



LUND UNIVERSITY

Reflections on the Origins of the Polis: An Economic Perspective on Institutional Change in Ancient Greece

Lyttkens, Carl Hampus

Published in:
Constitutional Political Economy

DOI:
[10.1007/s10602-006-6792-z](https://doi.org/10.1007/s10602-006-6792-z)

2006

[Link to publication](#)

Citation for published version (APA):

Lyttkens, C. H. (2006). Reflections on the Origins of the Polis: An Economic Perspective on Institutional Change in Ancient Greece. *Constitutional Political Economy*, 17(1), 31-48. <https://doi.org/10.1007/s10602-006-6792-z>

Total number of authors:
1

General rights

Unless other specific re-use rights are stated the following general rights apply:
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

Reflections on the Origins of the *Polis*

An economic perspective on institutional change in ancient Greece

Carl Hampus Lyttkens

Department of Economics
Lund University
Sweden

August 2005

Correspondence to:

Professor Carl Hampus Lyttkens
Department of Economics, Lund University,
P.O. Box 7082, SE - 220 07 Lund, Sweden.
Email: Carl_Hampus.Lyttkens@nek.lu.se
Phone +46 46 2228652, fax +46 46 2224118.

Reflections on the Origins of the *Polis*

An economic perspective on institutional change in ancient Greece

Abstract

From a beginning of small isolated settlements around 1000 B.C., the city-state (*polis*) emerged in Greece in the course of four centuries as a political, geographical and judicial unit, with an assembly, council, magistrates and written laws. Using a rational-actor perspective, it is shown how this process was driven by competition among the members of the elite. A crucial ingredient was the gradual consolidation of boundaries, which contributed to population growth, inter-state conflicts, colonisation and competition for power. Variations over time in the conditions for competition explain both the introduction of formal political institutions and their overthrow by tyrants.

Keywords: institutional change, ancient Greece, city-state, competition

JEL classification: D70, N43, P14, P16

Reflections on the Origins of the *Polis*

An economic perspective on institutional change in ancient Greece

1. Introduction

Around 1000 B.C., Greek society consisted of small isolated settlements with almost no social stratification. Rudimentary leadership was provided by the “big man” in the village. In the course of the following four centuries, the *polis* – the city-state – emerged in Greece as a community of citizens, as a political, geographical, religious, and judicial unit, with an assembly, council, elected magistrates and written laws.¹

The purpose of this essay is to shed additional light on some of the factors that contributed to this intriguing process of institutional change. Such an investigation into the mechanisms and effects of institutional change is also of general interest, since institutions shape the incentives in a society, and the factors that affect institutional change are therefore among the most fundamental determinants of the functioning of society.

The use of a theoretical framework is inevitable when we try to understand a historical process (Ober, 1996: Ch. 2), and the relative lack of empirical evidence for the study of ancient societies makes a theoretical framework all the more valuable (Finley, 1985: 18). Following the new institutional economics, individuals are here assumed to act with intended rationality.² They strive to maximise their own life-time utility, within the constraints given by the relative prices, technology and transaction costs in the economy, as well as by the formal and informal rules. They base their decisions on limited information and on their beliefs and expectations. Institutions are the rules of the game in society, the humanely devised constraints that shape human interaction. Institutions are not necessarily introduced by “the government” and may

have the character of self-enforcing mechanisms. As will become apparent, a rational-actor perspective tends to focus our interest on the members of the leading class as crucial actors in the period under discussion. The members of this class are assumed to strive for power and wealth, both of which also bring status. Power and wealth are interrelated in that wealth may bring power while at the same time power often provides opportunities to acquire wealth.

In the process leading to the *polis*, the formation of territorial boundaries emerges as a fundamental institutional change with far-reaching consequences. Furthermore, variations over time in the conditions for elite competition appear as an important factor in the process of institutional change.

Below, I will first provide (section 2) a brief sketch of the institutional and other developments in ancient Greece from the tenth to the seventh centuries. The analysis then proceeds in three steps. An essential feature of the *polis* was its territory, and in section 3, the establishment of "national" boundaries is analysed. In section 4, I explore the implications of the gradual consolidation of boundaries for relationships within and between communities. The final emergence of the formalised political institutions of the territorial state is discussed in section 5. A few concluding remarks are provided in section 6.

2. Institutional change in Dark Age and archaic Greece³

After the decline of the Mycenaean palace society around 1200 B.C., ancient Greece entered the so-called Dark Age, traditionally dated c. 1150-750 (henceforth, all dates in the study are B.C. unless otherwise stated). By the early tenth century, the ensuing result was a fragmented society much reduced in scale, where life was lived in small, often short-lived, and relatively isolated settlements. Population had declined significantly.

By the early ninth century, the recovery from the post-Mycenaean decline was under way. Settlements were stable and there is now evidence of social stratification, increasing wealth, communication and substantial population centres. It is presumed that a period of chieftains

followed. Each settlement was headed by the local chieftain, the *basileus*.⁴ During the following centuries, these chieftains would gradually seek to gain influence and domination over other communities and *basileis*.

Having relatively little coercive power, the *basileus* based his position on the resources of his household and on his ability to attract followers (*hetairoi*) to increase his military power. The followers were rewarded with feasts, gifts and a share in plunder; raids on sea and land were important sources of wealth. The *basileus* also formed ties of marriage and guest-friendship with other *basileis* (a practice which continued in the archaic period). Opinions differ with respect to the position of the ordinary people: an exploited peasantry or free farmers in a reciprocal relationship with their *basileus*. In any case, the common people made contributions to the *basileus'* wealth. In return, he provided protection and administration of justice. Life was in several ways organised around the households of the *basileis*.

An important development occurred when separate communities began to identify land with people, both signified by the term *demos*. Originally, the word *demos* probably signified a single village, then different settlements came to regard themselves as belonging to the same *demos*, and finally the crucial notion of a single land-people emerged. Within a *demos* there would be competition among different *basileis*, in addition to the rivalry with *basileis* from other communities.

We now approach the society depicted in the epics of Homer. The Homeric poems probably reached the form in which we know them around 750-700. The society we find reflected in the poems should perhaps be dated mainly to the late ninth and early eighth centuries (Donlan & Thomas, 1993: 65; Raaflaub, 1993: 45).⁵ Many scholars now argue that the *polis* in an early form is attested in the Homeric poems, the *polis* in the sense of a political community. We find there the crucial identification of land with people, and this land is now conceived of as a bounded territory with several settlements, one of which is identified as the central one. The institutions of assembly, council and law court are all in place, although in an informal form.

Both the idea and reality of central government existed, with one of the *basileis* recognised as the paramount chief. Common cult is suggested by freestanding monumental temples. This corresponds to the archaeological record, where the emergence of these edifices belongs to the eighth century.⁶ It is generally argued that the early *polis* as we find it in Homer had developed in a gradual process during the preceding centuries.

Two other important facts point to the second half of the eighth century as the last possible date for the emergence of the early *polis*. Firstly, to this period belong the earliest communal wars and wars for the control of land (“true wars”) of which there was any memory. Secondly, the “Greek colonisation” of Sicily and the south of Italy began around 750 or slightly later. Both these developments are taken to suggest that the participants belonged to a relatively well-defined political system and that the *polis* as a community of citizens had emerged.⁷

The next major change occurred around 700, when the informal system of the *basileis* was replaced in many Greek communities by a formal system of power sharing. The different functions and powers of the *basileis* were largely shared out among a set of magistrates, non-hereditary, with a limited and short term of office.⁸ It is probable that the council became more formalised and that other collegial boards were created. In the following century, formalisation of laws is an important theme all over Greece and we have our first evidence of written laws. It appears that these laws were largely concerned with procedure and property, in particular with delineating the powers of magistrates.

With this, almost all of the ingredients of the classical *polis* are in evidence, with the exception of true cities/towns, for which we have to wait for evidence until around 600. The final institutional development we will note is that the seventh century saw yet another new political phenomenon: the rise of tyranny. In several *poleis*, a single man took political control by “unconstitutional” means.

Concomitantly with the institutional development, Greek society underwent several other important changes. The population increased from the tenth century onwards, probably with

some acceleration in population growth in the eighth century (Snodgrass, 1993b; Osborne, 1996: 70-8). In the countryside, pastoralism probably gradually gave way to farming, though opinions differ on the extent of this change. There was also a change in military technology. By the middle of the seventh century the Greeks had learnt the fighting tactics of the phalanx and the equipment of the hoplite (heavy infantryman) was fully developed. This meant that the group of ordinary well-to-do farmers – who could afford the equipment – had gained in military importance. It is however debated how great a change this entailed compared to earlier times, how quickly the transformation occurred, as well as how politically important it was. Mass fighting, sometimes in closed ranks, is decisive in warfare as depicted by Homer, and the equipment associated with the hoplite is gradually introduced and spread from the second half of the eighth to the first half of the seventh centuries.⁹

There was also a gradual expansion and diversification of economic activity, including trade with the Near East, in particular during the eighth and seventh centuries. In the course of these centuries, it appears that the upper class (especially) intensified their search for wealth, and it is often argued that rivalry within this class was intensified and sometimes became violent (Starr, 1977: 46-51; 1982; 1986: 63; Osborne, 1996: 190-192). At the same time – from around 700 – the upper class in the *polis* developed into an aristocracy, with aristocratic value systems and an aristocratic way of life, eventually leading to a birth aristocracy.

3. The establishment of a territory

In my view, a crucial step in the development of the *polis* was the notion of territorial boundaries, based upon the identification of land with people. The “system collapse” and subsequent development after the fall of Mycenaean society led to the somewhat unusual situation where “...the idea that any part of the inhabited space must belong either to one community or to its neighbour must [...] have arisen freshly” (Snodgrass, 1993b: 37). Neither the causes of boundaries nor the consequences thereof seem to have been fully explored. Here I will discuss

the process leading to the establishment of boundaries and return to the possible consequences in the next section. In general, the widely diverging picture of the size of *poleis* in classical times, sometimes defined by "natural" boundaries and sometimes not, suggests that we should seek an explanation in the socio-political sphere for the delineation of the *poleis*. We should also note from the start that the formation of boundaries must be envisaged as a gradual process.¹⁰

I will suggest that the notion of an identity between land and people, of territorial boundaries, may have been consciously introduced and used by enterprising *basileis* in their competition for power in the wake of population growth. The introduction of boundaries could thus have been a conscious and active process, in contrast to the spontaneous one often implied. Let us begin, however, by looking at some previous discussions of boundary formation.

One possible explanation lies in scarcity of land. Raaflaub focuses on this aspect when he argues that "boundaries of the community and secure ownership of land emerge as central social concerns only when land becomes scarce" (1993: 78) and "... as the *polis* territories were filled up, land became precious, resulting in conflicts both within each *polis* and with neighbouring *poleis*. There emerged the notions of 'territoriality' and fixed boundaries." (1997: 52). Raaflaub consequently places the establishment of boundaries in the late eighth century, following upon the accelerated population growth during that century.

This account implies that the creation of boundaries occurred as a spontaneous solution to social problems. Such a view has its obvious merits. With population growth from the tenth century onwards, land becomes scarcer, which implies that the value of the rights over a piece of land increases. This is likely to lead to a change in land use, from pastoralism to less land-intensive farming, a tendency that seems to be suggested by the evidence (just as pastoralism is a rational response to the depopulation following the fall of the Mycenaean society). Furthermore, as the value of an asset increases, it becomes more interesting to exercise and delineate rights over it, and this is what seemed to have happened with land. In a functioning society, the creation and abandonment of rights is an ongoing process (Barzel, 1989; Demsetz, 1967).

From an economic perspective, scarcity of land is a relative concept. Behaviour may change as soon as land becomes less abundant, as soon as people are constrained in their use of it. Consequently, if the population grew from the tenth century onwards, it would seem that a definition of territory could have occurred for these kinds of reasons already before the eighth century. We may then take Raaflaub's position to imply that scarcity, and hence incentives, would not have been pronounced enough until the second half of the eighth century.

From the property rights perspective, such a relatively late date for the formation of boundaries seems quite plausible. One should consider at this point the *incentives for individual actors* to devote resources to the establishment of boundaries, rather than just accepting that this occurred because it was beneficial to the society as a whole. To delineate property rights by establishing a boundary – even if only gradually – is not cost-free; there are costs associated with the actions themselves, and some opposition could be expected from neighbouring communities, potentially leading to armed conflict. Hence incentives must be of a certain magnitude to make the effort worthwhile.

For the common people, it would be increasingly attractive to define a certain territory as belonging to them as the population grew and the value of land increased. However, they faced the free-rider problem of collective action (Olson, 1965). Note also that the initial definition of community territory did not necessarily make individual property rights – the primary concern of the farmer – much stronger.¹¹ It would do so by preventing somebody from another community from claiming the land and by implying that the citizens would unite in defence of “their” territory.

Because of the free-rider problem, the ruler – here the *basileus* – is often a more promising candidate as an active agent in institutional change (North, 1981: 32). He may have seen it as part of the informal exchange with his followers and as a fulfilment of his implicit obligation to provide protection. He would benefit personally in his capacity of landowner (but see above). To the extent that acquisition of land was involved, the *basileus* would be likely to belong to those

who benefited and he may have wished to secure land for his adherents. As far as the land-value argument goes, however, his personal incentives to engage in such an enterprise were not necessarily great.

Consequently, the relatively weak incentives for both the common individual and the ruler suggest that a consolidation of boundaries would probably not have occurred as long as land was relatively plentiful. There are, however, at least two reasons to look for further factors behind the definition of community territory. *On the one hand*, the outbreak of communal wars over the control of land indicates that the establishment of territorial boundaries was well under way by the late eighth century, but some scholars argue that scarcity of land was not a prominent factor even at that time. Foxhall (1997: 127) argues that survey evidence "...hardly suggests over population or a landscape approaching its carrying capacity in the Archaic period" and that "...such extensification seems to start no earlier than the late sixth century." Similarly, in his discussion of the colonisation movement, Osborne (1996: 125) suggests that even in the second half of the eighth century "...land was readily available to those who had the labour available to make use of it." This suggests that the incentives stemming from the increase in land values were not necessarily strong even in the late eighth century, even though the best land would presumably have been taken. *On the other hand*, some indications suggest a considerably *earlier* date for boundary formation. Basing his reasoning on Mycenaean terminology and Homeric evidence and comparisons with the archaeological remains, Donlan (1989) argues that the community as a comprehensive unit with known boundaries had emerged already by the late ninth century, i.e., before the acceleration in population growth in the eighth century. The process he envisages (1989: 21) is one where "[i]n time, separate communities [...] came to regard themselves as the *demos*, a single land-people [...] Crystallization ended either at some natural boundary or by collision with another *demos*' frontiers." Donlan (1989: 22, 24) suggests that the coalescence of the separate small communities of the early Dark Age was a reflection of "the universal tendency [in all Greek societies] of local chiefs to seek precedence over other local chiefs" where "ambitious

basileis enlarged their spheres of influence by recruiting non-local supporters [...] thus building up regional pyramids.” This was a process fuelled by, and probably presupposing, population growth and increasing contacts between communities. The fact that such coalescence occurred suggests that there were some economics of scale in violence (protection and plunder).

Donlan (1989) explicitly leaves open the issue of the specific process of boundary formation. As argued above, the process is not cost-free and hence one should reasonably consider individual incentives. Obviously, a mechanism based upon the increasing value of land is less plausible the earlier the date for the transformation. We turn now, however, to the competition between rulers, which is also prominent in Donlan's account, as it may provide a solution.

Territoriality could in fact have been used as an instrument in the competition among leaders. In his institutional theory of the state, North (1981: 27-28) emphasises that the presence of rival rulers is an important determinant of ruler behaviour (a competitive constraint). The *basileis* had a strong incentive to engage themselves in the issue of territorial boundaries, because the idea that a certain territory and a certain group of people naturally belonged together would, by definition, effectively *exclude* the rival rulers from other territories from the local competition for influence.

Furthermore, it is not difficult to envisage situations where a ruler would find it advantageous to actively propagandise for the land-people identity with territorial boundaries, for example, when his authority is severely challenged by rival rulers so that his rate of discount is high. A ruler is always in a potentially unstable situation, and this was manifestly so in the present case, where the *basileus* lacked a formal apparatus of government, and it seems probable that any one area could contain adherents of different *basileis* (Donlan, 1989: 24-25; Donlan & Thomas, 1993; Raaflaub, 1993: 79). In order to influence the belief system of his potential followers and of the common people, the *basileus* could promote the ideology of the *demos* as a single land-people. This was a relatively cheap way of strengthening his position and of legitimising his

rule.¹² Against more distant *basileis*, the local ruler would gain a definite advantage in attracting followers within his own territory.

In other words, the effects on the competition for power provide a substantive reason for rulers to invest resources in the issue of territoriality, and specifically for some of them to actively promote the idea of a land-people identity. The probability of this occurring seems likely to have increased over time, *ceteris paribus*, as population and contacts between communities increased from the tenth century onwards, i.e., as the conditions for elite competition changed. As argued by North (1981: Ch. 3), a ruler will favour institutions and property rights that are in his interest (not necessarily efficient property rights).

Another possible incentive for rulers to strive to define their territories comes from the expansion of trade, which is pronounced in the eighth century but which had begun at least by the ninth century (Osborne, 1996: Ch. 2; Thomas & Conant, 1999: Ch. 4). According to the predatory theory of the state, rulers will normally attempt to maximise revenues within the constraints they face (Levi, 1988; North, 1981). In classical Athens, this manifested itself, for example, in the use of different taxes on trading activities that are easy to identify and to tax (harbour dues, a toll at the city gates, possibly a sales tax at the city market, etc.) (Lyttkens, 1994). Taxation of trade is a universal phenomenon; it is attested for archaic Greece and appears in an informal form in Homer, namely as “gifts” from visiting traders to local rulers (Andreades, 1933: 21, 121, 138; Austin & Vidal-Naquet, 1977: 55).¹³ Hence it is conceivable that, as trade expanded, the *basileis* realised that taxation of trade was a new way to gain wealth. Taxation of trade implies authority over a territory rather than over people. Hence definition of a territory could also have been part of a revenue-maximising strategy.

It was noted above that common cult was one of the important characteristics of the *polis*. Religion and cult helped to define territories and territorial belonging.¹⁴ Again, it is conceivable that religion partly served this purpose because it was consciously used by the *basileus* to strengthen his own position, just as, for example, the Peisistratids in sixth century Athens

promoted public cults in order to weaken the influence of the aristocracy – *qua* local leaders of cult – over the population.

These incentives on the part of the ruler can also serve to reconcile the relatively early date for boundary formation suggested by Donlan (1989) with the fact that land values would still have been relatively low compared to a century later. The competition argument lends additional substance to Donlan's (1989: 25-26) suggestion that we "...may suspect [...] a reciprocal relationship between the rise of the chiefdoms and the establishment of 'national' boundaries."

Since the conditions for competition will have varied considerably across ancient Greece, this perspective could conceivably help explain why the *polis* structure evolved in some areas but not in others.¹⁵ In particular, it suggests the hypothesis that later *polis* areas would be characterised by a relatively high degree of competition among *basileis* (possibly associated with short distances between settlements). An indication along these lines is Raaflaub's (1993) observation that later *poleis* areas seem to indicate the co-existence of several big-man groups.

A potential advantage with an earlier date for the process of boundary formation is that it allows a greater scope for this process to enter as an explanatory factor behind the continued population growth. To the extent that boundary formation served to increase individual property rights, we would expect it to lead to an increase in agricultural production and nutrition, and to a subsequent increase in population.¹⁶ Furthermore, by fostering the notion of citizenship – and the rights associated with that status – the definition of the territory is likely to have encouraged a gradual strengthening of individual property rights. Consequently, the continuing population growth in the period, and perhaps particularly the accelerated growth in the eighth century, could have been significantly stimulated by the gradual definition of boundaries.¹⁷

Rulers' incentives could also help make the delineation of territories a self-enforcing process. Of course, if some people start claiming land, others are likely to react by doing the same. In addition, however, increased prosperity is likely to follow from more secure property rights, and therefore a ruler in a well-defined territory would tend to eclipse other rulers. This

provided an incentive for them to introduce the same measure. At first sight it might seem that such an effect would be of a too long-run nature to be of any consequence. However, the experiences of, for example, the early Soviet Union show that agricultural production can change quickly in response to variations in the security of ownership over land and produce (Hedlund, Lundahl & Lyttkens, 1989).

4. The significance of territory

Whatever the reason for the new phenomenon, the gradual acceptance of the fact that a certain territory belonged to a particular incipient *polis* is likely to have had far reaching consequences. We have already mentioned the probable effect of more secure property rights on population growth. Moreover, it affected the relationship between the different actors in several ways.

Firstly, the emergence of boundaries gave armed conflicts a new meaning. Previously, military force would primarily have been used to gain wealth by plunder and to extend one's sphere of influence. When power and wealth depended on informal relationships between households, there was relatively little point in fighting over land. With the gradual establishment of boundaries, this changed drastically. A ruler could now increase his sphere of influence and reward his followers by conquering territory from neighbours. Conversely, the inhabitants of a forming community had a common interest in defending their territory. This was an important qualitative change, even though one must always remember that personal ties within the elite continued to extend across boundaries. While possessions would continue to be the object of raids, piracy, etc., we would now expect armed conflicts over land to develop, which is what ensued in the eighth century. "By the classical era the boundaries of the *poleis* seem so firmly set that one may forget how much the wars of the eighth and seventh centuries changed the map of Greece" (Starr, 1986: 39). In other words, instead of conflicts over land leading to the definition of boundaries (cf. above), the causation may have been running in the opposite direction. For this reason, conflicts over land may also have ensued even if land was relatively abundant, but the

increasing frequency of warfare between communities in the eighth century would obviously have been fuelled by the growing relative scarcity of land, which is the development with which the wars are usually associated.

Secondly, and perhaps most importantly, the gradual establishment of community boundaries substantially changed the opportunity costs of both the common people and the proto-aristocracy, which has several implications for the subsequent development. For the ordinary farmers, the possibility of exit was significantly reduced. Previously, dissatisfaction with the demands and jurisdiction of the local *basileus* could be alleviated by moving to surplus land in a nearby area dominated by another *basileus*. As the idea and reality of “national” boundaries took form, such an exit would, however, gradually become a less attractive option, even if land remained plentiful. Property rights to land were now gradually associated with one’s own *demos* and territory, and ownership would be correspondingly less secure when moving to the area of another *demos*. This is reflected in the later Greek practice of formally allowing only citizens to own landed property. Since it became less easy for an individual farmer to escape exploitation by his local *basileus*, such exploitation became, *ipso facto*, also more likely.¹⁸

This secular deterioration in the relative position of the ordinary people may contribute to our understanding of the reasons behind the extensive colonisation movement. During the last third of the eighth century a new town was founded in southern Italy or Sicily about every other year. Such a development, i.e., for “whole groups to move [...] into areas not previously settled by Greeks, demanded peculiar conditions,” as noted by Osborne (1996: 125) (even though the Greeks were a mobile people). Osborne argues that the reason for the colonisation was not that there was no land available at home. Instead, the colonists were people who jumped (rather than being pushed) because they saw a better future elsewhere. He therefore focuses on the attractiveness of the new settlements (better climate, desirable minerals, trade). Others include push factors in their explanation of the colonisation. Thomas & Conant (1999: 125-134), note that the colonisation is regularly associated with land shortage, but that other factors were clearly

at work as well. They suggest that the proto-aristocracy increased their land holdings and, as land grew scarce, increasingly turned to exploiting the ordinary farmers.¹⁹ It has been argued that the possibilities of exploitation increased as the leading families increased their economic power by expanding their estates and turning to trade (Donlan, 1997; Thomas & Conant, 1999: 130-133). Another mechanism behind an increase in exploitation may have been the gradual formation of boundaries, i.e., the concomitant impairment of the exit option suggested above. This could also explain why colonisation became an attractive alternative even if there was still land available. This mechanism would support Osborne's (1996: 125) view that the colonisation "...is not a measure of state power but a measure of the limits to the control rulers could exert."

The formation of boundaries also changed the conditions for competition within the elite. It has been argued that the upper class in Greece had become more fiercely competitive in the eighth century and that this was accompanied by an intensified search for wealth, including an increasing eagerness to exploit the rest of the population (Starr, 1977; 1982). Around 600, the Athenian reformer Solon noted that the rich had twice the eagerness of others in their search for wealth (Solon: fr. 13). One set of reasons for the shift in attitudes can be sought in changes in the economic environment. It has been noted that as the scope and volume of economic activity grew, new avenues to acquire wealth were opened, and concomitantly new competitive uses for disposable wealth appeared, such as conspicuous consumption of luxury imports. Additionally, however, the definition of boundaries may help explain why the proto-aristocracy became more fiercely competitive. Firstly, an increase in the level of wealth in society would make it more interesting to invest resources in the competition for power, since being a ruler means being in a position to tap these resources (Levi, 1988; North 1981), and an increasing level of wealth is implied both by the increase in economic activity and by the population growth. Furthermore, "...archaeological evidence [...] suggests that standards of living improved substantially between the ninth century B.C. and the fourth, even as population was expanding" (Morris, 2002: 66). This effect on the competition for power would be strengthened by the increased possibilities for

exploitation that followed from boundary formation. Secondly, for the *basileis*, the rules of the game for power gradually changed with the notion of a defined community territory. By decreasing the importance of alliances with people in other communities, the definition of territory implied that the competition for power and status among the *basileis* resembled more and more a zero-sum game within each community. Before the establishment of boundaries, a *basileus* could always endeavour to counter a rival by seeking new alliances near and afar. After this change, the essential quest for power took place within a closed set of potential supporters.²⁰ It also became something of a winner-takes-all situation – only one *basileus* or group of *basileis* could be paramount in the early *polis*. In general, this seems to imply that the potential gains for an individual leader were increased if he became paramount chief or belonged to the winning faction. It also implies, however, that his situation had worsened if he lost the competition, being then clearly in a subordinate position.²¹ With risk-averse individuals, this seems likely to produce a tendency for leaders to invest more efforts (and resources) in the competition for power and eminence. The tendency would probably tend to be self-enforcing – an escalation of efforts to gain the upper hand in the struggle for power.

In summary, the formation of boundaries emerges as a potentially important element in the development of the *poleis*. It may have contributed to prosperity, population growth, conflict over land and mass fighting, exploitation of the common people and colonisation, and intra-elite competition. Furthermore, by fostering conflicts over land and by contributing to an intensification in elite competition, the formation of boundaries prepared the ground for further institutional changes. We now turn to the relationship between the mechanisms of aristocratic competition under these new circumstances and the development of impersonal offices and written law.

5. Aristocratic competition and constitutional reform

As we approach the end of the eighth century, we may think of the association between land,

people and cult within recognised boundaries as an established fact of life. This organisation of society is firmly incorporated into the inhabitants' view of the world. Society is characterised by fierce competition for power and status among the members of the leading class. This competition could sometimes turn violent and lead to civil strife. In the course of the seventh century this aristocratic competition led to the rise of tyrants as a new political phenomenon. It appears, however, that this was preceded by the introduction of impersonal offices and collegial boards to run the incipient *polis* some time around 700. The rise of tyrants roughly coincides with the introduction of written law.

In brief, I will suggest the following interpretation of this chain of events. The power sharing through appointed magistrates represented a change in the rules of the political game and this was introduced by the upper class because of external threats (conflicts between the early *poleis*). It could serve as a self-enforcing equilibrium for a while, but as the external threat subsided in the seventh century, the equilibrium was no longer stable and tyrants occasionally seized power. The formalisation of laws amounted to attempts at stabilising the situation, but since this did little to change the underlying incentive structure, it could only be moderately successful in preventing civil strife.

Let us begin with the introduction of offices with short-term holders and collegial boards, which in many *poleis* replaced the rule of a *basileus* around 700. It amounts to a formal system of power sharing (Donlan, 1989), suggesting that the leading *basileis* and their followers would alternate in holding executive power. Raaflaub (1993: 81) argues that “pressure exerted on the *polis* either from a hostile environment [...] or [...] by long wars [...] must have enhanced the unity and solidarity of the community and forced it to formalize its institutions, to adopt (written) laws and thus to eliminate as far as possible the causes of domestic discord.” In Raaflaub (1997: 57) he adds that “... the decisive factor perhaps was danger from within the *polis*: in-fighting among elite families [...] posed existential threats to the *polis* as well.” Thomas & Conant (1999: 132) notes that the reform fulfilled an administrative necessity – with increasing population size and more

diversified activities in the community “...the leadership of a single person was no longer effective or even sufficient.”

While these underlying causes for the introduction of offices seem plausible, two questions remain to be answered: 1) how did the new rules of power sharing reduce the probability of internal conflict and facilitate co-operation? The introduction of formal power-sharing does not necessarily prevent individuals from attempting to gain a position as a single ruler, nor to do so by violent means, as the later emergence of tyrants demonstrated. 2) What made it individually rational for members of the proto-aristocracy to accept the introduction of power sharing, which meant that the possibility of great power was exchanged for a (more certain) share in that power?

I will deal with these two questions in reverse order. In a penetrating analysis of medieval Genoa, Greif (1994b, 1998) shows how an increase in external threat 1154 A.D. changed the nature of a mutual deterrence equilibrium between competing clans and enabled them to co-operate because the threat reduced the gain from being in control of the city. When the threat unexpectedly dissipated (1164 A.D.) the old equilibrium was no longer viable, because the gain from controlling the city had increased during the period of co-operation, and civil strife ensued. When a severe external threat again materialised 1194 A.D., the Genoese altered the rules of their political game by introducing a self-enforcing organisation, namely the *podestà*. This was an externally recruited, impartial and short-term administrator of the city. Since the possibilities for a clan to credibly commit itself to reward a *podestà* who colluded with them was limited, the *podestà* could be counted upon to strive to uphold the balance of power in the city, and the marginal return to trying to establish a rule of a single faction was reduced.

It seems like a viable hypothesis that something similar happened in archaic Greece around 700. In the eighth century violence was probably endemic, both between and within communities. The use of violence was an established way to seek power and wealth, and it was not prohibited by informal rules, i.e., by the prevailing value system in the upper class. In Homer, the authority of the leader is especially connected to military leadership, and warfare appears as

one of the traditional exploits of the aristocracy, where status could be gained (Adkins, 1972; Donlan, 1997; Finley, 1978). The late eighth century, however, witnessed wars that threatened the very independence or subsistence of the *poleis* (perhaps a natural consequence of the growing scarcity of land).²² In other words, these conflicts posed a greater threat (perhaps especially to the *basileis*) than the earlier Dark Age conflicts. Such an increase in the general level of external threat made it relatively less interesting for the individual *basileus* to invest resources in the competition for eminence within the early *polis* (by reducing the expected gain from coming out on top), and suggested that the value of co-operation increased.

A system of formal offices and collegial boards for the governing of the state might then seem attractive, because it represented a change in the rules of the game for political competition that arguably facilitated co-operation. In particular, the regulation of the forms for internal competition reduced the incentive to invest resources in violent internal conflict. Anyone seeking to attain a dominant position within the *polis* would have to transgress the new rules. This kind of breach of the implicit agreement of co-operation would make the bid for power much more conspicuous than under the old system. In turn, this increased the likelihood that other members of the elite would unite in opposition since it provides a clear and instant signal. In a similar context, Weingast (1995: 15) notes that “a constitution serves as a coordinating device, helping citizens to coordinate their strategy choices so that they can react in concert and police state behaviour.”²³ In particular, he shows how it facilitates agreement on *when* a transgression of rightful behaviour has occurred. In the emerging *poleis*, the new rules for power sharing coordinated opposition and so reduced the likelihood that anyone would succeed in seizing a dominant position, thereby implicitly making such attempts less likely.

It is not surprising that such an arrangement for power sharing and co-operation had a tendency to spread across the *poleis*. Many *poleis* would have faced similar pressures, others may have imitated these arrangements anyway, and some may have seen the benefits of a reduction in internal strife (Raaflaub, 1993: 81-82).²⁴ To this we may add that in so far as the reform

succeeded in fostering co-operation it probably also led to advantages in inter-state conflicts, which motivated imitation by other *poleis*. Such a competitive edge may be part of the explanation for the early ascendancy of Corinth, where impersonal offices were probably introduced already soon after 750.²⁵

Snodgrass (1993b: 38) argues that local *basileis* need not have been opposed to their territory being incorporated into a larger *polis* because they exchanged an uncertain claim to local power for "... the chance to share in power on a larger scale, through a mechanism which gave official sanction and apparent permanence." Slightly reformulated, this argument can provide a complementary explanation for the introduction of offices and collegial boards. By instituting a formal system of power sharing, the rulers of an expansionist community could defuse the potential opposition from the leaders of neighbouring communities against an incorporation of their territories.²⁶ If this was a cause of the reforms, the effects described above on the incentives to invest in co-operation vs. factional strife would still follow, and a new equilibrium of intra-elite competition could be established.

Another reason for the system of formalised political institutions to spread is that the reform also produced a benefit for the leading class that would gradually have become noticeable. As argued by Donlan (1997), the reform probably increased the power of the upper class vis-à-vis the common people. With the formalisation of government, the cost of non-compliance increased, compared to what it had been under the relatively loose authority exercised by the early *basileus*, largely based on custom. The introduction of magistrates and the formalisation of the council also reduced the power of the assembly, which was the place where the common people could make their opinion known. If and when these effects became apparent, the leading class would become more favourably disposed towards such an institutional change.

An incidental effect of the formalisation of the political game is that it may have been instrumental for the emergence of "true" aristocracies from around 700. With the introduction of

magistracies, it became necessary to determine who was eligible.²⁷ No such delineation of eligibility had been required as long as power and government was rested in informal structures.

It appears that the wars between the *poleis* gradually came to have less dramatic consequences in the seventh century. “Phalanx fighting [...] was increasingly ‘ritualized’” and war came to “determine the prestige rather than the existence of the [...] *polis*” (Raaflaub, 1997: 56).²⁸ The reason for this change is less than clear. Land was certainly not more abundant, despite the colonisation movement. Possibly the Spartan example had something to do with it. The extent to which the Spartans had to reorganise their society in the late eighth and seventh centuries in order to retain control of their territorial possessions suggests – and perhaps suggested also to their contemporaries – that there was a limit to this process, a point beyond which significant decreasing returns to scale in the size of an ordinary *polis* could set in. Another possible explanation for the changing nature of these encounters lies in the development of the hoplite panoply (fully developed about 650), which meant that armed conflict was increasingly the concern of the well-off ordinary farmers who could afford such equipment. If the independence of the *poleis* or the lives or livelihood of the citizens were at stake, this segment of the population had less to gain in case of victory and more to lose in case of defeat than those who were less well-off. They were not driven by the desire for status in the same way as the aristocrats. Hence this well-to-do group were the ones with the greatest incentive to reduce the level of inter-*polis* conflicts, and their increasing importance may have moved the conflicts in that direction.²⁹

The consequences of such a change in the nature of the wars between different *poleis* may have been important for their internal affairs. If an equilibrium with relatively few violent intra-*polis* conflicts had been supported by external threats, this equilibrium need no longer have been stable when the external threat subsided (as in Genoa after 1164 A.D.). Aristocratic competition had never ceased and once again we could expect to find enterprising individuals attempting to achieve a dominant position by violent means. The united aristocratic opposition could no longer be expected to serve as a sufficient deterrent. This is largely the picture of the seventh century

which we get from the literary sources: violent quarrels within the elite, using whatever means at their disposal, a growing concern over the effects of aristocratic competition, and the rise of tyrants. While the emergence of tyranny is often associated with aristocratic competition, the suggested importance of a reduction in external threats provides a more specific explanation for the timing of this new phenomenon.

The emergence of tyrants could also represent a case of path dependency. Expectations based on previous experiences generate path dependency by forming individual perceptions of the costs and benefits of different courses of action. Tyranny, as Osborne (1996: 193) notes, could occur because of mutual distrust. In this case, if each individual aristocrat expected attempts at violent take-overs from his fellows once the external threat was reduced (based on the experiences of aristocratic struggle before the reforms) they would naturally try to “do it to them before they do it to you.”

It is natural to view the formalisation of laws in the same light as the introduction of formal offices. Osborne (1996: 186-189) notes that the early laws largely concerned the powers of magistrates, but instead of regulating what may or may not be done, they were about *who* is to regulate what may or may not be done. The purpose of the laws is therefore “to control the distribution of powers within the élite [...] This is élite self-regulation” (Osborne, 1996: 187).³⁰ The laws served to restrain the aristocrats in their internal struggle and prevent the magistrates from abusing their position. Such behaviour could otherwise be expected to increase as the aristocrats learnt over time how to adapt their actions to the new institutional framework (the effects of institutional change vary over time). In other words, such laws are in a sense a natural corollary to the introduction of magistracies. It is an interesting parallel to the *podestà* in Genoa that – according to Greek tradition – many of the early lawgivers were outsiders to the community (Osborne, 1996: 189). This use of an outsider makes sense if the aristocracy tried to regulate their own behaviour and find stable solutions. However while the formalisation of the laws probably had a significant impact on individual transactions and day-to-day activities, it did

little to change the basic incentive structure with respect to attempted tyranny. One should not be surprised that tyrants continued to appear in the sixth century.

Hypothetically, the formalisation of laws could also be interpreted as an attempt to enlist the common people – in particular the hoplites – to oppose would-be tyrants, by emphasising the unlawfulness and unconstitutional nature of their rule. In aristocratic poetry, rule by one man is presented as an outrage against the whole community (Osborne, 1996: 192) (whereas in reality the outrage may have been felt almost exclusively among the elite³¹). If it was such an attempt, it obviously failed from time to time, because the successful tyrants needed at least the passive acceptance of the hoplite "class."³² Note that the laws were not primarily designed to restrict aristocratic exploitation of other segments in society, not to control "... the powers of the élite with regards to the people, nor to restrict the arbitrariness of those with authority" (Osborne, 1996: 187).

6. Concluding remarks

In the preceding pages, I have endeavoured to show that a rational-actor perspective can shed additional light on institutional change in early Greece. It was suggested that formalisation of territorial boundaries may partly have been a consciously driven process. The gradual consolidation of the boundaries of the incipient *poleis* changed the incentives of the different actors in the community. Among the possible ensuing effects were population growth, inter-state conflicts, colonisation and a fiercer competition for power. Variations over time in the conditions for this elite competition can help explain both the later introduction of formal political institutions and the overthrow of these institutions by tyrants. Thereby we have set the stage for the development towards democracy in many of the ancient Greek city-states, but that is another story.

Acknowledgement

Financial support from the Bank of Sweden Tercentenary Foundation is gratefully acknowledged.

Helpful comments from Stanley Engerman, Carole Gillis, Göte Hansson, Sören Höjgård,

Margaret Levi, John Nye, Rolf Ohlsson, Lars Pettersson, Eva Rystedt and Carol Thomas are

gratefully acknowledged. As usual, any remaining errors are the sole responsibility of the author.

Footnotes

¹ I use the expressions “*polis*” and “city-state” interchangeably. It should be noted, however, that whereas city-state implies an autonomous status, there are a variety of examples of “dependent” *poleis* (Hansen, 1995, 1997a). Moreover, in several areas of Greece the *polis* structure never became established, representing instead the so-called *ethnos* type of state. Cf., e.g., Austin & Vidal-Naquet (1977: 78-81), Hansen (1997b), Osborne (1996: 286).

² The theoretical framework for the analysis of institutional change draws mainly on North (1981, 1990, 1994). The use of an economic rational-actor perspective is not uncontroversial in this context. It is a justifiable assumption, however, given that proper account is taken of how self-interest is likely to have been conceptualised in Greek society in this period. Such a perspective can provide additional insights and provides a consistent theoretical framework. Murray (1990, 1996) argues that institutional change in ancient Greece, including the archaic period, displays a high level of rationality, based on recognition of the reasons for change and the consequences of institutional reform. Much of the critique of using modern economic analysis focuses on the “substantivist position”, the argument that economic life was “embedded” so that market forces played no independent part (Finley, 1973; Morris, 1994). Such a view is however not necessarily incompatible with institutional economic analysis, with its emphasis on social norms, on the interaction between economic and social domains and on people’s beliefs about the functioning of the world (Aoki, 2001; Greif, 1994a; North, 1990). Furthermore, as Murray (1990) observes, the application of different styles of approach is commendable in view of the relativity of scientific methodology.

³ The description below draws mainly on the following secondary sources: Donlan (1989, 1997), Donlan & Thomas (1993), Hansen (1993), Murray (1993), Osborne (1996), Raaflaub (1993, 1997), Snodgrass (1993a), Starr (1986), Thomas (1993), Thomas & Conant (1999). The account

ignores several local variations, such as the early flourishing at Athens and Lefkandi, cf. Thomas & Conant (1999), Chapters 3-4.

⁴ The traditional translation “king” is misleading for the position of these *basileis*. It was much less formalised and powerful than that title suggests.

⁵ Many scholars now believe that it is possible to see an actual historic society reflected in the Homeric poems, even though several chronological layers are present.

⁶ On the other hand, there is a somewhat disturbing discrepancy between Homer and the archaeological remains in that cities with walls appear in the former whereas archaeology so far suggests that the towns or cities belong rather to the seventh century or later.

⁷ There is also evidence of the *polis* in the writings of Hesiod c. 700 (Raaflaub, 1993).

⁸ For example, in Corinth the introduction of offices and a council is traditionally dated to 747 (Thomas & Conant, 1999: 121-22), and the Athenians believed that the archonship went back to 683 (Hansen, 1991: 28).

⁹ Cf. Drews (1993) on the Late Bronze Age origins of mass fighting.

¹⁰ The argumentation below is not affected by the possible occasional existence of “grey zones” of no-man’s land between communities, especially in mountainous areas (Penttinen, 2001: 96).

What is important is that large areas were defined as belonging to one *demos* or the other (living in the “grey zones” would have been insecure and less attractive).

¹¹ To the extent that borderlands were held as common property (e.g., for grazing), individual incentives could have been stronger. Incentives would also be strengthened in so far as Snodgrass (1993b) is correct in surmising that conquest and allotment of land occurred as a part of the process and that private ownership of land followed with the process of delineating national boundaries

¹² Cf. North (1981: Ch. 5; 1990) on the importance of ideology in this kind of context.

¹³ Harbour dues existed already in the Late Bronze Age, cf., e.g., Heltzer (1978: 130).

¹⁴ Cf. Osborne (1996: 102), Polignac (1994), Snodgrass (1980: 55-65), Thomas (1993: 80), and Thomas & Conant (1999: 124). The use of temples to make a territorial claim suggests that territoriality was an issue at least by the first half of the eighth century, cf. Osborne (1996: 88-104).

¹⁵ Davies (1997: 25) argues that "...regional trajectories of repopulation and development in the Dark Age and after clearly differed so sharply from each other in nature, scale and date that no one model for the 'rise of the *polis*' can possibly be valid."

¹⁶ Compare Snodgrass (1993b: 38): "...the rise in population, so often found in a newly-established and secure regime of sedentary agriculturalists." For agricultural production, the relative security of property rights is an issue of equal importance to new production techniques, and it also influences the propensity to introduce innovations.

¹⁷ The earlier population growth could be due to the return of more peaceful conditions, the switch to farming (Snodgrass, 1980: 35ff), or perhaps simply represents a normal swing in population, the fall of the Mycenaean society having reduced its average size. From an economic perspective, the switch to farming implies an incentive to raise larger families, because the marginal productivity of labour would be greater than under pastoralism.

¹⁸ I see this as an unforeseen consequence of boundary formation – otherwise it would represent a strong incentive for the *basileis* to define their territories. The development of mass fighting at the same time made the ordinary farmers *as a group* more important and hence increased their bargaining power. Given the problem of collective action, it is arguable, however, that this did not do much to protect the individual farmer from exploitation. "[It] is clear that the farmers who served in the hoplite army were not a conscious, unified class" (Raaflaub, 1997: 53). Cf. also Starr (1977: 179).

¹⁹ On increased exploitation, cf. also Donlan (1997) and Starr (1977). One should not underestimate the possibilities of the proto-aristocracy in this respect. They controlled the government (such as it was), and the interpretation of the unwritten law was the prerogative of

the nobility. Around 700, Hesiod (*Works and Days*: 30-39) complained that the aristocracy gave crooked sentences and violated justice for the lure of gain.

²⁰ A *basileus* would however continue to have supporters outside his own *polis* (Donlan, 1989: 25).

²¹ This may help explain why some individual leaders found it attractive to take part in colonisation (Thomas & Conant, 1999: 133).

²² Raaflaub (1993: 51; 1997), Donlan & Thomas (1993). For example: Spartan expansion into Messenia; the annexation by Argos of the Asinaia region; the Lelantine war between Chalcis and Eretria, which may have led to the destruction of Lefkandi (Donlan & Thomas, 1993; Thomas & Conant, 1999: 102, 123).

²³ In a similar vein, Barzel (2000) shows how the introduction of a collective action mechanism, which facilitates opposition, can be a credible commitment on the part of the ruler to restrain his own behaviour (no transgressing).

²⁴ On peer polity interaction, cf. generally Renfrew & Cherry (1986), and on ancient Greece see Snodgrass (1986: 53), who argues that several examples "suggest that the Greek *poleis* kept an alert eye on the constitutional progress of their peers, and were ready to learn from them."

²⁵ Thomas & Conant (1999: 120-125). Offices were reserved for members of a clan known as the Bacchiadae.

²⁶ Again the case of Corinth comes to mind. As mentioned above, impersonal offices (and a collegial board where heads of Bacchiad families sat for life) were introduced soon after 750, and this roughly coincides with the time when the Corinthia region came under unified control.

²⁷ To continue with the Corinth example, it became necessary to define who belonged to the Bacchiadae.

²⁸ Cf. also Ober (1994) and Hanson (1995: Ch. 6), on the emerging "rules of war", and Hanson (1991, 1995: Ch. 6), and Osborne (1987: Ch. 7), on the logic of hoplite warfare.

²⁹ Hanson (1991, 1995) argues that many aspects of hoplite warfare suited the well-to-do farmers, e.g., short campaigns, no real danger to mutual agricultural prosperity etc.

³⁰ Cf. also Hölkeskamp (1992) and Raaflaub (1993: 75).

³¹ Several tyrants seem to have introduced measures that benefited the common people. Cf., e.g., Raaflaub (1993: 72-73).

³² Sixth century tyrants reputedly often relied on help from outside and on mercenaries, but the stories of early tyrants suggest that they rarely came to power with outside help. Cf. Osborne (1996: 271-272).

References

- Adkins, A. W. H. (1972) *Moral Values and Political Behaviour in Ancient Greece*. London: Chatto & Windus.
- Andreades, A. M. (1933) *A History of Greek Public Finance*. New York: Arno Press 1979.
- Aoki, M. (2001) *Toward a Comparative Institutional Analysis*. Cambridge, MA: The MIT Press.
- Austin, M. M. and P. Vidal-Naquet (1977) *Economic and Social History of Ancient Greece: An Introduction*. London: Batsford Academic and Educational Ltd 1986.
- Barzel, Y. (1989) *Economic Analysis of Property Rights*. Cambridge: Cambridge University Press.
- Barzel, Y. (2000) "Property Rights and the Evolution of the State." *Economics of Governance* 1: 25-51.
- Davies, J. K. (1997) "The 'Origins of the Greek Polis'." In: Mitchell. L. G. and P. J. Rhodes (eds.) *The Development of the Polis in Archaic Greece*, pp. 24-38. London: Routledge.
- Demsetz, H. (1967) "Toward a Theory of Property Rights." *American Economic Review* 57: 347-359.
- Donlan, W. (1989) "The Pre-State Community in Greece." *Symbolae Osloenses* 64: 5-29.
- Donlan, W. (1997) "The Relations of Power in the Pre-State and Early State Polities." in I. G. Mitchell and P. J. Rhodes (eds.) *The Development of the Polis in Archaic Greece*, pp. 39-48. London: Routledge.
- Donlan, W., and C. G. Thomas (1993) "The Village Community of Ancient Greece: Neolithic, Bronze and Dark Ages." *Studi Micenei ed Egeo-Anatolici* 31: 61-71.
- Drews, R. (1993) *The End of the Bronze Age*. Princeton: Princeton University Press.
- Finley, M. I. (1973) *The Ancient Economy*. London: Chatto & Windus.
- Finley, M. I. (1978) *The World of Odysseus*, 2nd revised ed. London: Penguin Books 1991.
- Finley, M. I. (1985) *Ancient History. Evidence and Models*. London: Chatto & Windus.
- Foxhall, L. (1997) "A View from the Top. Evaluating the Solonian Property Classes." In Mitchell, L. G. and P. J. Rhodes (eds.) *The Development of the Polis in Archaic Greece*, pp. 113-36. London: Routledge.

- Greif, A. (1994a) "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies." *Journal of Political Economy* 102: 912-50.
- Greif, A. (1994b) "On the Political Foundations of the Late Medieval Commercial Revolution: Genoa During the Twelfth and Thirteenth Centuries" *Journal of Economic History* 54: 271-287.
- Greif, A. (1998) "Self-enforcing Political Systems and Economic Growth: Late Medieval Genoa." pp. 23-63 In Bates, R. H. et al., *Analytic Narratives*, pp. 23-63. Princeton: Princeton University Press.
- Hansen, M. H. (1991) *The Athenian Democracy in the Age of Demosthenes*. Oxford: Blackwell.
- Hansen, M. H. (1993) "Introduction. The *Polis* as a Citizen-State." In Hansen, M. H. (ed.) *The Ancient Greek City-State*, pp. 7-29. Copenhagen: Munksgaard.
- Hansen, M. H. (1995) "The 'Autonomous City-state'. Ancient fact or modern fiction?" In Hansen, M. H. and K. Raaflaub (eds.) *Studies in the Ancient Greek Polis*, pp. 21-43. Stuttgart: Franz Steiner Verlag.
- Hansen, M. H. (1997a) "A Typology of Dependent *Poleis*," In Heine Nielsen, T. (ed.), *Yet More Studies in the Ancient Greek Polis*, pp. 29-37. Stuttgart: Franz Steiner Verlag.
- Hansen, M. H. (1997b) "ΠΟΛΙΣ as the Generic Term for State." In Heine Nielsen, T. (ed.) *Yet More Studies in the Ancient Greek Polis*, pp. 9-15. Stuttgart: Franz Steiner Verlag.
- Hanson, V. D. (1991) "The Ideology of Hoplite Battle, Ancient and Modern" In Hanson, V. D. (ed.) *Hoplites. The Classical Greek Battle Experience*, pp. 3-11. London: Routledge.
- Hanson, V. D. (1995) *The Other Greeks*. New York: The Free Press.
- Hedlund, S., Lundahl, M. and C. H. Lyttkens (1989) "The Attraction of Extraction. Three Cases of State versus Peasantry" *Scandia* 55: 45-71.
- Heltzer, M. (1978) *Goods, Prices and the Organization of Trade in Ugarit*. Wiesbaden: Dr. Ludwig Reichert Verlag.

- Hölkeskamp, K.-J. (1992) "Arbitrators, Lawgivers and the 'Codification of Law' in Archaic Greece." *Metis* 7, 1992(1995): 49-81.
- Levi, M. (1988) *Of Rule and Revenue*. Berkeley: University of California Press.
- Lyttkens, C. H. (1994) "A Predatory Democracy? An Essay on Taxation in Classical Athens." *Explorations in Economic History* 31: 62-90.
- Morris, I. (1994) "The Athenian economy twenty years after *The Ancient Economy*." *Classical Philology* 89: 351-366.
- Morris, I. (2002) "Archaeology & Ancient Greek History" In Burstein, S. M. et al., *Current Issues and the Study of Ancient History*, pp. 45-67. Publications of the Association of Ancient Historians 7. Claremont, CA: Regina Books.
- Murray, O. (1990) "Cities of Reason." In Murray, O. and S. Price (eds.) *The Greek City. From Homer to Alexander*, pp. 1-25. Oxford (Clarendon paperback 1991): Oxford University Press.
- Murray, O. (1993) *Early Greece*, 2nd ed. London: Fontana Press.
- Murray, O. (1996) "Rationality and the Greek City: the Evidence from Kamarina." In Hansen, M. H. (ed.) *The Polis as an Urban Centre and as a Political Community*, pp. 493-504. Historisk-filosofiske Meddelelser 75. Copenhagen: Munksgaard.
- North, D. C. (1981) *Structure and Change in Economic History*. New York: W.W. Norton & Company.
- North, D. C. (1990) *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.
- North, D. C. (1994) "The Historical Evolution of Politics." *International Review of Law and Economics* 14: 381-391.
- Ober, J. (1994) "The rules of war in classical Greece." Reprinted in Ober, J. (1996), *The Athenian revolution. Essays on ancient Greek democracy and political theory*, pp. 53-71. Princeton: Princeton University Press.

- Ober, J. (1996) *The Athenian Revolution. Essays on ancient Greek democracy and political theory*. Princeton: Princeton University Press.
- Olson, M. (1965) *The Logic of Collective Action*. Cambridge, MA.
- Osborne R. (1987) *Classical Landscape with Figures*. Dobbs Ferry, NY: Sheridan House.
- Osborne R. (1996) *Greece in the Making 1200-479 BC*. London: Routledge.
- Penttinen, A. (2001) *Berhati between Argos and Corinth*. University of Stockholm, Department of Classical Archaeology and Ancient History.
- Polignac, F. de (1994) "Mediation, Competition, and Sovereignty: The Evolution of Rural Sanctuaries in Geometric Greece." In Alcock, S. E. and R. Osborne (eds.) *Placing the Gods. Sanctuaries and Sacred Space in Ancient Greece*, pp. 3-18. Oxford: Clarendon Press.
- Raaflaub, K. A. (1993) "Homer to Solon: The Rise of the *Polis*. The Written Sources." In Hansen, M. H. (ed.) *The Ancient Greek City-State*, pp. 41-105. Copenhagen: Munksgaard.
- Raaflaub, K. A. (1997) "Soldiers, Citizens and the Evolution of the Early Greek *Polis*" In Mitchell, L. G. and P. J. Rhodes (eds.) *The Development of the Polis in Archaic Greece*, pp. 49-59. London: Routledge.
- Renfrew, C., and J. F. Cherry (eds.) (1986) *Peer Polity Interaction and Socio-Political Change*. Cambridge: Cambridge University Press.
- Snodgrass, A. (1980) *Archaic Greece. The Age of Experiment*. London: J. M. Dent & Sons Ltd.
- Snodgrass, A. (1986) "Interaction by Design: the Greek City State." In Renfrew, C. and J. F. Cherry (eds.) *Peer Polity Interaction and Socio-Political Change*, pp. 47-58. Cambridge: Cambridge University Press.
- Snodgrass, A. (1993a) "The 'Hoplite Reform' Revisited." *Dialogues d'Histoire Ancienne* 19: 47-61.
- Snodgrass, A. (1993b) "The Rise of the *Polis*. The Archaeological Evidence." In Hansen, M. H. (ed.) *The Ancient Greek City-State*, pp. 30-40. Copenhagen: Munksgaard.
- Starr, C. G. (1977) *The Economic and Social Growth of Early Greece*. New York: Oxford University Press.

- Starr, C. G. (1982) "Economic and Social Conditions in the Greek World." In *The Cambridge Ancient History, Vol. III.3, The Expansion of the Greek World, Eighth to Sixth Centuries B.C.*, 2nd ed., pp. 417-441. Cambridge: Cambridge University Press.
- Starr, C. G. (1986) *Individual and Community. The Rise of the Polis 800-500 B.C.* New York: Oxford University Press.
- Thomas, C. G. (1993) *Myth becomes History: Pre-Classical Greece*. Publications of the Association of Ancient Historians 4. Claremont, CA: Regina Books.
- Thomas, C. G., & Conant, C. (1999) *Citadel to City-State*. Bloomington & Indianapolis: Indiana University Press.
- Weingast, B. R. (1995) "The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development" *Journal of Law, Economics and Organization* 7: 1-31.

Ancient sources

- Hesiodos *Works and Days*. The Loeb Classical Library: *Hesiod*. London 1914: William Heinemann Ltd.
- Solon. In *Greek Elegiac Poetry*, pp. 106-165. The Loeb Classical Library. London 1999: Harvard University Press.
-