in the northeast Peloponnesus.[40]

Aeginetan strength was based on further utilization of the sea. The breakwater in the bay north of Capo Colonna would be invaluable evidence, if it could be dated securely. Lack of evidence concerning the rate at which the water level rose in the bay rules out such a calculation. However, the rise in water level is so great that an early date ought to be preferred. On the assumption of a steady rise in the sea level, the breakwater would have been built, according to Knoblauch, in c.1880 B.C.[41] If the construction is not Bronze Age (and there is no evidence to suggest that it should be), a date c. 700 might be offered. At any rate, the structure should be assumed to be from Aegina before independence, inasmuch as Classical Aeginetans imagined it to have been in existence in the time of Aeacus. They said that Telamon and

Peleus had defended themselves on the charge of murdering their brother Phokos from the breakwater.[42] The construction of the breakwater necessitated supervision by the political authorities on Aegina. Its scale rules out its being a private undertaking. It is possible that Argos or Epidaurus encouraged the project, if the breakwater belongs to the eighth or seventh century. The construction of this work, obviously intended to facilitate Aeginetan maritime activities, may be indicative of the perioecic character of Aegina's dependence on her mainland Peloponnesian hegemones.

The significance of an early structure, designed to encourage maritime activity, in the bay north of Cape Colonna should not be underestimated as an indication of the early concerted interest of the Aeginetans in the sea. This is especially true because the configuration of Aegina's harbors has been made to indicate the marginality of commerce to the early Aeginetan community.[43] Winterscheidt argued that the commercial harbor was only included in the city walls very late (c. 470, according to him). The fallacy of this interpretation becomes clear when one considers that, in very early Aeginetan history, the north bay was used as a harbor, as indicated by the breakwater. Pausanias speaks of two Aeginetan harbors (2.24.6, 10; cf. [Skylax] GGM 1.53, p. 45). These are the military harbor and the later commercial harbor that lay to its south. One cannot be sure when the harbor north of Cape Colonna went out of operation because of the rising water level. In any event, there is no reason to think that the functional differentiation between the two harbors must predate 480, when the

military harbor was rebuilt. It is very possible that only after the Nicodromus coup in c. 490, when the rebels had undertaken to open the city to the Athenians, and upon failure, had been able to make their escape by sea, for security reasons, the military harbor was rebuilt so as to preclude its use for trade. Yet, at the same time, the commercial harbor to its south was built. The fleet and the merchant marine received separate emphasis within an integrated program.[44] Pausanias calls the military harbor (in our terminology) the kruptos limen (2.29.10). It deserved its name because it was protected with breakwaters and its entrance was fortified with towers. The mustering of the fleet within it may well have been invisible to approaching enemies. Given the proximity of the Peiraeus, the naval stronghold of Aegina's arch enemy, Athens, this arrangement is obviously advantageous.

The names and a part of the genealogies of Aeginetan aristocratic families are known from the poems of Pindar, along with some independent data about Aeginetan athletic victors. Several of these families can be traced back into the sixth century, and, in one case, to the last quarter of the seventh.[45] There is a good chance that the Aeginetan aristocracy that was to continue into the fifth century coalesced within a generation either side of the late seventh century struggle for independence from Epidaurus. If Pheidon exerted Argive control over the Temenid inheritance, as Ephorus suggests, and Pheidon is dated to the second quarter of the seventh century, some of the political factors in the background of the coalescence of this aristocracy can be isolated. Its beginnings c. 650 or slightly

before would have been in a period of Argive control over Aegina. The aristocracy would have come of age under the hegemony of Prokles, the pro-Corinthian tyrant of Epidaurus. Finally, it achieved its independence from foreign domination violently, when Aeginetan naval power allowed for armed attacks on Epidaurus. Some of the commercial dimensions of this late seventh century situation shall be outlined below. Now, it is appropriate to stress that political exigencies would have drawn the focus of Aegina's political elite even more emphatically than previously to the sea. Not only are the raids against Epidaurus to be dated to this period, but perhaps also the bloody assault against Aegina by the Samians under King Amphicrates, and the earliest of the Aeginetan struggles with Athens (Hdt. 3.59.4). The importance of naval warfare to Aegina is coeval with the establishment of the island's independence.[46]

C) Patterns of Early Trade and Colonization

It is necessary to delineate a model of economic activity, colonization, in which Aegina did not participate. Thereby, significant differences between the pattern of Aegina's development and that of several other important Greek states can be demonstrated.

There had undoubtedly always been local (small-scale and irregular) exchanges of products throughout the Aegean. But large-scale trade, with an ability to create significant wealth and with a capability to affect social change, must perforce be associated with three great categories of goods: grain, metals, and human beings themselves.

The first areas to feel the quickening impulses of the growth in population and wealth in eighth century Greece were those cities such as Corinth, Chalcis, and Eretria, which stood at natural crossroads, where travellers in search of goods and eventually sellers would come. At first, a passive merchant activity on these sites can be imagined. One might conclude from the prominent appearance of the Phoenicians in Homer, from traditions about Phoenician colonies on Greek islands, and from the place in Greek mythology of Cadmus, that Phoenician traders familiarized the Greek world with overseas commerce. The archaeological record of the Phoenicians appears more modest, with their leaving their strongest traces in Crete and in the Dodecanese. Little archaeological material corroborates this. Yet, it might only have been necessary for a very slight Phoenician activity to have taken place to encourage the merchants of the natural crossroads to think in terms of reaching out toward the sources of these barbarian goods themselves.[47] The pioneers in long distance trade were probably the Euboean cities, who, along with some of the islands, begin the two great openings of the Greek world toward the non-Greek world in the eighth century, Al Mina on the Syrian coast and Pithekoussae on the Bay of Naples.[48] Thus it was that Cyprus was a way-station to the north Syrian coast, whence the Greeks sought luxury goods and gold, for which they traded silver, olive oil, wine, and perhaps Greek craft items.[49] Much more significant, at least in its social impact, was the Greek establishment on the Bay of Naples, which was presumably in pursuit of Italian iron ore, controlled by the Etruscans.[50] Its significance was that the

West provided an excellent field for the perfection of an economic exploitative technique, colonization. Colonies in the West were contemporaneous with the advent of trade, especially with Etruria.

The consensus of scholarship has the majority of Greek colonies meant to be agricultural in character. This is superficially true, but should not be pressed to illuminate the motives for colonization.[51] An especial difficulty arises out of a corollary of this proposition, that these agricultural colonies were to be stocked by the surplus population of the mother city. Colonization was not a uniform phenomenon, but was mainly the work of a few centers. The absence of other outlets for surplus population was indubitably a factor. Cities like Argos or Athens may have absorbed surplus population by bringing additional land into cultivation, i.e., by internal colonization. Yet, that cities, similar in geographical position to the colonizing powers, were able to experience population growth without a level of internal stress (caused by population pressures) greater than their colonizing neighbors suggests that the total amount of growth in population was not numerically so large (compare Sicyon and Corinth, Aegina and Megara). Natural growth could not have been so great that Chalcis had to establish eight colonies within approximately seventy-five years, or that she could do so without depopulating herself, even if each colony were cut to the bone.[52]

How does one, in this case, explain the political motivation for the mother city or her leaders (if the greater part of colonies are to considered to be agricultural); surely one or two colonies

pushed quickly to the natural limits by further waves of colonists would be a more advantageous outlet for manpower.[53] This may have been the case with Gela, but multiple successive foundations like those of Chalcis or the colonies founded from Syracuse are different in character. The colonial movement as generally an outlet for excess population appears to raise difficulties. If colonies are the offshoots of their mother cities, this need not mean that they were almost exclusively staffed from the population of the mother city.

Colonization took place against the background of growing population. Essential to the steady rate of population increase in the Archaic Period was that political conditions were removing instability that had held population at a low level. Greece was filling up to its natural limits for a considerable period before population began to press on agricultural resources. Little evidence exists that allows one to gauge the pressure population growth was exerting on resources. There is no reason to believe that a population explosion created the colonial movement.[54] Few would argue that the population of fifth century Greece was appreciably greater than Greek population c. 750-650, but the fifth century was, on the whole, not a colonial age. Some colonies, like Cyrene, were triggered by famines, but the choice of colonization as a solution was partially determined (but not compelled) by the preexisting paradigm of colonial activity. The early colonizing states seem to have been more prosperous than average. They were not states where per capita output was falling, the hallmark of a situation where population was pressing on resources. This

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appraisal seems to urge an emphasis on colonization as a facet of active or conscious policy, rather than as the result of determinative forces experienced passively. This requires a consideration of the socio-economic context of early colonizing poleis.

Colonies, even those predominantly agricultural, appear to be a phenomenon more complicated than a simple transfer of the mother city's excess population. Many colonies seem to have drawn their population from more than one homeland.[55] There is no reason to believe that members of a community which was not the founding city (i.e., the city directing the establishment of a colony, later credited with providing the oecist) had a free ride. They presumably had to pay for their passage, or, alternatively, they may have received allotments of the second-best land, or have had to be content with inferior civil rights. Although compensation through gift-exchange or through the reciprocal hospitality of the Dark Age xenia type could have played a role, it is hard to imagine compensation taking the form of payment, presumably through goods in this pre-monetary economy.

If the fifth century Athenian colony at Thurii and the abortive Corinthian colony at Epidamnus were organized in a traditional manner, then it is noteworthy that they were designed to be composite entities.[56] Gradations in the privileges accorded to different classes of colonists indicate a means by which the metropolis could profit without an exchange of goods. The strategy for the mother city then became to put a core of its citizens on barbarian territory, surrounded (literally or

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functionally) by a group of second-class citizens. The second-class colonists served an important function in aiding in the exploitation, peaceful or violent, of the native population.[57]

The direct evidence supporting colonists with different levels of rights is scanty. At Cyrene, possibly there were different degrees of rights afforded the full citizen colonists of Thera, and the colonists from among the Theran perioeci. At Thurii, a fifth century Athenian colony, drawing colonists from diverse origins, the Sybarite element seems to have taken for itself a higher status. A somewhat analagous situation, where those colonists who arrive subsequent to the original group are accorded inferior civil rights, can also be attested at Cyrene, Byzantium, and Apollonia.[58]

An indirect indication of differentiation of status in colonists can be based on an observation of the developments in some colonies where diversity of origin is known. Occasionally, the result of such diversity was a later expulsion of the weaker group, attested at Megara Hyblaea, Sybaris, and Syracuse.[59] Stresses between constituent groups in colonies in so many cases argues against homogenous blending of the population, a "melting pot", and against equal treatment of the originally disparate elements through equal or at least random land allotments.

At Gela, poor Greek and native communities lived in close proximity.[60] The Sicels were in a dependent relationship to only some of the Geloans. The possession of native serfs was a political privilege, awarded or withheld by the government. It led to a status differentiation, political rather than economic in

character, between different groups of Geloans. Furthermore, in some western colonies, some sanctuaries established early were further from the polis center than warranted by population size or prudent on the basis of security.[61] These sanctuaries may have been connected with communities of colonists with inferior rights who were established outside the polis center, guarding it from threats from the natives.

Syracuse in the late sixth century was ruled by the Gamoroi, an aristocracy of limited size that can be seen by its name to have controlled a large part of the community's agricultural land.[62] While it is possible that this land was gradually concentrated in the hands of the Gamoroi through exploitation of their fellow Syracusans, it is hard to see how this can be reconciled with Syracuse's vigorous expansion. The Gamoroi were the original Corinthian elite of the colony, whose privileges were built into the constitution of Syracuse. Their estates were tilled by the Killyrioi, a class of native serfs.

The greater part of the original colonists at Syracuse came from the Corinthian village of Tenea.[63] At first glance, this may appear to argue against differences of status, as one could assume rather less social differentiation at Tenea than at Corinth. However, it cannot be accidental that the Teneates formed so many of the colonists. Syracuse was formed under the direction of Corinth's Bacchiad oligarchy. Its oecist was Archias, a Bacchiad. Is it not possible that the villagers of Tenea were following Corinthian aristocrats, whose clients they had been previously? The oligarchy at Corinth may have been trying to duplicate the sort

of social hierarchy that it was familiar with at home by bringing with it the lower, less politically advantaged, classes of the mother city. The Gamoroi represent the inheritors of this principle of organization. In this model colonization itself could have been a technique of exploitation, with conscious manipulation of social organization in the earliest colonies.[64]

The social and political manipulation inherent in colonies was of Greeks who composed those groups with inferior civil rights. Exploitation (with both a neutral and a pejorative connotation) was directed at the native population. Through violence, Greek colonies conquered the natives, either expelling them from their lands, or reducing them to serfdom. Others acquired in this warfare will have been sold as slaves to the Greek homeland. In non-military modes of exploitation, the appetite of the indigenous population for Greek goods allowed series of profitable interchanges to be inaugurated by the colonists. Conquest of or commerce with indigenous peoples was impossible without the numbers and services provided by lower-class Greeks. In other words, the privileged colonists needed to reduplicate their home polis (with some adaptations) in order to profit from the colonial situation.

If the Homeric poems are a true indication, the Dark Age aristocrat was a jack-of-all-trades. He was not loath to turn his hand to trade or craft, in a manner unacceptable to most of his Classical descendants. Yet, these activities were focused on the oikos and subsumed under the aristocrat's pursuit of kleos. The Homeric hero was willing to undertake journeys on behalf of treasure or necessary metals in order to seize or receive such goods in exchange.

However, the idea of forays conducted regularly across the Mediterranean, or undertaking gift-exchange with non-Greeks who did not share the same code of hospitality, is a very different matter. As the anecdote of one of Odysseus' personae illustrates, raiding Egypt was a more risky undertaking than an occasional foray into a neighbor's territory (Od. 14.245-86). To buy and sell to far-off markets sets in train a development of mercantile skills. The acquisitive behavior of the Homeric hero, radiating out of his oikos or town, depended on its local scope for its variety. Here lay the attraction of the agricultural colony, which copied the organization of its metropolis. Such colonies reduced trade with, and exploitation of, non-Greeks to the local scale at which the eighth century aristocrat could undertake it without radically changing his nature. Rather than trading companies with poorer shareholders, the agricultural colony with clear gradations of privilege was the eighth century innovation. Colonizing states did not tamper with their own infrastructure in order to become more efficient at exploiting non-Greeks, rather they increased the surfaces through which they interacted with non-Greeks by creating offshoots. This view of colonization also fits the pattern of settlement (of both types of colonies, agricultural and trading) exhibited in the coordinated program of Corinth and Chalcis, who seem to have cooperated in the choice of sites.[65]

Simultaneous with the development of colonization as a tool for exploitation, trade began to grow in the West. With the greater part of the indigenous native population trade took place, if at all, through colonies, and so was an adjunct to colonization.

Trade with Etruria has now been satisfactorily established not to have preceded the first colonies by any appreciable lapse of time.[66] Even at this period, if pottery remains are to serve as any indication, the rate of trade directly with mainland Greece had not yet become intense, as the pots present, largely Corinthian, are not numerous.[67] Trade with Carthage is later, and had to wait upon the gradual imposition of Carthaginian influence on the Phoenician outposts in western Sicily. The clearest indication of its beginning is the foundation of the westernmost Greek outposts, Selinus and Himera, from about the middle of the seventh century, and their remarkable development. In the earliest period, colonies in the West were the chief points of trade interchanges, though there may have been a long distance trade with the Greek homeland on a lesser scale which, given the nature of the pottery finds, may have been in the hands of the Corinthians, Chalcidians, and Rhodians.

In other areas, similar developments may have been taking place less apparently, given the state of present scholarship. Similar patterns of settlement took place almost contemporaneously on the northern shores of the Aegean, with several crucial differences: e.g., the intractability of the natives, the closeness of ties between mother city and colony, and the absence of sophisticated markets for trade.

Yet, limitations of economic growth through colonization can be hypothesized. Colonization dispersed population, precluding its concentration in the mother city, where it was necessary for certain tasks (e.g., the development of the Laurion mines). In

technologically primitive societies, the easiest way to increase output (and the political power of a community) was to increase numbers. Metropoleis enjoyed success not by growing more complex, but by duplicating the original type, perhaps something of a dead end. When Corinth changes from an oligarchy to a tyranny, therefore, the pattern of her colonization changes to a system of more closely controlled colonial settlements. Moreover, colonization depended on surplus, perhaps itinerant, people. Their existence depended on fewer opportunities at home, both for them and those who would exploit them. Also, trade through colonies dispersed profits, as colonial merchants came to share in the activities of the merchants of the mother city. Therefore, direct long distance trade, if it was to predominate, needed a basis different from colonization.

D) Trade and Piracy

Piracy in the Archaic Period was endemic in the Aegean. As Thucydides says, at one time all the islanders were pirates (Thuc. 1.7-8.1). Aegina was a maritime adjunct of Argos and Epidaurus. Alongside procurement of small amounts of merchandise and fishing, piracy is liable to have been a large part of this activity at sea. Aegina is ideally placed to intercept shipping coming up or down the Saronic Gulf. The city of Aegina is positioned in the most opportune position on the island for intercepting such a traffic.[68] It is important to note that Aegina flanks the sea route through the Saronic Gulf toward Corinth (to para toi ploi keisthai; Schol. Pi. Ol. 8.28c (Drachmann)).

As so often, the usual does not merit comment. Thus, there is insufficient evidence for a detailed treatment of Aeginetan piracy. Yet, the association of the Aeginetans with piracy is scarcely to be doubted. In Herodotus, the context for Aeginetan independence was a series of raids, essentially piratical, against Epidaurus, during which the statues of Damia and Auxesia were stolen (5.83.1-2). Peisistratus' daughter was kidnapped by a daring Athenian suitor, and carried off to be sold as a slave on Aegina (Polyaen. Strat. 5.14). Even into the fourth century, the slave market on Aegina was a place where those abducted might turn up for sale, as evidenced by the sale of Plato there (DL 3.20; Plut. Dion 5.3). If Aegina is to be read in place of Corcyra in a passage of Nepos (Them. 2.1-4), Aeginetan piratical activity against Athens was an issue in the debate at Athens concerning Themistocles' naval legislation. In the fourth century, raiders in service of Sparta based on Aegina did grievous damage to Athenian shipping (Xen. Hell. 5.1.1; 6.2.1). Aegina comes onto the stage of political history in a series of piratical depradations worked on Epidaurus. The character of warfare between Athens and Aegina has an essentially piratical tone, with raids and counter-raids, made by small groups of ships, hijacking of ships, and incursions along unprotected coasts. The Aeginetans were concerned with security against pirates as well. They believed that the rocks and small islands that impeded approach to their city were put in place by Aeacus (Paus. 2.29.5).

The business of piracy forms indissoluble bonds with maritime peddling. In the first place, there is a need to sell off excess

booty, much of which, in the earliest period, is likely to have been taken from the meager belongings of the poor inhabitants of coastal districts, as well as from the occasional passing ship. The subsequent history of piracy in the Mediterranean is very eloquent about the combination of opportunism and the ability to beat a hasty retreat.[69] The literary model for this behavior is the case of the Phoenicians of Homer's Odyssey, for whom the transition from minor retailing to grand larceny and kidnapping is an easy one.[70]

Pausanias reports pack-trains of Aeginetan merchants (selling ta phortia) operating from Cyllene, the port of Elis, into Arcadia (8.5.8). The details of this episode are not to be trusted, as they are framed to explain the name of an Arcadian king, Aigineles, whose father, Pompos, welcomed the Aeginetans. In the reign of Polymnester, Aigineles' son, the Spartans invaded Tegea for the first time, and their whole army was captured. In the next generation, the First Messenian War took place. Welter puts these events c. 750, but the trading voyages could have been as early as 800, in his opinion.[71] Although the chronology and context of the story may seem apocryphal, this does not alter the fact that itinerant Aeginetan traders were active in the Archaic Peloponnesus. One does not explain a name, itself obscure, by connecting it with an implausibility. The idea of early Aeginetan peddling in the Peloponnesus was at least acceptable, if not meant to make the story believable. When one thinks of the activity of Aeginetan traders within the Peloponnesus, the parallel situation, as the evidence of the coins suggests, of Crete comes to mind.

Evidence for Aeginetan traders within Crete may be indicated by the proverb: "Cretan to (or against) Aeginetan" (kres pros Aigineten), which is explained as the Cretans and Aeginetans using panourgia toward each other.[72] It is difficult to see what can have justified this behavior, except either piracy or commercial activity.

It is kidnapping which should have become a most profitable line of piracy, as it was to do again and again in unsettled periods in the eastern Mediterranean. Human beings could be readily converted into cash when sold as slaves. As slaves represented one of the chief capital expenditures of ancient society, their accumulation represented increased status and wealth to their buyers, as well as profits to their purveyors. It could be that it was as an organization to provide a cultic framework for acts of piracy that the Calaurian Amphictyony, in part, may have had its raison d'être. Its members could well have been both practitioners and victims of piracy (at different times), and the Amphictyony served to provide a way of limiting the times and scope of campaigns of piracy, and provided a means by which sacred goods might be protected and the kidnapped ransomed.

Piracy, and the small-scale peddling and slave trade that went along with it, is socially parasitical to some extent. It flourishes when travel by sea becomes frequent enough to support it, either by increasing the number of ships which could be intercepted at sea, or by increasing the population of coastal districts which could be raided. Its slave trading element can only be successful if there are potential buyers with

the wherewithal to buy, namely land-owners, the owners of workshops, and wealthy households. If Aeginetan trade grew up in this way, it is not surprising that its development was after the first wave of colonization. Colonization may have demanded political organizational skills somewhat beyond the scope of these out-of-the-way pirates. But as trade grew, so did the pirates' opportunities. Soon, one can only guess, as communities began to possess rudimentary fortifications and fleets, a shift began to take place from an emphasis on open piracy toward the small-scale peddler-trade, at least in the Greek homeland. This may have shifted piratical activities to the less inhabited parts of the Greek world (e.g., Crete?) and to areas outside Greece. The activity of the Phocaeans in the western Mediterranean is perhaps exemplary of this shift. The heyday of piratical exploitation in Greece may well have been the late eighth century and much of the seventh, an assumption not discordant with the frequency with which pirates appear in Homer. The Lelantine War, if it truly had the wide participation which Thucydides gives it, must have been in large part piratical.[73]

This is also when, one would suppose, the Aiginaia come in, as traders began to go further afield to come by items whose exotic character allowed for considerable mark-up, this time perhaps coming by them through legitimate means. The Aiginaia were up market additions to already circulating peddler goods. Their attractiveness may have been demonstrated in markets like Corinth, where eastern goods were known early. They became Aiginaia because

Aeginetans, not their discoverers, were the first to introduce them widely. This distribution is evidence for the existence of a peddling network.[74]

The early trading powers, Chalcis, Eretria, Corinth, and to a degree, Miletus, were at natural geographic crossroads, and were obvious markets for the regions surrounding them. However, others of the early trading states (Aegina, Samos, Phocaea, and Corcyra) were not at natural crossroads, but in ideal position to intecept trade. While for the passive markets trade may have early taken on a pacific character, the advantages of piracy as a basis for subsequent trade for our second group of trading powers are not to be underestimated.[75] It prompted those that practiced it to develop considerable maritime skills and to go abroad armed in warships. It is in this fashion that Herodotus describes the epic voyages of the Phocaeans in their penteconters, who did so much to open up the far West.[76] They too were from a small state without significant natural resources, and seemed to have practiced piracy assiduously. The role of the penteconter, with its ability to struggle against contrary currents and to meet enemies along unsecured routes and on barbarian coasts, ought to be stressed.

Here, it is appropriate to mention the Samian attack on Aegina which took place at some early date (Hdt. 3.89.7). This ought to be before 600.[77] One hesitates to suggest a motive for this confrontation, but the predilections of both the Samians and the Aeginetans for piratical activity ought to be remembered. In a culture made up of small political units, where so many inter-state exchanges were seaborne, the readiness to act militarily at sea

against potential competitors was perhaps a dimension of commerce. It should not be thought of as an injection of politics into trade, but it ought to bring the recognition that early trade was not necessarily a non-military activity. The two facets, pirate and peddler/slave trader, of the early trader should be in the forefront.

Yet, caution is advisable, because another rationale for Amphicrates' attack lies close to hand in the friendship between Corinth and Samos in the early Archaic Period (Thuc. 1.13.3). Whether the willingness on the part of the Samians to harass Aegina simply at the behest of her hostile neighbor Corinth was sufficient to bring a Samian force (strong enough to do considerable damage) across the Aegean, without some reason more pertinent to Samos, is questionable. The solely power-political explanation raises the question of why the Corinthians were hostile to Aegina, and this brings one once more to consider Aeginetan piracy and trade.

A key advantage of the piratical background perhaps lay in changes in patterns of movement of human beings, and in the nature of dependent labor in the Archaic Period. Chattel slavery had always existed, fuelled by the kidnapping inherent in piracy and by warfare. Yet, opportunities were infrequent when one side in a war would achieve such predominance that it could turn the defeated population into chattel slaves, ejecting them from their land. The impression, gained from Homeric epic, is that chattel slaves were limited to the aristocratic household, where their status was ambiguous; high because members of the familia of an important man, and low because they were his servitors.[78] Losses and gains of persons in warfare must often have been in rough balance.

The model for large-scale enslavement in the Archaic Period is the Spartan creation of the Helot class. That they were not reduced to the condition of chattel slaves shows the inapplicability of this institution to the economic situation at hand. The same is true of other defeated communities or elements of communities. They went into flight and served to swell the first wave of colonists. Among their number would have been peasants, forced off their land due to changes in patterns of land tenure, and to changes in patterns of cultivation taking place during this period (i.e., shifting from grain cultivation to that of the olive or the vine). Although some areas such as Attica and Boeotia enjoyed a period of internal colonization (i.e., the bringing into cultivation of land at the fringes of established population sites), this process may have generated a number of vagrants, who again sought new opportunities abroad. If colonization followed the pattern outlined here, then it may have been profitable to manipulate such groups as colonists of the second rank. Yet, another alternative is possible, and one which may have served to recommend itself, as obvious sites for colonies became fewer. Rather than exploiting human beings by sending them out as colonists, it may have been more profitable to sell them as slaves.

The alternative need not have been a conscious one, experienced by the same set of men, but the outcome of the ebbing of the rate of colonization and so a cutting off of the outlet for those unsuccessful politically, militarily, or economically. In the late seventh century, colonization was in the process of change, at least as far as concerns mainland Greece and Ionia.[79] A very

different class of colony, by no means all of exactly the same type, begins to be experimented with by various states. One obvious characteristic was that such colonies were not meant to be fully independent poleis, but auxiliary parts of the mother city. Such a character can be discerned in the Athenian colony at Sigeum, the Corinthian colonies in the northwest, and the so-called factories of Miletus in the Pontus. All were placed with care on strategic grounds; none were solely agricultural.

At the same time, the first indications appear that chattel slaves were becoming greater in number. Periander made an attempt at Corinth to curb their numbers, resented by that city's nobility. Sparta in this period finally achieves her decisive subjugation of the Messenians. Although the Messenians were not chattel slaves, the stability of the institution of Helotage depended upon the strength of chattel slavery elsewhere.[80] The Spartans could not keep the Messenians on their land should they choose to take flight, as some did to provide colonists for Rhegium. Others left Messenia, apparently with the hope of returning to carry on the fight another day.[81] But with the development of chattel slavery, there was nothing to protect the stray or fugitive alien from being enslaved by a powerful member of a community where he found refuge. The prevalence of chattel slavery elsewhere was valuable to Sparta, as it made it less advantageous to harbor Messenians when they could be sold instead. The agreement with Tegea that fugitive Messenians are no longer to be received as free men witnesses this. Likewise, in Attica, rural unrest mounts when enslavement of Attic natives by the rich is accelerated.

The advantages for states with a piratical expertise, already expert in accumulating and marketing slaves, are apparent. There is a good possibility that a vigorous slave market existed on Aegina by at least the sixth century. The existence of a slave market might be surmised from the Aeginetan involvement in piracy, as slave trading is almost always a part of piracy. Moreover, the discussion of the development of Aegina's population in Chapter 1 also points toward the introduction of some number of slaves to the island.[82] Perhaps an indication of a slave market's existence and the scale of its activity can be gained from the discussion in Athenaeus on slave populations of various ancient cities. Athenaeus quotes Aristotle's Constitution of the Aeginetans that Aegina had a slave population of 470,000.[83] One difficulty in approaching the problem of the very high figures which Athenaeus reports concerning the slave populations of Athens, Corinth, and Aegina is to assume that the basis of the distortion is of the same character in all three cases. The figure for the slave population of Athens (400,000) is ostensibly based on an official document, the census of Demetrius of Phaleron, as reported by the chronographer, Ctesicles. The number of Corinthian slaves was the judgment of Timaeus, who knew Corinth well from his sojourn there. However, Timaeus is quoted from his third book, so that he was speaking of the age of colonization, of which he had no first-hand experience.[84] The number of Aeginetan slaves is quoted from Aristotle's Constitution of the Aeginetans. Aristotle was presumably transmitting information compiled by himself and his students. Beloch thought it likely that Athenaeus confused M = 40

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with M = 10,000.[85] Then he supplied myriads for each of the numbers in the former notation. This would give Aegina a population of 70,000 slaves, Corinth 60,000, and Athens 40,000. While there may be an error in the transmission of the Athenian and Corinthian figures, the manner of confusion offered by Beloch is implausible. A scholion to Pindar supplies the same number for Aeginetan slaves, which would make any corruption of the Aeginetan figure an ancient one.

Aristotle's slave population of Aegina differs from the other two figures cited by Athenaeus in several significant factors. 1) It is repeated by the scholion to Pindar. 2) It ought to be wrong by a factor of at least 100, not by a factor of 4 or 5, as with the number of Athenian slaves. 3) Aristotle was writing about Archaic or early Classical Aegina, as should have been obvious to anyone with a superficial knowledge of Aeginetan history, since Athenian conquest ended the island's prosperity. It is not easy to see Aristotle or a member of his school making an error of this magnitude. Even 470,000 inhabitants on so small an island appears a palpable absurdity. This prompts an entirely different approach to the problem.

There was a tax on slaves at Corinth. A similar tax on slaves is known from Cyzicus in the Classical period. Records were kept in Athens on stone of the dedications of silver bowls by those slaves that dedicated them in order to be manumitted, and there are elements of fictive sale in this type of manumission.[86] Perhaps behind the figure of 470,000 slaves lies a figure for the number of slaves sold on Aegina over an interval of time and

recorded for tax purposes. Imposts on sales and taxes of that nature are likely to have been quite common on Aegina. Athenaeus or his source remembered from his reading in Aristotle a high number of slaves in reference to Aegina. Conditioned by the high figures quoted for Chios, Corinth, and Athens, described in the original sources as total slave populations, and which may be only somewhat exaggerated, Athenaeus or his source mistook the Aeginetan figure for one of a similar nature, losing sight of its original context. If this hypothesis is correct, it would provide evidence for a tremendous boom in the slave trade, presumably starting in the late seventh or early sixth century.

An indication that Aegina may have possessed a high number of slaves has been seen in Aeginetan legislation to maintain security within the city. Plato in the Cratylus (433A) remarks that it was illegal for people to go about the city of Aegina at night. Aeneas Tacticus describes measures taken to secure the gates of the city at night (Pol. 20.5).[87]

One facet of this paradigm deserves mention. Among the most elaborate commercial enterprises of the Classical Period were the trains of merchants that accompanied the armies. Clearly, they exhibit an economic pattern that bridges the military structures of piracy and strict commerce since a large amount of the merchants' energies would be devoted to the purchase and transfer of booty and slaves. A very striking example of this train of developments was related about wealthy fifth century Aeginetans. The Aeginetans are described as having acted as middlemen in purchasing the booty captured by the Greek army at Plataea (Hdt. 9.80.3). The anecdote

is told by Herodotus because of the dishonest ploy used by the Aeginetans in order to dupe the gullible Spartan Helots. The profits of this subterfuge established Aegina's prosperity. Here is a very vivid example of the development of what must have been once primitive fencing operations into a form of acquisition supportive of long distance trade. The story's criticism must have been directed against the rich Aeginetans of the aristocracy. It is appropriate to conclude that upper-class Aeginetans themselves directed this operation. Little effective political propaganda can be made out of accusations directed against a city's metics, for instance, or against classes without full political rights.

Chapter 3: Footnotes

1. Hdt. 5.81.2. It is proper to mention the Aeginetan prize for valor at Salamis, and that the aristeia for individuals was shared by Polykritos of Aegina (Hdt. 8.93.1; Pi. Isth. 5.48-50; Schol. Pi. Isth. 5.63a; Plut. Them. 17.1; Ael. VA 10.12). Diodorus or his source, who had difficulty appreciating the Aeginetan contribution to victory at Salamis, attributed the award to Aegina to Spartan animosity (11.27.2). This is an indication of the insignificance to which Aegina sank after her subjugation to Athens. It is possible that the same view was known to Strabo, who speaks of the Aeginetans contesting the aristeia with the Athenians (8.6.16 C 375). See Winterscheidt, Aig., 33.

2. See T.J. Figueira, "Aeginetan Membership in the Peloponnesian League", CP 76 (1981)

3. J. Schwartz (Pseud-Hesiodeia, (Leiden, 1960), 487-92) gives a terminus ante quem for the "Catalogue of Women" of 580. T.W. Allen (The Homeric Catalogue of Ships, (Oxford, 1921), 62) dated the work to after 748. Cf. U. von Wilamowitz-Moellendorf, Homerische Untersuchungen, (Berlin, 1884), Philologische Untersuchungen 7, 148. Aristarchus (fr. 22 (Rz)) put the work after 724 or 692, depending on what number is read in the text.

4. Welter, A[1], 25-7; Id., "Aeginetica I-XII", AA 53 (1938) 1-33, esp. 8-16. Welter speaks of a Dryopian community from the 13th century on the peak of Mt. Oros, but provides little detail. Welter held that there was a period of depopulation and/or transient habitation. However, Dark Age Aegina is poorly attested. It is known that the island received Geometric pottery from Attica, Argos, and Corinth. It is noteworthy that a tomb-type constructed from monolithic cists may have been imported from Corinth. Pottery: A.M. Snodgrass, The Dark Age of Greece, (Edinburgh, 1971), 54, 57-8, 68-70; W. Kraiker, Aigina: Die Vasen des 10 bis 7 Jahrhunderts v. Chr., (Berlin, 1951), 23-5; 26-9; 84-92; J.N. Coldstream, Geometric Greece, (New York, 1977), 135. However, no significance should be seen in the absence of Attic LG Ib pottery (cf. Coldstream, op. cit., 133). Monolithic cist graves: Welter, A[1], 55; Id., "Aeginetica XIII-XXIV", AA 53 (1938) 480-540, esp. 512; Snodgrass, op. cit., 150. Indicative of the darkness in which early Aegina is shrouded, note the different conclusions on the continuity of cult at the Aphaia sanctuary by Snodgrass (op. cit., 278, 397), who doubts such continuity and Coldstream (op. cit., 331-3), who urges its case. About the Cretan associations of Aphaia there can be no doubt (Paus. 2.30.3; Ant. Lib. 40; Etym. Mag. s.v. "Britomartis" (Gaisford 214.22-31). Yet, it is possible that the cult associations with Crete may be derived from 6th century Aeginetan dealings there, not from influences surviving from the Minoan Period or from the Dark Age wanderings of the Dorians. Welter (A[1],

167-70) connects Aph[illegible] with the cult of Zeus Aphesios at Megara. Müller, LA, [illegible] on the connection between the cults of Zeus Aphesios and Zeus Hellenios.

5. One thinks first of the Myrmidons. Their inception was placed by myth on Aegina, where Zeus created them from ants to be the people of Aeacus (Apollod. 1.1; Tzetzes, Chil. 7.133; Lyc. 176; Hyg. Fab. 54; Ovid Meta. 7.523; Schol. Pi. Nem. 3.22). However, in epic, they are most prominently the followers of Achilles from Thessaly (Il. 2.683; Strabo 9.5.9 C433). It is problematical to what extent genuine Dark Age population movements were remembered and conveyed in stories about the Myrmidons. The cult of Zeus Hellenios and the sanctuary, the Panhellenion, complicate this issue, as they raise the question of the relevance of the initial restriction of the name Hellas to Thessaly and of the equation Myrmidons = Hellenes. See Müller, LA, 18-21, for a summary of the ancient literary evidence on the subject. Cf. Thuc. 1.3.2-3; Strabo 8.6.6 C370; Steph. Byz. s.v. "Panhellenes".

6. N.G.L. Hammond, "Heraeum at Perachora", BSA 49 (1954) 93-102, esp. 95-7. Externally, Dorianization could mean the adoption of the Dorian dialect, of particular cults of the Dorian centers of the Peloponnesus, or of social and political characteristics prevalent in these states. Internally, it could mean the identification of themselves as Dorians by the members of a community, and a kinship with other Dorians. In the case of Megara, Hammond emphasizes the introduction of the cult of Hera from Argos.

7. Jeffery, LSAG, 109-10.

8. Compare the Aeginetan cults listed in Welter, A[1], 119-22; Müller, LA, 155-74 with the discussion in S. Wide, De Sacriis Troezeniorum, Hermionensium, Epidauriorum, (Upsala, 1888). Cf. E. Will, Korinthiaka, (Paris, 1955), 81-236.

9. Dorians from Epidaurus: Hdt. 8.46.1; Argives from Epidaurus led by Deiphontes: Paus. 2.29.5; Aegina, a colony of Argos: Schol. Pi. Nem. 3.1; Triakon of Argos, oecist of Aegina, an Argive colony: Schol. Pi. Ol. 8.39 (cf. Schol. Pi. Pyth. 8.29a); Argives, Cretans, and Epidaurians as settlers of Aegina (perhaps pre-Dorian): Strabo 8.6.16 C375

10. References to Aeacus and the Aeacids in Pindar: Ol. 8.50; 13.109; Pyth. 8.23, 99; Nem. 2.45; 3.28, 63; 4.11*, 71; 5.8, 53; 6.17*, 46; 7.10*, 84; 8.13; Isth. 8.22, 39, 55; 5.20; 6.19; fr. 242 (Schroder). In the starred passages, there is a possibility that Pindar was referring to the inhabitants of 5th century Aegina as Aeacids, though in each case, other explanations remain very possible. The Aeacids are referred to once in an ode not dedicated to an Aeginetan (Pyth. 3.87).

11. Dorians in the Aeginetan odes: Pyth. 8.2[illegible]; Nem. 3.3; Isth. 9.4; Pa. 6.123 (for the phrase quoted in the text). See Müller, LA, 21-5.

12. On Epidaurus: Plut. Mor. 291E. On Argos: R.A. Tomlinson, Argos and the Argolid, (London, 1972), 60-5. Heterogeneity is our emphasis, and it is argued for where dependent groups existed, especially when their location is on the periphery of the dominant city (as for Argos and Sparta). Possibly alliances in the Dark Ages linked villages culturally most similar against others, even if only marginally different. One should be careful to use the term non-Dorian rather than pre-Dorian, as the latter prejudices the issue of these groups' arrival in the Peloponnesus. In most cases, however, the original ethnic affiliation of dependent groups is irrecoverable, and one cannot be sure that those dependent upon Argos and Sparta were non-Dorian, as the Greeks may have thought.

13. Ascra and Thespiae: Hes. Erga 23-41, 248-9; see M.L. West, Hesiod: Works and Days, (Oxford, 1978), 151-2, 317. Athenian deme dicasts: Ath. Pol. 16.5 (established under Peisistratus). See C. Hignett, A History of the Athenian Constitution, (Oxford, 1952), 115. It would be very interesting to know the extent to which judicial matters in perioecic towns were conducted in the ephors' courts (Aris. Pol. 3.1275b9; see F. Kiechle, Lakonien und Sparta, (Munich-Berlin, 1963), 236-7).

14. Meltas: Paus. 2.19.2; cf. 4.19.2; Jeffery, Archaic Greece, 138.

15. Müller, Die Dorier[2], (Breslau, 1844), 1.154

16. A.W. Persson, Asine: Results of the Swedish Expedition, 1922-30, (Stockholm, 1938), ed. O. Frodin, 1.437; P. Courbin, Céramique grecque Argolique, (Paris, 1966), 565, n. 6 (for a date of 725-15). See also T. Kelly, "The Argive Destruction of Asine", Historia 16 (1967) 422-31.

17. W.S. Barrett, "Bacchylides, Asine, and Apollo Pythaeius", Hermes 82 (1954) 421-44, esp. 428

18. M.E. White ("The Dates of the Orthagorids", Phoenix 12 (1958) 2-14) argues that Aeschines was deposed shortly after Hippias. Cf. FGH 105 F 2; Plut. Mor. 859B; Schol. Aesch. 2.80.

19. The basic work on the sanctuary of Apollo Pythaieus or Deiradotes at Argos is W. Vollgraff, Études péloponnésiennes I: Le sanctuaire d'Apollo Pythéen a Argos, (Paris, 1958). G. Roux ("Le sanctuaire argien d'Apollon Pythéen", REG 7 (1957) 474-87, esp. 479-82) discusses the sanctuary, but provides little support for an early Archaic date.

20. Barrett, Hermes (1954) 432-9

21. W.H. McDonald & G. Rapp, The Minnesota Messenian Expedition, (Minneapolis, 1972), 141-8

22. E.g., Müller, Die Dorier, 1.76-7; 2.1-14, 87-98. Cf. Will, Doriens et Ioniens, (Paris, 1956), esp. 11-12 on Müller.

23. G. Dumezil, L'idéologie tripartite des Indo-Européens, (Brussels, 1958); Id., Aspects de la fonction guerrière chez les Indo-Européens, (Paris, 1953); Id., Heur et Malheur du guerrier: aspects mythiques de la fonction guerrière chez les Indo-Européens, (Paris, 1969) (=The Destiny of the Warrior) (Chicago, 1970).

24. B. Sergent, "Les trois fonctions des Indo-Européens dans la Grèce ancienne: Bilan critique", Annales 34 (1979) 1155-86

25. For the tripartite ideology in cult organization and mythology at Sparta, see Sergent, "Le partage du Peloponnese entre les Heraklides", RHR 190 (1977) 121-36; 191 (1978) 3-25 (cf. Paus. 3.13.6, 8-9; Pi. Nem. 10, 80-91); concerning the dual monarchy, see Sergent, "La representation Spartiate de la royauté", RHR 189 (1976) 3-52, esp. 30-8, 48-52.

26. Boeotia: F. Vian, Les origines de Thebes: Cadmos et les Spartes (Brussels, 1963); Id., "Le Triade chez rois d'Orchomene: Eteokles, Phlegyas, Minyas", Hommages à Georges Dumezil, (Brussels, 1960), 215-60.

27. The hequetai were companions of the Mycenaean wanax. Their names are Greek and their original function was perhaps military like the German comitatus, described by Tacitus, a warrior brotherhood. In the tablets, they command large bodies of men, possibly conscripts, but also are general administrators. If Chadwick is correct that administrative personnel were expected to be familiar with record-keeping and accounts, and able to produce official documents, the king's warrior companions had assumed directive functions not of one piece with their original military character. The patience of the administrator and the astuteness of an officer of the court may have led to attitudes that detracted from military effectiveness. See J. Chadwick, The Mycenaean World, (Cambridge, 1976), 72-3. See also Sergent, Annales (1979) 1156-8, 1176-9. On the Dorian dialect, see Chadwick, "The Prehistory of the Greek Language", CAH^2 2.2.805-15.

28. Epidaurus had between 87 and 127 km^2 cultivated land, based on the figures for modern Greece. See Hyperesia tes Hellados (Office Nationale de Statistique), Katanome tes Ektaseos tes Khoras Kata Froapographika Stoikheia, 1962), Tables 1.3, 1.4. 87 km^2 is a minimum figure, including two only those areas which were almost surely Epidaurian, toward groups of communities, one toward Troezen, another toward Argos, may have been Epidaurian (or at times Epidaurian) in antiquity. The comparable modern figure for the cultivated land of Aegina is 27 km^2 (M.H. Jameson, personal communication, September, 1980, for the topography of Epidaurus). Cf. N. Farakias, Epidauria, (Athens, 1972), fig. 18b. Argos was expanding from the late 8th century, as may be noted from the establishment of the Heraion (Kelly, History of Argos, 60-4); the establishment of the Agamemnoneion (J.M. Cook, "The Agamemnoneion", BSA 48 (1953) 30-68, esp. 32-4); and the destruction of Asine (c. 710) (Coldstream, Geometric Greece, 145, 152, 154; cf. Paus. 2.36.4-5; 3.7.4). The invasion of the Thyreatis by Theopompus of Sparta implies that that region was already under Argive control (Paus. 3.7.5).

29. Hdt. 6.60 informs us that heralds, flute-players, and cooks were hereditary callings at Sparta. Jeffery (LSAG, 181), on the basis of letter forms and spellings in 6th century Laconian inscriptions, suggests that the related trades of stone mason and letter-cutter may also have been hereditary. Laconian vase painting is dominated by three workshops (P.E. Arias & B.B. Shefton, A History of Greek Vase-Painting, (London, 1962), 308-10). Jeffery suggests that vase painting is another hereditary craft, and observes that many crafts at Sparta may have been confined to small guilds or families (Archaic Greece, 129). These guilds and families were probably confined to the perioeci. Teisamanos, the Elean seer to whom the gods are said to have granted five military victories (Hdt. 9.33), was approached by the Spartans, but at first they do not offer him citizenship. They react to his request for it with indignation, only acquiescing when the Persian threat became intense. Seers inherited their trade. Teisamanos may have originally been offered perioecic status, the practice used by the Spartans to gain an outsider's valuable services. Perhaps this is to be generalized to all hereditary trades. On metal-working: M.I. Finley, "The Economic Activities of the Perioikoi", Mnem. 27 (1974) 281-92.

30. A. Andrewes, "The Government of Classical Sparta", ASI, 1-20

31. For the Cretan perioeci: Sosikrates ap. Athen. 6.264a; Aris. Pol. 1269b, 1272a, b. See R. Willetts, Aristocratic Society in Ancient Crete, (London, 1955), 37-9, 129-38. Note Ic 7.6.7 A, B (3rd century) from Praisos, which describes the duties of several perioecic communities, among which is included the requirement of undertaking sea voyages on behalf of the hegemonal city.

32. Strabo 8.6.14 C374: "and there was an Amphictyony of seven cities, which shared the sacrifices, concerned with this sanctuary. They were Hermione, Epidaurus, Aegina, Athens, Prasiae, Nauplia, and Minyan Orchomenus. On behalf of the Nauplians, the Argives contribute; on behalf of the

Praisaeans, the Lacedaemonians contribute." In general, see Müller, LA, 2. The earliest finds date from the early 8th century (Welter, Troezen und Kalaureia, (Berlin, 1941), 45; S. Wide & L. Kjellberg, "Ausgrabungen auf Kalaureia", AM 20 (1895) 267-326).

33. On Nauplia: Paus. 4.35.2. Historical interpretations of the Amphictyony, see T. Kelly, "The Calaurian Amphictyony", AJA 70 (1966) 113-21.

34. The Amphictyony need not have been either for or against piracy, but simply cognizant of its everyday impact. It was perhaps an attempt to socialize and control piracy by creating rules for the ransom of captives and goods, and perhaps by prohibiting it during festivals.

35. U. von Wilamowitz-Moellendorf, "Die Amphiktyonie von Kalaurea", Kleine Schriften, 5.1, (Berlin, 1937), 1.100-13, esp. 109-10. Wilamowitz emphasizes the importance of Calauria as an asylum from piracy (op. cit., 106-7), and suggests that the island was chosen because it was a notable landmark for sailors of surrounding waters.

36. See n. 32, Chapter 3 above. If one assumes that the beginning of the cult must precede the Amphictyony by some span of time, then an early 8th century cult ought to be followed by an Amphictyony in the late 8th century.

37. Asylum: Plut. Dem. 29 (cf. Phoc. 29); Harpocration, s.v. "Demosthenes"; Paus. 1.8.4; Strabo 10.374C; Plut. Mor. 846E. Name Eirene for Calauria: Plut. Mor. 295E; Harpocration, s.v. "Kalaureia"; Steph. Byz. s.v. "Kalaureia"; Hsch. "Passiris".

38. One may observe the analogy of much greater equality of wealth in Soviet satellites in Eastern Europe when compared to the U.S.S.R. itself. See P.J.D. Wiles, "Stalin and British Top Salaries", The Personal Distribution of Incomes, (London, 1976), ed. A.B. Atkinson, 47-71. Naturally, the reasons for this are hotly argued by ideologues, so that certainty is lacking.

39. Beloch (Die Bevölkerung der griechisch-römischen Welt, (Leipzig, 1886), 115) estimates Epidaurus' total territory (op. cit., 122-3) have been c. 545 ha., roughly six times Aegina's. Beloch had estimated the cities of the Argolic Acte to have had 10,000 adult male citizens. If Epidaurus' share of these citizens was proportionate to her share of the land area of the Acte (1260 ha.), c. 4300 of the 10,000 would be Epidaurians. This gives Epidaurus a total population of at least 17,000, about four times the number that could be supported by agriculture on Aegina. On the term "perioecic", that the very different situations of Spartan and Cretan

perioeci were described by the ancients with this same term indicates the appropriate character of its use here. The key matters are the patterns that the relationship of dependent places took to their hegemon, but there is little evidence. Herodotus informs us that the Aeginetans were forced to carry on their judicial business at Epidaurus. A fortiori, it might be guessed that the Aeginetans were expected to follow the Epidaurians in peace and war. Deference expressed by a subordination in cult matters may have been important. This may lie behind the Aeginetan eagerness to wrest the statues of Damia and Auxesia from Epidaurus. Certainly, the psychological dimensions of subjection were important, as witnessed by allied gifts at the Panathenaic festival and precincts of Athens Polias in allied territory during the Athenian Empire. Exactions in kind (of metals, luxury goods, or slaves) may have played a role.

40. Prokles was captured by Periander (Hdt. 3.52.3) and his city taken. Another story has Prokles slain by the Athenian friends of Timarchus, a guest-friend whom Prokles had put to death (Plut. Mor. 403C-E). Perhaps the Athenians were allies who helped Periander against Epidaurus. In an episode probably not many years later, Argive troops are able to cross from the Epidauria to aid the Aeginetans against Athens (Hdt. 5.86.4).

41. P. Knoblauch, "Die Hafenanlagen der Stadt Ägina", AD 27A' (1972) 50-85, esp. 59-66, 81-3.

42. Paus. 2.29.10.

43. Winterscheidt, Aig., 12-16

44. Knoblauch, AD (1972) 81-3

45. Welter, A[1], 130-1; A[2], 101-7

46. The campaign of Amphicrates against Aegina ought to be before 600. See J.P. Barron, "The Sixth Century Tyranny at Samos", CQ n.s. 14 (1964) 210-29. The friendship between Corinth and Samos ought to have ended by the inauguration of the friendship between Periander and Thrasybulus of Miletus (Hdt. 1.20, 82; cf. DL 1.17). If Corinth had anything to do with Amphicrates' attack on Aegina, the attack must therefore be in the 7th century.

47. Phoenicians in Homer: Il. 23.744; Od. 13.272-7; 14.288-91; 15.415 (cf. Ezekiel 27.3). Cadmus: Hdt. 5.59; Hyg. Fab. 178; Eur. Phoin. 638-9. Phoenician colonies (Ialysos (Rhodes), Itanos (Crete), Thasos (Hdt. 5.47), Cythera, Melos): S. Moscati, The World of the Phoenicians, (London, 1968), 97-100. Cf. Hdt. 1.170.3. Archaeological evidence: Coldstream, Geometric Greece, 66-71, 267-8, 359-60.

48. Al Mina: Boardman, The Greeks Overseas, (Middlesex, 1973), 38-56. Pithekoussae: Strabo 5.4.4 C243; 5.4.9 C247; also J. Bérard, La colonisation grecque d'Italie méridionale et de la Sicile en l'antiquité, (Paris, 1957), 39-42

49. Bérard, Colonisation grecque, 41-2

50. T.J. Dunbabin, The Western Greeks, (Oxford, 1948), 3-5; G. Buchner, "Pithekoussae:The Oldest Greek Colony in the West", Expedition 8.4 (Summer, 1966) 4-12 A.J. Graham ("Patterns in Early Greek Colonization", JHS 91 (1971) 35-47, esp. 43-5) notes that sources of iron were available in Greece (plentiful in Euboea) and that bringing iron ore from Elba to Ischia seems an improbable motivation for the colony. Yet, it is the social costs of extraction of iron ore in Greece (increasing mining and smelting beyond a low level) that may have recommended seeking out Italian iron, which the Etruscans could extract. This was a way of exporting the bad effects of an increased production of iron.

51. Cf. C.D. Roebuck, Ionian Trade and Colonization, (New York, 1959), 105-30; C. Mossé, La colonisation dans l'antiquité, (Paris, 1970), 30-44

52. In the West: Ischia (c. 750), Buchner, Expedition (1966) 4-12; Cumae (750), Naxos (734), Leontini (729), Catane (a little later than Leontini), Zancle & Rhegium (late 8th century), Mylai = Chersonnesus (?)(716-11), Himera (648), Dunbabin, Western Greeks, 485. The colonization of the Chalcidice may overlap (Graham, JHS (1971) 46-8); see R.M. Cook, "Ionia and Greece: 800-600 B.C.", JHS 66 (1946) 70-7. Megarian colonies: Megara Hyblaea (750-730), G. Vallet & F. Villard, "Dates de fondation de Megara-Hyblaea et de Syracuse", BCH 76 (1952) 289-346; Selinus (650-30), Vallet & Villard, "La date de fondation de Sélinonte; les données archéologiques", BCH 82 (1958) 116 ff.; Byzantium (7th century), Chalcedon (7th century), PECS, s.v. "Byzantium", 176; s.v. "Chalcedon", 216; Astacus (650-25), Mesembria (first half of 6th century); Roebuck, Ionian Trade, 114, 124.

53. Evidence on colony size: Apollonia: 200 Corinthians and an unknown (perhaps equal) number of Corcyraeans, Strabo 7.5.8 C316; Steph. Byz. s.v. "Apollonia"; Herakleia in Trachis: 10,000, Diod. 2.59.5; Brea: less than 300, Dittenberger, Syll.3, #141 = SGHI #49.

54. A.M. Snodgrass ("Archaeology and the Rise of the Greek State" (An Inaugural Lecture, Cambridge, 1977, pp. 10-16)) has argued for a rate of 4% annum for 8th century Attica, a veritable population explosion. Snodgrass cites E.A. Wrigley, (Population and History, (New York, 1969), 54) for agricultural societies occasionally reaching such a rate of increase. Yet, it is no occasional achievement of such rates

that is at issue, but their unlikely maintenance decade after decade. A figure of 4%/annum implies a Gross Reproductive Rate (the number of female births/number of women reaching child-bearing age) of 6.8, if life expectancy at birth is 25 years and the mean age of mothers for all births is 27. This is an extremely high reproductive rate. Snodgrass drew his conclusions from the numbers of Attic graves in the Geometric Period, where LG graves number 204/generation to 28/generation of MGI graves or 35/generation for MGII. However, burial is a form of consumption of resources which can only be engaged in when minima for physical subsistence have been met. With a population near subsistence, small gains in per capita consumption could have a disproportionate effect on the numbers taking some care over burial. That the burials take place at a fairly consistent level of ceremony (Snodgrass, op. cit., 12) is irrelevant, because social norms may have established norms of consumption in this area. J. McK. Camp ("A Drought in the Late Eighth Century B.C.", Hesperia 48 (1979) 397-401) argues for a drought in Attica extending from the mid-8th century to the first quarter of the 7th, with attendant population loss. While possible, Camp's attempt to generalize this drought to much of mainland Greece is ill-grounded, as it is inconceivable that Greek population in most places did not grow c. 750-650. References in the source material to drought and famine are irrelevant. These were factors making intermittent appearance. The fact that the drought causes no colonization by Athens, but colonization by the Euboeans, according to Camp, suggests that water supplies are not the most significant variable. Moreover, Camp has not demonstrated that constraints produced by limited water resources were at any time during the Archaic Period factors in limiting population growth. The phenomenon nearest to what might loosely be called a "population explosion" will have taken place in the first generation or two after the foundation of a colony. Colonists could obviate one significant limiting factor in population increase, a shortage of women, by intermarriage with the much larger native populations. Furthermore, in the colonies' first years, their supply of land was limited only by the indigenous peoples' capacity for defensive measures. If dependency in a colony was more attractive to the landless, stateless, or dependent at home, colonies would attract population to them.

55. Diversity of origins of colonists: 1) by place name: Cumae (Strabo 5.4.4 C243); Syracuse (Strabo 6.2.4 C250, 10.5.5 C486); 2) by attested groups: Messenians at Rhegium & Zancle (Strabo 6.1.6 C257); assorted Dorians at Syracuse (Strabo 6.2.4 C270); Syracusans at Himera (Thuc. 6.5.1); Megarians at Leontini (Thuc. 6.4.1); Parians, Milesians, & Erythraeans at Parion (Strabo 13.1.14 C588).

56. The Corinthians, attempting to gather colonists for Epidamnus, accepted colonists from everywhere. They offered equal rights

and were ready to enroll those that chose not to leave immediately (and thereby would be of no use in the military confrontation with Corcyra) on the payment of 50 dr. (Thuc. 1.27.1). Thurii: Diod. 12.10.4 (later troubles, 12.35.1-4); Amphipolis: Thuc. 4.102.3, 103.3-4; cf. 1.86.1.

57. At Syracuse, exploitation was violent, the reduction of the native population to serfdom. These Killyrioi were the property of the Syracusan aristocracy, the Gamoroi, a group small enough to form a council. The whole Greek population presumably assisted in the conquest, and was probably compensated to some extent with land. Cf. Dunbabin, Western Greeks, 56-61, 111. Among the Chalcidian colonies, exploitation of the native population was peaceful. See E. Sjøquist, (Sicily and the Greeks, (Ann Arbor, Mich., 1973), 26-8), who has identified the existence of ktismata or small communities of Greeks among the Sicels. They may have been made up of epoikoi or colonists arriving later than the first wave. These groups, dependent on the Greek cities to maintain their Hellenic character, and for the goods which they traded the Sicels, are another form of non-full citizen exploitation of the indigenous population.

58. On internal strife among colonies: 1) At Cyrene, there was a mid-5th century stasis (Hdt. 4.161) arbitrated by Demonax of Arcadia. Jeffery ("The Pact of the First Settlers at Cyrene", Historia 10 (1961) 139-48) interpreted this struggle as showing the colony with a hierarchy of political groups (full Theran citizens, Theran perioeci of the original group of colonists, later Dorian arrivals). Cf. SGHI #5. 2) At Thurii, the Sybarites monopolized chief magistracies, assumed cult perquisites, and claimed the best farmland near the city. They were driven out by the rest of the settlers, with Athenian indifference, which may suggest that a higher status for the Sybarites was allowed for in the colony's original plans. If this was possible in a colony of democratic 5th century Athens, it is a fortiori probable in earlier colonies of oligarchies and aristocracies. 3) At Byzantium: Aris. Pol. 1303a. 4) At Apollonia: Aris. Pol. 1290b8-13.

59. The expulsion of the Megarians: Thuc. 6.4.1-2. For Sybaris: Aris. Pol. 1303a31-3. At Syracuse, Akrai (663) and Kasmenai (643) were established, perhaps as satellite communities for second-class citizens (Dunbabin, Western Greeks, 57-8). The Mytelidai were expelled from Syracuse in sufficient numbers to cause Dorian dialectical elements to appear in the dialect of Himera, their refuge. One might object that these expulsions took place in the early lives of the colonies, before an assimilation process could proceed very far. Yet, the ease with which the upper classes of some colonies were disassociated from the masses at the order of the Sicilian tyrants corroborates the view that different ethnic origins were reflected in differences of status. See Dunbabin, op. cit., 415-18; Thuc. 6.17.2.

60. Settlement patterns in Gela's hinterland: Dunbabin, Western Greeks, 113-18

61. G. Vallet ("La cité et son territoire dans les colonies grecques d'occident", La città et il suo territoro: atti de settimo convegno di studi sulla Magna Grecia, (Taranto, 1968), 67-143, esp. 81-94) summarizes previous work, and, in effect, leaves the matter open.

62. Gamoroi: see H. Drögemüller, Syrakus, Gymnasium Beihefte, hft. 6 (Heidelberg, 1969), 38 & n. 2.

63. Teneates among colonists at Syracuse: Strabo 8.6.22 C380. Tenea was no negligible community. It achieved independence from Corinth in the 2nd century, and may have been independent in the early 5th century, if the emendation of Strabo 8.6.19 C377, from Tegeates to Teneates, is accepted (Der Kleine Pauly 5, s.v. "Tenea"). The dependent relationship of the Teneates to Archias and the other Bacchiads is conjectural. However, different ranks among the initial colonists to Syracuse can perhaps be shown. Demetrius of Scepsis (fr. 23 (Gaede) apud Athen. 167d) reported that Archilochus mentioned one Aithiops who sold his kleros for a honey-cake while accompanying Archias to found Syracuse (Archilochus fr. 293 (West, IE)). While Aithiops may have acted from philedonia and akrasia, as Demetrius says, the anecdote takes on a bizarre cast, if one imagines that Archilochus meant to say that Aithiops traded a kleros as good as any other colonist's; the sort that qualifies one's descendants for membership in the Gamoroi. In this case, Aithiops would better have been charged with insanity than hedonism. Aithiops (Ethiopian) is the early generic term for anyone of the dark-skinned people of Africa (whether true Negroes or not). Demetrius, who wrote a second century commentary on Homer, Il. 2.816-77, the catalogue of Trojan allies, will have discussed Archilochus' Aithiops with an eye toward Memnon and his Ethiopians, who do not appear on the list. That Aithiops was genuinely of non-Greek extraction (like his namesake from Ptolemais, the pupil of Aristippus of Cyrene, DL 2.86) is quite probable. This perhaps suggests a dependent role to the leaders of the colony. See F.M. Snowden, Blacks in Antiquity, (Cambridge, Mass., 1970), 15-16, 103; W. Pape & G. Bensler, Wörtebuch der griechischen Eigennamen, (Graz, 1959), s.v. "Aithiops".

64. The degree of conscious manipulation of social organization suggested for the early colonies can perhaps be paralleled for Eretria, a leading colonizer. Around 800, the first signs of settlement appear on the site of Eretria, a well-watered, defensible position, situated with an eye toward controlling transportation routes on land and along the coast. The Eretrians had uprooted themselves either from Lefkandi, abandoned around 800 after a time of growing prosperity, or from old Eretria, site unknown. This indicates an appreciable

degree of independence from traditional considerations (e.g., cult sites, ancestral homes) and of central planning. (Cf. Strabo 9.2.6 C403). See L.R. Sakett & M. Popham, "Lefkandi: A Euboean Town of the Bronze Age and Early Iron Age", Archaeology 25 (1972) 8-20.

65. On cooperation of the early colonizing cities: A.R. Burn, "The So-called Trade Leagues", JHS 49 (1929) esp. 31-4. Achaean colonies: Sybaris, Poseidonia, Croton, Caulonia (Croton), Metapontum; in general, see J.K. Anderson, "A Topographical and Historical Study of Achaea", BSA 49 (1954) 72-93. W.G. Forrest ("Colonization and the Rise of Delphi", Historia 6 (1957) 160-75) observes that Delphic involvement in early colonization is limited to Corinth and Chalcis, and states friendly to them. Eretria, Megara, and Miletus, for whom there is evidence of hostility toward Corinth and Chalcis, have no preserved foundation oracle. Such oracles survive for the Achaean cities, a suggestion that their foundation was helped by Corinth. To Forrest, there is independent evidence for Corinthian and Chalcidian influence at Delphi. An exception is Sybaris, which Forrest sees as an interloper encouraged by Eretria. Yet, it is hard to see where the Eretrians found the strength to help the Achaeans friendly to them establish themselves in perhaps the best colony site in south Italy, and the theory pushes back too far the hostility between Sybaris and her neighbors. The Sybarite friendship with Miletus (on which Forrest bases much of his argument) need not antedate the late 7th century, when long distance trade became more intense, and there was a rapprochement between Corinth and Miletus. Finally, the earliest variant of the story in which the oecists of Syracuse and Croton faced a choice of colony locations may have had Sybaris, replaced by Syracuse after its destruction. The later version was obviously chronologically distorted. See Vallet & Villard, BCH (1952) 289-346, esp. 301-9.

66. R.M. Cook, JHS (1946) 70-4

67. Vallet, Rhegium et Zancle, (Paris, 1958), 156-7

68. E. Kirsten, "Aigina", Gnomon 18 (1942) 295. Winterscheidt (Aig., 1-4) points out that Aegina is more closely linked with the Peloponnesus, to which it is joined by a string of islands, most prominently Methana. Ancient sources link the island with the Peloponnesus, especially Epidaurus (Strabo 8.6.16 C375; Paus. 2.29.2; [Skym.] 553 (GGM 1.218); Dion. Pereg. (GGM 2.313); Eustath. ad Il. 2.561; Schol. Il. 2.502). Some connect Aegina with Attica geographically (Eustath. ad Il. 2.561; Schol. Pi. Nem. 3.5). Winterscheidt (Aig., 10-11) correctly rebuffs K. Lehmann-Hartleben, Die antiken Hafenanlagen, Klio Beiheft 13 (1923) 8. Lehmann-Hartleben believed that the site of the town of Aegina suggests by its location on the shore (rare in the Cyclades) an active

orientation toward trade. The role of the town is not completely explained, however, by the fertile plain around it. The orientation toward the sea makes itself felt early. Winterscheidt's emphasis on the passive trade of Aegina is equally implausible. Aegina did not control trade in the Saronic Gulf save by active interception of ships.

69. H.A. Ormerod, Piracy in the Ancient World, (Liverpool, 1924), 13-31, 61-3

70. Hom. Od., esp. 15.415; cf. 13.272; 14.288; 17.425. For Taphian pirates: 16.426; 15.427. Of course, Homer also has his Greek pirates: see 14.224-359.

71. Welter, A[1], 51

72. CPG 1.268 (Diog. 5.92). Müller (LA, 77) makes the comparison with kretizein (CPG 1.101 (Zen. 4.62); 1.262 (Diog. 5.52); Suda, s.v. "pros kreta kretizon") for deceitful behavior.

73. Thuc. 1.13.4 speaks of the earliest naumakhia, the one between Corinth and Corcyra (c. 680 or 660). See HCT 1.22. Does he mean that this was the first fighting at sea or merely that this was the first set engagement between fleets, a more probable alternative when one considers that the Lelantine War, known to Thucydides, may have begun in the 8th century?

74. See above pp. 203-7.

75. A system of classification into trading states at natural crossroads and those astride trade routes (i.e., on their flanks) is artificial, as any hypothesis dealing with a complex and poorly attested reality must be. Strictly, there are no crossroads, geographic centers, or natural trade routes, inasmuch as all patterns of social organization are human creations realizing or failing to realize natural potentialities. Hence, the human geography of trade (shaped by political and social behavior) differs from the physical geography, and perhaps in this case lends itself to sharper distinctions. Phocaea and Aegina more closely fit our formulation of piratical trading poleis. Samos was on what appears to have been a natural route through the Cyclades to southern Ionia (see Roebuck, Ionian Trade, 6-7), but did this make it a natural market, or was the island simply a landfall? Corcyra is an instructive example. It lay on a crossroad for traffic from the West, northwest Greece, and the Corinthian Gulf, but the Corinthian speaker in Thuc. 1.37.2-5 emphasizes the Corcyraeans' reputation for exploiting and robbing traders (see HCT 1.172-3). The effect of the distinction between the two classes of trading states may have been gross in international affairs. The Corinthians seem to have encouraged the Milesians against Sicyon (Fron. Strat. 3.9.7), and the Samians against Aegina. Irregular warfare as opposed to set battles may not have been their forte.

76. Phocaeans as pirates: Hdt. 1.165-7 against the Etruscans; Phocaean admiral Dionysius after defeat of the Ionians at Lade becomes a pirate in the West: Hdt. 6.17.

77. See n. 46, Chapter 3 above.

78. Cf. P. Debord, "Esclavage Mycénien, esclavage Homérique", REA 75 (1973) 224-5, 231-8

79. Graham, Colony and Mother-City in Ancient Greece, (Manchester, 1964), for Corinth and Athens: 30-4; for Miletus: 98-117

80. Herakleides Pont. FHG F 5 2.213. Athen. 6.265b (quoting Theopompus Bk. 17) has the Chians as the first Greeks to acquire numbers of chattel slaves, dated after the Thessalians and Spartans acquired their penestai and Helots. Spartan treaty with Tegea: Aris. fr. 592 (Rose) (= Plut. Mor. 292B). Aristotle's interpretation that the khrestoi were pro-Spartan Tegeans protected from execution by the treaty is almost certainly wrong.

81. Messenians in Italy: Strabo 6.16.6 C257; in Argos, Sicyon, & Eleusis: Paus. 4.14.1, 4.15.7-8; in Arcadia: Paus. 4.22.2; people of Pylos & Methone in Elis: Paus. 4.23.1. The travels of Aristomenes: Paus. 4.24.2-3. Callisthenes in his Hellenika made the first reference to Aristomenes, and the writers of Messenian history (Rhianos of Bene & Myron of Priene) romanticized his career. These writers alternately placed him in the 1st or 2nd Messenian War, not in the early 5th century revolt (see L. Pearson, "The Pseudo-history of Messenia and its Authors", Historia 11 (1962) 397-427). To be emphasized here is that the late historical tradition possibly embroidered local traditions about the Messenians who fled their homeland. The traditions coalesced around Aristomenes, but their background can be believed, namely that population conditions were fluid enough so that Messenians could successfully establish themselves elsewhere. See H.T. Wade-Gery, "The 'Rhianos Hypothesis'", ASI, 289-302; Jeffery, Archaic Greece, 196.

82. The Aeginetan slave population: Aris. fr. 472 (Rose) (= Athen. 6.272d); Schol. Pi. Ol. 8.30i (Drachmann). See W.L. Westermann, "Athenaeus and the Slaves of Athens", Slavery in Classical Antiquity, (Cambridge, 1960), ed. M.I. Finley, 73-93 = HSCP Suppl. (1941) 451-70. Cf. R.L. Sargent, The Size of the Slave Population of Athens, (Urbana, Ill., 1924), 31-45; A. Gomme, The Population of Athens in the Fifth and Fourth Centuries, (Oxford, 1933), 18-19, 22.

83. Early scholarship on the subject assumed the existence of large numbers of slaves on the basis of Athenaeus' figure. See H. Blümner, Die gewerbliche Thätigkeit, (Leipzig, 1869), Müller, LA, 81; B. Büchsenschütz, Besitz und Erwerb, (Halle, 1869), 140-1; cf. Winterscheidt, Aig., 40-1; J. Hasebroeck, Trade and Politics in Ancient Greece, (London, 1935), 53.

84. Timaeus FGH 566 F 5 & FGH Komm. 3b 548.

85. Beloch, Bevölkerung, 84-96. It is possible that Timaeus is to be explained as hypothesizing about the reasons for Corinthian colonization. Aware that slaves were shipped from Sicily to Corinth, he may have tried to justify Corinth's undertaking of a colonial program on the basis of this, and overestimated the number of slaves. It is important to remember that Timaeus is likely to have been estimating much as a modern would. Concerning Athens, on the other hand, if Ctesicles did not simply garble the figure from Demetrius' census, it is possible that oiketon does not mean slave here, as Athenaeus thought it did. The word is common in the sense of "inhabitant", especially in Herodotus (Hdt. 8.44.1; 62.2; 106.2; 109.4; Xen. Cyr. 4.2.2). See Liddell-Scott, s.v. "oiketes", II.2; J.E. Powell, A Lexicon to Herodotus, (Cambridge, 1938), s.v. "oiketes". In this case, the question would become whether 31,000 adult male citizens and metics of military age could have 369,000 dependents. See Beloch, "Griechische Aufgebote", Klio 5 (1905) 341-74, esp. 366. The possibility of this being true would increase if thetes were not included in Demetrius' 21,000 citizens and 10,000 metics.

86. Cyzicus: Syll.^{3} #4; Athens: D.M. Lewis, "Attic Manumissions", Hesperia 28 (1959) 208-24; Id., "Dedications of Phialai at Athens", Hesperia 37 (1968) 368-80

87. Müller (LA, 129-31)

Chapter 4: Aeginetan Commerce

A) Trade and Industry: The Ancient Evidence

Interest is directed toward Aegina in comparison with other Greek poleis when Aristotle's emphasis on Aegina as a commercial center is remembered (Pol. 1291b24). Aristotle observed that the Aeginetan demos had a large portion that was emporikos. Ephorus, in a passage where he speaks of the first coining of silver by the Aeginetans, remarks that, from the infertility of the soil (luprotates), an emporion came into being from men plying the sea as merchants (emporikos) (FGH 70 F 176). Aeginetan trade was inevitably associated with the island. Note the phrase: ho tou Aiginetou phortos (Zonaras) (Steph. Byz. s.v. "Aigina"). Ephorus introduced several other terms which can be seen to have been held as characteristic of Aeginetan commerce. He says that petty wares or craft goods (ropos) were called Aeginetan merchandise (Aiginaian empolen). Other sources, predominantly lexicographical and some perhaps derivative from Ephorus, reinforce this impression. Aiginaia are defined as retail merchandise (ropika phortia) and their sellers are Aiginopolai (Hsch. s.v. "Aiginaia"; Etym. Mag.

s.v. "Aiginaia" (Gaisford 28.9-14)). The emphasis here is on the variety of goods offered by these Aeginetan merchants. Aiginopolai are pantopolai (Schol. Pi. Ol. 8.29b). The traffic is, to an extent, in goods that are inexpensive (epi ton eupeton phortion) (CPG 1.380). The ancients' view of Aegina can be seen from the items modified by the adjectives Aiginaios and Aiginetikos: phortos, doulos, epoikos, keramos, and obolos.

Aiginaia were small items, trinkets, works of craftsmanship, perfumes, ointments, etc., which were called "Aeginetan things".[1] Some of them are obviously of Eastern origin or are copied from Eastern models. Note Hesychius, who explains the phrase Aiguptia empole as ho ropos kai ta ekeithen phortia, language very similar to that used to describe the Aiginaia. Theophrastus gives evidence for the production of perfume on Aegina (De Odor. 6.27; cf. Athen. 15.689d).[2] One should assume that Aeginetan merchants were the first to introduce such objects for sale into areas of the Greek world sufficiently widespread that the items ever afterward bore this designation. These types of products named Aiginaia were popularized by Aeginetans, much as Aeginetan turtles achieved their popularity or as the Aeginetan standard was propagated. Hasebroeck sought to minimize the contribution of the Aeginetans in the trade of these items.[3] The true parallel is the term Phoinikeia used for letters, apparently correctly.[4] In light of the Aiginaia should be read Pausanias' notice on caravans of Aeginetan merchants travelling through Arcadia from Elis early in the Archaic Period. Peddler items would be a natural choice for carrying on muleback (Paus. 8.5.8).[5] As in the case

of the dissemination of coins and the standard of coinage, the pioneering efforts of the Aeginetans should be emphasized.

Aegina is not chiefly associated with any common item of manufacture, as Megara was famous for its cloaks, or Athens for its pots. The catalogues excerpted by Athenaeus (primarily from the writers of comedy) on cities famous for various products should be sufficient substantiation (1.27d-28d). It was once suggested by Weinberg that a class of proto-Corinthian Geometric pottery is to be assigned to Aegina as the site of manufacture.[6] Unfortunately, this opinion has not stood the test of time well. It is difficult to evaluate this matter properly, but for commerce, it has no significance. The class of proto-Corinthian attributed to Aegina by Weinberg is not found in the West, but mainly in central Greece. It was limited in its impact (as perforce would also be an unattributed everyday pottery). It cannot have gotten Aegina a reputation for pottery. Stephanus of Byzantium speaks about the term for Aeginetan pots.[7] While there is no doubt that Aegina was famous as a center for the sale of pots, as the evidence of ancient lexica demonstrates, the sources report no fabric of pottery associated with Aegina.[8] There are two approaches possible for resolving this enigma of a type of pottery known to the ancients, but now unknown. One possibility is that local, everyday pottery is being thought of here. Another is that a class of proto-Corinthian Geometric or one of the types vaguely associated with the Argolid actually had a part or all of its production conducted on Aegina.

However, it is more attractive to see the problem from a different perspective. Aeginetan pottery was other people's pots sold by Aeginetans. Archaeologists call a pot Athenian or Corinthian because it was manufactured at Athens or Corinth. Yet, there is no guarantee that the ancients were primarily interested in associating styles of pottery with their makers. They could as well have associated the styles or particular shapes with their sellers. Therefore, lurking behind these Aeginetan pots may be Athenian pots, or Corinthian pots, for instance, which became known to a part of the Greek world through the activity of Aeginetan merchants. It is equally possible that a particular type of vessel (vases for perfume or oil?), which Aeginetan merchants specialized in carrying, regardless of its point of origin, became tagged with their name.

The lexica are again a good guide to conventional Greek views on the subject. Regardless of the late and derivative character of this evidence, it can be trusted. It is not framed with reference to some theory of ancient Greek economics, and has no partisan character. It is meant merely to explain expressions in Classical literature.

A common pattern appears across ancient descriptions of Aeginetan trade commodities. The items called "Aeginetic" or associated with Aeginetan merchants are not in the first place things produced on Aegina. Thus, it is clear that the Aeginetans were the first and/or foremost carriers of these items. Hence, their association with Aegina. Though the Aeginetans may have come to manufacture some of the Aiginaia on their home island, their

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association with freight transfer was never lost. Cargo for exchange (ton epi metabole) is Aeginetan (Aiginetikon) (Schol. Pi. Ol. 8.29b). Therefore, when King Pausanias of Sparta wishes to send a Coan noblewoman, who came into his hands at Plataea, home, he dispatches her first to Aegina (Hdt. 9.76.3). Aegina was a place where one could pick up ship for elsewhere in Greece.

Not all Aeginetan merchandise was petty. Slaves have already been discussed in Chapter 3. The evidence for the Aeginetan grain trade is from Herodotus, who says that, during his campaign against Greece, Xerxes had the opportunity in the Hellespont of intercepting grain ships bound for Aegina and the Peloponnesus (Hdt. 7.147.2). There is a difficulty in understanding what Peloponnesian states were meant in this passage, as the chief maritime power of the mainland Peloponnesus was Corinth, which has been thought to have imported grain predominantly from the West. However, if the Peloponnesian states were simply the eventual goal of these ships, Herodotus may have meant that the ships were bound for Aegina, whence grain would be transshipped to various non-maritime Peloponnesian cities. The natural assumption is that the ships bound for Aegina were those of Aeginetan merchants. Another bit of evidence is contained in an isolated snippet from an old Attic comedy. Here, the poet bewails the passing of the good old days when man consumed Aeginetan grain.[9] The notice is put is the mythological past, and has reference to barley, which was not a grain of international trade in the Classical Period. Whether this is evidence for Aeginetan activity in early Archaic central Greek trade in barley, or merely a warrant for the idea that buying

food from Aegina was not unnatural to an Athenian audience, is unknown.[10]

All the passages discussing the Aiginaia ought not to lead to a quick generalization about the profitability of Aeginetan trade. Petty goods here shade quite obviously into luxury goods, when one considers that Near Eastern or Egyptian manufactures, fine pottery, and perfumes were included. The lexicographers were explaining why Greeks called certain types of merchandise Aeginetan. Ephorus, the oldest source for this sort of explanation, puts his discussion in the context of the beginnings of Aeginetan trade. Reluctance is advisable in interpreting a phrase like ropika phortia as necessarily denoting only petty items.[11] The discussions above on Aeginetan population and the rates of Aeginetan coining give valuable indications about the scale of Aeginetan trade, and should not be overlooked.

Aeginetan metalwork is a category of traded goods that, with justification, can be said to partake both of the Aiginaia and of large-scale trade, when one considers the need to procure metals and the profitability of the trade in metal craft items. Pliny informs us that Aegina was famous for its its metalwork.[12] He goes on to mention candelabra, of which a part was manufactured on Aegina, while the rest was made at Tarentum (NH 34.6.11).[13] Moreover, a number of Aeginetan sculptors and master bronze-workers, who represented the most sophisticated level of this craft, are known. Many of them achieved reknown in the late sixth and early fifth centuries.[14] Aegina was a natural place for a school of sculpture to flourish, as it was a border point

between the Dorian mainland that had pioneered in sculpture, and the islands which, because of their superior resources of stone, were able to create much that was characteristic in the full bloom of Archaic art. Concerning these master artists, the question that is of most interest here is the sources of the metals which they used in their work. This leads to a consideration of the extent to which an Aeginetan trade in metal or metal objects lay behind ancient discussions of the Aiginaia.

The evidence for Aeginetan trade and industry seems superficially to point in two directions. The size of Aegina's population, and its development, seems to indicate that the Aeginetans ought to have been involved in large-scale movements of grain and slaves in the Mediterranean. Some evidence, though by no means as extensive as one would like, supports this Aeginetan activity. Concerning Aeginetan trade in metals, perhaps the scale of Aeginetan output in coinage argues for an Aeginetan trade in silver, while the activity of metal craftsmen there argues for trade in base metals. A more apparent tradition directs attention toward Aeginetan commerce in retail goods, the Aiginaia. Moreover, numismatic evidence, as represented by hoards and the Aeginetan standard, also seems to point toward low-level commercial interactions between Aeginetans and other Greeks. It is necessary to provide a picture of Aeginetan trade that combines these two facets of the source material.

B) Long Distance Trade

Early trade with Carthage and Etruria seems to have been carried out through the intermediary of the Greek colonies established in the region. From the end of the seventh century, a revolutionary change took place in the pottery prized in Etruria for its aesthetic value. The rate of importation goes up and with this, the role of Attic pottery becomes greater. That this phenomenon to a degree bypasses the Greek colonies in the West can be seen from the predominance of Attic pottery, which begins in Etruria, then appears in the Chalcidian colonies, and only finally in the Sicilian Dorian colonies, after a lapse of fifty to seventy-five years.[15] To appreciate the economic importance of this development, the role of ceramics in trade must be set in its proper functional proportion.

Cook estimated no more than 125 vase painters and 400-500 active in total in the Athenian pottery industry in the fifth century.[16] He believes that the Corinthian industry at the height of its popularity was half as large as the Athenian. It would be misleading to suggest that the entire value of a craft industry to an economy was limited to the number of people active within the craft itself. Any industry producing products saleable abroad would have brought wealth into the community, which would allow those involved in it to increase their consumption, which would create further work, and, hence, livelihood for additional people. Even primitive crafts had some secondary effects on the community's wealth, inasmuch as they used materials and services provided to them by others (e.g., transport workers).

The recorded prices are not so great, nor even the conceivable expanded circle of Athenian beneficiaries from the pottery trade, that the popularity of Athenian pottery can have been imagined in the Archaic Period to have been a dominant economic factor in the community or to have represented any significant shift of resources toward Athens. The development of the silver industry at Laurion dwarfed the pottery craft, as perhaps also did the significance of olive cultivation after Solon (though little evidence bears on this topic). However, this does not mean that the prices infrequently preserved on Athenian pots were the sellers' prices in the pots' eventual Etruscan destination.[17] Exchange differences and the variable quality of money in the places to which Athenian pots were exported would rule out any standard price system. Moreover, the availability of Attic pots overseas was undoubtedly seasonal. They became less available in winter, when few merchants ventured on the sea. Nor were those carrying them so very many that the supply did not fluctuate with variable arrivals of merchants. Therefore, the beneficiaries of the popular Athenian pot industry may have been those who could lay their hands on such pots at Athens with some facility, and who had the experience and the ability to sail western seas with relative impunity.

There was undoubtedly an intervention of a relatively advanced commercial pattern, including direct feedback from a distant market, operative here. How else can the specialization of certain black-figure workshops in particular types of vases found in Italy be explained? The vase shapes, the kyathos and the Nikosthenic amphora, were derived from Etruscan shapes. A natural assumption

is that such specific vases were produced because their high saleability could be forecast.[18] Merchants presumably brought examples of these Etruscan shapes back with them to Attica, and commissioned adaptations of them. Subsequent development of these styles was perhaps coordinated under the instructions of their eventual sellers. Nonsense phrases and words that appear on Attic vases are likewise sensitive to a similar interpretation. They certainly would not enhance the saleability of a pot in a community which had many who were literate in Greek. However, such pots may have exercised a snobbish allure on Etruscan buyers who did not speak Greek, and who, given the mores of retail salesmen throughout history, were undoubtedly assured that some prestigious signature or authenticating comment was concealed behind this meaningless gibberish. The sophistication reached by the trade was mediated through the entrepreneurial activity of the traders, who collected and organized information about markets. There appear in the ceramic remains in the West often very unrepresentative selections in particular localities of the artists and potters active at any one time.[19] Hence, an effort may have been made by particular merchants to develop long term connections with a particular ceramic workshop in the awareness that a style of pot had an attraction for a specific community.

Potters' marks, which seem to be connected with the names of merchants, are sometimes found to have been placed on Attic pots before their firing (though Johnston observes that it is at times difficult to distinguish those affixed before and after firing).[20] The provenience of the marks is predominantly from

the West (Vulci in Etruria is by far the leading site). Discounting the SOS marks on storage amphorae, other merchant marks on Attic vases appear from 590, and only in any great number after 550. This is a phenomenon which is of the greatest importance. It seems to suggest that there was, on occasion, a systematic planning before production of what would be saleable. It is likely that this was indicative of continuing relationships between traders and craftsmen, and may represent the level which information-sharing about markets had reached.

These merchants' marks (and the prices with them) are eloquent in several other regards. Some are in Ionian script and were thought to be, at one time, the proof of the existence of an Ionian trading population at Athens.[21] Though this remains a possibility, other considerations must be given careful attention. One is that the beginning of the intensity of the export of Attic pottery to the West is contemporaneous with the appearance of the Phocaeans in this region, as witnessed by the establishment of Massilia and of Phocaean trading stations in Spain. It is important to recognize (as Morel has suggested) that the Phocaean penetration of the West was not a true exploration, since these waters were well-known to the Etruscans and Carthaginians.[22] Rather, this was the opening up of this region to Greece for trade opportunities. In light of this, Phocaean activity in penteconters can be seen with its piratical overtones. The cities of the narrows, as well as Etruria, seem to share with Massilia an approximately similar complex of ceramic finds, which include Attic pottery, the pottery of northern Ionia, and Chalcidian ware.[23]

This seems to indicate that the Phocaeans may have played an important role in the carrying trade for these pots to the West. Late in the sixth century, when there is the evidence of coin hoards, the coins of various Phocaean cities of the West (including Elea, the sanctuary city of the Phocaeans themselves) appear in significant numbers.[24]

The discovery of the Sostratus inscription at Graviscae has added enormously to an understanding of Aeginetan trade in Etruria.[25] The inscription is a dedication to the Aeginetan Apollo by one Sostratus: Apolonos Aiginata emi. Sostratos epoiese ho [---]. The inscription, on a dedication in the type of Apollo Agyieus, was found in a small sanctuary to Hera at Graviscae, the port of the Etruscan city of Tarquinii. The date of the inscription is either late sixth or early fifth century. One thinks immediately of the Aeginetan Sostratus, son of Laodamas, mentioned by Herodotus (4.152.3). Herodotus refers to him only in passing. The context is a description of the fortuitous yet profitable journey of Colaeus the Samian, who was blown off course on his way to the Egyptian delta and made the first connection of the Greeks with the silver-rich native kingdom of Tartessos in southern Spain. This voyage, according to Herodotus, was the most profitable of those known to the Greeks with the exception of the profits of Sostratus, whose level was unattainable. Previous to the discovery of the Graviscan inscription which bears his name, Sostratus was also to be connected with the silver trade in the far West.[26] Many of those who have commented on this inscription have clung to this idea, which is plausible not for its basis in ancient literary or

archaeological evidence, but merely from a consideration of the scale of Sostratus' profits.

Johnston has connected the Sostratus of the inscription with a series of dipinti and graffiti in the form of SO on Attic vases from the years 535-505.[27] Since some were affixed to the pots before firing, they can be taken as merchant marks (if this term may be used without analysis for the moment). Johnston based his attribution on a graffito of the letters SO which was written in the Aeginetan script. He connected this graffito with several dipinti which combined SO with other letters, perhaps giving a vase name. Thus, SO is a mark affixed to Athenians vases connected with an Aeginetan Sostratus.

The SO marks represent the largest class (Johnston knew of 95 at the time of his initial publication) of merchant marks. Some are dipinti, others graffiti. Johnston indicates dipinti on the vases of the Perizoma group and graffiti on the vases of the Affecter, and on the N Painter of Nikosthenic amphorae. The marks are not in a single hand. The merchant marks remind one immediately of Aegina as "pot-seller" and the Aiginaia in general. Since the pots marked with SO are not an indiscriminate collection, and some were prepared for Sostratus' use before firing, one ought to think of consignments made up from stock (graffiti?) and supplements planned to meet orders (dipinti?). Attic pots probably formed only a part of Sostratus' trade in goods with the West. The marks were affixed to them by members of the workshops of their manufacture, or by Sostratus' agents. Entrepreneurialdirection is obvious here. Vases marked with SO (like those of the Affecter or the N Painter) were

popular in Etruria, so that the merchant must have known his market and sought to meet its needs through careful collaboration with craftsmen. Vases of other workshops (Johnston cites those of the Leagros Group) were not marked with SO, although merchant marks appear on them and they were traded to the West. This suggests long-term relationships (based on information-sharing) between middlemen and suppliers. Sostratus or his agents (and their competitors) did not go around Athens merely buying from any workshop popular in the West. Specific merchants worked in cooperation with particular workshops.

Johnston astutely observes that it is predominantly large vases that are marked. He suggests that smaller vessels, more easily disfigured by marking, were included with larger pieces. However, one need not assume either that these aggregates made up sets or that unmarked large pots did not also accompany marked pieces. If the views presented above about the variety of items traded by Aeginetans are correct, Athenian pots formed only a part of shipments of goods sent to the West. They were scarcely carried one by one to their ships, nor were they transshipped loose, when transfer was necessary (e.g., from an Athenian ship to a warehouse on Aegina). There is no evidence about where Sostratus took delivery, and it is unlikely that every consignment of goods owned by him was conveyed in his own ship(s). Thus, cargoes may have needed to have been distinguished. Not all the pots of any one shipment needed to have been marked. Rather, those which could be reached most easily were marked with what corresponded to the shipping labels of today. Perhaps an indication of this is

discernible in the names of vases sometimes inscribed on their feet.[28] Sometimes, two shapes are named. This may have denoted that a consignment of pots was of one type or, alternatively, of two.

However, the dates for the SO marked pots and for the inscription create problems in combination. Johnston dates the pots between 535-505.[29] While the inscription may date from the sixth century, there is a chance that it may be from 495-475. Harvey reports that L.H. Jeffery inclines toward this latter alternative.[30] If the Sostratus inscription is to be put at the lower extreme of this range, it is unlikely that the Sostratus of the SO marks and that of the dedication at Graviscae are the same individual. One thinks of homonymous members of the same family, which, if true, would be strong evidence for the continuity of at least this one Aeginetan trading establishment. However, one should be reluctant to see much significance in the 505 termination date for the SO marks. It may be that the Sostratus of the marks died toward the end of the sixth century, and the commercial activities of the dedicator of the inscription took a different turn.

Harvey points out that the outbreak of war between Aegina and Athens could have disrupted Sostratus' trade in Attic pottery.[31] Although this is possible, it should not be generalized with relevance to any more than one Aeginetan and his restricted circle of Athenian suppliers, the end of whose relationship can have been more or as much for personal as for legal reasons. Laurion silver was coming into Aeginetan coins

during the akeruktos polemos, and nothing rules out some of it coming directly from Attica to Aegina. Likewise, Athenian pots continued to be exported to Etruria, and in increasing numbers to the Adriatic, where, as shall be seen, the Aeginetans were active. There is a good possibility that other Aeginetans continued to traffic in Attic pottery in the first two decades of the fifth century. One cannot be sure how an unconventional or anomalous struggle like the akeruktos polemos affected trade patterns grounded in the behavior of private individuals. The Aeginetans, dependent on commerce, may not have been in a position to break ties with trade partners for whom ready substitutes (as in the case of Athenian pottery) may not have been available. Nor can it be excluded that a bold Athenian or Aeginetan may have frequented the harbor of an erstwhile enemy of his city during the lulls in fighting that took up so much of the time of the period of confrontation between Athens and Aegina in the first decades of the fifth century.

In addition, irregular or illegal trade deserves mention. Those places set aside for trade were scarcely the only landfalls in Attica and on Aegina. Moreover, trade was possible through intermediaries, citizens of states at peace with Athens and Aegina. If the SO pottery marks were affixed primarily by people in Athenian workshops, or by Sostratus' agents in Attica, their disappearance does not necessarily signify that Sostratus or his successors stopped dealing in Attic pottery, but merely that these pots ceased to be specifically consigned to them. The pots may now have moved through other hands (non-Aeginetan), and were marked

accordingly. It should have been easy enough to understand at a subsequent stage in the process of transit that a certain mark signified the property of a particular merchant, regardless of his previous trademark or of the relevance of the particular letters to his name.

It is important to put Sostratus in his context at Graviscae. His dedication is carved in Aeginetan letters, suggesting that an Aeginetan stonecutter inscribed it. Thus, perhaps Sostratus was accompanied by one or more agents in Etruria. Johnston reports that pots marked SO are discovered at Vulci (24), Tarquinii (11), and Cerveteri (8).[32] This argues that Sostratus visited several Etruscan cities in his business. The circumstance of the dedication at Graviscae, however, indicates that Sostratus' activity was habitual in that city. The dedication stands in a small sanctuary of Hera, which existed from c. 580. Dedications inscribed on pots seem to show that the sanctuary was primarily visited by Ionians.[33] The presence of the sanctuary of Hera induced Torelli to make the comparison with Naucratis, with its Milesian, Samian, and Aeginetan sanctuaries, and the Hellenion.[34] However, there is no evidence for an administrative significance for the sanctuary at Graviscae similar to the authority of the prostatai of the emporion at Naucratis.

Torelli suggests a Samian or Phocaean presence at Graviscae to explain the Ionian character of the sanctuary. The presence of these long distance trading states in Etruria in the years after 600 (when the Greek presence at Graviscae becomes noticeable) is not surprising. Below, it will be argued that an important factor

in the growth of Aegina was the decline of the Ionian trading states. At Graviscae, the Aeginetan Sostratus is found operating in a cult context originally Ionian. Nonetheless, it is only the chance coincidence of the Sostratus inscription, Herodotus' notice on him, and the graffiti in Aeginetan script that allow an insight into Aeginetan activity. There is no reason why other non-Attic merchants, i.e., other Aeginetans, may not have been behind other abbreviations on Attic pots. It is suggestive that merchant marks in Attica achieve their greatest use from 550, during the years of Peisistratus' sway, years of true peace between Aegina and Athens.

If Sostratus is connected with the pottery trade, does this mean he was not a merchant of raw materials? In the first place, pottery is unlikely to have been the source of profits (better than 50 T) that gave Sostratus his reputation. The notion that the city of Aegina was a "pot-seller" is connected with the attribution of the Aiginaia to that island. Thus, there is a good chance that Sostratus traded Aiginaia, or what would have been luxury goods, in Etruria. Yet, long distance trade with non-Greeks had two very different faces. While an Aeginetan merchant may have sold a variety of retail goods in Etruria, one must think of the items of grand trade (people, grain, and metal) as return cargoes. Hence, the idea that a sixth century Sostratus was involved in, for instance, the Spanish silver trade or the Etrurian iron trade, while this has no ground in the ancient evidence, is one of a number of plausible guesses.

It appears likely that specialization among merchant states and among merchants themselves was not along the lines of

commodities, but along lines of methods of trade. In other words, Corinthians may have specialized in trade across a range of commodities through colonial outlets and Aeginetans over an overlapping range in direct long distance trade. There would be crucial differences in how states trading through different commercial mechanisms came by the products they traded. This explains, for instance, why the Corinthians were at pains to maintain strong ties with their colonies. Furthermore, although each pattern may exhibit a superficially similar level of economic organization and sophistication, that does not mean that the capacities of each for profit were the same. The sort of long distance trade that did without intermediaries or specialized in articles of non-Greek production, which were able to be transferred advantageously for Greek products coveted in the barbarian world, was bound to be more profitable.

What emerges is essentially a reinforced picture of the evolving long distance trade of the late seventh century. Samos, Phocaea, and Aegina, all states with piratical traditions, seem alike active in western waters.[35] Phocaea and Aegina were probably carriers of Athenian pots to the West. All three states could then have been trying to cut out the Carthaginian middleman in the silver trade, which had previously been channelled through the cities of western Sicily.[36] The Samians may be the most elusive of the three, as there is little evidence of their participation, save in Herodotus' story of Colaeus' voyage, the foundation of Dikearkheia, and in the flight of Samian refugees to Zancle.

It has long been supposed that Sostratus, like Colaeus, was involved in the trade in silver from southern Spain. This hypothesis has been undercut by the contention that Aeginetan coins possessed no great amount of Spanish silver.[37] Some ideas have already been offered about how taxation and the standing in society of traders could cause a historical trade to leave no impression in the coins. Trade with southern Spain conducted by Greek traders themselves is truly anonymous in the pottery evidence at the present date. Attic and East Greek pottery seems to have played no role in exchanges with the native population of Andalusia. When Attic imports begin to appear in the interior in southern Spain, it is in eastern Andalusia, from the mid-fifth century.[38] Western Andalusia, the site of the Rio Tinto district, has practically no imported Greek pottery. Therefore, if pottery begins to appear where Greeks had traded earlier, then the presence of lead traces in Greek coins characteristic of the Rio Tinto should not be anticipated. It is, however, unlikely that Sostratus' fortune was made in an early "killing" (the pioneering of a new market) in either the Etruscan iron trade or the Spanish silver trade, and that the Sostratus of Graviscae was the homonymous descendent of the pioneer to whom Herodotus made reference. At Graviscae, Sostratus appears in an Ionian context which suggests that the Aeginetans were second arrivals there. Furthermore, an early, pre-coinage, coup in the Spanish silver trade would almost certainly have left a significant impact on the content of Aeginetan silver coins, even if the silver differed in lead composition from Rio Tinto silver. If there is any presence of

Spanish silver at all in Aeginetan coins, it can only have come at a time when its appearance could be somewhat obscured by Laurion, Siphnian, and electrum silver.[39]

Pottery is not in itself the sum of Greek trade in the western Mediterranean. It is simply that glazed pottery has a durability and a survival quality superior to that of other items likely to be traded. One would suppose that metalwork was equally common as a cargo, but more vulnerable to the vicissitudes of time. The coordination apparent in the joint manufacture of candelabra by Taras and Aegina may also indicate the intervention of merchants as organizers. Presumably, the candelabra were meant for destinations in Etruria and the western Greek world. The division of the task between two cities suggests tailoring of the product for the tastes of its consumers (perhaps to draw on different iconographical traditions?).

The slave trade fits in well in the context of long distance trade. Traders of states which manufactured the goods that made up the cargoes of its ships might be thought to have held a vested interest in discouraging the the dissemination of craft skills to non-Greek states. However, there appears simultaneously with heavy exports of Attic pottery to Etruria pottery (with East Greek affinities) of the Caeretan type.[40] They have traditionally been thought to be Greek emigrants from Ionia. But how probable it is that several workshops of highly skilled workers would have, in one period, decided to establish themselves in the radically foreign world of Etruria, outside the institutions of the polis? There is a greater chance that the element of choice, at least for

the craftsmen, was not a factor. The piracy based model of trade shows a deep involvement in slave trading. Therefore, it may be that the appearance of Athenian pots and East Greek craftsmen in Etruria are a parallel manifestation of the same trading pattern. Pots, and slaves to make pots, were merely alternative cargoes for carriers who had no stake in the continuance of the home industries.

C) Aeginetan Trade in Egypt

Colonization has been seen from the viewpoint that it was predicated upon the bringing of exploiters to lands and populations which could be exploited. Among its drawbacks was that, by sending out surplus population, the mother city insured that its population remained stable. This was no liability when the failure to grow in population could be traded off against a growth in per capita wealth. However, when warfare shifted from being the sphere of relatively limited numbers of aristocratic combatants to the utilization of the phalanx, where numbers of smallholders became of paramount importance, it is obvious that it became disadvantageous to maintain a stable population in face of the growing population of neighbors. The pressure of a growing population served as a stimulus to social innovation, as either new work had to be brought into existence, or agricultural work expanded by the bringing into cultivation of marginal land. Hence, a state like Athens surpassed her Euboean neighbors by the end of the sixth century.

Another solution to the problem of having to feed extra mouths was to bring grain to the growing population rather than growing

populations to new lands for the production of grain. One would assume that, by 600, the local surpluses of one or another Greek city were being put at the disposal of states suffering temporary shortages, if only by independent traders from the producing states. Yet, given the unstable climatic conditions, these surpluses and shortages within Greece were likely to balance each other out over the span of decades.[41] Naturally, some states would have run in food production somewhat ahead of their needs in the long term, which would provide for a growth in population elsewhere, given the resources to procure the surplus. But some of the best agricultural plains in Greece were preempted by states like Sparta and Thessaly, with patterns of dependent labor that made it uncertain whether surpluses either would come into existence or would ever reach the Aegean grain market.[42] Egypt represented an answer to this dliemma.

The Nile made Egypt exempt from agricultural uncertainties to which Greece was prey. The hierarchical, static nature of its society rendered possible the extraction by its rulers of the surpluses, each infinitesimal, of large numbers of subsistence farmers. The wealth of Egypt may have seemed to the Greeks at first to have been exploitable in a mode similar to that of the colonial model. The Greeks were in demand as mercenaries by Egypt's rulers to fight their battles. The Greek soldiers, under their employer's control, were in a fashion exploiters of the native population among which they were established.[43] Other Greeks were also present in Egypt. In the late seventh century, a scattering of Greek pottery is found on many sites in the delta.[44] That Greek

craftsmen and petty traders may have been circulating among the native population, producing articles of Greek craftsmanship or hawking their wares at low intensity, may be postulated. This situation was perhaps comparable to the circulation of itinerant craftsmen from the Chalcidian cities of northeast Sicily, who sometimes settled in groups in native communities and provided the Sicels with goods and services. The neighboring Greek cities profited from conveying to these Greeks supplies and support.[45] Egypt is different because there were no Greek colonies. Yet, the reason for this was not want of effort, but Egyptian ability to resist. The situation of the Greeks in Egypt was therefore extraordinary, in that their activity was supervised and directed by Egyptians. In a sense, Naucratis was the Egyptian government's Greek colony in Egypt.

However, it was not a foregone conclusion that the Greeks would not colonize Egypt. Strabo reports the Milesian foundation of a colony at Naucratis (17.1.18 C801). In the reign of Psammetichus, the Milesians sailed up the Bolbitic branch of the Nile, defeated Inaros at the Milesian forts, and then continued upstream to found Naucratis. The tradition is obviously erroneous, treating Naucratis as an ordinary colony, with a recognized founding city. The episode suggests that, improbably, the Milesians established themselves over Egyptian opposition. Yet, Herodotus pictures Naucratis as a community under strict Egyptian control, fused onto a contiguous native community (2.178-9). As such, Naucratis has been correctly seen by Austin as following the pattern of a port of trade, wherein a society hostile to foreign influence and economic

evolution provides itself with certain necessities through a limited window to the outer world, where foreign contacts can be carefully supervised.[46] Naucratis was a peripheral settlement that was conceded a different internal structure from the rest of the country for the sake of its usefulness. Strabo's anecdote (and along with it, subsequent Milesian claims to have founded Naucratis) should not be dismissed out of hand. The Milesians may well have been the first on the site. Their initial activities there may have been very near to raiding, as the name "Milesian forts" suggests. Egyptian resistance militated a change in emphasis from piracy to trade.

To put Greek trade with Egypt in its proper perspective, a date for Naucratis should be considered. An attempt has often been made to set the foundation of this settlement shortly after the middle of the seventh century (c. 630).[47] Thus, it could be brought into connection with Colaeus' journey to Egypt (dated by its contemporaneity to the foundation of Cyrene) which led to his penetration of southern Spain. However, Colaeus' activity fits in admirably with the piratical, opportunistic model of trade. After all, it is far-fetched that anyone set upon reaching his destination could be carried off course the length of the Mediterranean. Trade with Egypt was obviously still irregular, and so a detour in an adventurous spirit could be made to unexplored waters in the hopes of profit.

Implicitly, the Herodotean account dates the foundation of Naucratis to the middle of the sixth century, as the work of the pharaoh Amasis (570-526) (2.178). The name of Amasis has often been

corrected to Psammetichus I, for the desired seventh century date that traditionally reposed on the joint support of late seventh century pottery and early Archaic coinage.[48] Yet, the early seventh century dates for Ionian and Aeginetan coinage no longer command credence. Pottery bears the brunt of supporting a date near 650, but it is hardly conclusive. Boardman, a supporter of this date, has reported the pottery as follows: Rhodian, late seventh century; Chiot, some seventh century, but much more sixth century; Samian, mid-sixth century and after; Fikellura style, middle and third quarter of the sixth century; Clazomenaean, the third quarter of the sixth century; Aeolian, not later than the end of the sixth century; Athenian, second half of the sixth century.[49] The earliest styles present seem to be the Rhodian and Chiot series, whose dating is certainly not among the best established.[50] The earliest potsherd cited by Boardman is of a Corinthian cup of the Transitional Style from about 630-620. There is rather more late Corinthian of the later years of the seventh century and of the early years of the sixth century.[51] To Boardman, this cup fragment suggests "there were Greeks at Naucratis by 620, but is equally compatible with the view that they were there some twenty years earlier". No one, however, argues that the Greeks may not have been in Naucratis, or for that matter, at any number of other Egyptian sites, in the second half of the seventh century. This hardly requires that Naucratis had been founded, if one means by that that Greeks were concentrated on the site, and commercial activity had begun to grow in intensity. The pottery supports a date at the end of the seventh century, which is

not discordant with the discovered architectural remains, none of which need date from before 600.[52] Austin, arguing from the dates for the earliest vases appearing in appreciable numbers on the site, suggests that the Greek presence at Naucratis goes back to c. 615-610.[53]

In the opinion of Von Bissing, the settlement must be dated to the reign of Psammetichus II, after 594, because no scarab bearing the name of any living pharaoh prior to Psammetichus II has been found on the site. Von Bissing observed that the Psammetichus mentioned in Strabo's account of the Milesian foundation of Naucratis can be either Psammetichus I (666-609) or Psammetichus II (594-588).[54] Inaros could have been one of the rebels dealt with by Psammetichus on his accession. Besides the story's emphasis on Milesian rather than Egyptian initiative at Naucratis, there is a difficulty over Inaros. The name only appears in Egyptian documents of the XXVII dynasty, and no Inaros is listed among the known antagonists of Psammetichus II. The name is most famously associated with the later Libyan rebel from the Persians of the fifth century. The apparent transposition of this Inaros into the reign of a Psammetichus conditions the credibility that one is to give to Von Bissing's suggestive hypothesis.

What then do we make of the association by Herodotus of Amasis and Naucratis? The thesis of the earliest modern students of the subject, that Amasis was responsible for an important reorganization of Naucratis, or perhaps for the initiative for the concentration of the Greek commercial population of Egypt in this location, is still worthy of attention.[55] The amounts of

pottery and architectural remains intensify from 550 onward. The intervention of political initiative should receive heavy emphasis, and the grain trade probably grew incrementally with government intervention to concentrate grain for export.

If Strabo is to be believed, the Milesians were active at Naucratis at its inception. The Colaeus story supports the view that Samian interest in Egypt was early. The alliance between Polycrates and Amasis (with the Samian sanctuary at Naucratis) indicates sixth century activity there. Miletus can be viewed as a state whose economic type lies somewhere between that of the early colonizing powers and the long distance trade states. The Milesians may have been involved in bringing mercenaries either from Ionia or from economically backward Caria to Egypt. Also, the Chiot pottery found in late seventh century Naucratis may reflect the influence of Milesian traders, for Miletus was a friend of Chios in the Archaic Period.[56] Some of the earliest pottery found at Naucratis is Rhodian, which is superseded at the beginning of the sixth century. Such a succession parallels the pattern found on the coast of southern France and in Spain, where Phocaean merchants are apparently the cause.[57]

At Naucratis, it is perhaps the Milesian temple that is the first identifiable major edifice on the site. The Aeginetans possessed a separate sanctuary at Naucratis, indicative of a large resident community, or a high frequency of contacts between the inhabitants of the site and Aeginetans. The Aeginetan presence at Naucratis may be somewhat later than the Samian or Milesian. Aeginetan independence and the beginning of the island's economic

rise appears datable to the late seventh century. The Aeginetan sanctuary of Zeus at Naucratis has not yet been found. However, a major sanctuary of the Dioskouroi of c. 550 has been found, and some have thought to emend the notice of Herodotus to read the Dioskouroi rather than Zeus.[58]

However, on consideration of the importance of the cult of Zeus Hellenios on Aegina, and the assimilation of Zeus Hellenios to Zeus Xenios, an emendation of the Dioskouroi for Zeus should only be made reluctantly. In Aeginetan public ideology, Zeus Hellenios was, by the fifth century, associated with pan-Hellenic service and with traditional aristocratic hospitality toward xenoi. If Zeus Hellenios was worshipped by Aeginetans at Naucratis, it is a strong indication that Aeginetan activity there was fully integrated into the religious life of the home city, and concordant with the religious self-representation of the community. It is hardly imagineable that any but those assimilated to the values of Aeginetan society would have emphasized Zeus Hellenios.[59]

Attic pots appear in growing numbers in Egypt from the middle of the sixth century. Boardman has seen in these pots ballast for ships traveling light to carry back Egyptian grain.[60] To him, the Aeginetans are likely carriers, as they did not have their own pottery. Also, no archaeological or historical evidence would associate Athens with Egypt at this early date in the sixth century. Boardman makes the same identification for Corinthian pottery as Aeginetan cargo, but given the friendship between Miletus and Corinth c. 600, one would be reluctant to insist on this. However, pots were unlikely to have been ballast in the

strict sense. One would be forced to imagine that each ship carried many large pots and that they were filled with something to give them weight. Stones would serve the purpose of ballast more effectively, as would storage amphorae filled with wine and oil. Greek merchant ships in transit to Egypt must have carried products much less bulky than the grain with which they would return. Therefore, they had room for goods, such as pots, whose trade may not have been in itself satisfactorily profitable to have drawn the merchants to Egypt in the first place. Trade in pottery with Egyptians or Greeks in Egypt was a byproduct of the grain trade. Pots probably played only a relatively restricted role in paying for Egyptian grain, when compared with silver (in coins or bullion), for instance. If one assumes that state expenditure, as shown by coinage, follows economic developments at a factor of sufficient chronological remove as to allow the accumulation of reserves, then an intensification of Aeginetan involvement in Egypt becomes reasonable from 560 onward.[61]

If Miletus, Samos, and Aegina are seen as the main participants in commerce with Egypt, the Aeginetans may have benefited from the eclipse of the other two cities.[62] Miletus continued to be prosperous after the Persian conquest of Ionia, but the inhibiting effect of Persian hegemony may have helped send Milesians to seek opportunities in the Black Sea. The shifting away from Ionian pottery types at Naucratis may show the ebbing of Milesian influence.[63] On Samos, Polycrates' last years saw a break with Amasis, and the Samian aid to Cambyses' expedition against Egypt. Though Polycrates staved off the effects of the

Samian aristocrats' defection, and withstood a siege by the Spartans and Corinthians, his assassination by the Persians ushered in a confused period for Samos. The island, devastated by the Persians, was handed over to Polycrates' unpopular brother, Syloson (Hdt. 3.149). For Miletus, the Ionian Revolt represented an end to the period of her greatness, as the city was sacked. Thus, c. 494 is a lower limit for Milesian importance at Naucratis.

Yet, Egyptian trade continued to be prosperous, and much of it, if only by default, may have fallen into Aeginetan hands. Shortly after the Persian Wars, Bacchylides will speak of men becoming rich by trade in Egyptian grain (fr. 20B (Snell-Maehler)). His remark is in a context that seems to suggest that this was an established topos of ways by which men achieve *eudaimonia*.

The confrontation with the fugitive Samian aristocrats over Cydonia may indicate changes in the balance in Egyptian trade. The aristocrats established themselves, after a series of adventures, in Cydonia in western Crete in 525 (Hdt. 3.59.1). Cydonia was on the more western of the two traditional routes that led from mainland Greece to Egypt. After being established here for five years, they were attacked by the Aeginetans, who expelled them from Cydonia and set up a colony of their own there. During their peregrinations prior to their establishment in Crete, the Samians had practiced piracy. Their establishment in Crete can be seen as aimed at harassing this trade route, and, in addition, at carrying on continued trade with Egypt, though Samian capacity to trade (i.e., an excess of goods wished by the Egyptians) may have declined, and thus piracy received greater emphasis. A later group

of Samians was to attempt to continue this trade from a western base (see above pp. 130-1). The Aeginetans had a large stake in this trade, and so were quick to rise against the threat. It is safe to assume that Samian trade with Egypt ebbed gravely after 520. As the imports of Attic pottery continue to remain uniformly high throughout this period, a great proportion of them were probably carried by Aeginetans.[64]

The internal organization of Naucratis may be discussed in connection with the hypotheses of Roebuck on this subject. He would downgrade the importance of the cities with independent shrines. His conviction is that Chios must have been the leader in Egyptian trade at Naucratis in the sixth century.[65] This view has little support. There is no assurance that Naucratite pottery, despite its affinities to Chiot pottery, was carried by Chians. There is some chance that it was produced at a local factory.[66] Its amount, in any case, falls off from the mid-sixth century, when Naucratis began to reach its height. Nor is there a reason why Chiot pottery must be carried by Chians.

To Roebuck, there were no separate factories attached to each of the independent shrines and to the Hellenion.[67] The sanctuaries had a solely sacred character. That Greeks of all states make dedications in them suggests that, at a very early date, they became common sanctuaries of the city. Herodotus' remark that the <u>prostatai</u> of the Hellenion were <u>prostatai</u> of the emporion refers to the political leaders of the whole community. However, the statement of Herodotus that the participant states of the Hellenion chose the <u>prostatai</u> cannot be literally true (Hdt.

2.178.3). Provision of the original prostatai has been confused with continued appointment throughout the life of the settlement. The separate sanctuaries meant that the citizens of Miletus, Samos, and Aegina only gained citizenship of the city as individuals upon application, and their religious centers stood outside the civic structure. Roebuck is right to emphasize that there were probably no individual factories attached to the sanctuaries. Nevertheless, Naucratis should not be analyzed on the paradigm of a Greek city, with the prostatai as its magistrates. There is no reason to think that the individual sanctuaries did not provide the only organized format for their members for life at Naucratis.

The representative of the pharaoh was probably the true administrator of Naucratis, and the prostatai merely representatives of the Greek community.[68] The Greeks at Naucratis may have had no corporate existence, but identification as individuals of states whose permission to trade in Naucratis was recognized by the Egyptians. Therefore, the principle of appointment of the prostatai by the mother cities of the Greeks involved in the Hellenion may have been real, but in practice the Greeks on the spot must have, in time, made the choice. However, this should not be taken to mean that Milesians, Samians, and Aeginetans stood outside the civic administration of Naucratis.

The Greeks at Naucratis were in no position to create Greek political institutions, but their right to worship their gods at their own cult sites would have been conceded as elsewhere. The states that built the individual shrines were present in sufficient numbers and with sufficient wealth. The shrines' dedications may

soon have come from Greeks of many cities, but there is no reason to think that the Aeginetans, for instance, did not continue to administer their sanctuary. The cities of the states sharing the Hellenion could not afford their own cult places.

Miletus, Samos, and Aegina were, therefore, the pioneers at Naucratis in the early sixth century. They may have come to individual arrangements with the Egyptian government concerning trade, and received the privilege of establishing sanctuaries. When Amasis determined that the Greeks in Egypt should be concentrated in a single spot in order to be supervised more closely, Naucratis was the obvious choice, since a group of Greeks already had a legitimized position there. Taking the example of the already existing community of Aeginetans, Samians, and Milesians, the pharaoh allowed the other states to establish a common shrine, and to appoint a board of representatives to act as a liaison with Egyptian authorities. When Herodotus mentions the Greeks who usurped membership in the Hellenion, he took for granted that this was not to be understood to mean Aegina, Samos, and Miletus (they had a preexisting relationship, and did not need the Hellenion) (Hdt. 2.178.3). He referred rather to veritable newcomers, whom one would guess were traders of mainland Greece and perhaps occasionally western Greeks who came to take the place of the citizens of Ionian states now decaying. The representatives of the Hellenion administered the emporion. Their functions had to do with trade, as Naucratis had no other collective concerns. They won this role perhaps because the Egyptians wished to bypass the rivalries of the three leading commercial states.[69] Alternatively, the

prostatai may have administered the market only in the second half of the fifth century, when Herodotus wrote, because Miletus, Samos, and Aegina were no longer important.

D) A Pattern of Development

On the principle that the piracy-based model for trade could only grow when population and wealth had enjoyed a significant rise, and that economic activities associated with the colonial type of trade were of greater intensity at first, Aeginetan commercial activity is after 750. In the late eighth century, and through the seventh, piracy was still significant, as indicated by Homer, the Lelantine War, and perhaps the Calaurian Amphictyony. The lower limit for the predominance of piracy must in any case be set by the Samian attack on Aegina under Amphicrates (which was probably before 600). By then, the predominance of demonstrably political, if not commercial, considerations appears in an attack that was basically a large piratical raid in execution. The phenomenon of the Aiginaia, and the sixth century spread of the Aeginetan standard argue that the travels of Aeginetan peddlers were already widespread by 600. The last quarter of the seventh century was a decisive turning point for the shift to long distance trade. This allowed the Aeginetans to achieve and maintain their independence. With slave numbers growing after 600, and Naucratis becoming important in the grain trade, the shift in commercial emphasis is not surprising.

There are several reasons for seeing the Phocaeans (and perhaps the Samians) as active in the West before 600. The

beginnings of the influx of Attic pottery, which began away from the Greek centers of the West, the appearance of Ionian pottery, and the foundation of Phocaean colonies all point in this direction. The period of Phocaean activity in the silver-bearing region of southern Spain is often thought to have coincided with the eighty-year reign of the Iberian king Arganthonius (635-546).[70] The Phocaeans (and perhaps the Samians) thus were important factors in the West before the Aeginetans. Yet, the appearance of Attic pots may also indicate the activity of Aeginetan traders. There is a good chance that they were carrying substantial numbers of these pots to Egypt in the same period, and Sostratus was dealing in Attic pots after 535. Though the Aeginetans may have come to acquire raw materials and slaves in the West, markets for pottery and other finished products (like metalwork) must have played an important role in their interest in the region.

The earliest Corinthian vases do not seem to have been suitable as containers, but later on, small containers were exported to Etruria to hold perfumes or special oils. They lay in the realm of articles that had the epithet Aiginaia. The olive was an obvious agricultural remedy to a shortage of land. It was cultivated by the inhabitants of Aegina at other times during its history. Thus, the Aeginetans may have begun to purchase Corinthian vases, fill them with their own oil, and carry them to the West, along with other retail articles.[71] Specialty oils are ideal peddler items, and the Aeginetans may have combined Corinthian containers with the oils to be held by them. Similarly, the metal

industry on Aegina probably grew up to supply merchandise for a market in metal goods known to exist by the Aeginetans by their fencing operations, and to dispose of captured supplies of metal. Later, the Aeginetans became involved with the trade in metals in Etruria and perhaps further west.

Phocaea, one competitor in this trade, was undoubtedly taken from the field around 545. This is when a large number of Phocaeans established themselves in Corsica until they were ejected by the Etruscans and the Carthaginians, and forced to withdraw, crippled in strength, to Elea. Yet, the commercial decline of Phocaea was inherent in their relocation to Corsica. It was probably their piratical forays mounted from there that aroused the ire of the Etruscans and Carthaginians.[72]

The traditions of friendship between the Chalcidian cities of the narrows and Phocaea suggest that Phocaean trade was passing by way of the narrows (Hdt. 1.166.2). It has been thought that the Phocaeans fell back to the role of local traders and merchants within the Tyrrhenian Sea.[73] But the Etruscan aggressiveness toward the Phocaeans did not lead to a permanent breach with the Greeks. The town of Agylla, the port of Caere, appears to have been an important funnel by which Greek goods entered Etruria. These Agyllans, though they had commited an atrocity against their Phocaean prisoners, made amends by erecting a temple in expiation of their crime (Hdt. 1.167.1-2). They did not choose to have the profitable Greek trade disrupted by the creation of a climate of fear on the part of the Greeks visiting them. At any rate, Attic imports to the West continued unabated, and it is in this period that the Sostratus inscription and merchant marks enter the story.

If the story of the Milesians going into mourning when they heard of the fall of Sybaris is true, then it is possible that a good part of Milesian, and perhaps Ionian, trade passed along the land route controlled by Sybaris, and gave to that city a portion of her wealth.[74] A mortal blow may have beer delivered to this trade by the end of the sixth century, with the destruction of Sybaris and the eclipse of Miletus and Samos. Again, it seems that the Aeginetans may have been left with a more open field due to the default of the competitors.

A final clue to the shift in intensity of participation in this trade may be given by the pottery finds in Massilia, where, in the late sixth century, the importation of Athenian pottery slackens. This appears a development parallel to the turning inward of this city, which was to last for the greater part of the fifth century.[75] This is in part due to the growing strength and pressure exerted on the Greeks by the Carthaginians in the far West as a whole. Yet, for a time, well into the fifth century, Attic imports grew in importance at Ampurias in eastern Spain and at sites in Languedoc. It is clear that in the face of the misfortunes of the long range trading powers and in the face of Carthaginian pressure, some Greeks were still carrying trade commodities to Spain. Nor should this trade be thought of as vestigial, since Attic pottery plays an expanding role in the economy of the interior in Languedoc and northeastern Spain. It may be that the Aeginetan role continued here, as it continued in Etruria.

The Aeginetans seem to have made adjustments to the changing climate for trade in the West. In the passage where Strabo mentions

the Aeginetan colony in Crete, he also refers to an Aeginetan colony among the Umbrians in Italy (Strabo 8.6.16 C376). This settlement ought to have been along the Adriatic coast, between Picenum and the territory of the Veneti ([Skylax] 16 GGM 1.24-25; Steph. Byz. s.v. "Ombrikoi").[76] This region, rich in grain and animal foodstuffs, may have served as a magnet for those Greek states dealing in grain (Theopompus FGH 115 F 132; [Skym.] 367-9 GGM 1.211-12; [Aris.] De Mir. Ausc. 80; Steph. Byz. s.v. "Ombrikoi"). It may also have been a source of slaves.[77] In addition, the Po Valley would have remained a door into Etruria itself. In the early fifth century, Etrurian settlements established in the Po Valley were reaching their apogee.[78] Such an alternative may have suggested itself, owing to the pressure of native peoples along the trade routes of southern Italy, and continued Carthaginian influence in the Tyrrhenian Sea. For whatever reasons, the Adriatic, and especially the Etruscan zone in the Po Valley, becomes from the 480's until mid-century the prime area in the West in the trade of Attic pottery.[79] In addition, the region may have served as the endpoint for trans-European trade lines, which seem to have moved east in this period. The pressure being exerted on Massilia was not only connected with the confrontation with Carthage. Tin from the British Isles passed down the Rhône to Massilia, whence Greek goods passed to the Celts. Unsettled conditions along this route caused the trade pattern to veer eastward to debouch in the Etruscan settlements in northern Italy.[80] The Aeginetans, who enjoyed trading connections with Etruria, may have become interested in the Adriatic to exploit this

opportunity, especially after the Persian Wars. This is another indication of the shift of trade patterns away from the Ionian states. The Rhône trade route terminated at the Phocaean colony of Massilia. Goods travelling from central Europe into the Po Valley came finally into Etruscan hands. From Etruscan middlemen, some of these goods seem then to have passed to Aeginetans.

There is a possibility that the settlement at Adria may have been the place to which the Aeginetans sent their settlers.[81] Theopompus vouches for the location of Adria among the Umbrians (FGH 115 F 132). Adria was a Greek city by the early fifth century, when it was referred to as such by Hecataeus (Steph. Byz. s.v. "Adria"; cf. Just. 20.1.9). At Adria, a group of kylikes have been found which bear inscriptions (some dedicatory) on their feet. The pots are from a sanctuary, and date from the first half of the fifth century. There is a good possibility that these inscriptions were written in Aeginetan script.[82] The cult context for these finds is suggestive of the Sostratus dedication at Graviscae. The first Attic pottery from Adria dates from 560, but in the present state of the evidence, it is impossible to determine whether an Aeginetan settlement was founded there at that time. The intensity of the importation of Attic pottery might suggest a settlement in the early fifth century. It is unnecessary to believe that an Aeginetan colony must have been contemporary with the beginning of an interest of Aeginetan merchants in the area. Rather, if the analogy with Cydonia holds true, the Aeginetan colony was meant to give Aeginetans a safe position from which to carry on trade and a base from which to discourage the activity of pirates. In the third

quarter of the fifth century, the amount of Attic pottery exported to Etruria wanes, while importation remains high in the Adriatic.[83] This suggests that, in a sense, the Adriatic was a replacement for an Etruscan market that was growing less important after the Persian Wars. The Aeginetan colony among the Umbrians would be a way station to protect the passage to the Po Valley, as well as a local point of commodity dissemination in the area (both to the natives and to the Etruscan settlements of the Po Valley), two roles which Cydonia seems to have played in Crete.

There is little to suggest an Athenian presence in these waters at so early a date.[84] The Athenians took no political initiatives in the area until after the Thirty Years Peace. The Corinthian political offensive in northwest Greece, which was to provoke a Corcyraean military response, is also a product of the late fifth century. Yet, what was the role of the Athenians in the export of their own pots? There is, after all, an incongruity that, while, for instance, Rhodian pots are taken as evidence for the presence of Rhodian traders, Attic pots are not taken as an indication of the presence of Athenian traders.[85] Nevertheless, while pottery remains are one of the more durable forms of evidence surviving of ancient trade, in commerce, they were enmeshed in a nexus of other commodities. Unfortunately, these other commodities, since the literary testimonia and surviving remains are so scant, cannot serve as a decade by decade indication of trade intensities. In other key commodities of trade (Egyptian grain, Spanish silver, Etruscan iron ore, Sicilian wheat, tin from northwest Europe, and slaves from everywhere), there is no Archaic

evidence of Athenian involvement. There is little indication of an Attic presence in non-trade activities in these regions, and the fairly good record of Athenian foreign policy preoccupations in the sixth century is centered upon local problems and upon areas other than those in which the Aeginetans were involved. For all the talk about them, one must repeat that the pots in themselves may not have meant for their carriers the most profitable segment of their trade. Therefore, it is natural to assume that the Athenians, who have little part in the sources in the trade of other goods, were not the main traders of their own pots. Pots, to a large extent, parallel the export of Athenian silver in the form of coins. Both were standard articles of consumption.

Yet, the story of Solon's voyage to Egypt, even if anecdotal, should warn against any tendency to completely downgrade Athenian merchant activity. The political crisis after the overthrow of the Peisistratid tyranny seems already to speak of the existence of inhabitants of Athens who were only naturalized. Under the impact of the Persian conquest, the vitality of Ionia, one of Greece's leading regions, suffered a sharp decline. This decline may be apparent quite early in cities such as Phocaea and Teos, only taking place later at Miletus and in the islands. Aegina was the beneficiary of the weakness of her Ionian competitors. Yet, it is apparent that Athens was also a beneficiary, insofar as Ionian refugees, craftsmen, and merchants came to Athens to carry on their occupations. The end of the sixth century was a period of decline for the eastern Greek world, which shifted centers of trade, and, one might add, of culture, westwards.

However, the shifting of the center of gravity of trade westward was only a temporary stage in Greece's economic development. By the 480's, under the pressure of the Carthaginians, Greek influence in the western basin of the Mediterranean was in decline, and, after 480, Athenian pottery is found much less frequently in the West, outside the Greek cities of Sicily, which came late to the fashion of Attic pots, and whose trade was probably in the hands of, by now, largely their own merchants.[86] Similarly, with the reestablishment for the moment of Persian control in Egypt in the 480's, and the general disruption of the Persian Wars, the normal patterns of trade in the eastern Mediterranean were confused. It is left to gauge the Aeginetan presence in the Black Sea, and to find the significance of that region in the development of Aeginetan trade.

The late seventh century seems to have been the great period for the opening up of this region, a movement led by Miletus.[87] Her activities in the area seem to have been intermediate between the models we have called colonial trade and long distance trade respectively. Her settlements there have often been thought of as factories, which drew upon the metal, fish, and grain resources in the Black Sea area. This is perhaps clearest in the case of Sinope, traditionally the earliest of these colonies, which seems to have been settled with an eye to both tapping the interior and to the sailing route directly across to southern Russia. Many of the Milesian settlements in time developed into full-fledged poleis, but it is uncertain if this development is before the decline of Miletus or not.

If the Aeginetans were exporters of Athenian pots, and it is by this activity that their presence is to be discerned, then there is little evidence of their activity before 550. Not much Athenian pottery is found in the Black Sea area before that date. What Attic pottery appears in this period is similar to the finds at Naucratis.[88] Given Milesian colonization in the Black Sea, and evidence of Milesians at Naucratis, it is to Milesian traders that this trade in Attic pottery is to be assigned. In the second half of the sixth century, Attic pots become far more common, but they do not achieve the very much greater rate of increase of importation experienced by Etruria, nor is the quality of vases imported as high. Sostratus (and possibly other Aeginetans) was involved in the conveyance of Attic pots to Etruria, along with other luxury goods. If such Aeginetans contributed to the increased number of Athenian pots brought to Etruria, obviously their involvement with the Black Sea was less intense, if not entirely different in character. Most Attic pottery found on sites in the Black Sea after 550 becomes less like the contemporary finds from Naucratis. This suggests that Aeginetan activity in the Euxine was never significant in the sixth century. Attic pottery in the Black Sea and at Naucratis changes, presumably because Milesian activity in these places changes its character. Should not importations of Attic pottery to the Black Sea become more like those to Naucratis, if Aeginetans were increasing their activity in both areas?

It has been thought that the grain trade in this region could not really have been initiated until there was a development and an

organization of the hinterlands of the Greek cities of the coasts of the Ukraine, Crimea, and Kuban. This has been suggested as a development of the post-Persian War era.[89] Yet, one reads in Herodotus that Xerxes intercepted ships from the Black Sea bound for Aegina (7.147.2). This argues for a trade in existence for some time by that date. Olbia is by far the most important center for the dissemination of Greek goods in the Ukraine. Trade in grain could have become possible with Olbia from the time when satellite communities of that city came into existence along the Dneiper and Bug limans. This was in the second half of the sixth century.[90] May it not be that Aeginetan grain merchants turned to this region only when sources in the West and in Egypt began to fail due to political circumstances? They may first have simply sought to buy grain from those Greek cities in a favorable position, or those cities who could draw on native states through commerce (like Olbia). It is only the realization on the part of the Greek cities and native rulers of the great profits that could be made that prompts the systematic development of this region as a producer of grain that was to culminate in the great kingdom of the Spartocids. Much as the Aeginetans sought a new outlet for luxury goods in the early fifth century Adriatic (which partially supplanted activity in the Tyrrhenian Sea), so too they look for a source for grain (to complement the Adriatic) in the Black Sea. If the Aeginetans again were among the early developers of the grain trade to mainland Greece from the Black Sea, the Athenians were not far behind them. Even during the time of the Peisistratids, the Athenians were very interested in the route to the northeast. In the *Pentekontaeteia*,

they showed further interest, and backed their interest with political initiatives.[91] Once again, Ionian trade activities are taken up or revived by the Athenians.

The success of Aeginetan commercial and industrial activity is a valid topic for discussion. One legacy of the piratical pattern of early trade was peddler business through much of the Peloponnesus, Crete, the Aegean islands, and central Greece. A concomitant development was the evolution of a metal craft industry to supply these "small retailers" , and the seeking out of pots and the Aiginaia for the same purpose. While it is probable that native traders may have, in many cases, conducted the final transfer, two characteristics should be marked out in this Aeginetan peddling.

1) It must have reached down to settlements of rather small size;
2) The variety of goods traded was considerable. The shift to greater involvement in long distance trade occurred by the last decades of the seventh century, and was perhaps stimulated by the example of the Ionians. Aeginetan prowess in naval warfare would have familiarized them with their competitors, whom they knew from the piratical warfare of the seventh century. The goods exported outside of Greece probably had a substantial overlap with the goods already being peddled in Greece. Iron from Etruria, silver from Spain, and tin from northwest Europe were already being exported to homeland Greece from the West. The experience of the Aeginetans in slave trading may have encouraged their exploitation of this segment of trade through long distance trade. Previously, slaves may have come primarily through the colonies.

As the colonies in Sicily and Magna Graecia expanded, wars with the indigenous peoples generated numbers of slaves. The omnipresence of sources of slaves in the West, and of eager buyers in the Greek homeland, provided a stabilizing influence for the sale of finished products in the West. The ability of Greek colonials to pay for imports varied with their agricultural fortunes and their situation vis-à-vis the natives. Yet, slaves could perhaps always be exchanged for imports. Time and energy that was otherwise risked was thereby made profitable. In Etruria, the Adriatic, and possibly southern Spain, Greek trade was limited by the capacity of Greek traders to import a mixture of attractive goods. The peddling orientation of earlier petty Aeginetan trade became an advantage, as it may have imparted some of the skills of bringing together what was appropriate to the Etruscan customer.

One of the noteworthy features of Aeginetan trade is that, for her, there may have been an interaction between international trade and a retail or quasi-retail network in homeland Greece. That both types of trade converged on the same island may have been a contributing factor in Aegina's wealth. By the sixth century, large-scale trade in grain, metals, and slaves was a significant part of commerce. Aeginetan trade did not specialize by regions. The Aeginetans can be put in all the major extra-Hellenic trade areas. The view that Corinth specialized in western Mediterranean trade and Aegina in Egyptian trade is incorrect.

It is barely possible to glimpse the details of organization that made Aeginetan traders so successful, but what can be seen

suggests that similar organization and products played their part in different regions. The archaeological record of Sostratus suggests that good information-gathering about consumers' preferences and about producers' capabilities was very important. The candelabra manufactured with the Tarentines point in the same direction. To what extent the process of information acquisition shaded over into agency (i.e., the regular attempt to fill an inventory of requests for special customers) on behalf of non-Greeks is unknown. Such a development may have been a factor in the close relationship of the Phocaeans with Arganthonius of Tartessus. Sostratus was at home at Graviscae, but how permanent (or quasi-official) an establishment he had there is subject to conjecture. These considerations raise the question to what degree acquiescence in a peripheral role benefited Aeginetan merchants. Were they prepared to accept supervision and limitation of their economic behavior by local political powers? This tendency may have been at the heart of their experience at Naucratis. It may also have been a key to the continued acceptance of the Aeginetans in Etruria. The absence of political ambitions, especially an eschewal of colonization, is central. The Phocaeans undertook colonization and piracy, especially after they emigrated to the West en masse. This provoked the Etruscans and Carthaginians. As for Samos, she was a major power under Polycrates. The Aeginetans had no colonies in the strict sense. Their island was too small to dream of empire. It is possible that the Aeginetans were willing to sell Greek slaves, some craftsmen, to non-Greeks. This practice was prejudicial to Greek interests in the long run, but could be a part of Aeginetan acquiescence.

The Aeginetan settlements abroad were ancillary in purpose to Aeginetan commercial activity. The Aeginetans combine with the Cretans to expel the Samians, and found a colony at Cydonia. If Adria was truly an Aeginetan colony, it was possibly an Aeginetan settlement again created with the cooperation of the local population. Thus, Aeginetan colonies were atypical, since they were derivative in the first instance from Aeginetan commercial interaction with Cretans, and/or the security of the sea route to Egypt, and in the case of the settlement among the Umbrians, from a desire to tap safely the resources of the head of the Adriatic. The protective character of these settlements may also have operated in their impact on the locals. One thinks of Cretans protected from Samian intruders, and Umbrians protected from their Etruscan neighbors. These colonies were peripheral settlements by choice, not by the compulsion of native political power.[92]

There is little evidence concerning Aegina's decline, except what can be reasoned from known historical events. The lower limit for the height of Aeginetan prosperity is undoubtedly set by the Athenian capture of the island, accompanied by severe losses of life and material. Whether an indemnity was exacted by Athens is in doubt. The tribute of 30 T per year would then become a major drain on the community's prosperity. It is possible that the range of Aeginetan trade may have narrowed after the Battle of Salamis, though the effect of this narrowing may not have impoverished the city. Athens' continuing conflict with Persia must have unsettled trade in the eastern Mediterranean in general. In the Aegean, Athenians and Cycladic and/or Ionian metics may have begun to

provide stiff competition. Also, there is some evidence that, as the fifth century went on, the Corinthians began to stir themselves out of the state of passivity that had been theirs since the overthrow of the Cypselids, and to take a more opportunistic foreign policy. This may have altered Aeginetan ability to carry on trade in the Adriatic without harassment.

The consolidation of the Delian League, with Aegina originally an outsider, must have served to direct the eyes of many islanders who had been part of the Aeginetan network of distribution of goods to Athens as a market for purchase. The growth of the Peiraeus, largely the result of the far-sighted policy of Themistocles, must have contributed to this evolution. Sources of Aeginetan grain may have changed (to the Adriatic or the Black Sea); so too Aegina's sources of slaves. The Athenians, who, with their silver, had been chief buyers before, became their own supplier of both commodities. Those whom the business of empire brought to Athens bought, sold, and spent money. This tendency would have been accentuated by the Athenian Coinage Decree, though in itself not a mercantilist enactment.

All these factors would have been intensified in their effect on Aegina by the Athenian subjugation of the island. Nowhere can the effects of the Aeginetan decline be seen as clearly as in Crete, a special bailiwick of Aeginetan traders. From the end of the fifth century, Crete goes into a steep decline, which can probably be connected with the dislocation caused by the removal of Aeginetan ecomomic influence.[93]

The role of Cydonia points up this situation. This colony of the Aeginetans was not among the more important of the Cretan city-states until the mid-fourth century. However, from the later fourth century, Cydonia appears as one of the wealthiest, if not the wealthiest, polis in Crete.[94] Cydonia served as a dissemination point for pseudo-Aeginetan coinage from the fifth century. The prosperity of this city seems to reflect a shift in commercial activity from Aegina to Cydonia, which was undoubtedly caused by the political troubles on Aegina. In other words, Cydonia may have acted as a haven for commercially active Aeginetans who escaped the downfall of their homeland, or as a center for enterprising Cydoniates who stepped into the shoes of the citizens of their metropolis. This evolution would have been similar to the shift from Miletus to her Black Sea colonies as emporia.

E) The Commercial Activity of Aeginetan Social Groups

This topic can appropriately be divided into two inquiries. In the next chapter, the political sources of the wealth of the Aeginetan aristocracy will be investigated. Here, it is proper to gauge the relative participation of the aristocracy and other classes in Aegina's economy. Aristotle states that a large part of the demos on Aegina was concerned with commercial activity, but he is speaking quantitatively about the composition of various cities' demos (Pol. 1291b24). Thus, he tells nothing about the participation of other social classes on Aegina in trade.

It may be taken as satisfactorily demonstrated from the rates of Aeginetan coining, the size of the fleets manned by Aegina, the

elaborate public works projects undertaken there, and the amount of food imported, that large monetary resources were at the disposal of the Aeginetan government. The aristocracy on Aegina was rich. This can be seen from several considerations. The story about the Aeginetans cheating the Helots after Plataea has the island's elite for its target (Hdt. 9.80.3). The Aeginetan government had hired the leading physician of the early fifth century, Democedes of Croton (Hdt. 3.131.1-2). Aeginetan aristocrats maintained a high (almost obsessive) involvement in international athletic competition. They celebrated their victories by patronizing the best poets of epinicia, like Pindar. The elite of Aegina buried their dead in unique, elaborate, chamber tombs, another instance of conspicuous consumption.[95] Herodotus and Ephorus called attention to the wealth and naval power of the Aeginetans and the effect of these factors on Aeginetan political behavior. Political actions were, of course, dictated by the aristocracy on Aegina.[96]

Some would consider it prima facie unlikely that Aegina, overwhelmingly dependent on non-agricultural income, and with a wealthy ruling class, did not have that elite deeply involved in those non-agricultural forms of income. Political power and wealth almost inevitably converge, even if they do not necessarily meet. Though it need not be composed of the richest individuals of the community, a political elite is hardly likely to be estranged from the economic activity of that group.[97] The Aeginetan intervention at Cydonia, the foundation of a colony there, and the placement of a station in Umbria speak to the Aeginetan

government's involvement in the status of overseas trade. The stability in coin type and standard, in foreign policy, and in the ruling families suggests that the economic pattern that had emerged there in the seventh century was consonant with the island's oligarchic political order.

Aeginetan traders were not poor. Sostratus, whose wealth caused Herodotus to digress about him, ought not to be taken as an exception. Aeginetan participation in the trade of slaves, grain, and metals put them at the center of the interchange of the most essential items to Greek society. It is hard to conceive that the Aiginaia were not profitable. As mentioned above, the gathering and sharing of information were essential to the success of trade. This suggests that the merchants directing Archaic trade were not marginal figures.

However, Aeginetan merchants could have been successful with marginal political results if those merchants were metics. The social and political import of a trade through metics was lessened by the ideological and judicial boundaries drawn between them and citizens. However, an understanding of metics is heavily dependent on the Athenian institution. Doubtless, in the fourth century, there were prominent Aeginetan metics, like Lampis, who owned the largest ship in Greece (megista naukleria) (Dem. 23.11).[98] Lampis had received ateleia, but not citizenship, from the Aeginetans, although he had refurbished their city and emporion. Yet, this indicates nothing more than that, when Aeginetan society was reconstituted after the restoration of the surviving Aeginetans in 404, economic patterns on Aegina were taken from the dominant

state in the region, Athens. Continuity had been broken by the losses of the Peloponnesian War, as Aeginetans fell in Sparta's service, and the island's refugees were attacked by the Athenians in the Thyreatis and Crete.[99] In no inscription that can be shown to date from before 431 is anyone on Aegina referred to by the term metic.[100]

There are indications that a part of the growth in Aegina's population between c. 600 and the mid-fifth century was through immigration. Athens also grew in the sixth century because people were attracted there by Solon's citizenship law and the opportunities generated by the Peisistratid tyranny (Plut. Per. 37.3). For both cities, some slaves who were freed stayed on and became naturalized. In Athens, as late as the time of Cleisthenes, the membership in the Athenian community of those who were naturalized could still be upheld.[101] Nicodromus and his supporters were probably not the only group to be given citizenship by the Athenians in the early fifth century (Hdt. 6.90). Nonetheless, when Athenian citizenship became a valued privilege, carrying with it economic as well as political benefits, it was more jealously guarded. The status of metic became institutionalized to provide an alternative means of controlled immigration. Pericles' citizenship law had made naturalization an extraordinary event. A recognized hereditary position had to be created to accomodate those with needed skills and those for whom work existed. Athenian metics felt themselves Athenians, and carried on economic activity spanning the full range of citizen behavior.[102]

However, on Aegina, the chief social distinction was not between native-born and immigrant. It was between the rich and the rest, between those with the fullest political rights and those who did not participate in politics. The office-holding elite and perhaps the hoplite class were the true active citizens. At Athens, the distinction was between thetes and immigrant metic, freedman, and xenos. There is no reason to think that the lower classes on Aegina did not identify themselves as Aeginetan. What should have been important to the aristocracy was entry into the office-holding class, and this was probably protected zealously. This suggests that the matter of metic participation in Aeginetan trade ought to be reformulated as the question of the participation of immigrants and their descendants. For those who believe that merchants were not citizens on Aegina, there must be an explanation why the political classes were impermeable to merchants, which opens the question of the ideology of the Aeginetan elite, to be discussed in the next chapter.

At Athens, metics were needed for jobs for which citizens were lacking in numbers or were disinclined. Before the influx of metics, Athens was already thriving because of the silver industry. However, Aegina, without natural resources, can only have become a magnet for immigration when commercial and industrial activity created wealth to draw people there. Aegina was not a natural crossroads. The activity of its inhabitants made it an emporion. Thus, immigrants are unlikely to have brought with them to Aegina the patterns of Aeginetan trade. Aeginetan involvement with the sea is very early. That this involvement was coordinated very early

can be seen from the massive breakwater of rough-hewn blocks in the north bay. Thus, the interest in commerce looks indigenous, and its success brought in participants from abroad, many as slaves who stayed after freedom. Athens is, therefore, a false analogy.

While it is possible to consider that a part of the impoverished demos may have been initiators of Aeginetan commercial involvement, their political position must have changed radically after independence. It is the navy in Herodotus' account that allowed Aegina to make a break from Epidaurus (5.83). The independence struggle must have shifted political power to the ship masters. The Aeginetan political aristocracy was organized after independence, and so after a period of economic growth.

It is possible that the Aeginetan aristocracy participated in trade only passively. Yet, its share in the profits of commerce cannot have been disproportionate even if these passive participants (moneylenders) are imagined to be the directors of the trade. The information necessary for trade, and the dangers of sailing outside of homeland Greece, would have assured a good profit to those actively trading. In the case of Aegina, a connected question is where the capital to carry on trade can have come from. Aegina had no primary industry to supply funds for investment in trade. Capital for trade can only have come from trade after a modest early investment in agriculture. Capital grew as trade grew. Therefore, commerce created the capital for its own conduct. It is unlikely that merchants and capitalists remained separate groups, members of different families and with different Political positions. In Athens, there were several sources of

capital for investment and trade, and political ideology insured that those members of the upper class active in politics were not merchants. The flight of capital to landholding was the most significant factor in the history over several generations of estates at Athens. On Aegina, the distinction may have been between active and passive components of the society engaged in trade. Possibly, an active component was the more personally involved; the passive component, although its wealth had its roots in commerce, was more absorbed in politics or competitive athletics. Their passivity lay in their unwillingness to accept risk and to invest personal energy. But this was merely individual orientation. There may have been shifts from active to passive involvement and vice versa. People turned back toward active trade because there were fewer opportunities for investment at home than there were at Athens. The scope of arable land was limited. There was no mining industry. Contract work for the state, augmented by political hegemony, was not as much a factor. Other than in ship building, some state projects, and craft workshops, opportunities were limited. This suggests that, for Aegina to have been so wealthy, different types of involvement in trade had permeable boundaries.

Chapter 4: Footnotes

1. Aiginaia: H. Blümner, Die gewerbliche Thätigkeit der völker des klassischen Alterthume, (Leipzig, 1869), 88-90. The provenience of these items may well have been originally oriental, with an eventual replacement by Greek derivatives or copies. See V. Webb, Archaic Greek Faience, (Warminster, U.K., 1978), 5-9.

2. J. Hasebroeck (Trade and Politics in Ancient Greece, (London, 1935), 53) observes that it is impossible to date the Aeginetan production of perfume. Yet, one would be inclined to date almost anything of significance regarding Aegina before the island's subjugation to Athens, though production may have continued afterwards. Cf. R. Büchsenschütz, Die Hauptstätten des Gewerbfleisses im klassischen Alterthume, (Leipzig, 1869), 97.

3. Hasebroeck, Trade and Politics, 53-8; cf. F.M. Heichelheim, An Ancient Economic History, (London, 1958-65), 1.240.

4. On phoinikeia: L.H. Jeffery, "Archaîa Grámmata: Some Ancient Greek Views", Europa: Studien zur Geschichte und Epigraphik der frühen Aegaeis. Festschrift für Ernst Grumach, (Berlin, 1967), 152-66. Herodotus 5.58-9 attributes the introduction of writing into Greece to the Phoenicians. Ta phoinikeia for letters is attested from Teos, c. 475-50 (SGHI #30). Two Hellenistic texts from Mytilene mention a phoinographes and a grammateus in a context that suggests that the former was the older term (IG XII, 296-7). A Cretan inscription substantiates the derivation of phoinikeia from Phoenician: L.H. Jeffery & A. Morpurgo-Davies, "Poinikastás and Poinikázen: BM 1969, 4-2:1; a New Archaic Inscription from Crete", Kadmos 9 (1970) 188-55. The inscription (c. 500) discusses privileges granted to Spensitheos, the poinikastás, or scribe, of an unknown Cretan city. The related verb poinikázen is also used. A.E. Raubitschek ("The Cretan Inscription BM 1969, 4-2:1: A Supplementary Note", Kadmos 9 (1970) 155-7) believes that the inscription has to do with a revision of privileges awarded to Spensitheos at some earlier time, perhaps at the end of the seventh century. Most ancient theories of writing are not contradictory to this derivation of the term phoinikeia. One, however, attested from late sources (Jeffery, op. cit., 155-7), would derive the term from palm leaves used for early writing material, or from the red lettering used on inscriptions or early writing (ho phoinix is not only "a Phoenician", but the "purple" color and the "date palm"). P. Chantraine, ("A propos du nom des Phénecens et des noms de la pourpre", Studii Clasice 14 (1974) 7-15), basing himself on the appearance of phoinikeia in Linear B (if the transliteration of this term is correct), where it cannot refer to the Phoenicians, has gone on to argue that the early appearance of this and related terms is to be connected with red paint used as ink.

5. The Aeginetans penetrated Arcadia through Cyllene, the port of Elis, in the generation before the reign of the Spartan king Charicles. See p. 204 above; also T.J. Figueira, "Aeginetan Membership in the Peloponnesian League", CP 76 (1981).

6. S.S. Weinberg, "What is Proto-Corinthian Geometric Ware?", AJA 45 (1941) 30-44, esp. 42-4 (2nd half of the 8th century). Cf. F. Villard, "La chronologie de la céramique pré-Corinthienne", MEFR 60 (1948) 7-34, esp. 11-12; C. Coldstream, Greek Geometric Pottery, (London, 1968), 98-104.

7. Steph. Byz. s.v. "Aigina"; "gaza". In the latter, Stephanus contrasts Aeginetan and Gazan pots and citizens. The citizens are Aiginetai and Gazaioi, but the pots are Aiginaioi and Gazitai.

8. Aegina as an entrepot for ceramics: Hsch. s.v. "Ekho petraian khutropolin"; Phot. s.v. "Ekho petraia"; Poll. 7.197

9. Cratinus fr. 161 (Edmonds): mid-fifth century. Cratinus' first victory, 453, died shortly after 423. Aegina as a regional distribution center for foodstuffs is also behind a quote from Arkhestratos on buying mullets on Aegina (Athen. 7.307c).

10. The setting of the comment is in the reign of good king Aeacus, a sort of golden age in the mythical past, so that it is possible that maza, barley-cake, is mentioned because this homey foodstuff is appropriate to the hoary past. However, Aeginetan maza may only be mentioned for the sake of jibing with Aeacus, and may have no basis in early Archaic trade. On competition between cereal grains, see Chapter 1, n. 6, pp. 53-4.

11. The term phortos and its derivatives do not necessarily connote small freight. On phortegos and phortegesion, see B. Bravo, "Remarques sur les assesses sociales, les formes d'organisation et la terminologie du commerce maritime grec à l'époque archaique", Dialogues d'histoire ancienne (1977) 1-51; esp. 43-51; Id., "Une lettre sur plomb de Berezan: Colonisation et modes de contact dans le Pont", Dialogues d'histoire ancienne (1974) 111-87; esp. 126-32. Cf. Hasebroeck, Trade and Politics, 16; Id., Griechische Wirtschafts- und Gesellschaftsgeschichte bis zur Perserzeit, (Tübingen, 1931), 278, 281, on the petty character of Aeginetan trade. E. Kirsten, "Aigina", Gnomon 18 (1942) 289-311, esp. 298-300, who, while he believes that Aeginetan peddling trade was in the hands of members of the dependent population, recognizes, in opposition to Hasebroeck, that there was Aeginetan trade in the major commodities.

12. Pliny, NH 34.5.11. The context is a discussion of antique bronzes of several cities, including Aegina, and of various Archaic Classical bronzeworkers. Cf. Pliny, NH 34.19.75 on Aeginetan bronze otherwise.

13. Hasebroeck (Trade and Politics, 54) argues that we have no way of dating the Aeginetan/Tarentine candelabra. Yet, Pliny's context almost certainly suggests early bronze work. The earliest attested Aeginetan bronze sculptor was Smilis, active in the late 7th century, another indication of Aegina's growing importance at that time (Olympichos FGH 537 F 1; Aethlios FGH 536 F 3; Callimakhos Aitia fr. 100 (Pfeiffer) (also Dieg. 4.21); Athen. Pro Chr. 17; cf. Paus. 7.4.4; Pliny, NH 36.90).

14. Welter, A[1], 93-5, 123. See Paus. 1.39.5; 5.25.13 (on Onatas); 5.27.8; 6.12.1; 8.42.7-12; 10.13.10; also Pliny, NH 34.5.11; 35.38.145; 35.39.172. For a list, see Welter, A[2], 98-101.

15. G. Vallet, Rhegium et Zancle, (Paris, 1958), 158-9, 163

16. See R.M. Cook, "Die Bedeutung der bemalten Keramik für den Griechischen Handel", JDAI 74 (1959) 114-24; esp. 118-19. On pottery and history: G. Vallet & F. Villard, "La céramique et histoire économique", Études archéologiques, ed. P. Courbin, (Paris, 1963), 205-17.

17. On prices: D.A. Amyx, "An Amphora with a Price Inscription in the Hearst Collection", Univ. Cal. Publ. in Class. Arch. 1 (1947) 179-98; Id., "The Attic Stelai, Part III", Hesperia 27 (1958) 162-318; cf. J.H. Jonkees, "An Attic Hydria with a Graffito", Mnem. s. 3, 10 (1942) 152-68; Id., "On Price Inscriptions on Greek Vases", Mnem. s. 4, 4 (1951) 258-66. See also T.B.L. Webster, Potter and Patron in Classical Athens, (London, 1972), 275-8. However, A.W. Johnston ("Trademarks on Greek Vases", G&R s. 2, 21 (1974) 138-52, esp. 148-9) rightly rebuffs the suggestion of Webster that a two tier price system can be extracted from the surviving price inscriptions. Cf. Hasebroeck, Trade and Politics, 50-2.

18. See M.M. Eisman, "Attic Kyathos Production", Archaeology 28 (1975) 36-53; Cook, Greek Painted Pottery (London, 1972), 223; M.A. Tiberiou, "Oi Turrenikor (Attikoi) Amphoreis", AE (1976) 44-57. Eisman observes that the kyathos is an Etruscan shape and that all kyathoi may have been produced by the Nikosthenic workshop. However, coordinated changes in shape cannot prove this alone, because they could well have been coordinated by merchant buyers. The vases were produced from 535-485. Eisman suggests that changes in taste led to the shape's demise, but this is only one solution.

19. J. Boardman, "The Athenian Pottery Trade", Expedition 21.4 (1979) 33-9; see also, Webster, Potter and Patron, 295-6.

20. Johnston (G&R (1974) 138-52, esp. 142-3) emphasizes the commercial character of these abreviations. Needless to say, the idea that second hand pottery was circulated to the West,

and that, therefore, these marks could be owners' marks (rightly rejected by Johnston) is an unnecessary complication. Any such system selling used personal property would, perforce, be more complicated than one that commissioned consignments of pots and conveyed them to the West. See also, Webster, Potter and Patron, 270-2.

21. Vallet, Rhegium et Zancle, 191-2; Johnston, G&R (1974) 143. However, one cannot be certain (pace Johnston) that vases with merchant marks in Corinthian script were circulated by Corinthians. They could have been marked in their Corinthian workshops and sold by Greeks of other cities. On merchant marks on East Greek pots, see Johnston, "Rhodian Readings", BSA 70 (1975) 145-67.

22. J.P. Morel, "Les Phocéens en Occident: certitudes et hypothèses", PdelP 21 (1966) 378-420, esp. 388-9

23. Vallet, Rhegium et Zancle, 186-8

24. Vallet & Villard, "Les Phocéens en le Méditerranée occidentale à l'époque archaïque et le fondation de Hyéle", PdelP 21 (1966) 166-91. Cf. Morel, PdelP (1966) 378-420, who minimizes the scale of 7th century Rhodian commecial activity in the Far West.

25. M. Torelli, "Il Santuario di Hera a Gravisca", PdelP 26 (1971) 44-67; A.W. Johnston, "The Rehabilitation of Sostratus", PdelP 27 (1972) 416-23; F.D. Harvey, "Sostratos of Aegina", PdelP 28 (fasc. 168) (1976) 206-214. For Graviscae, see Torelli, "Il Santuario Greco di Gravisca", PdelP 32 (1977) 398-458, esp. 398-413.

26. E.g., Heichelheim, Economic History, 1.243; Torelli, PdelP (1971) 59-60, 65-6; also the references cited in Harvey, PdelP (1976) 210 n. 13. Kirsten (Gnomon (1942) 299) argued from Sostratus to the existence of major wealthy Aeginetan traders involved in the major commodities.

27. Johnston, PdelP (1972) 416-23

28. Johnston, G&R (1974) 40-7

29. Johnston, PdelP (1972) 417

30. Harvey, PdelP (1976) 209

31. Harvey, PdelP (1976) 208-9

32. Johnston, PdelP (1972) 422

33. Torelli, PdelP (1971) 51-4. The key question is what status does one attribute to the Greek population at Graviscae. Were they naturalized, as Torelli holds, suggesting that the Etruscan gentilicial structure had not yet rigidified to such an extent as to preclude this? Were the Greeks at Graviscae not in a rather more provisory situation (somewhat like Naucratis), as an isolated, exclusively Greek community in Etruria seems to suggest?

34. Torelli, PdelP (1971) 62-7, who also makes the point that Hera is primarily a goddess of ports in Italy.

35. Samians as pirates: Colaeus' voyage (?) (Hdt. 4.152); Amphicrates' attack on Aegina (Hdt. 3.59); Aeaces' dedication from booty (Dittenberger Syll.^{3} #10); Polycrates' pirate fleet and his raids (Hdt. 3.39.4; Polyaen. Strat. 1.23.1); Samian exiles at Siphnos (Hdt. 3.57) and at Cydonia (Hdt. 3.59); Samian theft of a Spartan gift to Lydia (Hdt. 1.70). Aeaces' dedication (see SGHI #16) is problematic, as the dedicator cannot be Polycrates' father, active too early for the letter forms. It may be possible that the inscription is later, added to a statue of Polycrates' father. Significant is an Aeaces unconnected with Polycrates' father. SGHI suggests the term "sule", found in the inscription, which may be paralleled with an emendation on a Samian horos (FGH 544 F 3), and which is connected with the name Syloson, appearing twice in the family of Polycrates. The connection with piracy is emphasized in SGHI; Jeffery, LSAG, 234; M.E. White, "The Duration of the Samian Tyranny", JHS 74 (1954) 36-43, esp. 38; J.P. Barron, "The Sixth Century Tyranny at Samos", CQ n.s. 14 (1964) 210-29, esp. 214. See above Chapter 3, n. 46, p. 221.

36. Himera (tr. date, 649) & Selinus (tr. date 628): T.J. Dunbabin, The Western Greeks, (Oxford, 1948), 248-9, 300-1; for Phocean activity, see Vallet & Villard, PdelP (1966) 170-2, 180.

37. See above Chapter 2, p. 148 & n. 143.

38. G. Trias de Arribas, Ceramicas Griegas de Peninsula Iberica, (Valencia, 1967), XXXIX, 455-87

39. See above Chapter 2, pp. 146-7.

40. On Caeretan pottery: Cook, Greek Painted Pottery, 160-1. Cf. Id., "A List of Clazomenaean Pottery", BSA 47 (1952) 123-52, esp. 149-51. Some evidence for Aeginetan trade in slaves skilled in the pottery craft may lie in two inscriptions on 7th century pots affixed before firing that may be in the Aeginetan script. The painter of a proto-Attic stand (c. 620), upon which is written Menelas, may have been an Aeginetan. See Jeffery, "Comments on Some Archaic Greek Inscriptions", JHS 69 (1949) 25-38, esp. 26. Also, the Chigi Vase may have been the work of an Aeginetan, on the basis of the lettering found on it. See Cook, Greek Painted Pottery, 254. In both cases, one

thinks first of slaves raised on Aegina and sold abroad rather than of free immigrants, though it is possible that some craftsmen left Aegina at the time of the 7th century independence struggle.

41. On Mediterranean agriculture: Braudel, The Mediterranean, (New York, 1972-4), on islands, 1.152-3; in general, 1.244-6.

42. Three reasons why surpluses from regions with dependent agriculture did not reach the international market: 1) It was in the serf's interest to underestimate his harvest and conceal a part of it, lowering his obligation; 2) dependency robbed the farmer of a part of his motivation to produce; 3) where serfdom prevailed (as in Laconia) agriculture was less assimilated to a money economy, making international trade difficult.

43. Cf. H.W. Parke, Greek Mercenary Soldiers, (Oxford, 1933), 4-6.

44. Boardman, The Greeks Overseas, (Middlesex, 1973), 119-32. For the excavation reports: D.G. Hogarth & others, "Excavations at Naukratis", BSA 5 (1888-9) 26-97; Id., "Naukratis, 1903", JHS 25 (1905) 105-36; Hogarth & E.A. Gardiner, Naukratis, 2 v. (London, 1886-8). Cf. Hasebroeck, Trade and Politics, 62-6.

45. Vallet, "La colonisation chalcidiènne et l'Hellénisation de Sicile orientale", Kokalos 9 (1969) 30-52; E. Sjoquist, Sicily and the Greeks, (Ann Arbor, Mich., 1973),

46. K. Polanyi, "Ports of Trade in Early Societies", Primitive, Archaic, and Modern Economies: Essays of Karl Polanyi, (ed. G. Dalton), (New York, 1968), 238-60; M.M. Austin, The Greeks in Egypt in the Archaic Age, Proc. of the Cambridge Philological Society Suppl. 2 (1970), 27-9, 44-5

47. C.D. Roebuck, "The Organization of Naucratis", CP 46 (1951) 212-20

48. Roebuck, CP (1951) 214

49. Boardman, Greeks Overseas, 120-38

50. Cook, "Amasis and the Greeks in Egypt", JHS 57 (1937) 227-37

51. Boardman, Greeks Overseas, 119

52. Boardman, Greeks Overseas, 117-8, where the earliest remains are the Temple of Aphrodite, c. 600; the Milesian Temple of Apollo c. 600; the faience factory, early sixth century.

53. Austin, Greeks in Egypt, 23-4

54. F.W. Von Bissing, "Naucratis", Bulletin de la Societé Royale d'Archéologie d'Alexandrie 39 (1951) 33-82

55. Austin, Greeks in Egypt, 21-31

56. A.R. Burn, The Lyric Age of Greece, (New York, 1960), 90-3. Miletus was on the grain route from Egypt (Thuc. 8.35.2).

57. F. Villard, La céramique grecque de Marseilles, VI^e-IV^e siecle: essai d'histoire économique, (Paris, 1960), 73-4

58. Boardman, Greeks Overseas, 118-9; Hdt. 2.178.3

59. In myth, the cult of Zeus Hellenios was established by Aeacus after Zeus answered his prayers for rain during a drought afflicting all Greece (Isoc. 9.14; Apoll. 3.12.11; Schol Pi. Nem. 17a (Drachmann); cf. Paus. 1.44.10; 2.29.7-8; Diod. 4.61). The Hellenic League sought the aid of Zeus Hellenios in 480 (Hdt. 5.49; 9.7.1; Pi. Isth. 8.24). Pindar assimilates Zeus Hellenios to Zeus Xenios (cf. Nem. 5.9-11; 33). See J.B. Bury, Pindar: Nemean Odes, (London, 1890), 82, 86. The sausage-seller of Aristoph. Eq. 1250 invokes Zeus Hellenios, but one should be reluctant to make very much of this.

60. Boardman, Greeks Overseas, 127

61. See above Chapter 2, pp. 111-14.

62. Webb (Archaic Greek Faience, 9-10) reports that finds of faience increased on Aegina in her 3rd period (the late 7th century). Although the amount found on Aegina never reaches the levels of finds of Rhodes, Samos, or Naucratis, the relatively greater amount in the late 7th century helps indicate the beginnings of long distance Aeginetan trade, and shows the Aeginetans as successors of the Ionians.

63. Fikellura pots may have been produced on Samos (Boardman, Greeks Overseas, 127). Their number dwindled at Naucratis around mid-century. Cook (Greek Painted Pottery, 132-6) suggests Samos and Rhodes as their site of manufacture, with Samos to be preferred if there was one point of production. Ionian styles like Naucratite or Rhodian (Cook, JHS (1937) 228; Boardman, Greeks Overseas, 139)

64. Boardman, Greeks Overseas, 123

65. Roebuck, CP (1951) 212-20; Id., "The Grain Trade between Greece and Egypt", CP 45 (1950) 236-50.

66. The evidence from coins is obsolete. That Chiot dedicatory pottery found in the Milesian Apollo sanctuary had inscriptions painted before firing suggests that the pots were manufactured expressly for their eventual dedication. The natural assumption is that Milesiansimported the pots for use in their temple. Cook (Greek Painted Pottery, 126-30) does not

believe that any of this pottery was manufactured in Naucratis. If Naucratite pottery was manufactured at Naucratis, as the finds there suggest, there is a good chance that one must look to imported slave craftsmen. It is found on Aegina in the 6th century with the dedicatory inscriptions also affixed before firing. Trading at Naucratis had, presumably, familiarized the Aeginetans with these pots.

67. Roebuck, CP (1951) 212-30

68. Austin, Greeks in Egypt, 27-33.

69. Cf. D. van Berchem, "Trois cas d'asylie archaïque", MH 17 (1960) 21-37, esp. 26-9.

70. R. Carpenter, The Greeks in Spain, (London, 1925), 12-31

71. Vallet, "L'introduction de l'olivier en Italie centrale d'apres les données de la ceramique", Hommages a A. Grenier, Collection Latomus 58, Part 3 (1962) 1554-63. Native olive oil was available from the late 7th century.

72. Morel, PdelP (1960) 398-9

73. Vallet & Villard, PdelP (1966) 175-6

74. Miletus & Sybaris: Hdt. 6.21.1; Vallet (Rhegium et Zancle, 166-79) attacks the notion of land routes in southern Italy as avenues of trade. His arguments are effective except for Sybaris, which his discussion of the hoard evidence (95 ff.) does not do justice. The assumption that the Chalcidian colonies at the straits allowed all and sundry to pass without molestation or payment is unlikely in light of their origin as pirates' nests.

75. Villard, La céramique grecque, 105-6; Attic pottery in Spain: op. cit., 114-19; J. Jully, La céramique Attique de La Monedière, Bessan, Herault, Collection Latomus, #124, (Brussels, 1973), 216-36 (for Attic pottery in Languedoc and Spain).

76. G. Colonna, "Ricerche sugli Etruschi e gli Umbri a nord degli Appennini", Studi Etruschi 42 (1974) 3-24

77. L. Braccesi, Grecita Adriatica[2], (Bologna, 1977), 153-4

78. H.H. Scullard, The Etruscan Cities and Rome, (Ithaca, 1967), 199-220

79. Vallet, "Athènes et l'Adriatique", MEFR 62 (1950) 33-52 esp. 43-7; first period with any number, 520-480; peak, 480-450; gradual slackening, 450-425. His conclusions about Athenian participation cannot be supported. See also Braccesi, Grecita Adriatica, 128-34.

80. The Massiliot tin route across France was disrupted in the early 5th century (Villard, La ceramique grecque, 154-8). For the shift of trans-European trade routes eastward, see R.L. Beaumont, "Greek Influence in the Adriatic", JHS 56 (1936) 159-204, esp. 190-2; Morel, PdelP (1966) 409-11.

81. Colonna, "I Greci di Adria", RSA 4 (1974) 1-21. Note that Greek finds from Adria predate those from Spina. Cf. Braccesi, Grecita Adriatica, 138-52.

82. Vallet, MEFR (1950) 50

83. Colonna, RSA (1974) 19-21

84. Cf. Vallet, MEFR (1950) 33-52; Braccesi, Grecita Adriatica, 135-68.

85. Cf. Cook, JDAI (1959) 116.

86. Some mercantile base must have existed for the great naval program of the Deinomenids. Around mid-5th century, there appears the Syracusan merchant Cephalus, Lysias' father.

87. Boardman, Greeks Overseas, 249-53

88. S. Dimitriu & P. Alexandrescu, "L'importation de la céramique Attique dans les colonies du pont-Euxin avant les guerres Mediques", RA (1973) 23-38; Alexandrescu, "Les importations grecques dans les bassins du Dniepr et du Boug", RA (1975) 63-72.

89. T.J. Noonan, "The Grain Trade in the Black Sea", AJA 94 (1973) 231-42, esp. 241-2; D.M. Pippidi, "Le problème de la main d'oeuvre agricole dans les colonies grecques de la mer noire", PTGA, 62-82.

90. A. Kocybala, Greek Colonization on the North Shore of the Black Sea, (Diss., Pennsylvania, 1978), 213-23, 270-80, 366.

91. Pericles' expedition to the Pontus: Plut. Per. 20.1-2; Aristeides' death there (?): Plut. Aris. 26.1. Athenian interests in the East: D. Kagan, The Outbreak of the Peloponnesian War, (Ithaca, 1967), 387-9

92. Hasebroeck, Trade and Politics, 16. He emphasizes the fortuitous character of the profits made by such an Aeginetan merchant as Sostratus. Hasebroeck, op. cit., 96-7, 192-5 for the idea that there cannot have been any state "merchant" policy on Aegina. Kirsten (Gnomon (1942) 303) would credit the Aeginetan elite, to whom he attributes a passive orientation toward trade, with active measures to uphold the interests of the lower-class traders abroad, at least in the case of the foundation of the colony at Cydonia. Cydonia and

the settlement among the Umbrians were places to which settlers actually went. A site in Paphlagonia was called "Aiginetes" (Steph. Byz. s.v. "Aiginetes") and an island near the Lipari Islands in the Tyrrhenian Sea was called "Aigina" (Itin. Marit. 516, 517). If these are not simply similar sounding names with no connection to the island of Aegina, they are perhaps stations visited by the Aeginetans during their long voyages. So too possibly Cydonia and the Umbrian colony were places visited for some time by the Aeginetans before settlement. Aeginetan trade in Egypt, Crete, and the Adriatic predated attempts to settle on the routes thither.

93. This to invert the suggestion of P. Demargne (La Crète dédalique, (Paris, 1947), 352) that the evident Cretan decline in the 5th century had as its result the decay of Aegina. Aegina's decay was primarily political. The cause and effect relationship, decline of Aegina-decline of Crete, better fits the chronology, and is more appropriate as a more advanced economy affects a more primitive one.

94. Cydonia only achieves importance among Cretan cities in the 4th century, and holds the balance of power between Gortyn and Knossos (Strabo 10.4.11 C478). The commercial flowering of Cydonia is strictly a phenomenon of the 4th century. See H. van Effenterre, La Crète et le monde grec de Platon à Polybe, (Paris, 1948), 117-20.

95. Burial in chamber tombs: Welter, A[1], 55-62; Id., ("IG I[2], 1007: an Aeginetan Grave-Inscription", Phoros: Tribute to Benjamin Dean Meritt, (Locust Valley, N.Y., 1974), 76-9) lists the inscribed examples with a brief account. See also "Aeginetica, XIII-XXIV", AA (1938) 510-14. Jeffery D.C. Kurtz & Boardman, Greek Burial Customs, (Ithaca, 1976), 181-2; Kirsten, Gnomon (1942) 294. Not all the tombs, of course, were those of the aristocracy, but it is safe to assume that the custom radiated down from above. Such chamber tombs, perhaps, may indicate the existence of wealthy non-aristocrats who indulged in this form of conspicuous consumption. The Aeginetans had a reputation for luxurious living; see Athen. 12.544d.

96. See above Chapter 3, pp. 166-8.

97. Hasebroeck (Griechische Wirtschaft., 262-5) emphasizes that Aeginetan merchants were citizens. Given the agricultural resources of Aegina, this forces one to explain why merchants would not have been the richest members of the community. See also Winterscheidt, Aig., 22-3. Kirsten (Gnomon (1942) 302) would distinguish between the passive aristocracy, interested in trade, but maintaining its "Dorian" character, with active trading underclasses.

98. Lampis: Plut. Mor. 234F; 787A; Comm. in Hesiod. fr. 59; Cic. Tusc. Disp. 5.40; Stob. 29.87. See G.E.M. de Ste. Croix, The Origins of the Peloponnesian War, (London, 1972), 267 n. 61. On Aeginetan metics in general, see M. Clerc, "De la condition des étrangers domiciliés dans les différentes cités grecques", Revue des Universites du Midi 4 (1898) 1-32, 153-80, 249-74, esp. 153-4; Winterscheidt, Aig., 41-2. Müller (LA, 85) gives the metic population of the island as 5000.

99. The Athenians first expelled the Aeginetans from their island (Thuc. 2.27.1). Then they delayed a relief expedition for Phormio in the Corinthian Gulf to attack Cydonia (a "hostile city"), the Aeginetan colony in Crete. Next, the Athenians attacked the refuge of the Aeginetans in the Thyreatis and burnt the town. Their Aeginetan captives were later executed (Thuc. 4.57.1-3). It is noteworthy that the Aeginetans were putting up a fortification on the shore when the Athenians attacked them. At some point, the Athenians had decreed that any Aeginetan taken prisoner was to have his hand cut off (Ael. VA 12.10). This may date from the Peloponnesian War, as it is similar to an Athenian threat later in the War to cut off the thumbs of sailors in the Peloponnesian fleet. Two conclusions are to be drawn from this evidence. It is probable that Aeginetans served in the Peloponnesian fleet during the War, so that the Athenians continued to take steps against them. Second, the nature of their services to Sparta, and their probable heavy casualties help explain why Aeginetan society was not completely reconstituted after the War.

100. Winterscheidt (Aig., 41-2) cites the following as Aeginetan metics: IG IV 47, 49, 50, 55, 56. The word "metic" is used in none of the inscriptions. In 50, an inscription from the 1st half of the 5th century, the epitaph of one Antistates, an Athenian, is contained. He describes himself as leaving his fatherland (patrida gen prolipon). The circumstances of his migration to Aegina would certainly be most informative. There is no insurance that he is not a political refugee. Menekrates and Eurymakhos were Phoenicians (55-6). Their status is unknown, but their Greek names suggest freedmen. The status of Gleukitas from Salamis in Cyprus is also unknown (49). IG IV 47 records an epitaph wherein the name or demotic Kydonikou appears. The inscription may be late 6th century. There is some doubt whether Kydonikos can have been a man named after the city in Crete (or rather the Aeginetan victory there), or whether his origin was Cydoniate. In the latter case, his status is irrecoverable, since we do not know the rights of Cydoniates, colonists or Cretans. Cf. LSAG, 111.

101. C. Hignett, A History of the Athenian Constitution, (Oxford, 1952), 132-4; M. Ostwald, Nomos and the Beginnings of Athenian Democracy, (Oxford, 1969), 141-2. Cf. Ath. Pol. 13.5.

102. In general, see M. Clerc, Les métèques Athèniens: Étude sur la condition légale, la situation morale et le rôle social et économique des étrangers domiciliés à Athènes, (Paris, 1893).

Chapter 5: The Political Structure of Aeginetan Society

A) Social and Political Groups on Aegina

Aegina was ruled by an oligarchy of aristocratic families. This can be seen from the fact that the element that revolts against the ruling government in the coup of Nicodromus is described by Herodotus as the demos (Hdt. 6.88-92). Those who suppressed the rebels are called pakhees by Herodotus. Presumably, he was thinking in terms of the oligoi vs. demos, a common ideological confrontation of the second half of the fifth century. It seems reasonable that the various interchanges between the Spartan king Cleomenes and the Aeginetan government took place in the forum of the Aeginetan council, which was probably an oligarchic body. Cleomenes and the Aeginetan Krios carry on face-to-face diplomacy, an unlikely event in a primary assembly. The only evidence for the operation of an assembly is when Aristokleides, the victor of Nem. 3, is described as not dishonoring the palaiphaton agoran (or eiran; cf. Etym. Mag. s.v. "eira") of the Myrmidons (14). As Aristokleides is later described as politically active, this may be a political body (69-70). Both

Pindar and Bacchylides speak of the eunomia of the Aeginetan government, a term used by Tyrtaeus to describe the government of Sparta (Aris. Pol. 1306b36) and as an ideal by Solon (fr. 4.32 (West, IE)) (Pi. Isth. 5.22; Bacchyl. 13.186). Yet, Pythainetus makes Damokrateia a daughter of the nymph Aegina and a sister of Aeacus (FGH 299 F 5). Whether this represents a traditional claim of the Aeginetans that their government was "democratic" (whatever this may have meant in their political vocabulary) is unknown. At least it indicates that the government was seen by later Aeginetans as popular, no dynastic oligarchy.

The tone struck by Pindar's Aeginetan odes is likewise redolent of a community where a few leading families were dominant. The hostages extracted by Cleomenes in 491 or 490 are described as "most eminent by reason of wealth and birth" (pleistou aksioi kai ploutoi kai genei) (Hdt. 6.73.2). The proverb, "Aegina nurtures the best offspring", also indicates the hereditary character of the island's elite, and its accomplishments in international athletics (CPG 1.312 (Diog. 8.37); Plut. Mor. 106; Eustath. ad Od. 11.505; The Aeginetan elite prided itself on the possession of aristocratic qualities. Pindar emphasized the hereditary quality of their arete, a characteristic presumably important to his Aeginetan patrons (Ol. 8.59-61; Nem. 3.40-2).

Yet, as has been remarked above, no family can be traced further back than the late seventh or early sixth century.[1] Nor must one necessarily assume that the leading men of the Aeginetan community under Epidaurian rule continued their predominance into the period of independence. The achievement of

independence had been accompanied by a growth in the maritime emphasis of the community, and it may be possible that it was the newly rich that were in the forefront of the struggle against Epidaurus. The change in alliance toward friendship once more with Argos may again have worked considerable changes in the personnel of the leadership. Pindar, as one might expect, has no reflection of the Aeginetan aristocracy's achievement of supremacy. It deserves to be repeated that differentiations in status in satellite polities may be less than in independent states.[2]

A notion that must be rejected firmly is that the Aeginetan oligarchy was a closed caste, all of whom claimed a common ancestor, and had represented the conquering Dorian elite of the island.[3] This elite would be a group of families of the Aeacids, and the poems of Pindar could be understood as providing support for this interpretation. Yet, any scenario for the settlement of Aegina during the Dark Ages must emphasize discontinuity and fluidity of population. This makes it unlikely that any fifth century claim by the Aeginetan aristocrats to be the descendants of tenth century Dorian invaders of the island can be true. The theory glosses over the distinction between the historical Dorian invaders of the island and the mythological Aeacids who were non-Dorian. A comparison with the Heraklids, Achaean rulers of Dorian invaders, might be possible. That Pindar could speak in the same breath of the Dorians and the Aeacids shows that this is a symbolic representation, not meant to be historically analyzed. If the Aeginetans were metaphorically termed the Aeacids, it was all the Aeginetans, not simply the elite.[4]

In any case, there is also little indication in Pindar of interrelationships between Aeginetan leading families other than might be expected in any aristocracy.

Another connected view equates the Aeginetan aristocracy with familial castes like the Bacchiads of Corinth or the Basilids of Miletus.[5] The Aeginetan aristocrats, either the clan of the Aeacids or another Dorian clan that conquered the island early in the first millenium, like the Ionian royal clans, are claimed improbably to have been able to trace their descent through the Dark Age.

Most of the states with a sizeable amount of geographical area were the result of a gradual coalescence of quasi-independent sub-regions or villages. Even if one particular region took the leadership in the unification process, it is unlikely that its aristocracy, without any addition of allies or of defectors from its opponents, could impose itself on the emergent polis. Some evidence indicates that the circle of the Bacchiads did not exhaust that of the Corinthian aristocracy, but that the Bacchiads were a single clan of royal blood that seized power sometime in the eighth century.[6] Accordingly, they did not claim descent from the last king of Corinth, but from one of his predecessors, so that there is no surety that they were the only family of royal blood. The comparison with Archaic Athens ought briefly to be touched upon. The usurpation of lands by Athenian nobles during the agrarian conflict c. 600 betrays some features of an attempt to set up a closed oligarchy. It was answered by Solon's census system that opened the ranks of the political elite. The term Eupatrid seems

to have had two senses. One, a general meaning, denoted any member of the traditional aristocracy of Athens. Another, narrower, definition depends on the existence of a genos called the Eupatrids.[7] An attempt to shift the application of a general political adjective to a specific group is a secondary development, and may indicate that this genos was claiming to represent in itself the whole Athenian aristocracy. A conclusion of some significance is to be drawn from the information about "closed" oligarchies, or impermeable groups which arrogated most political rights to themselves, denied mobility between classes, and may have practiced endogamy (witness the Bacchiads). They were not a primitive Dark Age phenomenon, but a subsequent stage in the evolution of tribal leadership. The Eupatrids attempted to build their supremacy in the state by an exploitation of the agrarian conflict in the time of Solon. They did so against strong opposition from the disadvantaged and, it seems, from the extra-urban regions of Attica. Nothing suggests that Eupatrids or their factional successors, the Pedion party, had a legitimate claim to be the sole Athenian aristocracy throughout the Dark Age.

The idea of closed, long-lived elites clashes with both the biology and the economics of elites. Intelligence, physical prowess, and emotional equipment (pertinently, aggressiveness) may have a genetic component.[8] At any one moment, there may have been extended families in possession of more than average levels of these attributes valued by the community. Thus, a part of their political position may have been won by them by their leadership qualities. However, if such clans practiced endogamy, and remained

closed to outsiders in an attempt to monopolize political charisma, over generations their inherited abilities would have begun to approximate those of the community as a whole. The longer they stayed in power, the more true this would have been. In a political situation, where partisan politics is acted out through the interplay of factions based on family units, if the above-mentioned process eventuates, there will inevitably be family groups outside the closed elite with greater than average inherited abilities. The advantages of inherited wealth and position in static communities will, of course, retard this process to a great extent. On the other hand, in communities enjoying a growth in wealth and a change in economic patterns, this process will be accelerated, a reason for conservative oligarchies to resist change. On the scale of centuries, those elites will remain most healthy that allow adlection of extraordinary individuals and intermarriage with the upwardly mobile. Personality alone, no matter how steeped with prerogatives, can seldom resist the onslaught of familial change and social mobility in combination. Add to these considerations the biological impossibility of a hundred families or clan sections reproducing themselves into a hundred viable families over even one generation. Elites must change biological composition, if they would remain ideologically and socially the same. Therefore, the longer one keeps the Aeginetan oligarchy in power, the more it must be imagined to have been relatively permeable. Hereditary power, if it is to endure, must become titular to a degree, so that it can weather incompetent heirs. Closed elites in small communities claim too much, and fall inevitably to mediocrity. Thus, if the

Aiginetikos of Isocrates is an indication, adoption was allowed between Homoioi on Aegina (19.13). This suggests that an effort was made to keep up the elite's reproductive capacity (adoption being merely another strategy of reproduction), and that an effort was made to control upward mobility. Nothing could be as unnatural as the notion that Dorian conquerors and a pre-Dorian underclass remained in the same reciprocal positions, while the former evolved into a group of commercial rentiers and the latter into small traders.[9]

Another connected idea, that the Aeginetan aristocracy stayed in power by the labor of a submerged dependent class, is transferred wholesale from Sparta.[10] As treated above, the physical conditions that were likely to have created the institution of Helotage in Sparta and perhaps other Peloponnesian states are not likely to have been duplicated on Aegina, since political continuity is unlikely to have prevailed there. There remains the question of whether there is room for such a class. Even the most exploited Helots could not have made the limited arable land of Aegina support a ruling class very great in number or individually very wealthy. There are no plains of the Eurotas or Stenyklaros on Aegina. Aegina certainly had a hoplite class. She sends a contingent of 500 to Plataea (with 500 light-armed troops), and at the same time perhaps sent a contingent to the allied fleet under Leotychidas (Hdt. 8.131.1; 9.28.6). Supposing the standing fleet to have been around 70 ships, and each of them to have had 20 hoplites, this gives well over 1000 hoplites for the total Aeginetan strength.[11]

There is a strong tradition in Greece of the association of the hoplite with the small-holder. The Aeginetan hoplites were either small-holders as elsewhere, or an unusually large percentage of them were shopowners and merchants. If agricultural production lay in the range of c. 500 kg. wheat equivalent/person/year, a family of four produced 2000 kg. If all the landholdings were held by hoplites on Aegina, there would have been less than 500 of them. Prudence dictates that many more than 500 farms are necessary in a community with 500 hoplite-farmers, since there would inevitably be farms large enough to support their owners at well above the minimum for the hoplite census, and others whose owners could not meet the minimum. One can maintain that the Aeginetan aristocracy monopolized the land, and that the hoplite class was entirely non-agricultural. In this case, however, the supremacy of the aristocracy appears anomalous. Why did the large and affluent non-agricultural class(es) not break the political hold of the elite by freeing their retainers or splitting up their estates? Surely, the Spartan example suggests that an aristocracy must yield to such pressures (Messenian land had to be shared in the system of kleroi). Land tenure on Aegina probably showed a pattern of farms of a variety of sizes. It is improbable that either the elite or the hoplites were exclusively agricultural or non-agricultural.

One ought not to believe that the Aeginetan oligarchy was enjoying perfect harmony with the island's other inhabitants. It is obvious that a significant degree of disaffection must have existed to prompt Nicodromus to make an unsuccessful attempt at seizing power. Nevertheless, it is clear that Nicodromus thought that he

had no chance of succeeding on his own strength, and so he arranged for Athenian intervention (Hdt. 6.88). It is possible that the demos that revolted at his urging may have been in large part his own clientela. This would explain Nicodromus' ability to coordinate his followers and achieve surprise. However, the authorities were able to beat back the Athenian attack as well as the insurrection, once the conspirators and the Athenians failed to coordinate their actions. Nicodromus and many of his followers took flight without further contest. The figure of 700, which may represent an Athenian number for those executed, may have included many not involved in the coup, but who were sought out for other reasons by the government, and put to death. It is important that at no time did the Aeginetans fail to be able to man their fleet, which speaks to a fair amount of acquiescence toward the directives of the standing government.

The ability of the Aeginetan government to suppress Nicodromus suggests that even if he drew on the support of disgruntled members of the demos, not all lower class Aeginetans were as dissatisfied with the government. A reason for this emerges on consideration of the character of Aeginetan warfare. For land powers, dependent on infantry, war meant risking one's own crops through neglect because of absence or attack by the enemy. Even though fighting customarily took place when the demand for farm labor was lowest, hoplite warfare was seldom an attractive economic proposition. Payoffs were few, as one needed to capture members of the enemy for ransom, to force the enemy to the desperate plight of offering an indemnity, or to confiscate some of his land. A rich city like

fifth century Athens could provide pay as compensation, but this was no more than a palliative. By the end of the Peloponnesian War, enthusiasm for fighting was more prevalent among non-property holders. Incentives to conflict were many, but these factors discouraged aggression by the property-holding classes.

For those states like Aegina, which fought with ships by raid and counter-raid, going to war offered a different prospect. The point of greatest interest is not that this warfare put less at risk the community's substance, or that it provided greater opportunity for booty or slaves. In a naval war, ship captains needed to build, repair, equip, and man their warships. If the command of a warship was the personal responsibility of a member of the Aeginetan elite, he was probably as anxious as his counterpart, the Athenian trierarch, to excel his fellows. His expense was all the greater if he supplied his own ship.[12] Therefore, war meant the freeing up of treasurized or saved property by the wealthy, and its redistribution through the rest of the community. Thus, warfare on Aegina may have reinforced reciprocal ties between the aristocracy and the rest of the population. The elite had conceded to it direction of foreign policy because the implementation of that foreign policy redistributed wealth.

The treatment by Herodotus of the Nicodromus coup is phrased in terms that belong to the ideological struggles of the second half of the fifth century, and the terms are thus anachronistic. The word demokratia, which is obviously lurking behind the wording used in Herodotus, probably did not become current until the 460's.[13] The "Old Oligarch" states that one of the paradoxical

features of the first years of the full democracy was this government's support of oligrachies among some of its allies.[14] Not yet had the demos at Athens come to appreciate fully the advantages that accrued to it from the championship of the lower classes in the allied cities, and from the imposition of democratic governments wherever possible. There is no example of the establishment of a democratic government by Athens in a foreign state that can undoubtedly be dated before 450.[15] The Athens of the late 490's and the early 480's, not yet with its system of popular courts, nor perhaps with a fully developed isegoria in the Assembly, with the archons and the Areopagus still powerful, was scarcely a consistent democracy itself.[16]

What sort of government were Nicodromus and the Athenians attempting to establish on Aegina? It may be significant that Herodotus did not choose to provide an analogue from the political terminology of Cleisthenic Athens such as isonomia. The emphasis of the passage is on the confrontational aspect (demos vs. oligoi) and not on any programatic position taken by the rebels.[17] The possibility stands that this question is formulated from a false perspective. It may be that the Athenian constitution had little to do with Nicodromus' goals. Theirs was a marriage of convenience, and had reference to political changes strictly pertinent to conditions on Aegina about which one may only hypothesize.[18]

Herodotus suggests that Nicodromus was prompted to his effort by his anger over a previous banishment (6.88). To be sure, the banishment may have been for advocating constitutional changes, but the possibilty is also open that it sprang simply from partisan

politics. The coup may then have been nothing more than a particularly violent factional confrontation, with few real philosophical or ideological grounds. Herodotus or his source may then simply have recast the episode in the pattern of Athenian interventions elsewhere later in the century. Yet it may also be true that Nicodromus' efforts constituted an attempt to remedy a legitimate social problem. If there is one element of the Cleisthenic reforms at Athens which might be said to have relevance to Aegina, it is the Cleisthenic championing of the cause of those members of the Athenian community whose claim to citizenship was in danger of being called into doubt.[19]

Aegina attracted foreigners to it by its wealth. Not all of the island's growth in population was through the natural increase of its inhabitants. Some process of naturalization existed, if by naturalization is meant the identification of the newcomers by themselves and by others as Aeginetans. If comparative material on the naturalization of slaves in other societies has relevance, such a process took place over generations. Nicodromus may have intended to regularize and shorten naturalization, and create a widened citizen body (and perhaps one with fewer gradations). The demos that revolted with Nicodromus cannot have been merely the pre-Dorian inhabitants or the rural dependent population forced from the land. As can be seen from the discussion in Chapter 1, much of the fifth century Aeginetan demos must have been initially servile in origin.[20] The goal of these rebels cannot have been, as Winterscheidt believes, to achieve access to possession of the soil from which they had been forbidden. There is no evidence

for such a prohibition, and Aegina's land would scarcely have gone very far in a redistribution.

Unfortunately, there is no certainty about the location of the old town seized in the course of the coup, or whether its seizure was simply tactical or based on an expectation of support in this area.[21] Our best surmise is that the old town, which must have had access to the sea because Nicodromus and some of his followers took flight from there, is to be connected with the bay north of the Colonna Hill. There had been erected there a massive breakwater, which had become useless because of the rising water level. It is reasonable to assume that the north bay was the oldest harbor for the city of Aegina, and that the old city is to be connected with it. The old town may have lain inland of the north bay, and on the saddle to the east of the Colonna Hill.

The constitutional elements of the Aeginetan aristocracy are attested from the epinicia of Pindar and their scholia. The Dorian tribes may have been present. Pindar fr. 1, from an Isthmian ode, speaks of the Dorian host, led by Hyllos and Aigimios, the former the eponym of the Hyllees and the latter the father of Dyman and Pamphylos, the eponyms of the Dymanes and Pamphyloi (2-4). There is evidence for the tribe of the Hyllees at Cydonia in Crete, and so they were presumably present in their mother city in the sixth century (Hsch. s.v. "Hylees hoi en Kretei Kudonioi"). In the period of the Pergamene domination of the island, demes were the subdivisions of the tribes (IG IV 1.44). Winterscheidt believes the deme structure to be an inheritance from the Athenian cleruchy.[22] He also cites a scholion to Pindar that speaks of

a Bassid phyle, taking its name from the aristocratic family of that name (Schol. Pi. Nem. 6.53b).[23] If this is not garbled, it would mean that Aegina was split into local tribes which took their names from prominent Aeginetan families resident in their territory. This is a possibility, when one considers that there ought to have been considerable changes in Aegina's internal situation when independence from Epidaurus was achieved. Leading aristocratic families might have taken the initiative in restructuring the political order then. The Bassids were a very important family (palaiphatos) according to Pindar. The dedicant of Nem. 6 is Alkimidas, whose grandfather (or great uncle) was the first Aeginetan to win an Olympic crown (with five Isthmian and three Nemean victories). This man was Praxidamas, whose grandfather, Hagesimakhos, was a victor himself, who would have been active in the late seventh century, when Aegina won her independence.

However, the evidence for the names used for subdivisions of tribes and for aristocratic families on Aegina is confused by the vagueness and sloppiness of the Pindaric scholia. Some evidence is, however, more firmly based. Welter found a group of omphaloi, dating from the second half of the sixth century, one of which is inscribed PHRA.[24] The finds were made in a context with dedicated cups and remains of sacrifices. Welter believes that a hero cult is the context for the dedication of these omphaloi. The cult(s) would have been dedicated to the heroic ancestors of one or more of Aegina's elite families. It is possible that another omphalos is to be connected with a dedication made by an Aeginetan

phratry. It is inscribed with the name Prossaridon (IG IV 61).[25] The presence of phratries on Aegina is also supported by the scholia, where the term phratry (or rather phatria) is often used. But in the scholia, phratry seems often employed for family. Winterscheidt correctly adduces cases outside the poems for Aeginetans where phratry is used for family.[26] In the scholia to the Aeginetan Odes, phratry appears juxtaposed with clan, patra (Schol. Nem. 7.103b). It strains belief that in all these cases, the scholiasts' sources were in possession of information that argued for the existence of a group larger than the family, comparable to an Attic phratry.

Pindar uses genos, genea, oikos, and patra for Aeginetan families. Genos/genea are common descriptive terms which give no insight into the composition of the Aeginetan aristocracy. However, for oikos and patra, specific denotations have been hypothesized. Wilamowitz believed that the oikos of Themistios (Isth. 6.65) was a subdivision of the patra of the Psalychiads.[27] Yet, Winterscheidt appears justified in noting that Themistios is of a different family (in fact, maternal grandfather, Schol. Nem. 5.91). Muller claimed that patra in Nem. 8.46 was a unit larger than a genos. In Isth. 6.63, it is used with the gentilicial name, Psalychiads. Winterscheidt has drawn attention to its appearance With oikos in Pyth 7.5. Patra was probably the Aeginetan name for genos or clan. Outside the Aeginetan Odes, it means fatherland (with the possible exception of Nem. 11.20 to Aristagoras of Tenedos where either fatherland or clan will fit). While patra is used for fatherland in poems to Aeginetans (e.g., Ol. 8.20; Isth. 5.43), the equation patra = genos generally holds up.[28]

B) The Thearoi

There is only a single Aeginetan magistracy (except for our putative oligarchic councilors) about which tentative hypotheses can be advanced. These are the thearoi. Pindar (Nem. 3.70) describes Aristokleides of Aegina, to whom the poem is dedicated, as bringing honor to the thearion of Pythios. The scholion to this passage gives this explanation: "In Aegina, there is a sacred place of Apollo Pythios, in which the theoroi, who watch over the sacred things, carry on their activities. For theoroi are like theophulakes; others say that in the sanctuary of Apollo Pythios there is a building called the thearion, because the archons, who are called theoroi, live there; thearion of Pythios: a public place in Aegina where there are symposia. It takes its name from the theoroi sent to Apollo" (Schol. Pi. Nem. 3.122a-b). An inscription puts the Apollonion (eis ton epiphaneistaton topon tas polios para to Apollonion) on Cape Colonna (IG IV 2.37).

One might also note Thearion, attested as the name of the father of the victor in Pi. Nem. 7.7-8. Bury concludes that he was a man of moderate fortune from 58, where it is said that the gods granted Thearion eoikota kairon olbou. [29] Yet, this is not terribly strong evidence for the social class of the thearoi. Thearion's son was victorious in the boys' Pentathlon at Nemea in 461 (Schol. Pi. Nem. 7, Inscr.), and it would have been in the late sixth century that Thearion was named. Was he named after the new home for the thearoi built about this time?

The remains of the thearion, to which Pindar and the scholiast refer, have been identified in their re-use in a late ancient wall

(267 A.D.?).[30] This retaining wall is on the Colonna Hill at the north side of the temple terrace. The blocks show that the thearion was a small Doric building of fine workmanship, to be dated to the last quarter of the sixth century. Particularly interesting are the inscriptions which were cut into its walls before the building was dismantled. These seem to begin sometime in the Hellenistic Period and continue down to the third century A.D..[31] The inscriptions are of two types. One group is made up of lists of names with patronymics. The other group includes a name or names of individuals and informs us that they have given a public feast. The latter are entirely of the Roman Period. The close juxtaposition of the two classes in the reconstructed plan of the original building indicates that the difference between the two groups is a change in emphasis or wording rather than a radical change in function or in the identity of the office which was held by the persons involved. It is probable that these lists record groups of thearoi like those mentioned in the Pindar scholion.

It has been thought that existence of the thearoi indicated that the true executive magistrate of Aegina was Apollo, who acted from his temple on the acropolis of the city. The thearoi were effectively the magistrates of the city, whose decisions were considered to be carrying out the will of the god.[32] Their priestly functions could be a by-product of their membership in the clan of the Aeacids, who traced their lineage back to the god, and who were inspired by him. However, the notion of a god as a chief executive, not merely as an oracle having influence on state policy, seems to go against the deliberate distance established

between worshipper and god by the Greeks. The social phenomenon where state officials receive additional prestige from their cult association should be separated from the situation where the sacerdotal quality of an office is its primary focus.[33]

Whether the account of Pausanias can be reconciled with the buildings that stand on Cape Colonna is in doubt.[34] Assuming that Pausanias landed in the commercial harbor, south of the military harbor (adjoining the Colonna Hill), some of the buildings that were put by Welter on the Colonna Hill may have lain nearer the commercial harbor. Thus, the small building foundations in the Apollo precinct need no longer be assigned to the structures mentioned by Pausanias, and other possibilities concerning their use can be envisaged.[35]

There is no reason to doubt that the thearoi administered and were responsible for the sanctuary of Apollo and, more particularly, for the dedications to the god stored in the temple and perhaps in a treasury on the Colonna Hill. This was presumably one of the small buildings in the temple complex. The first opinion cited by the scholiast is warrant for this view. The third opinion informs us that symposia were held in the thearion. This may have its counterpart in the public feast mentioned in the Roman inscriptions. Perhaps, over time, the social occasions involving the thearoi changed. Originally, they presided over the communal gatherings of those who were holding the office of thearos or had held the office, who were perhaps many of the ruling oligarchy. The size of the building may speak to this understanding, as does the connection with the thearion of the aristocrats of Pindar's odes.

Later, if the demothoineo of the later inscriptions is any indication, the closed social occasion became public distributions of largesse by the thearoi (cf. IG XII (7) 389 from Aegiale on Amorgus).

The thearoi had their name from their representation of Aegina at some sanctuary. Lists of Aeginetan thearoi do not survive from Delphi, which makes the association with the cult of Apollo there problematic. The appearance of Xenon, the son of Demetrius, a name appearing among the lists of thearoi on Aegina, in an approximately contemporary Delphic inscription is a slight indication that the thearoi served the cult of Pythian Apollo.[36] However, so little connects these thearoi to Delphi that the cult of Delphian Apollo should not be used to reconstruct the role of these thearoi. The institution of a permanent body of delegates to Apollo can be paralleled at Sparta and Mantineia.[37] It would not be unusual for the thearoi, with their strong cult attachments and involvement in the communal social activities of the elite to come to possess political functions. If the second opinion of the scholion is to be believed, the Aeginetan thearoi were arkhontes (= magistrates?). The obvious parallel for this situation would be the colleges of theoroi on Thasos, which have been attested, some have thought, from as early as the sixth century. The Thasian theoroi appear in inscriptions as witnesses right after the archons. They have been thought to be guardians of the constitution, nomophulakes or ephors. Their supervision of the laws has been an analogy to the surveillance functions of their divine patron.[38] The evidence from Aegina is so late and fragmentary that it is impossible to

judge the rank of the thearoi in the secular hierarchy. There is no assurance that their supervisory power, if it existed, extended beyond the sphere of cult matters (hoi ta theia phulassontes) of the scholion.

There is no indication from the surviving documents that the office of thearos was occupied by a few families. There is only one sure father-son pair, and two other possible pairs in the surviving inscriptions.[39] This should not, of course, prejudice the issue of the status of the earlier thearoi. There is no direct evidence for a college of ex-thearoi, though one may well have existed. Therefore, it is not necessary that the Aeginetan council, if one is supposed to have existed, was staffed out of ex-thearoi. However, Aristokleides of Nem. 3 was a mature man when Pindar glorified his victory. Pindar speaks of the tribute of the poem as late (80). After his mention of the thearion, Pindar continues by speaking of the three ages of man (boy, man, elder), and how their excellence is revealed in trial (70-6). This suggests that Aristokleides had achieved the virtues of these ages. Therefore, his membership in the thearoi could well have been in middle age, and the late achievement of this office could have prompted the late commissioning of the poem.

Some of the thearic inscriptions mention the existence of a pentapolis, which Felten has compared to the Calaurian Amphictyony.[40] He also compares it to the Marathonian tetrapolis, inasmuch as the tetrapolis always retained the privilege of dispatching separate delegates to Delphi and Delos. Felten believes that Aegina, and four other states, perhaps of the

Saronic Gulf, sent thearoi to Delphi in turn. If so, the institution does not go back to Archaic or Classical Aegina. The central question here lies in whether the pentapolis was a cult organization of constituent parts of Aegina or an international organization, as Felten thinks. Is this perhaps then evidence that Aegina was made up of the amalgamation of five towns? The phrase, demothoinesas kai ten pentapolin kalesas (#36, 37, 39, 44), sometimes with kai oiketas pleionas kalesas (#35, 41), suggests an institution internal to the Aeginetan community, with its juxtaposition of the pentapolis and the oiketas pleionas. Is one otherwise to assume that Aegina and four other states in the Saronic Gulf area took turns inviting each other's citizens to festive banquets? The argument from the silence of earlier sources would seem to indicate the negative. Yet, due to the fragmentary nature of our evidence, the question should be left open.

The Aeginetan thearoi can perhaps be understood in connection with religious politics of the Argolid. There has already been a discussion of the ties between Argos and those states which the Argives believed to belong to their sphere of influence, the Lot of Temenos, and of the relevance of the cult of Apollo Pythaieus to the duties of Argos' subjects to her (esp. pp. 175-8 above). While Pythaieus has a shadowy existence in mythology as a son of Apollo (Paus. 2.35.2), Pythaieus is as much a name for Apollo himself as was Pythius (Steph. Byz. s.v. "Putho"). In the cult of Apollo Pythaeus, it is obviously Apollo who is the focus. The identification of Apollo Pythaieus with Apollo Pythius took place with Pythaieus becoming Pythius, as it does in Diod. 12.78.1, which

is derived from Thuc. 5.53. Although there was originally a distinction preserved between the two cult epithets, Apollo Pythaieus and Apollo Pythius can scarcely be distinguished.[41] There is some possibility that Aegina possessed a cult of Apollo Pythaieus as did Argos, Asine, Epidaurus, Halieis, Hermione, and Cynouria, all places which lay in the Argive sphere of influence.[42] This raises the question whether Aegina possessed an unattested cult of Apollo Pythaieus alongside the attested cult of Apollo Pythius. Alternatively, the cult of Apollo Pythaieus at Aegina had become associated with Apollo Pythius in title and/or in orientation toward Delphi.

An original association with Apollo Pythaieus would explain several features of the evidence about Apollo's thearoi on Aegina. The earlier affiliation with an Apollo cult in the Argolid explains why the connection between the thearoi and Delphi is so poorly attested. A political role for the thearoi is explicable in terms of their original function. They were the official representatives of the Aeginetans to the cult that was associated with Argive hegemony over the island. They may have been the leading or among the leading magistrates of dependent Aegina. When Aegina revolted from Epidaurus, the thearoi may have played a role in the struggle and in the subsequent return of Aegina to friendship with Argos. The antiquity of the office of thearos won prestige from comparison with the magistracies inaugurated after Aegina's independence. References to the pentapolis could then be explained by reference to the situation of pre-independence Aegina. Perhaps the island was not yet viewed as a single entity in the eyes of its Argive and

Epidaurian hegemones, but as a group of towns, much as Megara was an association of komoi that had broken away from Corinth.[43] Unity came with independence, but for the purposes of the cult, the thearoi maintained the designation of the pentapolis to refer to Aegina. Note that the first stone temple to Apollo, in whose precinct the thearion stood, was built in the early sixth century, when Aegina had not been independent for long. When the importance of the religious ties between a colony and its metropolis are remembered, it is not surprising, therefore, that the best evidence for theoroi with political functions comes from Thasos. In this case, Pouilloux sees no reason for a connection with Apollo Pythius of Delphi.[44]

C) Political Ideology

Already discussed has been the basis of the wealth of the Aeginetan aristocracy, and the role played by metics or a marginal merchant class in Aegina's trade. Here it is appropriate to investigate the view that the Aeginetan elite's riches were political in their source.

Some have suggested that, while the government of Aegina, whose revenues the aristocrats shared out among themselves, was wealthy, these aristocrats were the consumers, not the producers, of this wealth, and so were not involved with trade.[45] How likely a social development is this, that a ruling class would be able to sustain itself in the face of more numerous others, who, moreover, possess, in the first instance, the greatest share of the community's resources? While this system might work in a natural

market or crossroads like Corinth, where people must perforce come, it is hard to explain on Aegina. No intrinsic factors can have marked out Aegina as a trading center. Another idea is that the Aeginetan aristocrats went from being active leaders of piratical raids to passive participants in trade.[46] The questions here, however, are about the intensity of entrepreneurial participation by the aristocrats, and the equity of the division of profits from commerce. The passive aristocracy which such a view attributes to Aegina makes it difficult to chart out the conditions in which Aeginetan trade had its birth. Would not any attempt to divert the profits of commercial activity to a dominant aristocracy incline that commercial energy elsewhere or exasperate it to rebellion?

In the previous chapter, several roles for the Aeginetan elite in commerce have been sketched, often with the provision that a particular evolution is a possibility only if the elite's political ideology did not prohibit it. But one might object that, in general, the ideologies of Greek aristocracies did make such prohibitions.[47]

Yet, on closer examination, Pindar indicates that the Aeginetan elite may well have been deeply involved in commercial activity. Such an interpretation was first urged by C.O. Muller, and has been accepted by many interpreters of Pindar. However, this analysis of Pindar's Aeginetan Odes was most sharply challenged by Winterscheidt, and deserves a reinvestigation.[48] Two facets of Pindar's epinicia for Aeginetans demand discussion in this regard. The first is the introduction of maritime metaphors and imagery in the poems. The second is the emphasis on xenia. For both,

particularly important are what can be called "invocation passages", wherein the island is addressed or evoked with her essential qualities. In Nem. 5, in honor of Pytheas, Pindar introduces the idea of publicizing the fame of his client by having his song sail on all the merchant ships from Aegina (2-3). This maritime theme is continued in the poem. Aegina is termed "rich in heroes and famed for ships" in the prayer of the Aeacids for the island (7-12). Later, after Pindar breaks away from the story of how the Aeacids came to leave their homeland (out of reticence concerning the murder of Phokos), he resumes his train of thought by likening himself to an eagle (to be associated with the Aeacids) travelling across the sea (21). Finally, the poem is closed by the poet lifting his voice to the yardarm (50-1). Bury terms Nem. 6, most sea-saturated of these poems.[49] By contrast, in Nem. 6, an ode where the imagery is formed with an eye toward the earth and its vital power, the Bassids, the family of the dedicant Alkimidas, are described as bearing their own victory songs as cargo, idia naustoleontes epikomia (32). In 57-8, the poet invokes the comparison of a wave affecting a vessel to a preoccupation affecting a poet. In 45-8, the fame of the Aeacids is again described as flying over lands and seas. In Nem. 3, Pindar speaks of the dedicant, Aristokleides, being unable to pass the Pillars of Herakles, and then speaks of Herakles' western journey (21-6).

It is only with reluctance that one would attempt to make a strong case from this material for the participation of the Aeginetan aristocracy in commercial activity. Yet, it is clear that in the Nemean Odes, especially 5, and to a lesser extent, 3, there

is an emphasis on the sea. The indications in Nem. 5 go beyond the minimizing view of Winterscheidt that all that is warranted here is that Aegina was an island to which many ships resorted. Certainly, if the Aeginetan aristocracy was a conservative, agricultural group, as Winterscheidt believes, the notion of the family carrying its glory like cargo, or sending the poet's epinicion to sea, would have been distasteful. Note also that the Aeacids, the mythological exemplars of contemporary Aeginetan aristocrats, pray that Aegina be famed for its ships. It is again the Aeacids (and the poet likening himself to an eagle, and so assimilating himself to them) and Herakles who are spoken of as passing over the sea. However, one should agree that little in itself ought to be made of the imagery associated with the Pillars of Herakles and their passing (cf. Nem. 4.69-72), as the concept is paralleled in odes not dedicated to Aeginetans (cf., e.g., Ol. 3.43-5; Isth. 4.11-12).

Much more significant, nonetheless, is Pindar's emphasis on Aeginetan xenia. In Ol. 8.20 ff., Aegina, described by the epithet "long-oared", is where Themis, seated by Zeus Xenios, is reverenced. When important matters are at issue, it is difficult even for the just mind to judge rightly (ortha diakrinein). An ordinance (tethmos) of the gods created Aegina, the sea-girt land, to be a divine column to every sort of stranger (pantodapoisin...ksenois), which has been kept in trust by the Dorian people of Aegina since Aeacus. The scholia here discuss Aegina's emporion, commerce, philoxenia, and put special emphasis on the rectitude of the Aeginetans in giving their due to all foreigners (Schol. Pi. Ol. 8.21a-30b). In Nem. 3.2-3, Aegina is a

hospitable (poluksenan) Dorian island. In Nem. 5.8-9, Pytheas, the dedicant, has brought honor to the Aeacids, and to Aegina, his mother city, dear land of xenoi (philan ksenon arouran). Here, the Aeacids pray that Aegina will be "well-manned" and "famed for ships", standing beside the altar of Zeus Hellenios. Still later in the ode, Pindar tells the tale of Peleus, who rebuffed the adulterous passion of Hippolyte, the wife of his host, because he was in awe of the anger of Zeus, kseiniou patros. Peleus wins Thetis as his reward (26-36). In Nem. 4.12-21, Pindar speaks of the "well-towered" seat of the Aeacids, the common light for stranger-protecting justice (dikai ksenarkei). That this epithet was a favorite one among the Aeginetan aristocracy can be seen from the name of Xenarkes, the father of the dedicant of Pyth. 8 (72). Paean 6.123-31, written for the Delphians, speaks of reknowned Aegina in the Dorian sea, bright star of Zeus Hellenios, which shall tell from where it took its "ship-ruling god and justly hospitable virtue" (nauprutanin daimona kai tan themiksenon aretan). In fr. 1 from an Isthmian, ship-famed Aegina is founded by the Dorian leaders, Hyllos and Aigimios, under whose rule (stathmai) it does not disregard themis and the dike of xenoi. The Aeginetans are like dolphins in the sea, wise stewards of the muses and of athletic contests.

Bacchylides uses the same language in reference to Aegina in 13.95 (in honor of the same Pytheas of Nem. 5), where he speaks of the island as the mistress of the pagkse[inou khthonos. In 12.4-7, Victory conducts the poet to the island of Aegina, olbian kseinoisi. After a long lacuna, in 34 kseinou appears. The

somewhat more perfunctory use of this same language in Bacchylides indicates what might have been guessed from its employment by Pindar, the friend of Aegina's aristocracy, namely that the prominence of language about xenia was expected in poems commissioned by Aeginetans, and that it represented an emphasis in the Aeginetans' own self-representation.

The trivializing approach taken by Winterscheidt on the subject of hospitality-related terms in Pindar cannot be accepted. He argues that such language emphasizes nothing more than that the Aeginetan aristocrats welcomed foreign traders to their port by a special law. The emphasis on xenia on Aegina is, however, the most salient quality of the island, appearing as it does so many times in the epinicia's invocations of the island (Pi. Ol. 8; Nem. 3, 4, 5; Isth. fr. 1; Bacchyl. 12). Terms concerning xenia appear in close juxtaposition with such epithets as "long-oared", "famed for ships", and "ship-ruling god" (Ol. 8; Nem. 5; Isth. fr. 1, Paean 6). This is not the terminology that would be appropriate to a place that is merely well-visited; rather, such phrasing indicates that prowess with ships was the most prominent quality of Aegina.

Aeginetan philoxenia has to do particularly with the aristocracy. Leave aside for the moment the question whether it is commercial or military activity that is at issue here. The Aeacids were the mythopoetical counterparts of Pindar's patrons, fifth century Aeginetan aristocrats. In Ol. 8.30, the tradition of rectitude toward strangers is given its origin in Aeacus. In Nem. 4, the Aeacids are juxtaposed with justice for xenoi. In Nem. 5, the Aeacids pray for Aegina by the altar of Zeus Hellenios,

assimilated by Pindar to Zeus Xenios. Peleus' upholding of the rights of hospitality wins for him his hierogamy. It is difficult to imagine a more significant way to portray the importance of xenia to Aegina than to alter the story of Peleus and Thetis so as to put xenia rights at its very center.

To Pindar, the Dorian extraction of the Aeginetans was not at odds with their status as exemplary hosts. Rather, this characteristic is particularly appropriate to Dorians and a part of their heritage, according to Pindar (Nem. 3.2-3). Aegina is both Poluksenos and Dorian (cf. Ol. 8). In Paean 6, the location of Aegina in the Dorian Sea is mentioned. In Isth. fr. 1, the law of justice to strangers is attributed to the Dorian leaders Hyllos and Aigimios. The emphasis on Zeus Hellenios in Nem. 5 and Paean 6 suggests that, for Pindar, this cult was particularly significant, and that its pan-Hellenic character was interpreted in terms of xenia.[50]

Winterscheidt would make of the reference to themis and dike in Pindar allusions to the Aeginetan opening of their island to foreign traders. This, however, underestimates the solemn import of Pindar's language in Ol. 8. Here, Themis as a hand-maiden of Zeus Hellenios is associated with the difficulties of just decisions. This ought not to refer to a single piece of legislation, but must have to do with some habitual justice on the part of the Aeginetans, which makes appropriate Nem. 4's dike kseinarkes and Paean 6's themiksenos arete. In Isth. fr. 1, the Aeginetans revere themis and the dike of strangers. It is a safe deduction from these passages that it is not primarily to legislation, but to the

Aeginetan legal apparatus that Pindar refers. It is also reasonable to suppose that Aeginetan aristocrats were central to this legal process. The invocations of Aegina, in which are included references to Aeginetan xenia, are connected with the notion of the victor's return to his home and his bringing of honor to his mother city (Ol. 8.20; Nem. 4.11-13; Nem. 5.7-8; cf. Nem. 3.1-2). This suggests that the victorious athlete, or rather the socio-political group of which he was a part, assimilated the honor of victory to the reputation gained through rectitude toward strangers. In Isth. 6.70, Lampon, an Aeginetan aristocrat, is individually credited for his trustworthiness to strangers.

Thus, a complex of ideas was united for Pindar concerning Aegina: the Aeacids, the Dorian character of the Aeginetans, their hospitality, seafaring, and themis (dike). From this repetoire, material is drawn for each particular treatment of the island. Aegina is the only community in Pindar that is consistently and repeatedly characterized by hospitality. Otherwise, for Pindar, hospitality is primarily a virtue of individuals or of a family (Ol. 13.3 (Xenophon of Corinth); Ol. 2.6 (Theron); Pyth. 3.71 (Hieron); Ol. 4.15 (Psaumis of Camarina)). A partial exception is Pyth. 5.56-7, where the city of Cyrene is phaennotaton ksenoisi rather like Nem. 4.12-13, where Aegina is a dikai ksenarkei koinon pheggos. Pindar visualized his own relationship to his patrons in terms of xenia (e.g., Ol. 1.103; Pyth. 3.69 (both to Hieron); Isth. 2.48 (Xenokrates of Akragas); Ol. 4.4 (Psaumis of Camarina)). What ought to be stressed here is not only the distinction from the xenia-language used in regard to Aegina, but

also Pindar's use of xenia-language in business transactions. Pindar was a salesman of verse, but his relationship to his buyers was not treated in terms of commission, delivery, performance, and payment, but in terms of feigned xenia and friendship.[51] This language is particularly striking whenever Pindar treats his dealings with the Sicilian tyrants.

Yet, Pindar's relationship with the Aeginetan aristocracy was not totally a business tie, as evidenced by the number of odes written for Aeginetans and the intensity of his identification with the island and her citizens (e.g., Pyth. 8). At the very least, connections between Aeginetan aristocrats and Thebes would have been inaugurated by the time of the Aeginetan decision to support the Boeotians against Athens in 506. When Pindar uses the language of xenia regarding a patron, it is noteworthy that the reference is always to the xenos, and not to Pindar. This is perhaps a part of the conventions of polite literary language. The emphasis on the poet as xenos of the patron might have been held to have been presumptuous. The single exception concerns an ode dedicated to an Aeginetan. In Nem. 7.61, Pindar proclaims that he is a xenos: kseinos eimi. Here, he is thinking of Thearion, the father of the ode's dedicant, and all the Aeginetans, because he is claiming the right to discuss Neoptolemos, one of the Aeacids. However, the complex of ideas which has been outlined for the invocation passages does not appear here. The theme of xenia operates in this poem in a different way. The posthumous honors of the murdered Neoptolemos are undertaken by Delphian xenegetai (44). Pindar's claim to the right to speak about Neoptolemos, albeit in a way

acceptable to the Aeginetans, is balanced by his duties as Molossian proxenos at Thebes (65). He must show regard for their feelings too. Finally, the relationship of Aeacus to Herakles is one of xenia (84-6). Here, the personal notion of guest-friendship to the Aeginetan aristocracy is foremost. Pindar is also alluding to the name of his patron's family, the Euxenids (70). It authorizes the poet to approach a difficult subject, the murder of Neoptolemos by the Delphians. Pindar had previously given the Aeginetans offense on this very subject (Schol. Pi. Nem. 7.70). To regain his credit, he emphasizes his personal standing as xenos to the Aeginetans, and excuses his previous treatment of Neoptolemos by his position as proxenos of the Molossians. The analogy of the guest-friendship of the Aeginetan Aeacids and the Theban Heraklids is brought forward as a reinforcement. Xenia is more personal in Nem. 7, very different from the language used elsewhere. This suggests that Pindar's own guest-friendship with the Aeginetans is not sufficient warrant in itself for his treatment of the subject elsewhere.

The mechanisms by which Aeginetan law operated to protect the rights of foreign visitors can be glimpsed only with great difficulty. Perhaps in the Archaic Period, reciprocal ties of hospitality between Aeginetans and the aristocrats of other states provided the basis for protection of Aeginetan merchants abroad, and for the protection of those who came to deal with the Aeginetans. If, however, Aeginetan trade was marked by its roots in peddling, one is to think primarily of Aeginetans operating in other cities, rather than others operating on Aegina. The emphasis

on themis and dike in Pindar argues for some sort of legal mechanism. If the case of Sostratus is generally valid, then obviously continued dealings with suppliers and customers led to mutually satisfactory arrangements.

Of Aeginetan law on trade, there is only the evidence of Isocrates 19, the Aiginetikos, which might be subtitled "Claim to an Inheritance". The speech does not come from the period that has been the focus in this work. It dates not long after 394, when the Spartan oligarchies in the Cyclades had been overthrown. The speech provides evidence for the existence of a metic class on Aegina after 404 (19.12, metoikoumen). However, the speaker uses the verb metoikein to mean mere residence abroad, so that little judicial meaning can be extracted from it. As has been mentioned, Aeginetan law allowed for testamentary adoption only of Homoioi, and the speaker provides evidence of his social equality to the dead man. It is interesting that a Cean law (Ceos was the home state of one of the opponents) was cited (19.13), as though a foreign law could be an issue on Aegina, a relatively advanced provision. The speech is completely factual in character. There are no political appeals, no arguments to Aeginetan sentiment, and no direct invective. This suggests that, for an Aeginetan court, elaborate arguments based on probability were not yet as acceptable as in a fourth century Athenian court. It may suggest that no large layman jury was empanelled, but rather a smaller tribunal, with greater experience in details of the law and with judging such cases. In its factuality, the speech is rather like what survives of late fifth century Athenian forensic rhetoric.[52]

The fact that Isocrates could write such a speech indicates that judicial oratory, commissioned or gratuitous, had reached some level of development on Aegina. Otherwise, a speech from an Athenian speechwriter would perhaps have been counterproductive, because it was obviously of a different character. The question remains how much of this can be retrojected into the period before 431. An answer depends on an appreciation of how much change can be imagined to have taken place between the restoration of the Aeginetans in 404 and the date of the speech.

The Siphnians who are disputing the inheritance in the speech are from a very upper-class family, which had produced many basileis (19.36). The record of their flight across the Aegean shows that the islands were tied together by a series of guest-friendships among their leading men. The extent to which these ties of guest-friendship had been useful in Aeginetan trade is unknown.

What about the athletic competitiveness of the Aeginetans? To be sure, competition in the Games took on the value structure, terminology, and agonistic spirit of Greek warfare.[53] However, this does not necessarily mean that the Greeks thought that winning in sports was a social equivalent to being a good warrior, in a traditional sense. Plato's Laches is eloquent enough about disparities along these lines (181D-184C). It is noteworthy that the Spartans fall out of the victors' lists in the non-equestrian events at the great games during the sixth century. There is no evidence that this was held as a reproach to them. They had traditional and very real military accomplishments, and they had

joined the individual glory of aristocratic warfare to the exigencies of the hoplite formation. The Aeginetan concentration on athletics seems to be a form of protesting too much. In other words, the Aeginetans were aware, if only subconsciously, of how far their social type had diverged from that of the traditional warrior-aristocrat, and they attempted to compensate for it through athletic competition.[54] The Aeginetans specialized in athletic events most near to warfare. Of the 22 Aeginetan athletes known, 9 were wrestlers, 1 was a wrestler and a pentathlete, 1 a boxer and a pankratiast, 3 were boxers, 5 were pankratiasts, 1 a pentathlete, and 2 were runners (the latter 2 were from the same family, the Chariads). The Aeginetans won no crowns in the equestrian events. Their athletic emphasis is not satisfactorily explained only by the lack of plains suited to horse-rearing on Aegina.

Aeginetan societal structure will become more understandable if there is a consideration how the economic model presented above indicates that the political opportunities open to the Aeginetans may have differed from those prevailing at Athens. Piracy was the basis for gradual shifts in economic emphasis to peddling, to slave trade, and eventually to long distance trade.[55] Consider what its effects are for the ruling class. First of all, the Aeginetan aristocratic chieftains would presumably have led their retainers out for brigandage. In the case of war, these ships would have served as Aegina's first line of defense. It would be through piracy that Aegina would strike out at an enemy, and one would guess that the political elite would be in the forefront of such fighting. The record of Aegina's earliest war with Athens is

consonant with this interpretation. Hence, as the emphasis shifted from piracy to pacific forms of maritime activity, it would be natural to assume that the Aeginetan aristocrats would become participants. They organized and underwrote piratical forays, and when peaceful interchange predominated in these expeditions, the activity of their leaders shifted into an entrepreneurial mode. If the eventual importance of Aegina as a marketing center for grain, slaves, and precious metals had its basis in a sort of fencing operation, or in an operation in which booty would be distributed or converted, then customary Greek tradition would give commanders a considerable share of these spoils, and put them in the position of presiding over the general division. The role of such pirates/merchants in the Aeginetan struggle for independence can be paralleled. Privateers and merchants of the island of Hydra off the coast of the Argolic Acte played a leading role in the Greek struggle for independence from the Ottoman Turks in the early nineteenth century.[56]

As economic growth continued, the Aeginetan aristocrats had an important share in this trade, perhaps the leading part. Aegina's military needs would always be primarily naval. Ships were traditionally procured and manned by rich individuals and their conduct on campaign necessitated a familiarity with the sea and a sense of initiative on the part of their outfitter-commanders. It is characteristic of the struggles with Athens that they were made up more often of raids than of set battles. This tendency may be traced back to a predilection on the part of Aegina's ruling oligarchy, which believed itself comfortably fitted for this role,

and found it to its own self-interest. On several occasions, Aeginetan naval forces were supplemented by the land forces of their allies.[57]

The Aeginetans were the first of the homeland Greeks to coin silver. Will has convincingly investigated the ideological dimension of the beginning of coinage.[58] Material distributive justice, by which is meant the recirculation of a community's resources from rich to poor, and the fair sharing of forms of wealth that were felt to be common property, was emergent during the same period as was coinage's beginnings. In other words, a circulation of wealth was considered a hallmark of common participation in the polis.[59] In the pre-monetary period, several forms of wealth: tripods, axes, spits, cauldrons, and cattle, had a role in calculating and expressing wealth. These objects also played a role as repositories of social prestige and, as such, must have been necessary for the upper classes of Archaic Greek poleis.[60] They circulated through reciprocal gift-giving among aristocrats, hospitality, and patronage. It is the moderately wide dissemination of such goods and their power to confer high status in the social hierarchy that made possible the strong property which must have been a necessary concomitant to notions of citizenship.

Given that these premonetary forms of wealth are the most natural objects to play a role in booty, their shortcomings as a standard of value may have prompted the early coining of silver on Aegina. First the fruits of piracy, then of trade, and then of levies on the commercial activities of citizens and others had to

be equitably distributed. Silver marked with the badge of the state was an obvious tool to facilitate this end, and to ensure that the members of the community had their fair share of its wealth. It is possible that the officials in charge of levying the Aeginetan fleet had a treasury just as the prytaneis of the naukrariai had at Athens. In this case, such a treasury becomes another link between the management of naval warfare by the political elite and the management of fiscal affairs and procurement of precious metals.

Several other aspects that are generated from the socio-political type that has been described can be seen in greater relief when compared to the situation elsewhere. Most Greek poleis did not depend on naval forces to protect themselves, but on a phalanx of hoplite warriors. A serviceable phalanx was indispensable, because only it could shield from plunder or seizure the agricultural plains that were the core of subsistence of most Greek states. Traditionally, the holders of moderate-sized estates were considered to be the best foot soldiers.[61] Thence is derived the pride of the Spartan, who, while his allies exercised a multiplicity of trades, was simply a warrior, or, in fact, an absentee landowner (Xen. Rep. Lac. 7). To Xenophon, craftsmen and traders make wretched citizens, because he reasons that they are bad warriors, who, if a community is attacked, will refuse to go out from its walls to protect it.[62]

Undoubtedly, the calamitous results of the Athenian decision to stay behind their walls during the Peloponnesian War, or rather their inability to match the Peloponnesians as land fighters, prompted the bitterness of Xenophon's reflections. But their

forerunners in popular imagination can be traced much further back. The poets who celebrate the characteristics of the hoplite warrior make much of the subordination of his individuality to the maintenance of the indispensable common formation.[63]

One ought to recognize that such a self-denial is radically at odds with the aristocratic ethos. It must also be added that it is discordant with the attitudes and habits of the merchant and craftsman, who is forced to show initiative, individuality, and self-assertiveness if he is to survive against his competitors. In most hoplite armies, this sacrifice for a common cause took place alongside comrades long familiar, fellow members of the same small political sub-division that, in combination, went to make up the whole formation. As there was very little peacetime drill or training in formation, the individual soldier could only manoeuver on the battlefield if he knew and trusted his immediate neighbors in the line. Therefore, the greater social mobility a community experienced, whether in alteration of occupation or of geographical home, the more difficult it was to maintain this spirit of neighborliness and the less the phalanx's constituent, politically-based units corresponded to economic units of the society.

The context in Attica for the hoplite's gradual initiation into his duties is eloquent as regards the interplay of military organization and social role. The institution of the ephebate, at least at Athens, gave a training that was psychological and ideological as much as physical. The ephebate, which immediately preceded achievement of full adult citizenship and the entrance

into the regular hoplite formation, was equated with military service as a light armed warrior.[64] The contrast of light foot soldier vs. hoplite goes much deeper in Greek ideology than a mere difference of equipment. The hoplite is equated with the citizen and the land-owning member of the community, while the light armed soldier is compared to the non-citizen, the mercenary, or often merely the brigand. The sequence light armed soldier/immature member of the community to hoplite/citizen exemplifies the value of a particular form of equipment and military role for the creation of a characteristic type of citizen.

The ceremonies for the full acceptance of the ephebes into the adult military organization have elements that are reminiscent of funerary rites.[65] This is no doubt because the achievement of hoplite status by each year's youth was envisaged in the form of a new generation of citizen-warriors succeeding to the places of their fathers. This inheritance had inevitable hints of the young men's final succession to their fathers' places with the dying off of the previous generation. The capability of such conceptualizations for creating static social attitudes should not be underestimated. The young hoplite swore oaths to the physical and agricultural elements of Athenian life. He served his preliminary service in the forts at the borders of Attica, and so had his attention called to his primary duty as a defender of the community's agricultural food source. The territoriality of his identification with his community was consolidated through a symbolism grounded in rural life.[66] All these factors helped create a society where high value and a sense of natural

correctness were accorded to those individuals who differed as little as possible from the social personality of their fathers, and who made little effort to open for themselves new forms of economic activity differing from that of the small landowner. The desire for individual distinction is fatal to the integrity of the military formation as a whole. Yet, it is inevitable that any variation in economic behavior from that of the holder of a self-sufficient farm must bring in its train an extension of competition to more areas of life. The Aeginetans emphasized competition in the Games, controlled strife (good eris), perhaps as a means of instilling assertiveness in their young. Athletics may have borne the burden on Aegina that was borne by the ephebate elsewhere.

Greek direct participatory government for full citizens entailed amounts of leisure at any level of intensity of activity. Political activity was adjusted to a schedule which was admirably suitable for agriculture, with its periods of intense activity surrounded by periods of freedom from all-day work. Democratization, as it draws a greater proportion of citizens into the sustained political activities of the administration and judiciary, only makes more imperative the need for periods away from work. Non-agricultural work is organized on a different schedule and rhythm than is farming. It may demand a more steady input in hours per day of labor, and may, in fact, even demand greater total work input over the whole year. However, in a society largely agricultural (and whose agriculture receives high social value from its connection with military activity), the

non-agricultural sector will conform to the political tempo established by subsistence farmers.

Slavery acts as a palliative in the predicament of the non-agriculturalist, because he can procure the services of a surrogate for much less than the services of that surrogate would be worth on an open market. It does this, however, at the cost of inefficiency and stagnation, since it hinders the free allocation by each individual of his time, energy, and resources. Moreover, even with slavery, non-agricultural activity still is not fully assimilated to the customary political pattern; rather, there continues to be a seeking out of landowning and farming as the optimum social role, and a flight of capital into property.

Citizens deeply involved in the political process had little time left for private economic advancement, for themselves or for society. An added difficulty was that politics was more than just a sphere of personal activity which was given disproportionate emphasis; it was a force that pervaded the entire life of the community. Hence, economic behavior became politicized, and the pursuit of economic goals (even the acquisition of a daily livelihood) a political process. The type of interaction between politics, military affairs,, and work which has been outlined, though it inhibited certain lines of development, encouraged others. Athens is again a clear example of this phenomenon. Given the politicization of life, it was natural that Athenian citizens began to find themselves practicing politics as a trade. To the critics of Athens, she became the tyrant city of Hellas. To put matters more objectively, one would say that political control and

the direction of the Empire became the city's chief occupation, Imperial government her chief export. The tribute and other contributions exacted from the allies, which allowed a higher rate of consumption at Athens, were paid for by political services delivered to the allies. Unfortunately, the coercive nature of the transaction undermined its possibilities for economic development.

The allies were forced to pay not what they thought was a just price for Athenian political services, but what the Athenians deemed their services to be worth. The fact that these evaluations can be assumed widely discrepant in many cases explains the intrinsic fragility of the Empire, as compared to, for instance, the Roman confederacy immediately before the Second Punic War. A further aggravating factor was that the Athenian relationship with the allies was regarded at Athens as non-reciprocal. In Thucydides and elsewhere in the writings of the late fifth century, there are very few justifications of the Empire in terms of its advantages to those who were its unwilling consumers, but only formulations of the enviable position of a seller of political goods that brooks no rivals.[67]

Oligarchies, with their concentration of political influence in the upper classes, may have made it possible for those who did not have full political rights to give a greater portion of their energies to other forms of social action. For the Aeginetans, the hoplite-dominated form of military organization did not intervene with a force similar to that of other, mainland states. The Aeginetans certainly possessed men trained to fight as hoplites, but for an island, they did not afford the first line of defense.

The Aeginetan reaction to an external threat was to devote their own manpower to the manning of the fleet, and to try to use the land forces of allies or mercenaries to provide for a largely passive land defense. For the aristocrat, there were present little of the exigencies that forced his Athenian counterpart to become an integrated member of a largely infantry-based organization.[68] Thus, traditional aristocratic attitudes, focused on athletic competition, did not suffer attrition in this regard.

At Athens, there was a large metic role in trade, with the involvement of foreigners in the manning of the Athenian fleet. Such a system cushioned society from the full effect of dependency on the navy, which was only felt acutely during the Peloponnesian War. Alongside participation of metics was the fact that citizen participation was essentially a paid political activity, which soon took on professional (i.e., those with no previous background in seafaring chose service in the navy as a livelihood) overtones, not a mobilization of the natural abilities of the citizens. Earlier maritime powers did not have the resources to subsidize the acquisition of naval ability. Their ability in seafaring was as natural an outgrowth of social roles as was that of the hoplite in land-oriented states.

The ethos of the aristocrat and the socio-political role of the common citizen, both to some extent hostile to commercial and craft activity at Athens, need not have been a pan-Hellenic phenomenon, but one having causes that did not prevail elsewhere. How a very profitable and efficient long distance trade could have sprung from the social milieu of the Dark Ages, and how it was a

refinement of exploitative techniques has also been discussed. To what extent sixth century Aegina developed financial, banking, or accounting techniques similar to those appearing later at Athens is difficult to determine. It should be remembered that the need for these techniques in the same form may not have existed. Aegina, in the course of economic development, did not need to await the leadership of any group save that of the traditional aristocracy. They could call on the system of xenia and of traditional clientage patterns to organize their activities, in lieu of some legal innovations. In addition, the small size of the governing elite would have allowed for simplification inconceivable at Athens.

Tradition, the enemy of commerce throughout much of Greece, may have been for one class of states, including Aegina, an influence that allowed for change, and, at the same time, limited its cost to the community. We have discussed the trade and commerce of Aegina along highly speculative lines. It is to be hoped that indications have been sketched that conditions did effectively differ from those of several other well-known states.

Chapter 5: Footnotes

1. Welter, A[1], 130-1. Hagesimakhos of the Bassid family was active in the late 7th century, and Kleonikos of the Psalychiads was an adult before 550.

2. E.g., there is less differentiation in average income between the top and bottom fifths of the population in Hungary than in the Soviet Union. Cf. Chapter 3, n. 38, p. 220 above.

3. Cf. E. Kirsten, "Aigina", Gnomon 18 (1942) 301-2.

4. See Chapter 3, n. 10, 11, pp. 216-17 above.

5. Winterscheidt, Aig., 21-2. See also Kirsten, Gnomon (1942) 296.

6. E. Will, Korinthiaka, (Paris, 1955), 295-306

7. Eupatrids in general: Plut. Thes. 25.2; DH 2.8.2; Etym. Mag. s.v. "Eupatridai" (Gaisford 395.50). As a genos: Isoc. 16.25; Polemon, FHG 3.131 fr. 49; Athen. 9.410a. U. von Wilamowitz-Moellendorf, Aus Kydathen, Philologische Untersuchungen 1 (1880), esp. 119. Cf. H.T. Wade-Gery, "Eupatridai, Archons, and Areopagus", Essays in Greek History, (Oxford, 1958), 86-115, esp. 108-10. While Eupatrid was the term generally used for Athenian aristocrats, it is unlikely that the same group of aristocratic families, dominant in the early Dark Ages, remained in power throughout the Archaic Period. While city-states were coalescing, the composition of the aristocracy was fluid. In certain cities, at a date early in the Archaic Period, particular families or groups of families created closed static ruling elites. The Bacchiads were a model for this. They forebade exogamy, monopolized offices, and divided the state's revenues (Hdt. 5.92b; Diod. 7.9.6; Strabo 8.6.20 C378). Other examples might have been the Penthilids of Mytilene (Aris. Pol. 1311b26; Plut. Mor. 984E) and the Basilids of Erythrae (Aris. Pol. 1305b19-21; Athen. 6.259); the artunoi of Epidaurus may have been of the same type (Plut. Mor. 291E). See L.H. Jeffery, Archaic Greece: The City-States c. 700-500 B.C., (London, 1976), 145, 149, 229, 239-40.

8. H.J. Eysenck, The Inequality of Man, (San Diego, 1975), 86 ff., 103-5, 138-40, 164 ff.

9. Kirsten, Gnomon (1942) 300-2

10. Winterscheidt, Aig., 21-2

11. An Aeginetan contingent with Leotychidas' fleet can be deduced from the fact that the fleet mustered at Aegina (Hdt. 8.131.1). See also Diod. 11.34.2 and Chapter 1, pp. 37-8 above.

12. R. Thomsen (Eisphora, (Copennagen, 1964), 121-2) observes that Athenian naukrarol were personal units, which suggests that the naukratic system was a regularization of an earlier situation where the state's fleet was merely the ships that could be assembled by her leading men. See Kleidemos FGH 323 F 8; cf. Ath. Pol. 21.5. On aristocratic Aegina, it is likely that the personal responsibility of aristocrats for equipping ships remained important. The Aeginetan aristocrat Polykritos commanded a ship at Salamis (Hdt. 8.92.1).

13. V. Ehrenberg, "The Origins of Democracy", Historia 1 (1950) 515-48, esp. 517-24

14. [Xen.] Ath. Pol. 3.11

15. W. Schuller, Die Herrschaft der Athener im ersten Seebund, (Berlin & New York, 1974), 88-98; R. Meiggs, "The Growth of Athenian Imperialism", JHS 63 (1943) 21-34

16. On isegoria: J.T. Griffith, "Isegoria in the Assembly of Athens", ASI 115-39. Griffith believes the right is not Solonian, but post-Cleisthenic, appearing between 487 and 462, or a little later. A.G. Woodhead ("ISEGORIA and the Council of the 500", Historia 16 (1967) 129-40) emphasizes the role of the Cleisthenic boule in the establishment of isegoria. J.D. Lewis ("Isegoria at Athens: When did it Begin?", Historia 20 (1971) 129-40) believes reports that Solon established isegoria (DL 1.55; Aesch. 3.2-4; Dem. 22.30) end cites early fifth century political situations where isegoria (or its absence) may have been a factor (Hdt. 5.79; 7.152; Plut. Cimon 8.1). Information for firm conclusions is lacking. These passages do not bear the weight of proof.

17. For isonomia as a description of the Cleisthenic program, see M. Ostwald, Nomos and the Beginnings of Athenian Democracy, (Oxford, 1969), esp. 137-60. The term remained partisan even into the 430's and 420's; see W.R. Connor, The New Politicians of Fifth Century Athens, (Princeton, 1971), 202-4 (cf. Hdt. 3.80-3). See also G. Vlastos, "Isonomia Politike", Isonomia: Studien zur Gleichheitsvorstellung im Griechischen Denken, ed. J. Mau & G. Schmidt, (Berlin, 1964), 1-35.

18. Müller (LA, 133, 146) believed that Nicodromus was using the demos to establish himself as tyrant.

19. See C. Hignett, A History of the Athenian Constitution, (Oxford, 1952), 132-4; Ostwald, Nomos, 141-2. Cf. Ath. Pol. 13.5.

20. See Chapter 1, pp. 48-51 above; also Winterscheidt, Aig., 24-6.

21. Welter, "Aeginetica XXV-XXXVI" AA 69 (1954) 28-48, esp. 31-3. He associated the paleopolis with traces of habitation near the Aphaia Temple. In this case, however, the description of Nicodromus' coup becomes incomprehensible, inasmuch as seizure of such a location would have conferred no advantage on the Athenians. Moreover, it is difficult to see why Nicodromus would be forced to withdraw. Would not the rebels have been able to hold out in such a spot until the Athenian arrival?

22. Winterscheidt, Aig., 42-3

23. Winterscheidt, Aig., 43. Yet, phyle is used in the scholia for family or clan (Schol. Pi. Ol. 8.97; Nem. 8.79b; Isth. 6.89d). Winterscheidt implies that in this passage the naming of a Bassid tribe is to be taken differently, but he is perhaps to be followed with caution.

24. Cf. Winterscheidt, Aig., 43-4; LSAG, 113.

25. Welter, "Aeginetica XIII-XXIV", AA 53 (1938) 480-540, esp. 494-6; Id., A[1], 100, 131

26. Phratry for family in the Aeginetan Odes: Schol. Pi. Ol. 8.99; Pyth 8.53a-b; Nem. 4.118; 6.59b, 97b; 7.103 a, b, d; Isth. 6.89d. In odes dedicated to non-Aeginetans: Schol. Ol. 3.67b, 68; Pyth. 10.85c; Nem. 2.28c. See Winterscheidt, Aig., 45, esp. n. 104.

27. Wilamowitz, Pindaros[2], (Berlin, 1922), 169.

28. Pyth. 8.38; Nem. 4.77; 6.36; 7.70; 8.46; Isth. 6.63. Cf. the following for family: genos (Ol. 8.83), genea (Nem. 6.31, Isth. 6.3), oikos (Nem. 6.26; Isth. 6.65). See Müller, LA, 139; Winterscheidt, Aig., 45.

29. J.B. Bury, The Nemean Odes of Pindar, (London, 1890), 115, 137

30. Wurster & Felter, AltA 1.2.32-5, 50-3

31. Felten, AltA 1.2.42-52; Welter, A[2], 87

32. Kirsten, Gnomon (1942) 301-2

33. Note IG IV 1580; LSAG 110, which records the refurbishing of the Aphaia Temple in the priesthood of one [Kl?]eiotas. This is a very different thing from the authority of the thearoi.

34. Paus. 2.29.6-30.1. See Walter, AltA 1.1.6.

35. Cf. Welter, A[1], 49-53.

36. E. Bourguet, Fouilles de Delphes, (Paris, 1938), 3.6, #81, p. 70. Felten (AltA 1.2.52, #3) observes that the Delphic Xenon

is not identified by function or office. Also, there is an Aeginetan theores at Delphi (IG IX 1.1.179) in the period of Eumenes II, but his connection with the thearoi on Aegina is somewhat problematic, and says nothing about their earlier affiliation.

37. Sparta: Xen. Rep. Lac. 15.5; Hdt. 6.57.2; Mantinea: Thuc. 5.47.9

38. Thasos: J. Pouilloux, Études Thasiennes: Recherches sur l'histoire et les cultes de Thasos, (Paris, 1954-8), 3.238-41. Naupactus also had theoroi who were magistrates: Busolt-Swoboda, GSK, 1531.

39. Felten, AltA 1.2.50-3, n. 17, #3 and 11. #27 & 46, #7 and 16 are uncertain.

40. Felten, AltA 1.2.51

41. E.g., at Rhodes, see W.H. Roscher, Ausführliches Lexikon der Griechischen und Römischen Mythologie, (Leipzig, 1884-1937), 3.2, s.v. "Pythaeus", (O. Hoefer) col. 3393; on the distinction between "Pythius", (O. Hoefer) col. 3365, 3368; s.v. the two cults, see L. Farnell, The Cults of the Greek States, (Oxford, 1896-1909), 4.214-16.

42. Roscher, Lexikon, col. 3365-8. There was an Apollo Thearios at Troezen who deserves mention in this regard (Paus. 2.31.6); Farnell, Cults, 4.394.

43. Plut. Mor. 295B-C; Demon FGH 327 F 19; CPG 1.117 (Zen. 5.8). See N.G.L. Hammond, "The Heraeum at Perachora and Corinthian Encroachment", BSA 49 (1954) 93-102. Cf. J. Salmon, "The Heraeum at Perachora and the Early History of Corinth and Megara", BSA 67 (1972) 159-204, esp. 192-202.

44. Pouilloux, Études Thasiennes, 3. 241

45. Winterscheidt, Aig., 22-4, 51-8.

46. Kirsten, Gnomon (1942) 300-5

47. If Onesicritus, the historian of Alexander, was from Aegina, he was an upper class Aeginetan expert in maritime affairs. He is said by DL 6.84 to have been an Aeginetan, but the question of his origin is a vexed one. See T.S. Brown, Onesicritus, (Berkeley, 1949), 2-4. A decision depends on an appraisal of Diogenes, who juxtaposes the testimony of Demetrius of Magnesia, asserting that Onesicritus was Astypalaean, with anonymous hoi men who describe him as Aeginetan. Crucial is whether one can conceive that Diogenes was following a single source when he wrote hoi men. Another solution would reconcile the two traditions by making Onesicritus an Aeginetan from the

"Old City" or Astypalaea of Aegina. The significance which we are to give to the anecdote in DL 6.75-6 is also critical. This story localized an Onesicritus on Aegina and involved him with Diogenes the Cynic. The nationality of Onesicritus in this story is complicated by the matter of the credibility of traditions about Cynic connections with Alexander. In the anecdote, Philiscus, a son of Onesicritus, is a Cynic teacher of Alexander. Arrian (Ind. 18.9) states that Onesicritus was an Astypalaean, based probably on Nearchus, Onesicritus' contemporary and enemy. But Nearchus is not to be trusted on Onesicritus, and it is not impossible that there might be malicious intent in his attribution of a nationality to Onesicritus. E. Badian ("Nearchus, the Cretan", YCIS 24 (1975) 147-71) has seriously called into question Nearchus' honesty. It is possible that Nearchus could have been casting an aspersion on Onesicritus' expertise by naming Astypalaea as his home.

48. Müller, LA, 78-9; Winterscheidt, Aig., 27-31

49. Bury, Pindar, 81

50. See Chapter 4, p. 258 & n. 59.

51. See C.M. Bowra, Pindar^2, (Oxford, 1964), 380-8 for a discussion of Pindar's use of the concepts of philia and xenia.

52. See F. Blass, Die attische Beredsamkeit, (Leipzig, 1887-98), 2.235-40; P. Cloché, Isocrate et son temps, (Paris, 1963), 13-14; R.C. Jebb, Attic Orators from Antiphon to Isaeus, (London, 1893), 2.216-20.

53. A.W. Adkins, Merit and Responsibility: a Study in Greek Values, (Oxford, 1960), 56-7

54. H. Brown, Social Psychology: an Interdisciplinary Approach, (New York, 1953), 134-6; E. Aronson & G. Lindzey, The Handbook of Social Psychology^2, (Reading, Mass., 1969), 5.218-20.

55. Kirsten, Gnomon (1942) 299, 302

56. Hydra (Ydra), along with Spetsai (Kasos), Chios, and Psara, was practically autonomous in the years before the Greek revolt (C.M. Woodhouse, A Short History of Modern Greece, (New York, 1968), 134-5). The Hydriote fleet had reached 186 vessels on the eve of the war of independence, growing largely out of profitable blockade-running conducted during the French Revolutionary and Napoleanic Wars. (R. Clogg, "Aspects of the Greek Movement for Independence", The Struggle for Greek Independence, (Hamden, Conn., 1973), 12). The skills of the merchant marine were readily converted to the needs of the conflict with the Turks (D. Dakin, The Greek Struggle for

Independence, 1821-33, (Berkeley, 1973), 75-6). See also H. Holland, Travels in the Ionian Isles, Albania, Thessaly, Macedonia, etc. during the Years 1812-13, (London, 1815), 424-5, in Clogg, The Movement for Greek Independence, 1770-1821, (London, 1976), 30-2.

57. Hdt. 5.80; 6.48; Thuc. 1.105.3

58. E. Will, "De l'aspect éthique des origines de la monnaie", RH 212 (1954) 209-31; Id., "Reflexions et hypothèses sur les origines du monnayage", RN 7 (1953) 5-23

59. Will (see n. 58 immediately above) cites Aris. Pol. 1257a-b; Nic. Eth. 5.5.9, and emphasizes the Greek concept of "proportional reciprocity".

60. L. Gernet, "La notion mythique de la valeur en Grèce", Anthropologie de la Grèce ancienne, (Paris, 1968), 119-43. See also Chapter 2, p. 73 & n. 16, 17 above.

61. Once the equation between the landowner and the hoplite is recognized, next for inquiry is the relative size of the hoplites' holdings. Perhaps there can be observed in the Archaic Period a latent opposition between the inhabitants of the polis center, partaking of civil rights and consequent military responsibilities, and the peasants, rural farmers living in villages (see Gernet, "Droit et ville dans l'antiquité grecque", Anthropologie de la Grèce ancienne, 371-81). To some extent, the Spartan kryptela may be a survival of this situation. For this reason, the tiller of a tiny holding, who would scarcely have the resources for equipment, may not have been considered good material for soldiering. At the other end of the scale, a state whose agricultural land was divided into very large holdings would not have had many soldiers. Thus, ancient sources praise the hoplite or moderate economic order, wherein political rights were associated with many middle-sized farms. These small-holders could hold their own against large landowners. The latter, whose social position was marked by others' envy of them and their own avoidance of envy, had less need of the state to form their identity. Though a part of the military establishment, the rich were often members of special corps, such as the hippeis. The life of the small landowner, more austere and strenuous, was felt to better equip him for military exertion. The Ionians' loss of independence was traced to their high standard of living, which sapped their military qualities (Phylarch. FGH 81 F 66; Duris 76 F 60). M. Detienne, "La phalange: problème et controverses", PGGA, 129-31.

62. Xen. Oec. 4.1-4; 6.4-8. In the former passage, Xenophon described farming and warfare as the only concerns of the Persian king, a praiseworthy fact.

63. Cf. A.R. Burn, The Lyric Age of Greece, (New York, 1960), 183. Tyrtaeus fr. 10, esp. 15-32; fr. 11, esp. 1-20 (West, IE); Callinus fr. 1 (West, IE).

64. P. Vidal-Naquet, "Le chasseur noir et l'origine de l'éphèbie athènienne", Annales 23 (1968) 947-64

65. E.g., the black chlamys (Poll. 10.164). See Vidal-Naquet, Annales (1968) 951-3.

66. See Vidal-Naquet, "La tradition de l'hoplite Athènien", PGGA, 161-82, esp. 177 ff.; GHI #204, esp. 19-20.

67. J. De Romilly, Thucydides and Athenian Imperialism, (Oxford, 1963), 239-310; E. Levy, Athènes avant la défaite de 404, (Paris, 1976), 57-77.

68. The crucial distinction for the development of the ideology of the political elite is between land and sea warfare. That aristocratic or wealthy Athenians belonged to the hippeis does not really alter our comparison with the Aeginetans. There is some doubt whether hippeis (e.g., at Sparta or Athens) were actually cavalry in the sense that the Middle Ages has accustomed us to think about it. In their early stages of evolution, hippeis used their horses for transport, pursuit, and retreat in the context of skirmishing, but did much of their hard fighting on foot. Therefore, at this stage the hippeis should not be distinguished from early hoplites, originally aristocratic specialists. It was only with the evolution of the phalanx staffed from the small-holders of the polis (and attendent upon the political reforms that made this possible) that special elite bodies like the Spartan hippeis (and the Theban Sacred Band) which were specially trained infantry despite their name were formed. Even at Athens, where the hippeis remained cavalry, do such units seem to have their own military ideology? Athenian cavalrymen probably fought on foot at Marathon, and Cimon's dedication of his bridle on the Acropolis before the Salamis campaign is illustrative of the prevailing hierarchy of values. Cf. A.M. Snodgrass, "The Hoplite Reform and History", JHS 85 (1965) 110-22, esp. 114-16, 122; P.A.L. Greenhalgh, Early Greek Warfare, (Cambridge, 1973), 75-83, 146-7, 194-6.

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