LAND AND POWER IN PTOLEMAIC EGYPT

The Structure of Land Tenure

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Issues and methodologies

> Countless lands and tribes of mankind without number raise crops that ripen under Zeus' beneficent rain, but no land is as fertile as the lowland of Egypt, where the Nile, overflowing, soaks and breaks up the clods. Nor is there a country with so many cities of men skilled in labor; three hundred cities have been established within it, three thousand and three times nine more, and Ptolemy rules as king over them all.
>
> Theocritus, *Idyll* 17

> In the Near East and Egypt, irrigation gave the entire economy of these areas a very specific character in historical times.
>
> Weber 1998 [1909]: 38

PTOLEMAIC EGYPT

This book is about land tenure and the structure of the Ptolemaic state (332 BCE–30 BCE). The taxation from agricultural production was an important element of Ptolemaic wealth – a common theme in Hellenistic literature – and the assignment and use of land was the primary method of establishing rents (i.e. income) for the bureaucratic, temple, and military hierarchy. The relationship of the ruler to the elite constituencies and to the local population is one of the key subjects in Hellenistic history, for which Ptolemaic Egypt provides important evidence. A study of the organization of land tenure, therefore, raises questions about the nature of social power in the state, and the economic structure of the land tenure regime.[1] Most models of the Ptolemaic state have assumed that it was a highly centralized, rational bureaucratic state imposed on a passive rural peasantry. This "strong state model," with its usual assumptions of ownership of all resources by

[1] The evidence from the Ptolemaic period has also been used in discussion of earlier Egyptian evidence, and understanding the Ptolemaic state has important implications for the earlier history of the state, but that subject is strictly not germane to this study. See most recently on the New Kingdom state Warburton 1997.

the ruler, has been extended in some analyses of the Ptolemaic state to a point where it was "the most thoroughgoing system of state nationalisation known prior to the twentieth century."[2] The economic system was so efficient (not defined in economic terms but relative to previous regimes), the taxation system so confiscatory, it has been suggested recently, that it caused a social "explosion" in the 240s BCE.[3] Another important element of this model is the generally accepted view that concomitant with the increasing weakness of the rulers, there was an erosion of central control of land and a growth in private property.

I shall argue against these views in this book. The Ptolemaic takeover of Egypt kept the underlying economic structure intact. One of the features of this economic structure was the private holding and conveying of land. The decline in the power of the ruler merely separated him from this local economic structure. As long ago as Claire Préaux's classic study of the Ptolemaic economy, which served to popularize the concept of the "économie royale," it has been recognized that in terms of power over land, the Ptolemaic state did not assert uniform control, the economy was not centrally planned, and the countryside was not passive.[4] More recent opinion, based on closer reading of the Greek documentary evidence, has questioned the basic assumption of strong centralization, and has stressed the ad hoc and adaptive character of the regime. But a model of the structure of the state must be reconciled with all of the documentary evidence, both Egyptian and Greek, and must take into account the complexities of the economic institutions within the state. My aim in this book is to examine the evidence in terms of the social power and the institutions of the period, to examine a wide range of documentation from two contrasting regions, and to bring the state "back in."[5]

The Ptolemaic takeover of Egypt, initiated in the wake of Alexander's conquest of the East, was, at the beginning, an imposition of military power on an ancient agrarian economy that had previously been a part of the Persian empire. It eventually imposed a new bureaucratic structure, and a revenue economy characterized by an emphasis on the production of wheat, more efficient methods of taxation, the use of coinage, and the

[2] Tarn and Griffith 1952: 178. The absence of private property has been a hallmark of Marxist analysis. See e.g. Kiernan 1976: 381–82. Cf. Powelson 1988: 20–21, essentially following this strong state model. The strong state hypothesis is still supported by some scholars by appeal to the sovereign power of the king as the basis for property rights. See inter alia Mélèze-Modrzejewski 1979b; Anagnostou-Canas 1994, and further below, Chapters five and six.

[3] Turner 1984: 159. Cf. Green 1990: 191–94.

[4] Préaux 1939: 460–63. Previous views of this economy are discussed below, pp. 21–24, and Chapter five, pp. 140–46.

[5] Skocpol 1985.

use of intermediaries who guaranteed the collection of revenue. An examination of the extensive documentary record within the context of a theory of the state is crucial to understanding this new structure and how it evolved.

Ptolemaic control of Egypt raises issues about the nature of ancient colonialism, but the social dynamics have often been compared to more recent forms of colonialism. One of the more frequent invocations has been to the British Raj, but this comparison to a modern nation-state's experience is too imprecise for analyzing an ancient state.[6] Hellenistic "colonial power" was on a different order of magnitude, was much more about new state formation, and involved, consequently, a closer alliance between the old elite (and their institutions) and the new political power than did nineteenth-century nation-state colonialism.[7] This is a radically different view than those that regarded Greek imperial power and the spread of Greek culture as the only feature worth discussing in the Hellenistic world.[8]

The Ptolemaic regime has often been regarded as the first time that "European colonizers" intervened in the economic organization of Egypt.[9] A comparison with the reign of Mohammed Ali (1805–1848 CE) has been implicitly invoked.[10] But however we couch Ptolemaic history, it was, indeed, the most impressive intervention in the Egyptian agricultural economy until the introduction of perennial irrigation and the mercantilist policies of the nineteenth century. The two periods were times in which outside intervention in the land tenure regime altered the course of economic development.[11] In both cases, too, the central state had to contend with the diffused economic structure of Egypt centered on local control of irrigation networks. The scale of trade, however, the degree of monetization, and the amount of agricultural surplus produced for external markets differentiate the two cases. Irrigation technology, and the increase in perennial irrigation were also decisive factors in altering the structures of power under Mohammed Ali.

In the Ptolemaic case, the power of the monarch to effect organization was more limited. It was local state agents, not the monarch alone as the "Oriental despotism" model (or "strong state" model) implies, who also

[6] On the Raj parallels, see e.g. Green 1990: passim. Cf. Morony 1984: 12–13 and his cautious remarks. For insights into some of the differences between modern nation-state colonialism and ancient colonial power, see Mitchell 1988. On a critique of the Ptolemaic colonial model in general, see Bagnall 1997a.

[7] On colonialism in a Seleucid context, see Sherwin-White and Kuhrt 1993: 141–87.

[8] Cf. Sherwin-White and Kuhrt 1993: 141–42.

[9] Anagnostou-Canas 1994: 355.

[10] For an excellent account of Mohammed Ali's reforms, see Marsot 1984; Cuno 1992: 103–97.

[11] For a long-term account of Egyptian agricultural history, see Bowman and Rogan 1999.

effected institutional change.[12] In other words, as I will argue in Chapter five, it was the power of local social networks organized around the diffused economic structures of the "customary" economy that was decisive in the development of the Ptolemaic state.[13] The ability of the local elite to adapt to the new conditions was an important factor in the development of the Ptolemaic state. These local elites were Egyptians as well as Greeks and others, they are well documented in the private archives, and they are an important reminder that we can no longer divide the Hellenistic world into Greek colonizers and "native" oppressed. Here is a clear contrast between an ancient state and a modern nation-state, and the main reason why theories coming from the nation-state experience should be used cautiously. New populations and new economic institutions were certainly introduced by the Ptolemies, but Egypt's ancient economic structure – the temples, their priesthoods and rituals, the right of private holding and conveyance of land, the Egyptian scribal and legal traditions – were all maintained.[14] This mixture of new Greek and ancient Egyptian institutions gave rise to a distinctive administrative culture that at the end of the period allowed local elites to emerge, and explains the evolution of the regime, as well as some of its decentralized tendencies. I shall explore both of these issues, and I shall question the appropriateness of the "colonial" model, which as usually specified is far too vague and does not describe the relationships of social power adequately enough, in part three of this book.

The core of the book is concerned with the land tenure regime in the two regions of the country that have left us the vast bulk of the documentary material from the period, the Fayyum and the Thebaid. I intend this book, in a sense, to serve as an introduction to the history of the Ptolemaic state, to its economic organization, and to the nature of its economic power. Like John W. Hall's study of Japan, it adopts first of all a regional approach to Egyptian history.[15] By surveying the two best-documented regions of Egypt, I seek, in the end, to provide a prolegomenon to the study of the Ptolemaic economy, the relationship of regions and villages to the Ptolemaic state, and to Ptolemaic institutions. It is this last point, the understanding of its institutions, that is the key to any assessment of the Ptolemaic economy. And it is against the backdrop of pre-Ptolemaic Egypt that one can best

[12] On Oriental despotism, see below, Chapter five, p. 158.

[13] On the concept of "customary" economy, see below, Chapter two, p. 49.

[14] Préaux 1984.

[15] John A. Hall 1966. For this approach for the Hellenistic world, see above all Reger 1994. The documents of course tend to force one to focus on one area of Egypt, the Fayyum, but there are sound reasons to study Egyptian agriculture regionally as Crawford suggested in the epigraph of Chapter two. On the emphasis on the Fayyum, see further below, p. 12.

understand socio-economic continuity, the evolution of state institutions concerned with land, and Ptolemaic state formation. My focus is on the structure of the state, and on the value of demotic Egyptian documentation for the study of the administration of land. There is much more work to be done to complete the picture of the Ptolemaic state's relationship to the land, and on economic performance, and I hope to return to this subject again.

Whereas most historical studies have focused on the Greek documentation from the Fayyum, I shall examine the period from the point of view of long-term Egyptian history, and primarily through the lens of the demotic Egyptian documentation from the Thebaid, that part of the Nile valley in Upper Egypt from Aswan down to about Abydos. This demotic evidence has not been fully brought to bear on general discussions of the Ptolemaic state or its economy, yet it is crucial in the reconstruction of land holding patterns, in analyzing local economies, and for the study of Egyptian families – the vast majority of the population – and their relationship to the land.[16] It is also vitally important documentation for the study of institutional change in the period. The combination of the Greek administrative papyri with the demotic documentation from Upper Egypt offers two different and complementary views on the structure of the Ptolemaic state and its evolution.

The central contrast that I will draw is between the Thebaid, a region that received considerable attention but in which the ancient land tenure arrangements continued even as new populations settled in the area, and the Fayyum depression, a new area developed by the Ptolemaic kings. The impression formed by a reading of the Greek or the demotic material alone tends to exaggerate the differences between the two regions, but the ancient institutional arrangements on the land in the Thebaid nevertheless distinguish it from the Fayyum, where the ruler asserted direct control over a large percentage of the land by establishing tenure conditions. The analysis of the two areas, of course, leaves important areas such as the Delta entirely out of the analysis, but the contrast will be enough, I think, to draw a completely new picture of the structure of the Ptolemaic state, its economy, and its historical development. I will also not discuss here Alexandria or Memphis. These two cities were the largest urban areas of the period, the former being the new capital of the regime, the latter being the ancient Egyptian capital and the home to the influential priesthood

[16] Admittedly most, but not all, of the private demotic evidence, especially the private legal instruments, document various classes of priests, while much of the rural population is undocumented.

of Ptah whose close connection to the Ptolemies formed one of the most important political links between the Greek rulers and the ancient Egyptian elite.[17] In both of these cases, however, we do not have much information about how land tenure was organized, although in the case of Memphis there was a clear connection between the city and the Fayyum.[18] I also leave out a detailed analysis of the important evidence for land tenure from the Herakleopolite and Oxyrhynchite nomes.[19] Both groups of texts show the great importance of military settlement, but there are considerable problems in the paleography and interpretation of the later documentation from these areas.[20] Leaving these gaps aside, a careful analysis of the documentation from the Fayyum and the Thebaid helps to explain the structure and the pace of the development of the state as well as the role of agency within it.

The analysis of the documentation within a regional framework is in part dictated by the survival of the documents, but such an approach yields a better, dynamic model of institutional change. A major challenge for the Ptolemies, as for other Hellenistic states, was their relationship to the ancient institutional structure with which they had to contend. The assertion of power was no "revolution from above."[21] Rather, the transition to Ptolemaic rule was slow, and the imposition of new economic institutions was marked by accommodation, and the use of ancient institutional structures, but also rural unrest and, in some places, outright resistance. But Ptolemaic administrative structure certainly altered the path of institutional development, at the same time as it used old institutional frameworks where they existed. As one historian has stressed, we are dealing not so much with a "radical change" in the economy as with "its partial improvement and its systematic organization."[22] Within the general context of institutional change, the transformation in Ptolemaic Egypt was "incremental" rather than "discontinuous,"[23] and in many ways was a continuation of earlier pharaonic development of irrigation and agriculture.

The socio-economic structure of Ptolemaic Egypt must be understood in the light of the changes brought by the Saite restoration (664–525 BCE)

[17] For Ptolemaic Alexandria see Fraser 1972; and for Memphis, see the excellent study by Thompson 1988.

[18] It is certainly clear with the town of Philadelphia and the Zenon archive in the third century BCE. See Thompson 1988: 40–41; Clarysse 1980a. For the Zenon archive, see further below, Chapter four.

[19] Principally P. Hib. I and II, BGU XIV.

[20] See the important study of Bingen 1978 on leases from the Oxyrhynchite nome, and the general survey of texts from the Herakleopolite nome by Falivene 1998.

[21] Trimberger 1978. [22] Rostovtzeff 1941: 1197.

[23] North 1990: 6. Cf. Chaudhuri 1990: 256–57. On the pharaonic development and extension of Egyptian irrigation and agriculture, see Eyre 1994b.

and the Persian imperial administration (525–332 BCE). These incremental changes in the institutional framework can be clearly observed in the Egyptian papyri from Upper Egypt. Importantly, too, these local land tenure records do not suggest the slow, steady administrative decline after the reign of Ptolemy III that is the prevalent view of the period. Indeed the opposite is true. A careful examination of these documentary records of land tenure and taxation suggests that the central state and the bureaucratic structure should be carefully distinguished.[24]

ISSUES AND METHODOLOGIES

This study focuses in particular on the economic organization of land tenure, and the social relationships that formed around this organization. I ask two interrelated questions relevant to the larger issue of state structure: (1) what was the relationship between central and local economic institutions? (2) how did the power of the Ptolemaic state affect the organization of land tenure? Both questions center on the issue of state organization and power, and specifically on one aspect of power, what I, following Weber, will call economic power.[25]

In the examination of economic power (or "economic strength" to use Rostovzteff's phrase), and the social relationships that were centered around land holding, we can identify more precisely the effectiveness of the state in controlling local economic resources that is the basis of the economic power of any agrarian state. While Ptolemaic power has been discussed in various studies, none have carefully distinguished the different sources of social power and the social networks created by each type of power source.[26] The analysis of economic power can be clarified by examining Michael Mann's *IEMP* model, which is in its essence a summation of much general thinking in historical sociology beginning with the important work of Max Weber. Mann identified four distinct but overlapping "organized power networks" in human societies: ideological, economic, military, and political.[27] One problem with this approach, of course, is the degree of

[24] Cf. Samuel 1989.

[25] Translating Weber's term "Verfügungsgewalt." See Granovetter and Swedberg 1992: 8.

[26] On cultural power under the Ptolemies, see Erskine 1995.

[27] Mann 1986. Totman 1993: 15 assumes the same basic structure: "the superordinate few in any society can be viewed as a tripartite elite: those whose privileges are sustained by the force of their ideas, those who rely on politico-military might, and those who use economic power." Like Totman, John A. Hall 1986: 19 distinguished three sources of power, placing military power under the heading of political power, and using the comparative case of gunpowder in Europe and China to account for the fact that political power was the determining factor in the impact of the new military technology

overlap between these power sources. Be that as it may, though, the distinction is useful in thinking about the important differences between the ideology or display of power, the use of military power to hold territory, and the use of local social networks bound to state structures to extract surplus.

Economic power is defined by Mann as the "social organization of the extraction, transformation, distribution, and consumption of the objects of nature."[28] It has two distinct components, one local, which is the social organization centered around these activities, groupings of which are termed classes, which in turn gives rise to the other component, a dominant group or class who are able to "monopolize control over production, distribution, exchange and consumption."[29] As formulated by Mann, economic power is by its nature diffuse and not easily controlled from the center. As in any agrarian economy, but particularly in Egypt in which production was organized in a diffuse irrigation network, the state economic organization was decentralized.[30] One crude but important measure of economic power of any state is its long-term ability to tax the countryside, what Totman called "durable methods of taxation."[31] Bringing this concept of economic power to the study of the Ptolemaic state, and emphasizing social networks and the local character of Egypt's economic organization, creates a richer context for the study of the documentation, and highlights the strategy that the rulers adopted to control Egypt.

But it was the links between the local and the central institutions that determined a state's economic power, and understanding how local economies were linked to the central state requires a model of the state. I adopt in this book North's neo-classical theory of the state.[32] This theory posits that there was a contract between the ruler and the constituencies within the state.[33] The ruler exchanges protection and justice for revenue in a system that maximizes revenue for the ruler. Property rights are specified to guarantee maximum revenue, or "monopoly rents," but the property rights structure tends to benefit local constituencies (in order to maintain stability for the ruler), creating inefficiencies that will add costs to the state.

on Europe and not on China. An extensive, Marxist critique of Mann's theory of the state may be found in Haldon 1993, and a critique on his "Eurocentric" approach may be found in Blaut 2000. My own interest here is in discussing social networks rather than Mann's "march of history."

[28] Mann 1986: 24. This definition tracks fairly closely Weber's "control over economic goods" discussed by Swedberg 1998: 220–21.

[29] Mann 1986: 24. [30] Cf. the comments by Ades and Glaeser 1995: 198. [31] Totman 1993: 15.

[32] See further North 1981: 20–32; Furubotn and Richter 2000: 254–57, with the literature cited there. On institutions and economic analysis, see also Cohen 1996.

[33] Good examples of this contract are found in the decrees that emanated from the priestly synods, on which see below, Chapter two, pp. 45–46.

Because revenue is collected by state agents, principal-agent problems arise, exacerbated by asymmetric flow of information to the center, which creates uncertainty and higher enforcement costs. The social and cultural isolation between the elite and the agricultural producers observed in all pre-modern agrarian states adds another dimension to the general problem of loyalty and compliance.[34]

A better understanding of social networks helps place into perspective how the Ptolemaic state extracted the surplus (i.e. taxes) from locally organized land tenure regimes. This required negotiation as well as coercion. The neo-classical theory of the state helps in understanding the relationships of power between the Ptolemies and the rights to land established by the state. The proper context in which to analyze the economic transactions of land sales and leases preserved in the papyri has not been addressed. Moses Finley, and those who followed him, argued that modern economic theory was inappropriate for the analysis of the ancient economy. Rather, Finley focused his Weberian analysis on what he considered the most crucial aspect of the economy of Graeco-Roman antiquity, social status.[35] Finley, of course, was correct in understanding what Granovetter and Swedberg later observed was the false dichotomy of the "separation between what is 'economic' and what is 'social'."[36] But Finley, in his generalizing arguments intending to contrast the ancient world with the medieval European and modern economic systems, excluded the economies of the Near East and Egypt for the wrong reasons. Their exclusion was defended on the basis that Egyptian and Near Eastern economies were oriented not around private property and markets but by a state-dominated redistributive economic system with virtual monopoly power by the state and its organs on production and trade.[37] Such views overestimate the capacity of state power and underestimate private property and the function of markets in Egypt.

The Greek and demotic papyri (and ostraca) present a challenge to Finley's model, providing as they do in far more detail than elsewhere in the ancient world evidence for private contracting, for property rights, for private gain, and for economic institutions. Whether there was real economic growth or not, the range and quality of this evidence calls for a more sophisticated analysis of institutions, which leads naturally to the new school of economic thought known as New Institutional Economics.[38]

[34] See below, Chapter five, p. 132. [35] Finley 1999. See Morris 2002: 27–30.
[36] Granovetter and Swedberg 1992: 1. [37] Finley 1999: 28.
[38] North 1990; Furubotn and Richter 2000. For a critique of New Institutional Economics, see Rutherford 1994.

The economic analysis of institutions (incentive structures, or "the rules of the game"[39] and the way in which they affect economic performance) is the core agenda of this branch of economics, established in an effort to move away from highly abstract neo-classical economics models that ignore institutional constraints and transaction costs, toward a more robust model of economic change that takes into account specific historical case studies, individual actors and the role of institutions. The emphasis is on institutional change, not on economic growth, the criterion that has often allowed economists to dismiss the ancient world entirely. An analytical framework, thus, can be established which will set into a richer context of the state the complex and often discontinuous documentation of the papyri, can contextualize the relationship between old and new institutions, and will bring the ancient state back into more general discussions within economic history.

The fields of Greek and demotic Egyptian papyrology have dominated Ptolemaic history. The large number of documentary texts provides the best primary documentation for the socio-economic history of the ancient world. Reliable text editions and sound historical analysis have been produced by both fields, but they have often worked in isolation. Many of the demotic Egyptian documents for land tenure that I will focus on in Chapters three and six have been well known since the accounts of the Ptolemaic economy by Préaux (1939) and Rostovtzeff (1941), but they have not been systematically brought into a discussion of Egyptian land tenure patterns or of the development of the Ptolemaic state. Setting the complex documentation within an analytic framework of the state is the main goal of this book.

Historical studies of the period, indeed, have focused on the Greek evidence from the Fayyum and have emphasized the role of the state in the agrarian economy. But the demotic documentation as a whole offers the possibility of studying the socio-economic conditions of Egyptians and temple dependents in the south, and the relationship between central and local institutions, and between the state and the individual. The important work of Bingen, Clarysse, Thompson and Verhoogt, among others, has placed the history of the Fayyum and the organization of Ptolemaic administration in that region on a much firmer footing. The demotic documentary evidence shows how the Ptolemaic state functioned in the South. Combining the Greek and the demotic evidence, furthermore, distinguishes more clearly the relationship between the new Ptolemaic and the ancient land tenure

[39] North 1990: 3–4.

institutions, the social relationships of land tenure, and the institutional differences between the Fayyum and the Thebaid.

SOURCES FOR PTOLEMAIC AGRARIAN HISTORY AND THE LIMITS OF INTERPRETATION[40]

Ptolemaic agrarian history must be reconstructed on the basis of the documentary record. There are few contemporary ancient narrative sources apart from the tangential pieces of information provided by Diodorus Siculus for the late fourth century BCE, and Polybius; we have no imperial annals as with contemporary Han China, and we have no farming manuals.[41] Fortunately, the documentary record compared to earlier Egyptian history is both extensive and rich in information. We are, by the time of the beginning of the Ptolemaic period, in a world used to a bureaucratic hierarchy, the registration of property, the use of written legal agreements, administrative correspondence and the like. The demotic tradition of private legal agreements began in the seventh century BCE.[42] If the survival of the documents is any indication, the bureaucracy also generated much more "paperwork" (including tax receipts written on ostraca) than previous regimes.[43] The agricultural history of the Ptolemies is, therefore, documented on many levels in both the Greek and the demotic Egyptian sources.[44]

The texts record, on one hand, the financing of the state – the survey, registration, public auction, and taxation of land; and, on the other hand, the conditions of tenure – private sale, mortgage, lease, and inheritance of land. The information over the entire period is, however, discontinuous, and is weighted toward rural villages, and especially toward the Greek papyri from cemeteries at the edges of the Fayyum. The texts, then, differ from the Roman period Oxyrhynchus material that comes from an urban environment and documents the social relationships between town

[40] Earlier summaries of the documentary sources for Ptolemaic Egypt may be found in Préaux 1939: 9–23; Préaux 1978: vol. 1, 77–112; Bagnall 1982.

[41] The Greek farming manuals may have influenced some of the farming techniques. So Rostovtzeff 1922: 96 (with respect to vineyards). Cf. Thompson 1984.

[42] On demotic, see further below, Chapter five, pp. 173–77.

[43] For the relationship of the Ptolemaic bureaucratic structure to the generation of texts, see P. UPZ 14.

[44] For a good list of Greek papyrological sources, see Rupprecht 1994b; a preliminary survey of documentary archives is available at http://lhpc.arts.kuleuven.ac.be, and briefly in Clarysse and Verreth 2000. For a general survey of demotic sources, consult Depauw 1997. The list of demotic papyri by Lüddeckens 1982 is now slightly out of date. For demotic ostraca, see the excellent bibliographies in Devauchelle 1983 and Vleeming 1994.

and countryside.[45] The important urban centers at Alexandria and Ptolemais are hardly represented at all. The overall result is that historical studies of Ptolemaic agriculture have tended to focus on the Fayyum. But this region, roughly 5–7% of the total arable in Egypt at the time, with many new settlements, can hardly be regarded as representative of Egypt as a whole.[46] The Fayyum material has suggested to some that the Ptolemaic regime was able to impose a new economic order rather successfully. Of course, there were new features of the economic structure, and new social groups in the third century BCE, but there was also considerable structural change and adjustment to Egyptian realities over the course of the three centuries, while Upper Egypt remained in many ways more traditional.

The combination of Greek and demotic sources yields a much richer picture of the relationship between the state economy and the underlying local or "infra-economy" (to use Braudel's term), as well as the development of the Ptolemaic state itself.[47] But the sources from the Fayyum are quite different than those from the river valley. Our sources from the Fayyum are, in the main, derived from the archive of the manager of a large estate in the third century BCE, restricted to a few years in the 250s BCE, and the records office of a village scribe at the end of the second century BCE.[48] The records from the Nile valley, especially from the Thebaid region, are predominantly private Egyptian legal instruments of property transactions, and tax receipts recorded on ostraca.[49] But this divide between the Greek and Egyptian worlds is not as large as the texts sometimes suggest.[50] The documentation from both regions reveals the small village world of Egypt, and that small holding of land was widespread, but the considerable gaps in our information, and the different emphasis of the Greek and Egyptian evidence, should instill caution in any analysis of change over time. One serious drawback to any study of the Ptolemaic agricultural economy is the lack of demographic data. This will be ameliorated, for the Fayyum at least, in a new study of the Ptolemaic census, but the overall population figure, and the trend over the course of the three centuries, are still educated guesses based on comparison with later material, or estimates based on the census

[45] Rowlandson 1996. [46] Rowlandson 1996: 3.

[47] Braudel 1981: 24, defined as "the informal other half of economic activity (i.e. non market exchange, my note), the world of self-sufficiency and barter of goods and services within a very small radius." This is essentially another name for the "customary" economy, on which see briefly below, Chapter two, p. 49.

[48] See further Chapter four. [49] See further Chapter three.

[50] See the important remarks by Pestman 1982, in studying a bilingual archive in which the Greek and demotic evidence give radically different impressions of the economic behavior of one individual.

data from the Fayyum, or formed by calculating the carrying capacity of the land.[51]

The study of the Ptolemaic economy contrasts with the study of the contemporary Seleucid economy. There, the emphasis is placed on inscriptions, temple archives, coins and literary evidence. The sheer bulk of documentary evidence from the Ptolemaic period is impressive, and several recent studies have greatly expanded the number of available sources. One only has to consult Préaux's early list of sources for the Ptolemaic economy to see what enormous advances the study of demotic texts has brought.[52] But gains in the number of sources are tempered by the continuing gaps in our knowledge and by the persistence of regional differences in the evidence, if not in the economic structure.[53]

Without ancient narratives of events, scholars can be stopped in their tracks.[54] There has been very little archaeological excavation or settlement survey of Ptolemaic sites with the notable exception of the Fayyum.[55] Much fundamental work remains to be done on Ptolemaic settlement archaeology throughout Egypt, and then linking the results to the documentary evidence.[56] For many subjects, historians of Ptolemaic Egypt are unable to assess the most basic element of history, change over time. This is especially true of economic history, since there are significant deficits in our knowledge of demography, state expenditure, grain prices and fluctuations, and the exact dates of tax receipts, and the taxation rates on land over the long term. As a result, most studies based on Ptolemaic papyri have been confined either to a particular subject (loans, an office in the bureaucracy) or to an archive. There are of course sound reasons to do this. The problems are laid out

[51] See below, Chapter two, pp. 47–49. On the census, see Clarysse and Thompson forthcoming.

[52] Préaux 1939: 10–15.

[53] On regional differences, highlighted by the different legal traditions of demotic (Delta) and hieratic (Thebes), cf. Meeks 1979: 614. Traditions in demotic legal institutions certainly persisted under the Ptolemies. At the present time, for example, the institution of mortgage, whereby an individual pledged real property in exchange for a loan of money is attested only in documents from Upper Egypt. We can therefore not be certain if this is mere accidence of survival or really reflective of different legal institutions. See further below Chapter six, pp. 209–18 on mortgage and other regional legal traditions.

[54] Bagnall 1993: 10, although speaking about the historical methodology and the documents from Late Antique Egypt, explains the problem, and it applies equally well to the Ptolemaic period: "For one question only a particular place is documented, for another a brief period. Other matters – above all subjective, conceptual, and personal – simply are not documented at all. For still others, the only evidence comes from hagiographic and monastic literature and must be heavily filtered. In the face of this paradox – much information but limited understanding – it is natural to look to comparative study for insight."

[55] See the recent work of Rathbone 1997. For the archaeology of this period, see the review article by Bagnall 1988.

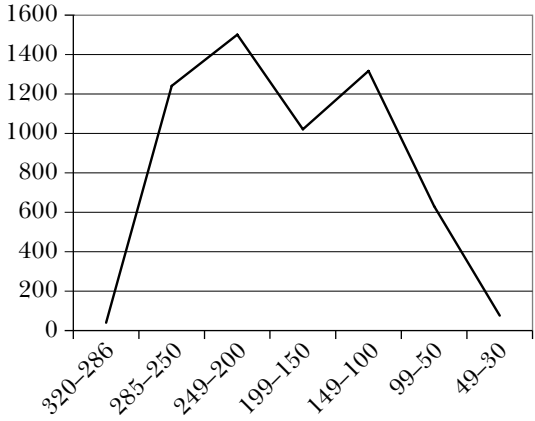
[56] Rathbone 1994b.

before the scholar and the context of the archive is usually clear. Going beyond the level of archival analysis involves, in Bagnall's words, "a substantial leap into a more speculative mode, often with no way to test the hypothesis involved."[57] Writing larger history, then, requires making such a leap, making assumptions about connections between archives and the different types of documentation. This is where, I believe, historical and economic sociology[58] and property theory offer the possibility of setting Ptolemaic Egypt within the larger framework of state processes, including important issues such as the role of agency, and causes of institutional change.

The papyri and ostraca from Ptolemaic Egypt are a well-known minefield for the historian.[59] Using these documentary records to write interpretive history that has probative value for the period is extraordinarily difficult, establishing firm ground for later interpretation often uncertain. There are significant gaps in our information – the reign of Ptolemy I Soter is still very thinly represented, with virtually no Greek papyrological evidence, and there is very little historical information from any source about the Delta.[60] There are important new finds, both in cartonnage and in collections yet to be published, and they promise much new information. For the moment, the Greek papyri are grouped around the mid-third (the Zenon papyri are the largest group, comprising nearly a third of all Ptolemaic papyri,[61] and P. Petr) and the late second (the Tebtunis papyri) centuries BCE, (Figure 1), with a scatter of texts spread throughout this period, and Upper Egypt produces tax receipts in Greek and demotic as well as demotic family archives.[62] The late second century BCE Tebtunis papyri (the so-called Menches archive)[63] provide the most important material for the functioning of the village scribe, particularly with respect to the administration of land, but these documents for the most part survive only from half of each year.[64]

The Greek garrison town of Pathyris is exceptional in yielding Greek papyri in sufficient number to allow a detailed picture of at least some families in the second and first centuries BCE, while the most important town in

[57] Bagnall 1995: 40.
[58] For a good introduction to economic sociology see Granovetter and Swedberg 1992; Smelser and Swedberg 1994.
[59] On the source problem in general, see Préaux 1978: 102–06; Turner 1984: 118–19; Bingen 1984. On the contributions of the papyri to Ptolemaic history, see Bagnall 1982.
[60] For a demotic family archive from the reign of Ptolemy I from Thebes, see Depauw 2000. A recent cache of demotic papyri from Tanis in the Delta is discussed by Chauveau and Devauchelle 1996.
[61] Clarysse and Vandorpe 1995: 20.
[62] For a chart of securely dated demotic texts, see Hoffmann 2000: 26. The chart already requires updating but the general shape of the curve remains valid.
[63] See further below, Chapter four, pp. 119–22.
[64] Verhoogt 1997: 43, the documents in the main preserved for the months February to September.



320–286 BCE	40
285–250 BCE	1241
249–200 BCE	1501
199–150 BCE	1021
149–100 BCE	1317
99–50 BCE	631
49–30 BCE	76

Figure 1. Graph depicting the number of datable Greek texts by half century for the Ptolemaic period. I only include the text that can be securely dated by specific year, not texts that can be dated roughly by century relying on paleography or other criteria. The number of documents are as follows: 1241 for the years 285–250 BCE, 1501 for the years 249–200 BCE, 1021 for the years 199–150 BCE, 1317 for the years 149–100 BCE, 631 for the years 99–50 BCE and 76 for the years 49–30 BCE, the latter year being the year in which Egypt was annexed by Augustus. The data have been taken from the *Heidelberger Gesamtverzeichnis der Griechischen Papyruskunden Ägyptens* project directed by Professor Dieter Hagedorn.

Upper Egypt under the Ptolemies, Ptolemais (modern El-Manshah), has produced virtually nothing from the early Ptolemaic period.[65] The first-century BCE Greek papyri from Herakleopolis are important for the state of land tenure in that region, but they have distinct problems of interpretation.[66] The discontinuities of information are insurmountable, and scholars must remain cautious as to how far they use the documents beyond their specific socio-economic contexts. There are important general

[65] For Pathyris, about six hundred papyri and a "few hundred" ostraca have survived. See the overview by Vandorpe 1994, and below, Chapter three, pp. 86–88.

[66] On finds from the Herakleopolite nome in general, see the excellent summary of the evidence in Falivene 1998: 13–34. For some recent papyri from cartonnage, see Sarischouli 2001.

suppositions about the process of bureaucratization and about the relationship of central to local power with respect to land tenure that can be brought to bear in the study of the papyri. Without an analytical framework, however, the documentary sources often cannot lead to firm conclusions. Historical analyses that have been built upon a weak foundation of evidence from a text or a group of texts very often cannot support the claims attached to them.[67]

Both public and private records (probably too sharp a distinction) tend to record information over a limited range in time and in place and must therefore be used cautiously in building a larger picture of the Ptolemaic system. Administrative records such as letters from and to officials regarding the work on the canals, survey of fields, the harvest, collection, storage and transportation of grain taxes document the levels of the Ptolemaic bureaucracy. The Greek documentation for these activities only comes to light in large numbers in the 250s BCE. In part this gap may be explained by the time it took to establish Greek within the bureaucratic structure, but we are also at the mercy of the manner in which the documents survive. Much of the Greek archival material comes from cartonnage, a kind of papier-mâché used to wrap sacred animal mummies and to make mummy masks for human burial. This recycling of administrative papyri was a new feature of the Ptolemaic period, begun during the reign of Ptolemy II Philadelphus.[68] The major exception to this cartonnage recycling is the Zenon papyri, treated below in Chapter four.

Texts written in Egyptian are vital in assessing the nature of Ptolemaic economic power and the function of Egyptian institutions. One of the most important documents is the so-called legal "manual" discovered at the cemetery of Hermopolis (Tuna el-Gebel) and known conventionally after its initial editor as P. Mattha.[69] The text is in fact a collection of

[67] In many cases texts that have been cited turn out to be too fragmentary, or misunderstood, and have therefore misled scholars. For one case, see Franko 1988: 68–70. Another is the case built by Rostovtzeff for *diamisthosis* of royal land, based on the misreading of a single line in one papyrus. See the comments by Shelton 1976: 121. A remarkable example from the demotic sources is the case of UPZ I 6a (= right side portion of P. Louvre 2414). The text, crucial to debates about the religious nature of the recluses (κάτοχοι) who lived in the Serapeum in Saqqara, was published by Eugène Révillout. The publication provided a hand copy that makes it appear, unintentionally apparently, that the text is nearly complete. Inspection in Paris by Willy Clarysse confirmed that in fact half of the text was completely restored by Révillout. See further Clarysse 1986. Sometimes, though, a compelling interpretation can be built on the basis of one fragmentary papyrus. See the comments of Bagnall 1995: 33–38. For an excellent attempt at constructing a narrative by using one text, see Keenan 1992.

[68] Thompson 1994b: 71.

[69] P. Cairo JdE 89127–89130 and 89137–89143 (written probably first half of the third century BCE, Tuna el-Gebel). Pestman 1983b argued that internal references in the text suggest an origin in the

decisions that provided guidance to the priest-judges in a local temple for resolving disputes over real property in difficult or unusual cases. Another document from this period is a text known as the "Zivilprozeßordnung," which treats the use of documents as evidence and standards of legal proof, and may have served, like P. Mattha, as a guide for priest-judges in Thebes.[70] Both of these important documents, along with the private legal instruments that I will treat below in Chapter six, show that local, long-standing Egyptian legal institutions continued under Ptolemaic rule, and, while there is variation in scribal traditions throughout Egypt, the legal uniformity in the language of Egyptian contracts shows that there was an Egyptian legal *system*, whether it was "codified" or not.[71]

Occasionally there are inscriptions on stone that shed light on the agrarian history of Ptolemaic Egypt. The decree of Memphis, better known as the Rosetta Stone, for example, provides important information on the taxation of temple land.[72] Among the most important inscriptions is the so-called Edfu donation text written on the outer retaining wall of the temple of Horus at Edfu.[73] The inscription records the lands donated (probably in fact re-donated) to the temple along with several other temples' estates in four districts (nomes) in southern Egypt. This cadastral survey of land donated to the temple in the fourth century BCE in the southern part of the Nile valley is invaluable in linking the land survey with the private sales of land from Edfu in the third century BCE.[74] Used together, they suggest continuity in the land tenure regime at least in so far as toponyms are concerned.[75]

The demotic legal papyri document the economic activity of individuals and families, usually priests, or Graeco-Egyptian military families,

eighth century BCE). See Mattha and Hughes 1975. A new edition with corrections has been made by Donker van Heel 1990. A second-century CE Greek copy of the manual survives, for which see P. Oxy. 3285. The existence of the Greek translation, a private copy, was explained by Lewis 1993 as a result of the steep decline in the use of demotic in the second century CE. The extent of such legal manuals is suggested by P. Carlsb. 236 (early Ptolemaic on the basis of paleography), which preserves the column number "44". See the remarks by Tait 1991: 94–95, who posits that the text may have been twice as long as P. Mattha. It is uncertain to what the citation of an "eighth tablet" (dem. *ỉpt 8.t*) in a demotic petition (P. Siut 10591 vo iii, 16; Asyut, 170 BCE) refers. Nims 1948: 244, n. 13 has suggested that *ỉpt* should be understood as a "jar" in which rolls of papyri were kept. For other law books, see Depauw 1997: 114; Zauzich 1994.

[70] P. Berlin 13621 and P. Cairo 50108 recto (Thebes, Ptolemaic period), on which see briefly Depauw 1997: 114–15; Mrsich 1984.

[71] There is good evidence to suggest that written laws were cited in trials. See e.g. Martin 1992; Thissen 1994. On the problem of codification, see Mélèze-Modrzejewski 1995: 2–6.

[72] Chapter five, p. 166.

[73] See below, Chapter three, pp. 74–79.

[74] P. Hausw., discussed below in Chapter three.

[75] Place names, unfortunately, are one of the most conservative aspects of land tenure in Egypt. In certain places, the same name could be attached to a location or an area for decades if not centuries, a fact that falls short of proving economic or social continuity. See e.g. Falivene 1998: 273.

although the third-century BCE (P. Hausw.) texts discussed in Chapter three suggest that temple dependents did have access to real property and the use of written property deeds. The family archival material was preserved in order to prove legal rights established by contract. While some of these have been found *in situ* in tombs, stored in jars, other archives were purchased from dealers and have been subsequently scattered in collections throughout the world.[76] The information conveyed in these archives is often fascinating, and while they sometimes give detailed glimpses of the social and economic history of particular families, conclusions drawn from one archive cannot easily be applied to Egypt as a whole.[77] Indeed, the documentary papyri have often been considered "parochial," providing ephemeral glimpses here and there of scattered villages or towns. One reason for caution is that they are not in the modern sense archives at all but a collection of texts gathered together around certain types of transactions or of long term property holdings of a family.[78] One family archive may document a series of loans, while another may record conveyances of land. These "archives," of course, also survive haphazardly, and we are left to guess about the extent of written private transactions in local economies.

The demotic ostraca from Upper Egypt provide important evidence that local fiscal structure under the early Ptolemies was a continuation of the old system, and that the local Egyptian scribes were incorporated into the Ptolemaic system. But the texts also show that the economic relationship between temples and the Ptolemies was less direct in the third century BCE, and the increase in the number of tax receipts in the period after the Theban revolt suggests stronger administrative control.[79] Nevertheless the royal bank at Thebes was established in the third century BCE.[80] The land

[76] For recent surveys of the demotic archival material, see Muhs 1996a: 11–16; Depauw 1997: 155–59. Many of the family archives from Thebes were found in jars: the archive of Totoes found near his house, Botti 1967 (with a photograph of the jars given as Fig. A in vol. 1), and of Osoreris, found in a Theban tomb, Pestman 1993: 10–11; of Panas, also found in a Theban tomb, Pestman 1993, 11; of Psenminis, also found in a Theban tomb, Pestman 1993: 33. Cf. Depauw 2000: 3 with n. 4. The bilingual Milon archive from Edfu, discussed below in Chapter three, was found in a jar on Elephantine island. Other private archives, such as the P. Hausw. archive discussed in Chapter three, were purchased from antiquities dealers and are therefore without archaeological context.

[77] The Theban Choachyte archive documents the history of houses over many generations. See the excellent essay by Vleeming 1995.

[78] On themes in family archives, see Pestman 1983a: 289.

[79] On the revolt, see below, chapter five, pp. 164–71. For the demotic receipts, see Kaplony-Heckel 2000; Muhs 1996a. Tax receipts written on ostraca, for the moment, come from the Theban region, but excavations at Tebtunis may alter the picture. See most recently on the excavation at Tebtunis Gallazzi 2001: 41–43, briefly signaling the ostraca and papyri found near the temple of Soknebtunis. For demotic ostraca excavated at Karanis (but in origin from Philadelphia) in the Fayyum, see Kaplony-Heckel 2000: 193, mostly comprising a day-book archive of a police station.

[80] Bogaert 1988.

measurement receipts, again at the moment confined to the Thebaid, might suggest that these texts served to protect individual tax-payers by clearly establishing their obligations in writing.[81] Many of these ostraca, however, come from a restricted group of mortuary priest families, so information regarding agricultural tax administration in early Thebes is limited.[82]

The fact that these texts come to light in an already sorted manner makes their value as "archives" much reduced. While they are not random collections of texts, as Finley intimated,[83] they cannot be used readily to make a general assessment of the private economy or the extent to which private transactions occurred. The Greek and demotic papyri and ostraca, preserved by different means for different purposes, form the largest corpus of texts from the pre-Roman world, yet one must remain cautious in making connections between archives, and on the relationships between Greek and demotic, and Lower and Upper Egyptian contexts.

PREVIOUS VIEWS OF PTOLEMAIC EGYPT

Late nineteenth- and early twentieth-century scholarship regarded the Hellenistic states, and particularly Ptolemaic Egypt, as strongly centralized, rational, despotic states ruled by a small minority of Greeks and dominated by the military class.[84] Most work on the Ptolemaic state has focused on what is called the "économie royale," the institutions of the revenue, or "tributary" economy of the royal household. The bureaucracy established to extract surplus production was considered by many to have been highly effective, even "efficient," again a term that described relative improvement over earlier regimes or in comparison to contemporary Hellenistic kingdoms. The king, following the pharaohs, claimed all resources and held absolute power over the countryside, mainly through state-licensed agents and an extensive bureaucracy, and was the "fount of law"; the economic system was "tightened up till there were none of those loopholes for evasion which have so often tempered rigorous conditions in the East."[85] Such views, based largely on dirigiste reading of the Greek administrative papyri, require modification in the light of current evidence.

The study of the Ptolemaic economy as a whole has not received the book-length attention that the Roman and Byzantine periods have in recent years. Not since Préaux and Rostovtzeff published their highly influential works in quick succession in 1939 and 1941 has the Ptolemaic economy

[81] See below, Chapter five, pp. 163–64. [82] Muhs 1996a: 2. [83] Finley 1985b: 36.
[84] The strongest advocate for the strongly centralized state is Heichelheim 1958.
[85] Tarn and Griffith 1952: 196, 198.

been studied *in toto*.[86] Both studies were descriptive, essentially worked within a static model, and emphasized the "économie royale" while ignoring local economic activities. Both scholars also emphasized the structure of the state and the effectiveness of the bureaucracy. Rostovtzeff's interpretation of the papyri was in large part influenced by his conception of the Hellenistic economy as "a single, interdependent economic system characterized by sustained economic growth that was driven above all by long-distance interregional trade conducted by agents of a rising urban bourgeoisie."[87]

The lack of large, synthetic works on the Ptolemaic economy is not to say that the period has been ignored since Préaux and Rostovtzeff. Indeed quite the opposite case is true. But scholars have, given the nature of the evidence, focused on smaller-case studies or on types of texts.[88] The result has been that links between aspects of economic structure and general models of the economy have not been made. Furthermore, almost all studies of land tenure have been written from the point of view of Greek papyrology and have therefore focused on the Greek documentation. The focus has been placed particularly on the main sources from the Fayyum and its environs: the Zenon archive dating from the third century BCE, concerned with a large gift estate (*dorea*) of the finance minister (*dioikētēs*) of Ptolemy II Philadelphus around the village of Philadelphia in the northeast Fayyum, the third-century BCE Hibeh papyri from the nearby Herakleopolite nome, and the Menches archive from the late second-century BCE village of Kerkeosiris in the southern Fayyum.[89] Another very important mid-third-century corpus, the Petrie papyri (P. Petr.) from Gurob, is in the process of being re-edited, and they offer important information on wills of kleruchs and of irrigation engineering in the Fayyum.[90]

The only general study of agriculture in Ptolemaic Egypt was produced by Schnebel in 1925, but although it treated Egypt as a whole, it was based nearly exclusively on the evidence of the Greek papyri. The Zenon archive, of course, has been the single most important source of information for Ptolemaic agriculture, and has been the basis for the "estatist" or central planning model of the Ptolemaic economy developed in the early work of Rostovtzeff, Heichelheim, and Préaux. The model has been challenged

[86] Préaux 1978 substantially revised the views expressed in her 1939 study.
[87] Well summarized by Cartledge 1997: 11–12.
[88] Several general historical studies have recently appeared, among the most important of which are Hölbl 1994 [2001] and Huß 2001.
[89] For the Fayyum, see Thompson 1999a; Thompson 1999b. On the Zenon archive, see below, Chapter four, pp. 110–18.
[90] For the re-edition of the wills see Clarysse 1991b.