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ORIENTALIA LOVANIENSIA
ANALECTA
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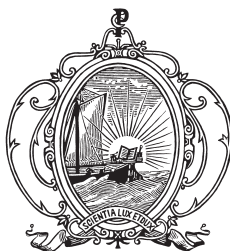
PROCEEDINGS OF THE
TENTH INTERNATIONAL
CONGRESS OF EGYPTOLOGISTS

University of the Aegean, Rhodes
22-29 May 2008

Volume I

edited by

P. KOUSOULIS and N. LAZARIDIS



PEETERS
LEUVEN – PARIS – BRISTOL, CT
2015

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ECONOMY AND SOCIETY IN PHARAONIC EGYPT

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Defined as the relationship between production and consumption, the economy self-evidently underlies all social process and all social activity. The difficulty in clarifying that relationship, for the ancient economy and ancient society, lies in the correlation of evidence¹ with theory². In particular it lies in the contrast between qualitative and quantitative approaches: between a theoretical approach that is essentially philosophical, in its emphasis on structural generalisation, and an opposite pole, which emphasises mathematical quantification and detailed process. To these I would add an anthropological approach, that attempts to examine specific human economic behaviour in its social and ecological context, and focuses on the imperatives of a subsistence economy. This involves a primary distinction between the economy as something autonomous – to be analysed in typological or universal terms as the manifestation of one among a set of possible economic systems – and the economy as something deeply embedded in an individual society.

In modern analysis of the pharaonic economy, generalisation is most evident in a qualitative and typological approach, presenting an ideologically derived and text-based narrative that assumes a centrally overseen, ordered and controlled economic structure for the pharaonic regime. In practice this view is impossible to reconcile with hard evidence; or rather, the evidence is easily incorporated as part of the ideological bias. There is indeed a striking contradiction within archaeology as a whole, where the emphasis on accurate record of primary data, in dealing with the hard material record, can dissipate into a relatively uncritical acceptance of theoretical frames, converted into theory-based explanations of socio-economic structure, that are not evidently derived from direct analysis of a specific evidence base³. That is to say, the theory too

¹ For the most recent survey see M. RÖMER, 'Die Aussagekraft der Quellen für das Studium ägyptischer Wirtschaft und Verwaltung', *Zeitschrift für Ägyptische Sprache und Altertumskunde* 134 (2007), 66-106.

² For relevant discussion of the theoretical literature see L. MESKELL, *Object Worlds in Ancient Egypt: Material Biographies Past and Present* (Oxford and New York, 2004), esp. 33: 'modernity is forged in relation to a fictional and unknown past that seemingly requires no investigation'. For the specifically pharaonic application see J. BAINES, 'Ancient Egyptian concepts and uses of the past: third to second millennium evidence', in: *Visual and Written Culture in Ancient Egypt* (Oxford, 2007), 179-201. See also J.G. MANNING, 'The relationship of evidence to models in the Ptolemaic economy (332-30 BC)', in: J.G. MANNING and I. MORRIS (eds.), *The Ancient Economy: Evidence and Models* (Stanford, 2005), 163-86.

³ For an example of detailed archaeological analysis as the basis for describing the socio-economic system see S. SEIDLMEYER, 'Wirtschaftliche und gesellschaftliche Entwicklung im Übergang vom Alten

often provides the organising frame for the data, and does not derive from it. It is important to remember the insufficiency of theory alone, as an artefact of study – that theory can be an abuse of the past when it is not an evidence-based construct from it – while retaining consciousness that any writing of history necessarily mobilises an implicit version of modern and fashionable theory, in so far as it has become absorbed as the everyday context of scholarship⁴.

In so far as the economy is a primary context of history, the evaluation of relevant data means addressing questions of economic growth and decline in relation to political history. That is, to consider economic variation in terms of the historical clichés of change and continuity. In the current political-intellectual climate, the interpretative traps lie in the clichés of environmental determinism and in the paradigm of cultural evolution⁵. Most Egyptologists are likely to feel uneasy with the idea that visions of Egyptian economic history are deeply rooted in the cultural-evolutionary paradigm associated with the works of Marx, even if the Marxist interpretation is explicitly rejected in detail⁶. I quote Jack Goody, even if slightly out of context⁷: “earlier scholars have a paucity of documents and fanciful notions about the past”.

The cultural evolutionary approach, even when put in an apparently more respectable modern guise, can easily fall into a form of historical retrodiction – hindsight as explanation – that glides too easily over proper evidence-based analysis in the attempt to provide explanations in socio-economic history⁸; that is to say, a form of retrograde prediction, which is no more likely to be accurate than a prediction of the future. The search for “origins” is a specific form of the search for order in a primitive simplicity,

zum Mittleren Reich. Ein Beitrag zur Archäologie der Gräberfelder der Region Qau-Matmar in der Ersten Zwischenzeit’, in: J. ASSMANN, G. BÜRKARD and V. DAVIES (eds.), *Problems and Priorities in Egyptian Archaeology* (London, 1987), 175-217.

⁴ L. MESKELL, *Archaeologies of Social Life: age, sex, class et cetera in Ancient Egypt* (Oxford, 1999), esp. 11-2 for the context.

⁵ For an overview of Egyptian economy that is focussed on such an economic-evolutionary approach see D.A. WARBURTON, ‘Ancient Egypt: a monolithic state in a polytheistic market economy’, in: M. FITZENREITER (ed.), *Das Heilige und die Ware: Zum Spannungsfeld von Religion und Ökonomie*, IBAES VII (London, 2007), 79-94.

⁶ For the contrasting approaches see, e.g., S. PLATTNER, ‘Introduction’, in: S. PLATTNER (ed.), *Economic Anthropology* (Stanford, 1989), 1-17; also Fitzenreiter in his introduction to *Das Heilige und die Ware*, 1-7. For a general introduction see also J.G. CARRIER (ed.), *A Handbook of Economic Anthropology* (Cheltenham, 2005). P. TORT, *Marx et le problème de l'idéologie: le modèle égyptien suivi de Introduction à l'anthropologie darwinienne* (Paris, 2006), demonstrates effectively the problems of the essentially philosophic approach from top down, placed in the tortuous context of neo-Marxism.

⁷ J. GOODY, *The Theft of History* (Cambridge, 2006), 59; see particularly pp. 42-57 for his criticism of the Eurocentric teleological descriptions of the economy of the Graeco-Roman world derived from the work of Polanyi and Moses Finley, essentially in an attack on their Marxist-socialist bias.

⁸ For a critique on these lines, with particular scepticism about the fashionable field of evolutionary psychology, see R. WILK, ‘Smoothing’, in: O. LÖFGREN and R. WILK, *Off the Edge: experiments in cultural analysis* (Copenhagen, 2006), 23-7.

that is itself an unrealistic approach to the problem of classification⁹; an ideological de-personalisation of the record¹⁰ – the removal of the individual – that leads to a generalisation masking complexity, and that then leaves space for the paradigm of history and culture as a quantitative growth of complexity, from a culturally primitive simplicity. It is more reasonable to look for visions of different sorts of complexity. The evolutionary approach to culture is essentially rooted in binary over-simplifications, and not the complexity and multiplicities of post-modernist cultural theory and philosophy. At its crudest, the argument of evolutionary psychology is that we are all naked apes, physically evolved, and then ordered by cultural evolution. Of course, this is a travesty, but my point is that the simple frame becomes too authoritative as explanation.

This runs deep, as a problem of epistemology, in the analysis of ancient Egypt. Similar issues arise in the structuralist paradigm for the history of the Egyptian language¹¹; or in genre studies and the relationship between oral and written literature¹²; in approaches to the description and understanding of Egyptian religion¹³, and law¹⁴; or, indeed, in discussion of aesthetics¹⁵. The problem is not one of simplicity versus complexity – material simplicity, or philosophical or cultural simplicity – but the nature of complexity. The ideology of clear structure and single purpose merely distorts. For instance, the apparent simplicity and clear structure of the Egyptian concept of Maat is a modern structuralising and idealising distortion. Egyptology feels comfortable with the ancient ideological obsession with kingship and order, and converts them into structure; into the vision of an essentially ordered society; the sort of society that can be listed in an *Onomasticon*, where classification is listing, is order, and is inherently simplistic. But anybody who works with the archaeological or textual record is perfectly comfortable with high levels of disorder in the detail. The consequence is particularly problematic for economy, in so far as it predicates a centralised economic order.

⁹ Cf. the comments of R. VAN WALSEM, *Iconography of Old Kingdom Elite Tombs: analysis and interpretation. Theoretical and methodological aspects* (Leiden, 2005), 25-6, 88-91, 97.

¹⁰ See, e.g., MESKELL, *Object Worlds*, 45-6.

¹¹ Specifically posed in those terms in C.J. EYRE, 'Was Ancient Egyptian really a primitive language?', *Lingua Aegyptia* 1 (1991), 97-123, but implicit, for instance, in *BiOr* 45,1/2 (1988), 5-18: review of A. Loprieno, *Das Verbalsystem im Ägyptischen und Semitischen: zur Grundlegung einer Aspekttheorie* (Wiesbaden, 1986).

¹² Cf. R.B. PARKINSON, *Poetry and Culture in Middle Kingdom Egypt: a Dark Side to Perfection* (London, 2002).

¹³ As is the essentially evolutionary frame used for explanation throughout the work of Jan Assmann. As a general example, F. BOWIE, *The Anthropology of Religion: an Introduction* (Oxford, 2006²), esp. 12-8 points to the failings of the search for origins as a target for anthropology.

¹⁴ Cf. C. EYRE, 'Judgement to the satisfaction of all', in: B. MENU (ed.), *La fonction de juger: Égypte ancienne et Mésopotamie* (Paris, 2004) = *Droit et Culture* 47 (2004/1), 91-107.

¹⁵ For a general address to the issues of art see J. BAINES, 'On the status and purposes of Egyptian art', *Cambridge Archaeological Journal* 4:1 (1994), 67-94, and note also D. ARNOLD, 'Egyptian art – a performing art?', in: S.H. D'AURIA (ed.), *Servant of Mut: Studies in honor of Richard A. Fazzini* (Leiden, 2008), 1-18.

The result here, in sociological study, is the consequence of a confusion between cause and effect: that somehow our description of religion and ideology can be presented as a cause of behaviour. Because it was Maat, or because it was rooted in a religious belief, somebody behaved in such a way. One has to stress all the time, that to assert that social and economic behaviour are embedded¹⁶ does not imply a simple religious or moral causality, but that the moral or religious belief or practice reflects social or economic imperatives. That is to say, people do not simply “believe” this, and therefore do that. The causative interaction is always much more complex, and the “belief” is just as likely to derive from the culturally or emotionally motivated action.

It is a gross economic oversimplification, for instance, to assert that in theory all land belonged to Pharaoh¹⁷. It is difficult to clarify what the basis, or the real economic meaning might be. Of course one can find direct assertions. The Berlin Leather Roll¹⁸: “[The land] was given [me in] its length and breadth, I having been nursed as a conqueror. The land was given me; I am its Lord, (and) my power reaches the height of heaven”. Or familiar from Gardiner’s exercises:¹⁹ “His are all lands; to him belongs the sky”. Or Wenamun’s arguments with the Prince of Byblos, about what Egyptian lordship – the lordship of Amon – might mean: that he should serve and pay in return for the life granted him by the god²⁰. The core of royal authority lies explicitly in divine approval and power – military power in effect. It is unclear, however, that this vision of royal ownership of land represents in practice anything more than that of the feudal authority of a mediaeval king, with its claim to draw revenues. In Egypt, historically, Mohammed Ali seems to have been the only one to take the principle literally and treat the country as his personal property – a distinctly un-Islamic concept – and with wholly revolutionary result.

The idea of private ownership of land involves a dichotomy between the individual and the collective, which is in itself a criterion for the evolutionary cultural and social ideologisation of the West; the invention of the individual²¹. The concept of the invention of private property is crucial for anybody who works with visions of economic history as an evolution, and by definition presupposes the existence of an earlier stage of king’s or communal ownership. For Egypt this is seen most clearly in Helck’s old argument that private property originated in the funerary foundations of the Old

¹⁶ See, for example, PLATTNER, *Economic Anthropology*, 10-11 using the term in this way.

¹⁷ See, for example, B. MENU, ‘Principes fondamentaux du droit égyptien’, in: *Recherches sur l’histoire juridique, économique et sociale de l’ancienne Égypte II* (Cairo, 1998), esp. 14-7 (= *Chronique d’Égypte* 70 [1996], 99-109).

¹⁸ A. DE BUCK, ‘The building inscription of the Berlin Leather Roll’, in: A.M. BLACKMAN *et al.*, *Studia Aegyptiaca I* (Rome, 1938), 48-57, lines I, 11-3.

¹⁹ GG Exercise IX, b, 7.

²⁰ Wenamun 2, 28 – 34 = *LES* 69, 13 – 70, 9.

²¹ Cf. GOODY, *Theft of History*, 58-60 for argument for the existence of ownership on models other than those of the modern West, and rejection of “the generalized assumption about a communal phase”.

Kingdom, where permission is recorded for the creation of protected and entailed land-holdings²². The particular importance of these texts lies also in the fact that these endowments stand at the beginning of our knowledge of the writing and use of legal documents, so again a context for development of law. But Helck's argument is too simplistic. It presupposes an efficient, monolithic state, and a controlled economy for the early Old Kingdom, but it does not address the wider context of land use in the Nile valley, where we have difficulties documenting – never mind understanding – communal access to lands in the flood basins, and the way land was accessed from year to year as the water-courses changed. It is probably necessary to think more flexibly in terms of complex rights to exploitation of land, rather than assume a consistent narrow identification of the ownership of each individual plot of arable land²³.

Here I am attempting to distinguish between a micro-economic and a macro-economic approach to Egyptian economics. I am using the terms in a way that a professional economist might not be entirely happy with, but at least in a way that an anthropologist should be reasonably comfortable with, and using ideas that are current in that field. Put simply, this means thinking of a micro-economic approach as involving people, and being personal economics, against macro-economics as societal economics, which address the economy as autonomous and depersonalised. This is complicated by the difficult problem of the extent to which social, hierarchical and economic behaviour can be described at any level as depersonalised in the ideologically and practically face-to-face society of pharaonic Egypt, but this is a different, if overlapping issue to the definition of the macro-level of economics as an autonomous process.

The problem lies in a dichotomy of approach to the description of ancient society, between that of the anthropologist, that is typically eclectic in his treatment of the economy as a fully embedded part of his ethnology, and that of the economist, that is theory driven, and where the coherence of the theory is likely to be primary²⁴: “the habitat of the economist is that of formal methods, often to the exclusion of substance” and relying on a “linear sequence of hypothesis testing”. This is not just to add to the trivialising abuse of economics as a pseudo-science, but to stress the point that the natural territory of the archaeologist should be in areas of micro-economics, against

²² W. HELCK, ‘Die sociale Schichtung des Ägyptischen Volkes im 3. und 2. Jahrtausend v. Chr.’, *Journal of the Economic and Social History of the Orient* 2 (1959), 19. Cf. also B. MENU and I. HARARI, ‘La notion de propriété privée dans l’ancien empire égyptien’, *Cahier de Recherches de l’Institut de Papyrologie et d’Égyptologie de Lille* 2 (1974), 125-54.

²³ C.J. EYRE, ‘Peasants and ‘modern’ leasing strategies in Ancient Egypt’, *Journal of the Economic and Social History of the Orient* 40/4 (1997), esp. 371, 381-6; C.J. EYRE, ‘How relevant was personal status to the functioning of the rural economy in pharaonic Egypt’, in: B. MENU (ed.), *La dépendance rurale dans l’Antiquité égyptienne et proche-orientale* (Cairo, 2004), 157-86, and esp. 158.

²⁴ For a clear statement of the distinction see C.H. GLADWIN, ‘On the division of labour between economics and economic anthropology’, in: PLATTNER (ed.), *Economic Anthropology*, 397-425.

the natural territory of the theory driven economist in macro-economics; which is to say, the theoretical economist takes the micro-level as given, known, understood from ordinary observation, where for us it is precisely the micro-economic, village level of the working of economy that is not given, not understood, nor documented, and theorising at the ideological level of king and temple is likely to be disengaged from economic reality. For Egyptology, the difference is between working evidence-up and working theory-down, or generalisation-down.

At the core of this problem, for pharaonic Egypt, is this need to address clearly the monolithic image of an essentially undifferentiated agrarian society that produced – in macro-economic terms – a surplus to fund elite consumption. It means exploring regional and social differentiation in the agricultural regime, but also an explicit consideration of the practicalities and realities of social and class hierarchy. This raises the question of whether it is appropriate to define, or even distinguish social classes in pharaonic Egypt by economic criteria, or by other sorts of hierarchical criteria. The bureaucratic model of Egyptian society emphasises a qualitative differentiation – literate against illiterate, possessor of cultural knowledge, office holder against worker – that cannot necessarily be mapped onto quantitative distinctions seen in the archaeological or documentary record. For instance, the *Satires on the Trades* distinguish the literate from the illiterate in terms of labour. The contrast is most vivid in terms of dirt: the scribe is clean and white, and the worker is filthy, one of the great unwashed. I need hardly stress that these texts are solid evidence, to be taken seriously at a number of levels, but that they are the evidence of one particular voice, whether one cares to call it a class voice or something else. These texts do not advise the child of the scribe against the free choice of becoming a washerman, nor against taking up any other sort of craft or physical labour. Nor is their argument purely an economic one, in terms of money. It is a social, cultural and qualitative one, distinguishing physical labour from social status. There is no rounded view of the social economy as a whole in such texts, but rather a view of the split in society, with at least an element of the normal urban contempt for the peasant.

There is an element here of ordinary fashion in anthropology and in historiography, in terms of the degree of emphasis on the importance of the individual²⁵. Here this means distinguishing:

Macro-economics = the wealth of the state

against

Micro-economics = the wealth of individuals

²⁵ MESKELL, *Archaeologies of Social Life*, provides an emphasis on the individual in the archaeological, historical, anthropological record, with particular focus in ch. 1 on the theoretical and intellectual framework.

This has been addressed to some extent for individuals from Deir el Medina²⁶. The intact tomb of the Eighteenth Dynasty foreman Kha shows him taking his living property with him, including plenty of used and mended clothing: he did not dress only in the fine white linen that typifies the scribal class in the wisdom literature. Simple economic questions can focus on his accumulation of wealth: how much of his property he took to the tomb, and how realistic a picture of personal wealth his tomb then provides. For the Middle Kingdom farmer Hekanakhte it is not possible to estimate the wealth in such immovables, but only in terms of productive resources²⁷. He controlled enough fields fully to employ his family, and to hire some additional labour for profit. He held sufficient grain reserve for seed, and a small herd of animals for ploughing and presumably milk production. His family was able to profit commercially from household weaving. But it is still impossible to estimate how much he accumulated. He seems to belong to a level of society well above marginal subsistence: controllers of resources, but belonging to the localised economy, identifiable only to a limited extent as minor functionaries, as those occasionally leaving small monuments²⁸, and those leaving tomb goods in the mortuary record²⁹, but not belonging to the qualitatively different official class.

At the highest level the questions are ones of the size of the bureaucracy, its role in creating a depersonalised and state level economy, and just how rich the state as such was. This points to the question of capital, in the simple sense of accumulated and spendable resources: what, in the Egyptian economy capital might be, and how it might be used. Clearly this is not part of an argument with the classic definitions of “capitalism” in the Marxist and post-Marxist discourse³⁰, but merely the accumulation of capital: personal accumulation at a low level, as well as the accumulation of the state, of temples and of great men. The point here is that the Egyptian economy does not fit into the classic, Marxist derived, categories of economically rooted evolutionary stages of society. On the basis of the Egyptian data, the simplest description is that of

²⁶ J.J. JANSSEN, ‘Kha’emtre, a well to do workman’, *OMRO* 58 (1977), 221-32; MESKELL, *Archaeologies of Social Life*, esp. ch. 5 ‘Accessing individuals at Deir el Medina’, 176-215.

²⁷ Latest edition J.P. ALLEN, *The Heqanakht Papyri* (New York, 2002). For the economic context cf. EYRE, *Journal of the Economic and Social History of the Orient* 40/4 (1997), 381-3.

²⁸ For example D. FRANKE, ‘The good shepherd Antef (Stela BM EA 1628)’, *Journal of Egyptian Archaeology* 93 (2007), 149-74, esp. 165.

²⁹ See J. RICHARDS, *Society and Death in Ancient Egypt: mortuary landscapes of the Middle Kingdom* (Cambridge, 2005).

³⁰ See in particular the critique, from the perspective of anthropologically rooted historiography, of GOODY, *Theft of History*, esp. 108, 136-46, 180-211, criticising the habit of finding the seeds of capitalism in all sorts of societies. Also PLATTNER, ‘Marxism’, in: PLATTNER (ed.), *Economic Anthropology*, 379-96 for a straightforward presentation of the difficulties for classic Marxist theory in dealing with societies outside the capitalist mode of production.

a society with a cashless money economy; the idea of money is important to all transactions, but there is no physical cash-equivalent³¹.

As an example, P. Cairo 65739³² records a dispute over the ownership of resources used for the purchase of a slave. The defendant is a woman who begins her evidence with the statement of her marriage, during which she worked, weaving clothing (*iw=i hr b3k hr kn [...] hr nwy p3y=i d3iw*). She had bought a slave-girl, using accumulated goods as money: cloth, metal, honey – non-perishable goods of intrinsic monetary value – which she actually handed over to the merchant. Each item is listed with the name of the person from whom it was *ini*: either “bought” or “brought”. It is not clear whether she is simply providing the equivalent of receipts for her purchases, or naming people from whom she had taken loans, but her purpose was to deny that any of the money had come from another lady in whose name she was being sued. Probably she was investing profits accumulated from domestic weaving³³. In a similar way Hekanakhte’s letters show that he aimed to invest the profits of household weaving as money to rent land on good terms, to move the family farming business forward in the most profitable way³⁴. This contrasts with testimony from a Tomb Robbery interrogation, when a woman claimed ironically to have bought slaves with the produce of her garden³⁵. Here the irony plays with the two different levels of market: the market-stall, for crops with a short sell-by date, that looks to function around the margins of subsistence production³⁶, contrasted with the commodity goods that have solid exchange value, and represent real accumulation of wealth³⁷.

³¹ M. RÖMER, ‘Geld/Silber/Kupfer – Geld oder nicht? Die Bedeutung der drei Metalle als allgemeine Äquivalente im Neuen Reich mit einem Anhang zu den Geldtheorien der Volkswirtschaftslehre’, *Studien zur Altägyptischen Kultur* 26 (1998), 119-42; B. MENU, ‘La monnaie des Égyptiens de l’époque pharaonique’, in: A. TESTART (ed.), *Aux origines de la monnaie* (Paris, 2001), 73-108; R. MÜLLER-WOLLERMANN, ‘Ägypten auf dem Weg zur Geldwirtschaft’, in J.-C. GOYON and C. CARDIN (eds.), *Proceedings of the Ninth International Congress of Egyptologists* (Leuven, 2007), vol. II, 1351-9. The assertion by D. WARBURTON in: M. FITZENREITER (ed.), *Das Heilige und die Ware*, 83 that “abstract prices are an historical product of the Bronze Age”, and that the creation of market prices is a later feature, is an abstraction to fit a theoretical approach that is not particularly helpful in understanding contemporary micro-economic practice. For an idiosyncratic anthropological survey see K. HART, ‘Money: one anthropologist’s view’, in: CARRIER (ed.), *Handbook of Economic Anthropology*, 160-75; and see also P. HEADY, ‘Barter’, in: *op. cit.* 262-74.

³² A.H. GARDINER, ‘A lawsuit arising from the purchase of two slaves’, *Journal of Egyptian Archaeology* 21 (1935), 140-6.

³³ For this, and the general context of cloth production see EYRE, ‘The market women of pharaonic Egypt’, in: N. GRIMAL and B. MENU (eds.), *Le commerce en Égypte ancienne* (Cairo, 1998), 178-84.

³⁴ Letter I, 4-6 and cf. letter II, vs. 7.

³⁵ BM 10052, 10, 14-5: scribe Djehuty-mose asks: [*i*]h p3 shr in(t) i.iri=t n3 b3k i.int=t dd=s i.iri(=i) int=w r-db3 m-d3-3 (grain) m p3y=i h3pt, ‘How did you buy the slaves you bought?’. She said, ‘I bought them with crops(?) from my garden’.

³⁶ EYRE, in: GRIMAL and MENU (eds.), *Le commerce en Égypte ancienne*, 173-91.

³⁷ For merchants and markets at this level see especially M. RÖMER, ‘Der Handel und die Kaufleute im alten Ägypten’, *Studien zur Altägyptischen Kultur* 19 (1992), 257-84; for a general introduction to the

The issue here is one of wealth defined in terms of consumption or of acquisition; storage or expenditure; whether a man is rich because of his possessions, or because he is able to hold adherents through his ability to spend in ways in which they will participate and benefit. This is the contrast between wealth as acquired capital against acquired prestige³⁸. This means, to ask of the textual sources what view they express of the acquisition of wealth. Both tomb autobiography and wisdom literature show a degree of moral-philosophical uncertainty about the acquisition of wealth of itself, while playing strongly on wealth as the context for exercising patronage, and so exercising authority. The *Instructions for Merikare*, for instance, stress the need for the official, the person in power, to be rich, as the only context in which a leader can be impartial³⁹. In that sense formulaic claims to have provided for the destitute define a necessary function of leadership as much as a moral imperative to charity. The importance of this social reciprocity, and the role of patronage and hierarchy, are entirely familiar at the core of Egyptian social order.

The relationship between wealth and class can be addressed in a traditional philological way through vocabulary, working up from *ḥm*, “slave” through *twṣ*, “low-person”, *mrt* “serf”, and (*n*)*ḏt* “client”, “subordinate”, through *nds/nmḥw* “freeman” “little man/orphan” and *s* “man (of quality)” to *sr* “functionary”, and *sḥ*, “noble”. Yet these translations are unsatisfactory, because the Egyptian words are deeply embedded in their individual socio-economic contexts. Largely they place people inside or outside a patron-client hierarchy, although in the Middle Kingdom the terms *twṣ*, “low-person”, *s* “man (of quality)” and *sḥ*, “noble” can be taken to present a sort of class thinking, that involves both social and economic status. The theme is better developed in the pessimistic literature of the Middle Kingdom, and in particular in the *Admonitions of Ipuwer*,⁴⁰ where social disorder is presented as the disruption of contemporary socio-economic class distinctions. Disorder is exemplified by individual and specific reversals of class and wealth:

“O, but beggars (*šwṣw*) have become owners of luxuries (*nb šps*); he who could not make himself sandals is the owners of heaps (*nb ḥʿw*)” (*Admonitions* 2, 4-5).

“Look, he who did not have a loaf (*pʿt*) is the owner of a granary (*mḥr*), and his food workshop (*šnʿw*) is commissioned (*ḥnn*) with the property of another” (*Admonitions* 8, 3-4).

Behind this vision of disorder lies a familiar structural poverty, that should be taken seriously in our economic picture of pharaonic Egypt. There is a tendency not to take

contrasts and overlap in market types see K. APPLBAUM, ‘The anthropology of markets’, in: CARRIER (ed.), *Handbook of Economic Anthropology*, 275-89.

³⁸ M. FITZENREITER (ed.), *Das Heilige und die Ware*, 7 on accumulation vs. prestige.

³⁹ *Merikare*, P. Petersburg 1116A, 42-4.

⁴⁰ R. ENMARCH, *The Dialogue of Ipuwer and the Lord of All* (Oxford, 2005); R.B. PARKINSON, *The Tale of Sinuhe and other ancient Egyptian poems 1940-1640 BC* (Oxford, 1997), 166-99; R.B. PARKINSON, *Poetry and Culture in Middle Kingdom Egypt: a dark side to perfection* (London, 2002), 204-16.

seriously the cliché of tomb autobiography, that “I gave bread to the hungry, clothing to the naked”⁴¹, as if in the nice, elegant, ancient Egypt hunger were entirely a matter of occasional famine and crisis, and nakedness merely an erotic elegance⁴². Hunger is shown at the margins. Reliefs from the causeways of Sahure and Unas show starving Bedouin, defining the deserts as hungry⁴³, just as would-be *medjay*-immigrants, in the Semna dispatches, want to enter Egypt because “the desert is dying from hunger”⁴⁴. Hunger appears as the structural crisis of absolute Nile failure: a clean, respectable major famine, that is removed to a degree from human or hierarchical responsibility⁴⁵.

Hunger was also endemic in Egypt. There is a good case for testing the clichés of autobiography, quite literally. While it is clear that the textual sources are deeply ideological, requiring levels of deconstruction, there is also the possibility that if an ancient source says something, he might be telling the truth, or that the sources of his ideological concern might be real. It is reasonable to envisage a society where (some) people were chronically or regularly hungry, and even naked through destitution, at least sufficiently to be part of the common experience. An Old Kingdom “servant” figure of an emaciated potter, with his ribs showing⁴⁶, belongs to a category of object that, like tomb relief, allows reality to creep into the ideological purpose, and there is not the same argument that he might depict a marginal context, in the way that can be argued for the depictions of emaciated herdsmen in a Middle Kingdom tomb at Meir⁴⁷. Although it is out of period, there is a striking Demotic petition⁴⁸, that refers to two children deprived of their inheritance. In effect they became street children, dependant

⁴¹ For collection of examples referring to famine provision, see FRANKE, *Journal of Egyptian Archaeology* 93 (2007), 151, lines 7-8 and 170.

⁴² No more does the topos of robbers stripping their victims naked carry an easily visualised sense of reality in modern western preconceptions, but it is worth remembering that in the punitive raids through the Scottish glens in the aftermath of Culloden, the reports of the destitution left behind characteristically refer to stripping those raided of all their clothes.

⁴³ Z. HAWASS and M. VERNER, ‘Newly discovered blocks from the causeway of Sahure (archaeological report)’, *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 52 (1996), 182-6 and pl. 55.

⁴⁴ Dispatch 5 = 4, 9-10; P.C. SMITHER, ‘The Semnah Dispatches’, *Journal of Egyptian Archaeology* 31 (1945), 1-10.

⁴⁵ J. VANDIER, *La famine dans l’Égypte ancienne* (Cairo, 1936); E. EICHLER, ‘Nahrungsfülle und Nahrungsmangel in altägyptischen Texten’, in: N. KLOTH, K. MARTIN and E. PARDEY (eds.), *Es werde niedergelegt als Schriftstück. Festschrift für Hartwig Altenmüller zum 65. Geburtstag*, BSAK 9 (Wiesbaden, 2003), 83-96; D. MEEKS, ‘À propos du prêt de céréals en période de disette’, in: *op. cit.*, 275-80; L. MORENZ, ‘Versorgung mit Getreide: Historische Entwicklungen und intertextuelle Bezüge zwischen ausgehendem Alten Reich und Erster Zwischenzeit aus Achmim’, *Studien zur Altägyptischen Kultur* 26 (1998), 81-117.

⁴⁶ Chicago OIM 10628 + 10645: see *L’art égyptien au temps des pyramides* (Paris, 1999), no. 164, 335.

⁴⁷ A.M. BLACKMAN, *The Rock Tombs of Meir I* (London, 1914), pp. 29, 32-3, pl. III, IX, X, XX 1, XXV 3, and XXXI 1-2.

⁴⁸ G.R. HUGHES, ‘The cruel father: a demotic papyrus in the library of G. Michaelides’, in: G.E. KADISH (ed.), *Studies in Honor of John A. Wilson, September 12, 1968*, *Studies in Ancient Oriental Civilization* 35 (Chicago, 1969), 43-54: now P BM EA 10845.

on the charity of “he who finds us in the corners of the walls of the streets” for a meal or temporary shelter. The *Admonitions of Ipuwer* seem to refer to the abandonment of the children of officials in the street as a mark of social chaos⁴⁹, while the *Book of Kemyt* uses the metaphor of somebody “head upon knees like an orphan at the edge of a strange city”⁵⁰.

The Theban west bank was hungry in the Twentieth Dynasty. The workmen of the Royal Tomb complain of endemic failures in food supply, leaving them chronically hungry, from the date of the Turin Strike Papyrus, late in the reign of Ramesses III, through the “Year of the Hyenas when one starved”, when a woman claimed to have acquired silver with barley⁵¹. The refrain of testimony through the tomb robbery papyri is that starvation drove the people to their actions, and the proceeds in gold and silver were converted to bread. In the early Middle Kingdom, Hekanakhte’s family were hungry, on half rations, while he was away from home, in a place where “they have begun eating people here”. Hekanakhte tells his people they should only use the word *hqr* for (real) *hqr*⁵². And his employees only got the survival minimum. His family’s half rations were reduced from a standard minimum wage calculation of 1.5 *khar* of grain a month, that seems to fit standard approximate estimates for minimum calorific intakes. These seem to be minimum wages at the level of minimum immediate consumption, with no reserve, no spare to cover for periods of unemployment or to allow any acquisition of goods. Although part of a rural elite in terms of ability to produce and possession of resources, Hekanakhte’s family still suffer real hunger. One should take seriously descriptions of the life of the farmer in the *Satire on the Trades* of Papyrus Lansing⁵³, with its little rural disasters, so that by the time the tax man is finished, the farmer’s family needs the help available for the hungry, naked and abandoned. This is a context where palaeo-pathology is likely, in the near future, to give us a better picture of the frequency of food-stress⁵⁴. It is a context where a consideration of the cramped and poor quality of some of the urban housing that survives in the archaeological record, at Tell ed Daba⁵⁵, at Malkata and Amarna indicate poor, essentially slum living conditions.

⁴⁹ 6, 12-4, and cf. perhaps 4, 3-5.

⁵⁰ E.F. WENTE, *Letters from Ancient Egypt* (Atlanta, 1990), 16; W. BARTA, ‘Das Schulbuch Kemit’, *Zeitschrift für Ägyptische Sprache und Altertumskunde* 105 (1978), 6-14.

⁵¹ P BM 10052, 11, 7-8

⁵² Letter II, lines 26-8; ALLEN, *Hekanakht Papyrus*, pl. 30.

⁵³ 5, 9 – 7, 6.

⁵⁴ See, for example, E.-M. WINKLER and H. WILDFING, *Tell el-Dab’a VI: Anthropologische Untersuchungen an den Skelettresten der Kampagnen 1966-69, 1975-80, 1985* (Vienna, 1991), 132 and 139-40, for a very high mortality rate for new-borns and sub-adults combined with skeletal evidence that the community ‘suffered to an extremely high degree from deficiency diseases and anaemic states caused by periodical scarcity of food ...’.

⁵⁵ E. CZERNY, *Tell el-Dab’a IX: Eine Plansiedlung des frühen Mittleren Reiches* (Vienna, 1999), esp. 129-34 for the low economic standard of what seems to be a state-built settlement, for building workers or as part of a programme of internal colonisation.

The contrast is the definition of wealth as fat⁵⁶, and marked by consumption in quantity and variety. So, for instance, the Middle Kingdom stela of the Steward (*mr pr*) Montuwoser in the Metropolitan Museum⁵⁷: “I am one bright of face over abundance and what is eaten; there is no shortage for the one I give to; I share big (portions) of meat to the one who sits next to me”. It is a familiar cliché that Egyptian expenditure on tomb provision implies an obsession with death, but perhaps it would be better to emphasise the obsession with security⁵⁸. So the *Maxims of Ani*⁵⁹ advise: “Do not go out from your house, when you do not know the place you will rest”. The line addresses the need to prepare properly for the afterlife, both psychologically and materially; the afterlife in which there is a marked concern to avoid having to eat excrement and drink urine. This particular obsession does, of course, reflect a structural concern about the afterlife as a place of reversals⁶⁰, but also the constant nagging fear of hunger, that explicitly continues into the afterlife. So in a fragmentary New Kingdom story, when the High Priest Khonsuemheb meets a ghost, his assumption is that it needs provision of food and drink to be able to rest⁶¹. Remembering that the poor are always with us, the nature, number, and visibility of these poor are a crucial part of our understanding of the economy, both as individuals and at a macro-economic level as the available labour pool and source of cheap labour.

I am sceptical of the idea that peasants flocked gladly from their fields to build pyramids from a religious enthusiasm for the king; I am conscious, however, that the Egyptian rural economy has always been characterised by a chronic structural under-employment. Migrant rural labourers, travelling to work on projects, need not only be a feature of the relatively modern world, where such labour movement underlies serious fluctuation in the availability and cost of agricultural labour, while providing out-of-season employment for the rural poor⁶². The underlying economic issue, however, is the extent to which there was a commoditisation of labour in the pharaonic period. This

⁵⁶ J. BAINES, *Fecundity Figures* (Warminster, 1985), esp. 95-101, 110-1, 123-6.

⁵⁷ K. SETHE, *Ägyptische Lesestücke zum Gebrauch im Akademischen Unterricht* (Leipzig, 1928), 79, 11-2.

⁵⁸ Cf. S. GRUNERT, ‘PER-DSCHEHET – religiöser Egoismus oder egoistische Ökonomie’, in: FITZENREITER (ed.), *Das Heilige und die Ware*, 265.

⁵⁹ 4, 11-2 (= P. Boulaq 4, 17, 11-2). J.F. QUACK, *Die Lehren des Ani: Ein neuägyptischer Weisheitstext in seinem kulturellen Umfeld*, *Orbis Biblicus et Orientalis* 141 (Freiburg and Göttingen, 1994), 96-7, 290-1, although I do not follow the detail of his translation.

⁶⁰ P.J. FRANSEN, ‘On fear of death and the three *bwts* connected with Hathor’, in: E. TEETER and J.A. LARSON (eds.), *Gold of Praise: Studies on Ancient Egypt in honor of Edward F. Wente* (Chicago, 1999), 131-48.

⁶¹ A.H. GARDINER, *Late Egyptian Stories*, *Bibliotheca Aegyptiaca* I (Brussels, 1932), 89-94; J. VON BECKERATH, ‘Zur Geschichte von Chonsehab und dem Geist’, *Zeitschrift für Ägyptische Sprache und Altertumskunde* 119 (1992), 90-107.

⁶² For which see J. TOTH, *Rural Labor Movements in Egypt and their Impact on the State, 1961-1992*, (Cairo, 1999) for the context.

begins with the issue of how labour was paid for in the absence of coinage. At one extreme, the work registers from Ramesside Deir el Medina record individual absences in great detail, but never suggest any deductions of wages; it is then normal to talk of workmen's "rations". In contrast, the concept of work-time is seen most clearly in the Sheshonq stela from Abydos⁶³, where his endowment includes $\frac{1}{4}$ of a(n unnamed) confectioner. Or in the Eighteenth Dynasty text that places a remarkably high value on the "days" of work of female slaves: presumably a regular monthly service rather than individual days⁶⁴. In contrast, sale documents do not make explicit charges for the time involved in craft work; a metal vessel is typically valued at its weight alone. Labour charges are evidently implicit in the valuation, but not presented as a specific part of the accounting.

The distinction between payment by "wages" or by "rations" is, of course, a loaded one. The first is terminology used for a commoditised economy, and the other for a "redistribution" economy. This is, however, a false distinction if presented as evidence in a high-level theoretical argument. The practical issue, at a low level, is more revealing. Without cash, and without a normal market in subsistence food commodities – without a grain and bread market – a worker has to be paid primarily in grain or bread, in a relationship that is essentially one of reciprocity, regardless of whether it is a long-term hierarchical, or a short term commercial relationship. And any casual labourer can expect to be paid subsistence wages. Expedition records from the mines and quarries list the payment of the workers in bread and beer, giving a basic picture of standard daily consumption levels⁶⁵. In such a context it is more effective to pay processed food as on-site prepared rations. Payment in unprocessed grain was more normal: Hekanakhte, hiring a field worker for a month in the planting season, made a subsistence-level grain payment of 1.5 *khar*. Within Hekanakhte's wider family enterprise, each nuclear family unit processed its own grain into food. At Deir el Medina the workmen were permanently employed men of some status, settled with families in their own village, and received rather generous seeming monthly grain payments.

Both micro- and macro-economic approaches require an overt focus on quantification, although the distinction between quantitative and qualitative is not just between "it contains sums" and "it does not contain sums". Sums are, of course, the essence of any form of economics. The difference is more a matter of the degree of impersonality of the sums, and the extent to which they then provide the context for discussion of macro-economic or micro-economic issues. Pyramid building belongs in a macro-economic

⁶³ A.M. BLACKMAN, 'The stela of Sheshonk, Great Chief of the Meshwesh', *Journal of Egyptian Archaeology* 27 (1941), 83-95, line 21.

⁶⁴ B. MENU, in: GRIMAL and MENU (eds.), *Le commerce en Égypte ancienne*, esp. 203-4. Contrast "days of provision" in priestly service; cf. GRUNERT, in: FITZENREITER (ed.), *Das Heilige und die Ware*, 246.

⁶⁵ Cf. D. MUELLER, 'Some remarks on wage rates in the Middle Kingdom', *Journal of Near Eastern Studies* 34 (1975), 249-63.

discussion, where the attempt at sums – even if they are little more than guesses – targets an evaluation of state income, and quantification of the country’s ability to fund the non-subsistence economy through taxation and revenue collection. The parameters of the domestic household economy provide the test for the subsistence economy, while the activities of great estates, of high officials or of temple endowments, overlap both categories, with the evidence they provide for both localised production for immediate consumption and for overall economic structure⁶⁶.

Despite the difficulties of quantification, and in particular the apparent difficulties of data collection⁶⁷, this seems the most promising way to approach questions of micro-economic reality at a local level, and to avoid anachronism. The research agenda then looks to focus on a series of dichotomies, although retaining awareness that all dichotomies – like all sweeping generalisations – are necessarily false through oversimplification:

micro-economics as practice	vs.	macro-economics as theory
micro-economics as the individual	vs.	macro-economics as society
the market for consumption	vs.	the market for acquisition
domestic production	vs.	institutional production
money valuation of commodities	vs.	commodities as bullion
revenue collection from production	vs.	personal taxation of wealth

Micro-analysis requires detailed analysis of the use of money and monetary valuations in low-level transactions, against a macro-analysis that tests a theory of money and the degree of monetisation of the state economy as a whole. The particular problem lies in bringing together the right sort of evidence with the right sort of testing. The monetisation of revenue collection during the Ptolemaic period⁶⁸ marks a significant change in the practicalities of central taxation, from a system focussed entirely on productive capacity in the pharaonic period, to a system with strong focus on taxation of the individual in the Graeco-Roman period⁶⁹.

⁶⁶ M. LEHNER, ‘Fractal house of Pharaoh: Ancient Egypt as a complex adaptive system, a trial formulation’, in: T.A. KOHLER and G.J. GUMERMAN (eds.), *Dynamics in Human and Primate Societies: agent-based modeling of social and spatial processes* (New York and Oxford, 2000), 275-353. See GOODY, *Theft of History*, 69 on the ubiquity of the post Bronze Age great estate.

⁶⁷ Despite the massive effort of W. HELCK, *Materialien zur Wirtschaftsgeschichte des Neuen Reiches I-VI and Indices* (Wiesbaden, 1961-1970), the difficulties of the project still seem overwhelming.

⁶⁸ B.P. MUHS, *Tax Receipts, Taxpayers, and Taxes in Early Ptolemaic Thebes* (Chicago, 2005), 3-8; W. CLARYSSE and D.J. THOMPSON, *Counting the People in Hellenistic Egypt II* (Cambridge, 2006), esp. 8 and 86-8; S. VON REDEN, *Money in Ptolemaic Egypt: from the Macedonian Conquest to the end of the Third Century BC* (Cambridge, 2007), 84-110.

⁶⁹ See, for instance, the extremely interesting register (from the reign of Domitian?) just published by ABD-EL-GAWAD MIGAHD, ‘Ein Auszug aus einem spät-demotischen Steuerbuch (P. Vindob. D 6788)’, *ASAE Cahier 35, Essays Ahmed Abd El-Qader El-Sawi* (Cairo, 2006), 167-99.

The question of the monetisation of the rural economy, and its structural significance for the farmer, hardly seem to touch the pharaonic period. The intriguing reference is that in P. Valençay I⁷⁰, to some *nmlꜣw* land-holders, who *fꜣi nbw* “carry gold” to the Treasury of Pharaoh instead of paying grain revenues through the local administration to the Temple of Amon. Monetisation of the revenue develops most naturally where the land is cultivated with cash crops and there is a market or a clear market orientation in production: in Egypt this is notably in fruit, oil or flax production. The state can then exploit this as part of an agenda of direct political as well as economic control. Direct evidence for the revenue collection of crops other than grain is almost entirely lacking from the pharaonic period, and there is no evidence at all for the establishment of monopolies or tax farming, or for the control of sowing schedules⁷¹, which are all themselves characteristic tools of monetisation in the rural economy at later periods. Presumably collection allowed for equivalences to be delivered in crops other than grain, but the processes involved are currently quite obscure.

The subsistence economy: micro-economics

A micro-economic approach focuses on the imperatives of the subsistence economy. In Egypt grain was a subsistence crop, grown for consumption and not commoditised for market sale. This is characteristic of peasant economies. Decision making over what to grow is focussed on domestic consumption, as is explicit in Hekanakhte’s letters. This takes absolute priority over apparent market rationality, because it stresses the rationality of domestic security⁷². The farmer targets production to the level of his own food security, including payment of any rents or revenues. Wages, both for farm and non-agricultural work, are also paid in grain, and not in money. Although grain has value, it does not function as money, being a consumable and not a holder of capital value. The subsistence economy is then essentially outside the market, as a local economy of producers, that is also necessarily separated from revenue collection, and not in any way regulated by redistribution from above. Without that primary security of retained subsistence, the farmer will most naturally – as seen in Egypt of all periods – simply abandon the fields, leaving any higher level economic structure impoverished by its inability to collect revenues. Consequently there is, structurally, no ordinary market of persons who have money and need regularly to buy grain on a

⁷⁰ P. Valençay I, vs. 2-3 = A.H. GARDINER, *Ramesside Administrative Documents* (Oxford, 1948) 73, 1-2.

⁷¹ Cf. B. MENU, ‘*Ts prt* en Égyptien et le bordereau d’ensemencement’, *Cahier de Recherches de l’Institut de Papyrologie et d’Égyptologie de Lille* 3 (1975), 141-9.

⁷² PLATTNER, *Economic Anthropology*, ‘Introduction’, 7-8 on rational behaviour tied closely to aversion of risk, and 10-1; J. MARCUS and C. STANDISH (eds.), *Agricultural Strategies* (Los Angeles, 2006) addresses the relevant issues of water, labour, intensification, farming strategies in relation to a wide range of societies – archaeological and ethnographical approaches – but not including Egypt.

open market. The purchase of grain or bread, at very high price, at times of famine, does not represent a structural market. Nor, for instance, does the trading visit made by the Eloquent Peasant to Heracleopolis, coming from the margins and intending to take grain home to provide for his household⁷³. This interaction between the settled, farming communities of the floodplain and the marginal, herding and pastoral population from outside cannot be classed as a commoditized market, but a normal economic symbiosis. The *Eloquent Peasant* and his like did not deal on an open market, but with local agents to whom he was closely tied.

To take seriously the assumption that pharaonic Egypt was at root a subsistence-based peasant economy, to be examined from a micro-economic perspective, the primary quantification lies in the calculation of rural productivity against consumption, and the primary qualitative approach lies in the local complexity of that economy, extending beyond core subsistence, and in the local hierarchies that exploit such production. Consumption rates can be mapped onto estimates of required individual calorific intake⁷⁴ and known wage levels, giving at least working guesses. The primary quantitative focus lies on how much land a man can cultivate, contrasted with how much he actually works. The core of any such calculation lies in New Kingdom evidence that 200 *khar* could be expected as a formal production quota from a fully employed field worker, presumably from working 20 *aroura* of good productive land⁷⁵. This figure seems to refer to a maximally employed field worker, who is not a class of person easily tracked down in the documentary record; and it evidently represents maximum efficiency and omits costs.

Minimum grain consumption seems to be represented by a wage of 1.5 *khar* per month, which must be taken as the consumption of the core nuclear family of man, wife and child. Such a grain wage does not represent total consumption – edible oils are a vital part of calorific intake – and in a rural milieu a level of domestic cultivation of vegetables, poultry rearing, even fishing have to be taken into account. At maximum production, working 20 *aroura*, and after seed costs (but not including costs of plough-animals, which could be high), a field worker would seem capable of providing grain-revenues to feed up to another 8 families on minimum wage⁷⁶. In contrast, the absolute minimum subsistence plot for a small-holder, covering his own costs, seems to be in the region of 3 to 5 *aroura*, depending on levels of rent or revenue payments.

⁷³ *Eloquent Peasant* R 1.2-4; B1, 112-14.

⁷⁴ R.L. MILLER, 'Counting calories in Egyptian ration texts', *Journal of the Economic and Social History of the Orient* 34 (1991), 257-69.

⁷⁵ See J.J. JANSSEN, 'Prolegomena to the study of Egypt's economic history during the New Kingdom', *Studien zur Altägyptischen Kultur* 3 (1975), 148-9.

⁷⁶ WARBURTON, in: M. FITZENREITER (ed.), *Das Heilige und die Ware*, 85 calculates that 10-15% of the population of Egypt could feed the whole.

The formulation of these estimates only becomes significant to the macro-economic level when they are qualified by estimates of how much the local ecology and the practicalities of land tenure restricted agricultural efficiency: the degree of rural underemployment, and the extent to which part-time arable farming was associated with other forms of local enterprise – agricultural or craft enterprise – beyond the core farming of grain. The issue is one of judgement, about how efficiently pharaonic agriculture was managed from outside – bureaucratized – and full of employed field workers directly managed by state or great estate; or in contrast, how much it consisted of share-cropping peasants, local farmers responsible for the cultivation risks in a moral economy of individual enterprise, in complex village communities characterised by kinship relationships and dominated by local headmen. The rural economy is complex, in that core arable farming is necessarily embedded in the wider activities of herding, gardening, fishing and fowling, and in the rural craft and service activities of weaving, basketry, pottery, woodworking, rope and tool making, and boat transport.

The underlying economic point, however, is that in such an economy without monetisation of grain, division of labour for non-agricultural activity requires payment of grain wages and provision of such core services. This is shown clearly at Deir el Medina in the grain-ration system and the employment of a *smdt* service-staff for the fish, vegetable and craft services in which arable farming is embedded at village level. For particular local reasons, the workmen at Deir el Medina had only minimal direct access to farming and farming income⁷⁷. Macro-economic analysis requires an estimate of what size of population fell into such a category of wage-receiving, essentially urban and craft worker, wholly dissociated from agriculture. The economy of hierarchy is not seen in regular wages or salary payments, but in the assignment of revenues and income from land associated with office or service. To call such a system a “redistribution” mechanism implies a very effective form of central direction, where it is probably more accurate to view this as the incorporation of embedded local regimes and structures into a central ideology.

The role of the state: macro-economics

At the extreme opposite to the subsistence economy is the state budget. While this is not simply a dichotomy between the micro- and macro-economic spheres, this contrast provides the most obvious frame for picturing the economy as a whole. At the core of the problem lies the question of central government penetration into provincial administration, the flow of revenues from the periphery to the centre, the quantification of

⁷⁷ C.J. EYRE, ‘A draughtsman’s letter from Thebes’, *Studien zur Altägyptischen Kultur* 11 (1984), 202-4; A. McDOWELL, ‘Agricultural Activity by the Workmen of Deir el-Medina’, *Journal of Egyptian Archaeology* 78 (1992), 195-206.

revenues that actually passed through central finance departments, or at least under the direct fiscal control of central authority, and the ways in which the centre actually managed revenues. For Egypt, a top-down approach that neglects the micro-economic focus reflects the historian's normal bias towards centralisation, and overestimate of the state⁷⁸ – and of the effectiveness of bureaucracy – and consists of the smoothing of the evidence into the vision of “the provider state”⁷⁹, which belongs to the anachronistic Marxist vision of a control economy, and in practice fails to take account of the post-Marx historical experience of socialist regimes.

Over-emphasis on the state, and on the temple sector as its agent in a directed economy, can usefully be rectified by application of the subsistence view of the state as a consumer, not as a provider: both quantification and efficiency of process of revenue transmission to the centre, and revenue use by the centre. Clear evidence for the process of revenue collection focuses on relatively local management: the Karnak temple of the later New Kingdom, or the nomarchs of the early Middle Kingdom, who stress that they managed and delivered revenues for the king⁸⁰. The Eighteenth Dynasty tomb of Rekhmire contains both tribute lists of deliveries from local governors⁸¹, and also a copy of the *Duties of the Vizier*⁸², with its descriptions of various processes of control – mostly through messenger and report – to oversee local government, including such apparent low level economic activities as tree-felling. In practice revenue collection of consumables – grain taxation – has to relate directly to the state, and to governmental need to consume, either through funding regular wage-paid non-agricultural activities or through project and expeditionary work. It is a curiosity that there is no clear direct evidence from Egypt, in the archaeological or documentary record, of the state building up significant grain reserves as preparation for famine relief. This may simply be a matter of a flawed evidence base, but it may also be a reflection of the limitations of central government and the central economy.

The acquisition of capital by the central regime does not lie so much in taxation: the “tribute” indicated in the Rekhmire texts is rather limited in quantity and value. Capital resources came rather from expeditionary projects: mining, quarrying, military-trading expeditions, for which the regime might recruit locally. Resource acquisition

⁷⁸ Cf. GOODY, *Theft of History*, 33. For the Egyptian context see C. EYRE, ‘Pouvoir central et pouvoirs locaux: problèmes historiographiques et méthodologiques’, in: B. MENU (ed.), *Égypte pharaonique: déconcentration, cosmopolitisme* (Paris, 2000) = *Méditerranées* 24 (2000), 15-39.

⁷⁹ The phrase is that of B.J. KEMP, *Ancient Egypt: anatomy of a civilization* (London, 1989/2006), used as heading to Part II, although his overall treatment is, of course, highly sophisticated and nuanced, with strong focus on the micro-economic features of ordinary economic behaviour.

⁸⁰ Explicitly, for example, Amenemhet of Beni Hasan, *Urk* II, 15-6; translated with relevant commentary in M. LICHTHEIM, *Ancient Egyptian Autobiographies* (Freiburg and Göttingen, 1988), 135-41.

⁸¹ N. DE GARIS DAVIES, *The Tomb of Rekhmire at Thebes* (New York, 1943), 103-6, pl. XXIX-XXXV.

⁸² G.P.F. VAN DEN BOORN, *The Duties of the Vizier: civil administration in the early New Kingdom* (London, 1988).

– which includes basic raw materials such as wood⁸³ and copper – belongs to the macro-economic analysis, but also to the overlap with micro-economic analysis because of the importance of such commodities to low-level individual economic activity, for use as well as accumulation of wealth.

Summary

The major qualitative distinction between micro- and macro-economic spheres lies in the nature of social stratification. At the lowest level this is one of kinship relationships, in local communities – with village headmen – that are focussed on economic self-sufficiency. At the highest level, the ideology – if not necessarily the reality – of hierarchy was that of meritocratic office-holding, and focussed on higher level economic efficiency in the creation and use of wealth. The underlying qualitative issues that distinguish levels of society are, then, both cultural and economic. Where micro-economic analysis focuses on the farmer and the village, primary focus is on subsistence and the marked variations of wealth are likely to be quantitative not qualitative: richer villagers simply have greater quantities of the same. At higher levels, where macro-economic analysis is more important, variation in wealth potentially takes on a more qualitative nature – a different style of life – that is more sensitive to economic fluctuation on a national scale, related to the acquisition and conspicuous expenditure of capital resources.

⁸³ See VAN DEN BOORN, *The Duties of the Vizier*, 193-201 for the claim to vizier's oversight of *bi3* resources; and 234-8 for felling trees.