

CHAPTER 7

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

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KINSHIP AND THE FAMILY

In the models to be discussed, we are making a number of assumptions about the ancient Mesopotamian social system. Drawing upon evidence from textual sources and from historical and ethnographic analogy, we assume that the fundamental, accepted pattern of life was patrilineal and patrilocal, meaning that descent and inheritance were organized in the male line of descent and that, upon marriage, the bride left her own kin group and went to live in the kin group of her husband. We also assume that, as occurs in the modern Middle East, there was a preference for father's brother's daughter marriage (i.e. patrilineal first cousin marriage).¹ The reality of this marriage preference in antiquity is indicated by the importance in cuneiform sources of the term *emu* (CAD E, 1958: 154-156), which has the same distribution of meaning as *ammu* in Arabic. *Emu* like *ammu* meant essentially 'father's brother' or 'uncle,' but because he was the supplier of his nephew's bride, it also meant 'father-in-law.' But the texts present seeming ambiguities, in that sometimes a document implies that *emu* can also mean 'son-in-law.' There is a similar ambiguity in modern Arab usage, in that grown men will often call small boys '*ammu*.' The term has become an honorific or a term showing a fond relationship, and is used extensively as a term of respect for any older man.

Beyond the family, we also assume that society was organized in patrilineal lineages nested in larger tribal segments, somewhat as elaborated by E. E. Evans-Pritchard (1940, 1951). Other anthropologists have found Evans-Pritchard's notions of segmentary lineages to fit as a general paradigm, with many exceptions, for modern Middle Eastern groups (e.g., Fernea 1970). Although at this stage in the model the larger-order units have not come much into play. As the model develops, we expect to see changes on the local level from interrelations with neighboring tribal units, as well as from the exertion of economic and political influence from kings and their administrators.

We also assume that the basic social and economic unit is the household, consisting in its simplest form of a nuclear family, that is of a couple with their children. But usually, the household is more than a nuclear family, with the core family also including at least one other nuclear family composed of a son and his wife and children. There may also be the father or mother or aunt living in the household, but no longer holding the main position in decision making. Usually, such complex households are termed extended families, and we take the extended family as the basic social unit for our model. But some writers (e.g. Kertzer 1991: 158-59) prefer more nuanced terminology, terming a family with one son's nuclear family added as a stem family. A household with more than one additional nuclear family would be called a joint family. In fact, during the life cycle of a couple, the family could change from a stem family to a nuclear family (when the couple left the father's house to form a new household) to a stem family again when one son married and then to a joint family when another married. They might be reduced once again to a nuclear family if all the sons left, or they might become dependents in a son's household. In our model, we are able to encompass such changes, even the dying off of families. But we assume that most people would be encased in a social safety net of kinship ties, which would make it rare for a person to be abandoned completely. But cuneiform records indicate that people were abandoned, and that there were special groups of people without the normal safety net of kin. Such were the prisoners of war and widows and orphans who would be assigned to large institutions, which were also conceptualized as grand households.

¹ See Bates & Rassam 2001: 212-16, for extended discussion.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

In some cases, destitute people could give themselves or their children to temples or wealthier private households, and they would then join those households (see Steinkeller 2002). Even the royal establishment, with its core of persons related by blood or fictive kinship to the king as well as all the officials and servants of the king, was conceptually organized as a household, with the king as the head. And the state itself was presented as the super-household, with the king as the father of all.

Although we see ancient Mesopotamia as having a patrilineal bias, we want to emphasize that there were exceptions to the rule, as there are in modern Near Eastern kinship systems. There is evidence in texts of bilateral arrangements in some cases, meaning that a person might reckon his inheritance through both sides of his family, not just the father. Families, through time, undergo great economic changes, and often marriages are used to form alliances with other families that may not be close kin. On the other hand, situations force people to make marriages they would not want to make, or a family might need to indenture itself to some rich household not related to it. The father's brother might not want to give his daughter to his nephew for a variety of reasons, even though that boy would have a 'right' to that partner. Children, who would normally stay with the father's family at a divorce or at the death of the father, did occasionally go to the wife's family, but that was a rarity. We know about such cases because they were documented in marriage contracts (e.g., Roth 1989) and in other texts. But that they were something outside the normal practice, is indicated by the fact that such contracts make up a miniscule proportion of the known cuneiform corpus, something on the order of 200 texts in total. Marriages were contracted usually without written agreements. When written down, they were either between very wealthy individuals or there was something unusual about the marriage partners. Texts dealing with the basic steps in a life cycle, birth, marriage, divorce, death and inheritance are all relatively rare because the rules of social life were known and accepted. The texts that do inform us about such events must be seen in that light, as telling us something about people's lives, but usually as the exception to the rule. Patrilineal-patrilocal was the norm.

We have found Max Weber's conception of the Patrimonial Household Model (Weber 1978), which lays out the concept of the household on all levels of society as a good fit for our model, from the household to the village to the town to the city, and eventually to the kingdom. David Schloen (2001) bases his Patrimonial Household Model on the work of Weber, and in particular on Weber's discussion of legitimate authority and 'patrimonialism' (Weber 1978: 215, 1006-1069). A patrimonial society is governed by and structured according to traditional and charismatic forms of authority; in other words, authority is vested not in a formalized, depersonalized bureaucracy but in interpersonal relationships of domination/subordination and patronage/dependence (Schloen 2001: 51). Schloen's model combines Weber's 'pure' or 'patriarchal' version of patrimonialism with an emphasis on the 'household' metaphor. Written documentation from societies across the Bronze-Age Near East suggests that relationships were modeled on the authority structure of the household, which 'is not only a self-sufficient economic unit but also provides the template for social interaction at all levels' (Schloen 2001: 70). At all levels of the social and political hierarchy, individuals interacted with one another as 'fathers,' 'sons,' 'brothers,' 'masters,' and 'slaves.'

An important aspect of Schloen's model is his insistence that dichotomies such as public/private and urban/rural are anachronisms when applied to the Bronze-Age Near East. According to Schloen, all interactions, whether they concerned the palace, the temple, or the local village, were understood through the personalized metaphor of the household, and all settlements, of whatever size, were organized according to the same basic rules, as a part of the larger hierarchy of households. According to Schloen's argument, the only real structural factor distinguishing different manifestations of patrimonialism was the degree of centralization, that is, the degree of control exercised by specific levels in the hierarchy. Temporal and regional variations reflect quantitative, not qualitative, differences (Schloen 2001: 255, 262-3). Schloen's model does not deny that individuals could perform multiple roles and could manipulate authority structures to their advantage. To the contrary, it emphasizes the nested nature of authority. The structures that organized life were replicated on many levels, and these levels would have, under varying historical circumstances, maintained varying degrees of autonomy. This 'nesting' is a concept that fits well with the nesting of increasingly-large kin-based units as alluded to above.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

THE EVIDENCE BASE AND SOURCES

Much of this chapter is based upon information derived from cuneiform texts, supplemented to some degree from a range of sources from the 'ethnographic present'. The use of the often terse record from cuneiform sources runs into the inevitable problems of biases. First, because many of the texts themselves are administrative texts from temples and palaces, they represent what Stein has described as a 'sample bias; because the actual sample itself is skewed towards a specific sector of the population and their activities (Stein 2005: 124).

Second, certain classes of texts if they refer to the deeds of the king and his entourage will include an element of propaganda, glorifying the king's activities.

Nevertheless, many texts, although they are from official administrative archives, do supply valuable information on aspects of everyday activities, and these, if used carefully can provide 'inputs' into the model. The cuneiform sources, themselves, can be informed by the judicious use of ethnographic information as well. Although Diakonoff (1996: 59) cautions that we should only employ sources generated by the ancient societies in question, we feel that this is too restrictive, therefore we have carefully employed a range of ethnographic source materials as well. That said, these ethnographic sources are primarily employed in order to help understand the original historical records, rather than being viewed as a stand-alone input into the models. The following text, which starts with examples from the cuneiform texts, continues with a summary of household data from archaeology, and then contextualizes both within the framework of the MASS Project; this is intended to be very much a summary of the scale and social structure of households as it pertains to the MASS Project. More details, specifically in relation to Mediterranean historical demography, are supplied in Schloen (2001) Chapter 7.

MARRIAGE AND FAMILY ACCORDING TO CUNEIFORM TEXTS

In the patriarchal (or patrimonial) model, the household is under the protection, control and responsibility of the 'father'. He is ultimately responsible for its survival, and other members of the household act in ways that help this cause and preserve the well being of the household--including its reputation, which ultimately reflects on the name of the father. In Bronze Age Mesopotamia, the male of the household generally had one principal wife, although concubines and secondary wives were not uncommon; it was in the principal wife the household itself was based.² Of paramount importance was not only the establishment of the marriage (see below), but, perhaps more importantly, the production of a child, which creates the family and, with the birth of a son, propagates the patriarchal household. The basic connection between family and the household is reflected by the native terminology for *family* itself, namely 'having a house(hold)' (Sum. *e₂-gal₂-la*, Akk. *bīt bašū*).

On the larger level, in the form of tribal organization or state government, the household is centered on the figure of the tribal leader or king. As noted by Stager (2003: 70):

'At the level of the "state," or tribal kingdom, the king too functions as *pater familias*, with his subjects dependent on personal relationships and loyalty to the sovereign, in return for which allegiance they expect protection and succor. The king, then, presides over his house...which includes families and households under his domain.'

The ramifications of the patrimonial household model extend to virtually all aspects of social life in Bronze Age Mesopotamia as well as to the interpretation of the cuneiform texts. Of particular note is marriage, which was arranged by the fathers of the couple or, at the very least, by other agents of the household, particularly the males. For the bride, it is assumed that, when someone other than the father operated as her agent, the father was no longer alive; the same holds true for the groom since he, too, would act only with his father's consent, or on

² For general studies, see Ebeling 1957-1971; Gelb 1979; and Wilcke 1985; for marriage in particular, see Neumann 1987; Roth 1987. Gelb's discussion is particularly good for the issue of extended families.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

his own in the event of his father's death (Roth 1987: 724-725). The patriarchal nature of marriage is particularly clear in a Middle Assyrian law, which deals with a situation where a woman's husband dies or disappears. The levirate marriage is the first option; as noted by Roth (1987: 716f.):

'If her father-in-law has other sons, he may give her in marriage to any of them who is at least ten years of age; if her husband had sons by another marriage, one of those sons--again at least ten years old--may take his father's widow in marriage. If none of these conditions applies, her father-in-law has the option either to give her to a son less than ten years old or to void the marriage and return the marriage prestations; if he has no sons, the marriage is voided.'

The importance of inheritance and the marriage act itself has led to a general treatment of marriage as a two-step process; however, Greengus presents a more involved process involving five steps involved in 'inchoate marriage' (2002). These steps are outlined as follows:

Deliberative: at which point the families involved plan the marriage and negotiate various aspects of it. During this stage, the future husband sends his bridewealth gift(s).

Prenuptial: the stage between the deliberative act of sending the bridewealth gift(s) and the actual ceremony and consummation of the marriage; it is a stage of betrothal, yielding penalties of adultery and rape should there be any misconduct.

Nuptial: the marriage act itself, including the act of consummation, with the bride formally leaving her father's house for her husband's, with her family dowry.

Connubial: the marriage act has been consummated and the bride has formally entered her husband's household; however, she has yet to bear children, meaning that her dowry, which was intended for her and her children, still belongs to her father's household.

Familial: the bride has had children, meaning that her father's household no longer has any claim to her dowry.

Other matters reflecting the patriarchal nature of the household abound. For example, the father could sell his children or wives into slavery in times of hardship. In addition, inheritance, generally speaking, passed from the father to the eldest son, but there are many exceptions to this rule (e.g. Harris 1976).

To illustrate the basic structure and scale of households we now present two examples of families and households, the first from southern Mesopotamia, the second from the rain-fed north.

CASE STUDIES FROM SOUTHERN AND NORTHERN MESOPOTAMIA

Family and Household in Kassite Nippur

Because one aim of the MASS project was to investigate how everyday households developed into larger and more powerful communities, it was appropriate to attempt to develop a model based upon such ordinary communities. Here, Jonathan Tenney's study of family and household organization in Kassite Nippur (2009) provides an insightful perspective on the demographics of non-elite communities. The data derive from a Middle Babylonian collection of administrative texts, legal documents, and letters from more than five hundred texts and fragments dating between 1359 and 1224 BC.

Here, we follow Tenney who employs 'family' in a generic sense to encompass parents and children, siblings, and other further removed relatives by blood or marriage (grandparents, aunts, uncles, cousins, in-laws, etc.). Unfortunately in the context of the Middle Babylonian servile families he considered, any concept of a larger descent group, such as a clan or lineage, is lacking.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Tenney's terminology makes a distinction between domestic units (households) and blood relations (conjugal family units). Using Peter Laslett's terminology as a guide (Laslett 1972; but see also Schloen 2001: 117), he defines the conjugal family unit (also referred to as the simple or nuclear family) as the most basic element of family organization, reproduction, and marriage. This is defined as 'a married couple, or a married couple with offspring, or a widowed person with offspring.' Because of the nature of the population at Kassite Nippur, this definition can be expanded to include single women (of unknown marital status) with their children. Unfortunately, Laslett's use of the term conjugal—which includes a direct reference to matrimony—raises problems in the case of Babylonia because in some cases there is no way to determine if children were the product of a formal marriage. Consequently, here conjugal family unit will be used with the caveat that in some cases there is no way of verifying whether a formal marriage took place.

According to Laslett, a household is a domestic and residential unit made up of related individuals (by blood or marriage) who share a residence or are considered by the recording party to share a residence. It may consist of one or many conjugal family units and their relatives. Each household has a head, namely the principal person with which the household is identified. This is usually the husband or father, but it can be the mother, if the father is dead, or even the eldest son/brother.

In the texts considered by Tenney, household members typically appear in the following order (if the head is male):

- (1) Wife of the head;
- (2) Mother of the head (if alive and a widow);
- (3) Children of the head, along with their wives and children and any *kallatu*³ that are betrothed to the head, his sons, or his grandsons;
- (4) Siblings of the head along with their spouses, children, grandchildren, and *kallatus*.

Female-headed households follow the same rules, but in a manner that reflects their particular situation: the first person listed is the female head, followed by her children (eldest son first), brothers, sisters, nieces, and nephews.

Three basic household types can be observed among the Nippur population: the *simple-family household*, the *extended-family household*, and the *multiple-family household*. Nevertheless, as Postgate (1992: 88) points out these terms must not be used to suggest 'an inappropriately rigid dual polarity' because intermediate forms may exist and through time the same household can move from one type to another. This illustrates the value of agent-based models, because such variable configurations can emerge from the model itself.

The *simple-family household* is a domestic group that consists of a conjugal family and any *kallatus* residing with it (*kallatus* are attested just once among single-family households). This, the most common type of household, accounts for over seventy-three percent of all households for which household type can be identified. Most of the attested household members belong to a simple family (Table 7.1).

The *extended-family household* usually consists of one conjugal family unit plus other family members and dependents (*kallatus* and perhaps servants).

Finally, the *multiple-family household*, is a domestic group that includes two or more conjugal family units connected by blood or marriage. However, not all household members need be part of a conjugal family unit (i.e., single brothers of the household head). The conjugal family units that make up the multiple-family household may be simple or extended (vertically or laterally).

³ Namely, unrelated females brought into the household upon the agreement that they will wed the head or one of the other males in the household (Tenney 2009: 92).

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

The attested multiple-family households can be complex, but there are two noteworthy trends in the data from Nippur. The first is that most multiple-family households consist of siblings with their conjugal families (if any) or a formerly simple household that brings in a bride for one of the sons. The second is the lack of *kallatus* among multiple-family households.

Table 7.1 Number of members of households by type (includes all members).

Household Type	Number of Members
Simple-family household	264
Extended-family household	47
Multiple-family household	146

The largest percentage of identifiable households are of the simple type (59.4%), followed by multiple families (14.9%) and extended families (6.9%). 18.8% of the households could not be placed into any category because they were poorly preserved or difficult to interpret.

Although there is widespread agreement, backed up by robust demographic evidence, that the simple-family household (rather than the extended-family household or multiple-family household), has been the most common domestic arrangement in pre-modern societies the Nippur data is even more clear than in the comparator populations from Medieval Tuscany and Roman Egypt (Bagnall & Frier 1994; Martin 1996; Wall 1983; Table 7.2). At Nippur the simple-family household was apparently significantly more common among the servile population than in the other two societies. That nearly three quarters of the households can be classified as simple seems remarkable, and may be a results of the low status of the population or perhaps the result because of direct manipulation by the administration of the population and its residence patterns. Tenney (2009: 101-02) therefore cautions that the population under study may not be typical or representative of the general population, but an artificially constituted working group selected (or recorded) for reasons of which we are unaware. Nevertheless, the overall statistics of the three societies from Medieval Tuscany, Roman Egypt and Kassite Nippur are instructive (Table 7.2).

Table 7.2 Percentages of attested households by type for the servile-worker population in Kassite Nippur compared with general populations of medieval Tuscany and Roman Egypt

	Medieval Tuscany	Roman Egypt	Kassite Nippur
Simple-family household	65.1	54.4	73.2
Extended-family household	12.6	19.0	8.5
Multiple-family household	22.2	26.5	18.3

Overall, the average nuclear family was of modest size, consisting of 4.36 people and 2.8 children. Although small for a population lacking modern birth control, it is in line with other pre-modern populations with high mortality rates. For example, using model life tables, Schloen (2001: 122; 126) argues that even with high fertility rates, because of high mortality rates the size of nuclear families in the Bronze and Iron Age Levant averaged around 3.5, whereas extended families had only about 7 members (which might increase to as many as 10 to allow for additional co-residents including additional wives).

As many as eight conjugal family units were childless. Of the records of the 98 families that provide the gender of all offspring, it is evident that there are more males (62.7% of all children or at least 1.57 sons/family) than females (37.3% or 0.96 daughters/family). This may be because daughters married and left the family at an earlier age.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Household Size in Neo-Assyrian Harran

Although rather later in date than the societies considered by the present study (that is late eighth or seventh centuries BC), the so-called Assyrian Domesday Book provides a remarkable record of household size and composition for part of northern Assyria not normally supplying such detailed records. This record is particularly useful for the modeling exercise because it relates to an area (the Harran Plain and neighboring parts of southern Turkey and northern Syria) which is only some 150 km from the site of Tell Beydar and other sites being considered in the Upper Khabur plains. Roth has compiled these data, specifically by reference to the information recorded by one of the scribes (Scribe A; Roth 1987: 731-37). The forty-five households documented consist of a total of 176 persons: 70 females and 106 males. Of these, thirty-five households include offspring: a total of 72 children of the head—48 sons (including one son's son) and 24 daughters. Eighteen of the thirty-five households consisted of a head, with one or more adult women (thirteen households) or without one or more adult women (five households), and at least one son but no daughters. Fifteen households (one of which has no adult women) included both sons and daughters, and but two households (both with adult women) list daughters only.

Figure 7.1, based on Roth 1987, table 6, shows that most households were rather small, consisting of only 2, 3 or 4 members with only 2 households having 8 members. As a result the mean household size was only 3.9.

Roth (1987: 736-37) then concludes:

'If we assume that where there was only one adult woman in a household, she was the wife of the head-of-household, then no more than five to seven households out of the total of forty-five in this sample consisted of multiple households with married sons; one of these households could have included two married sons. We therefore find that fewer than two out of ten (between about 13 and 18 percent) of the married sons had living fathers—a proportion very much in conformity with the conclusions reached above from the NB [Neo Babylonian] marriage agreement data.'

Significantly, by the time most men in the sample had reached the age of thirty, even if they were first-born sons, they no longer had living fathers. Consequently, the age at which a man would marry, coincides roughly with his realizing his patrimony. Because he becomes economically independent at the time of his father's death he can then set up his own household and seek a bride (Roth 1987: 737). In contrast to what is commonly assumed, extended households were rare, and because of the high death rates, mean household size was rather small.

The age of men and women at marriage, as noted here, was a minimum of ten years old for males. Based on evidence from the Neo-Assyrian and Neo-Babylonian periods, Roth deduces that women married at fourteen to twenty years of age, whereas men did so between twenty-six and thirty-two (1987: 737). The 'social, cultural, and economic ramifications' of age at marriage are spelled out in detail (Roth 1987: 721f.):

'In general, the later the age at first marriage for males, the fewer fathers will be alive at the time of their sons' marriages and thus the fewer adult married males jurally and economically dependent upon their fathers. If men marry at age twenty, for example, a father need not live much past age forty to see his son marry and produce heirs. An increase of only one decade to age thirty for first marriage of males would mean that a man must live at least to age sixty in order to see his son married and with legitimate offspring. Conversely, the earlier women marry, the greater the proportion of brides' fathers—and even greater the proportion of brides' mothers—that will be alive at the time daughters marry. [A] pattern of older-groom/younger-bride [as found in the Near Eastern world] will thus have ramifications for economic issues relating to property devolution. Later age at marriage for males means that many men will marry only after realizing their inheritances. And when the bride's father provides a dowry with his daughter upon her marriage, earlier age at marriage for women results in a correspondingly longer time period between the donation of the property as dowry and its inheritance by her heirs.'

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Although there are always uncertainties in these types of data, in part because the records themselves may represent a biased sample of early households, the MASS group decided to model household demography on those of Kassite Nippur and Neo-Assyrian Harran rather than make unwarranted assumptions about household size from less empirically based sources.

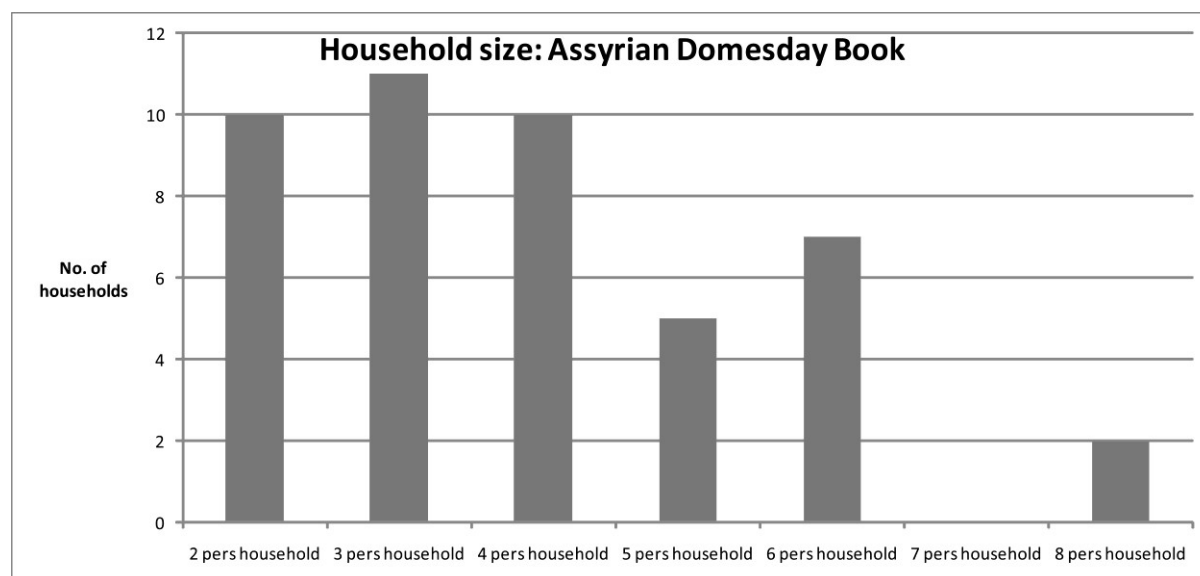


Fig. 7.1 Household size for the Harran Census (Based upon Roth 1987: table 6).

Land holdings according to the Harran Census

In addition to supplying information on household structure and population, the Harran census also supplies data on the size of the land holdings. Unfortunately, interpreting these data is problematic and is reliant upon a number of assumptions. Interestingly, the texts frequently supply two figures: first a measure of the area of agricultural land allocated and second, the area of land actually under cultivation (Fig. 7.2). Because the latter is always smaller than the former, and the percentage of land under cultivation to total arable ranges between roughly 30% and 66% it appears that this may indicate that roughly some 50% of the land was left unused. If this is taken to indicate fallow land, this is a figure that corresponds approximately to that of traditional practice as well as according to Assyrian texts (Fales 1990). Because of the uncertainties in these data, it is not possible to make robust estimates of the area cultivated per household. Nevertheless, it does appear that cultivated areas of between 5 and 20 ha per household is common (although there is a significant number exceeding 20 ha) and that biennial fallow was the normal practice.

We now move beyond the demographics of individual households to the large scale configurations that include those of the major public institutions. Because the data sources are much more numerous for southern Mesopotamia, the following section is based upon these, specifically those of the Ur III period.

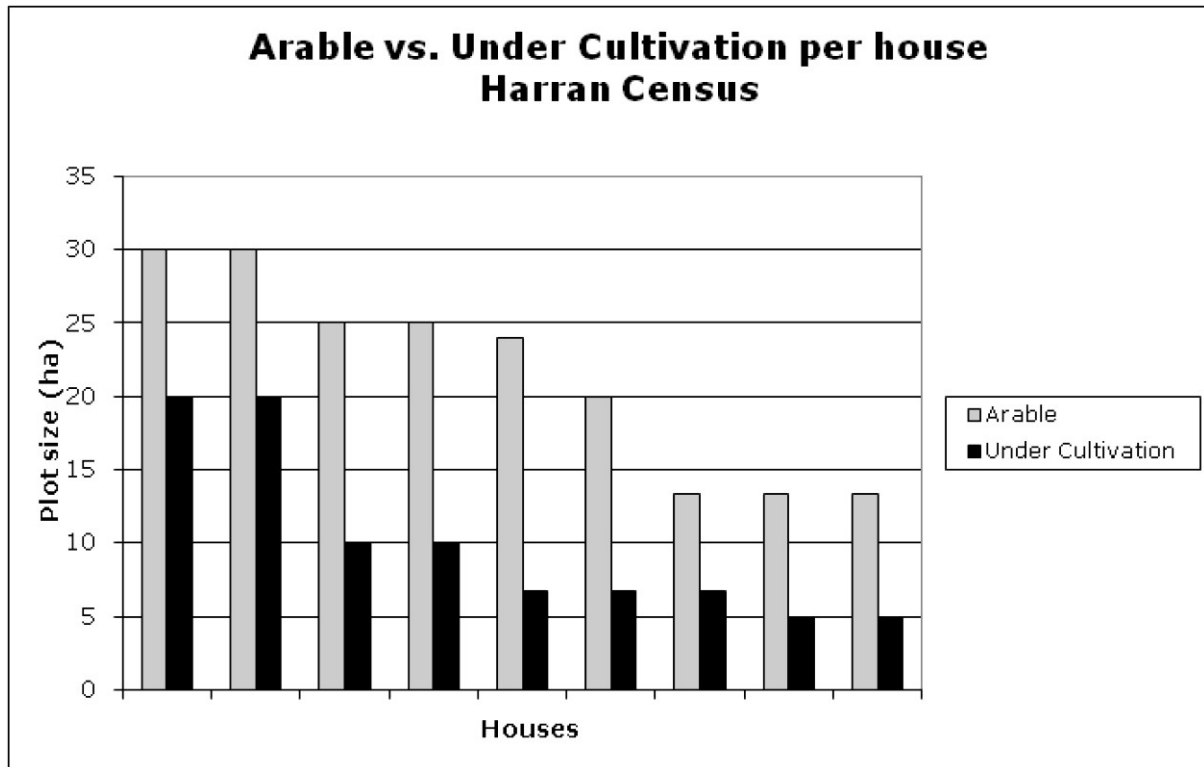


Fig. 7.2 Plot size allocated to specific households (note that the grey column represents the total area of allocated land whereas the black, the area of land actually cultivated at the time of the census).

THE ECONOMIC AND ADMINISTRATIVE STRUCTURE OF SUMERIAN URBAN HOUSEHOLDS

No group of Sumerian administrative and economic tablets from the second half of the third millennium BC can be viewed as entirely representative for the household economy of the period, and we should remain careful attempting to explain the administration and economy in one place – or period – using material from another. Nevertheless, several aspects of the central economy and administration of this period can be found throughout the region, and the temple/palace organization of the entire third and early second millennium can, in fact, be characterized by a significant degree of systemic cohesion in southern Mesopotamia (see e.g. Yoffee 1988; Stone 2002; or Garfinkle 2005). In particular, the establishment and endorsement of large economic institutions with specialized purposes is significant for the period. These institutions – normally referred to as urban households or 'great institutions' – usually consisted of several smaller economic units. Such units can be divided into two types. The first type was involved mainly in production, while the second type largely was concerned with the collection, storage and distribution of various products or materials. Examples of the first category include the organization of agricultural fields, orchards or craftsmen's houses. The second type is represented by, among others, granaries and storehouses. A large household, such as a major temple complex, would include a number of smaller specialized units, and was therefore involved both in the production and in the collection, storage and distribution of products. In some exceptional cases, the households even took the form of entire settlements. The best example of such a large household is Puzrish-Dagan, which was founded in the Ur III period (2112–2004 BC), where huge numbers of livestock, mainly oxen, cows, sheep and goats, were collected from the periphery of the Ur III state, registered, and then distributed to different households (i.e. temples) in Nippur and other major cities within the central core of the Ur III state (see Steinkeller 1991; Sallaberger 2003-2004).

The purpose here is to offer a synopsis of the general structure of the higher levels of the household economy of the Sumerian city-states as it is reflected in the textual documentation of the period. Almost all recovered texts from the third millennium are economic or administrative in nature, and come from the large governing

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

households. Therefore, information concerning aspects of the economy that were not administered or documented by these institutions can often only be inferred from the texts. We are here only concerned with the part of the economy that was directly linked to the governing households and, by extension, the palace. The social and economic organization on a lower level, that is within the basic household structure and the various types of family households, cannot be satisfactory reconstructed from the textual documentation from the third millennium. While the early textual data from this millennium may provide specific information concerning life on all levels in the society, it remains insufficient to provide a comprehensive representation of family structures and social interaction on so-called grass-root level.

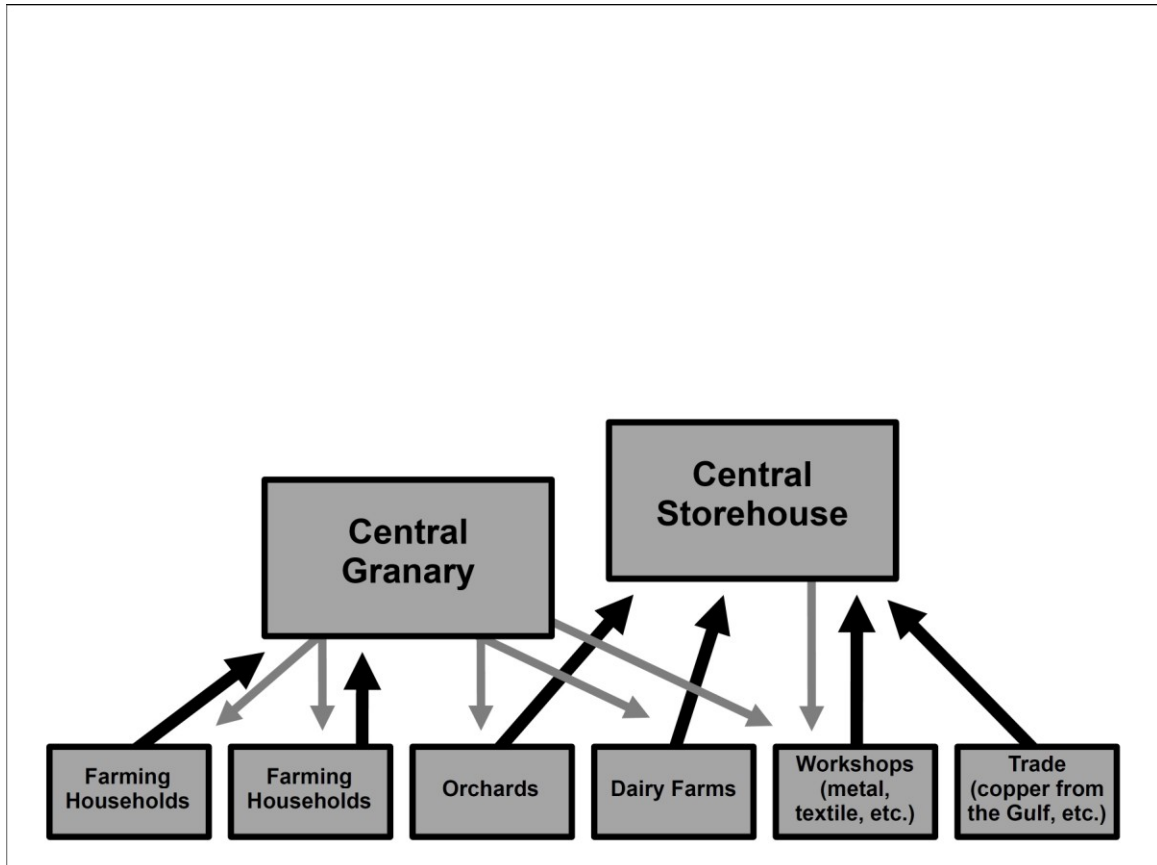


Fig. 7.3 Outline of the initial movement of goods within an urban setting.

As has been discussed in Chapters 4 and 5, the most important aspect of the economy in Babylonia was cereal agriculture, mainly barley, and it was the farming units around the settlements that constituted the true basis for society. They would transport their grain to a central granary within the adjacent city/village, under the supervision of an officer representing the granary (Fig. 7.3; see e.g. Widell 2002). Although the central granary received much of its stored grain from the local farms, one of its main functions was to redistribute the same grain back to the farming households. The personnel of the households in Babylonia were mainly maintained in kind by rations for the low status workers or slaves and by allowances for people of somewhat higher status, such as administrators, plowmen, etc (Gelb 1965; Waetzoldt 1987). Dedicated officials from the farming households oversaw the return of the grain from the granary for worker maintenance (see Widell 2004c).

In addition to the central granary there were several minor granaries supplying the households, including storage facilities connected to the temples and, although only sparingly attested in the textual evidence, the palace. The storage of grain appears to have been very centralized, and the local farms apparently did not store much of their own harvests, at least not for extended periods of time (see Widell 2002).

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Numerous administrative texts from the late third millennium show that the central granary also supplied grain to many other economic units on this basic production level, such as orchards, dairy farms and various workshops involved in industries of the city/village. Such units did not, in general, send their produce to a granary. Instead, these households transported their various products from smaller temporary storage facilities in the outskirts of the cities/villages to the central storehouse, just as the grain was stored temporarily outside the settlements before it was transported to the central granary (see Widell 2002, 2004b & 2009). Among the most important products stored in the storehouse were fruits and dates, oil-, fat- and dairy products, as well as textiles and various products related to the textile industry. Like the granary, the storehouse could also supply the smaller households with goods, especially raw materials or unprocessed materials, such as wool or metals, the latter which would have been imported from primarily the south of Mesopotamia and the region of the Oman Peninsula (ancient Magan).

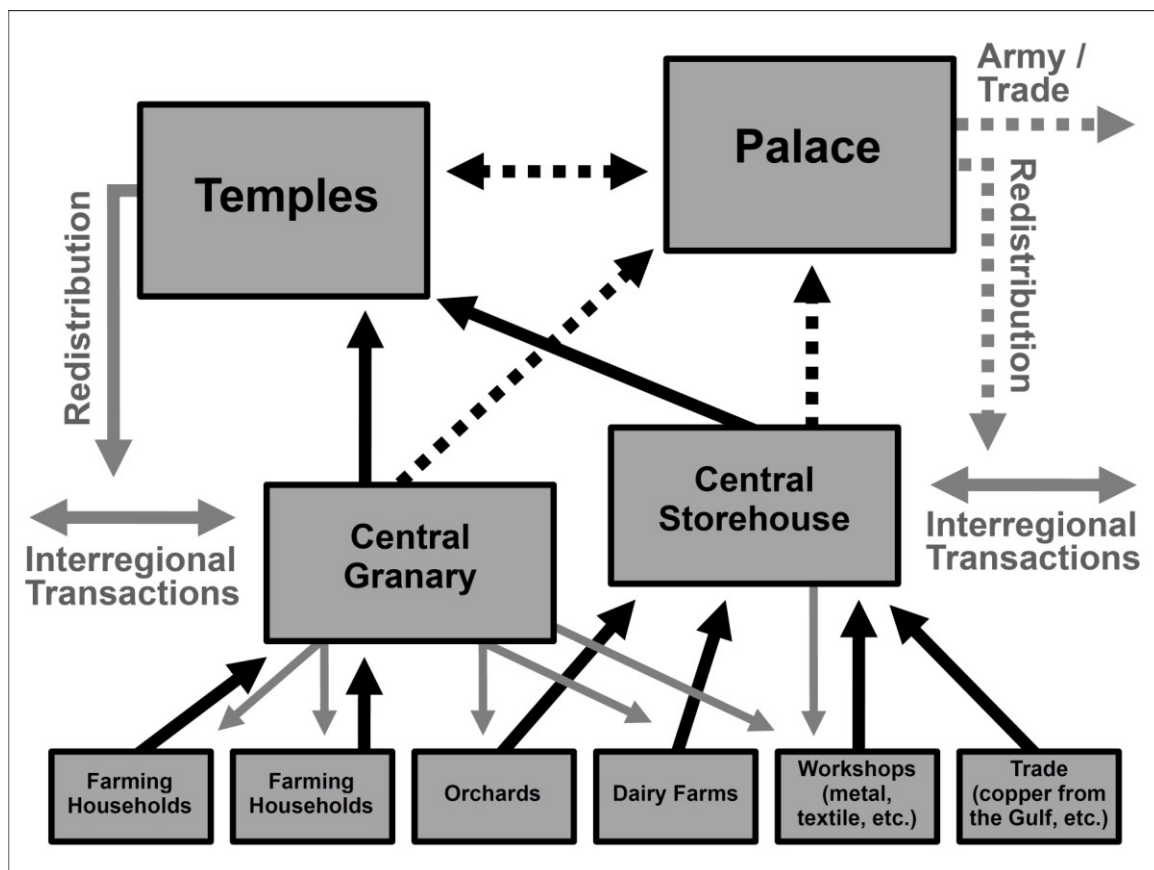


Fig. 7.4 Complete outline of the movement of goods within an urban setting.

Both the granary and the storehouse supplied the larger urban households, such as the temples and the palace (Fig. 7.4). Many of the larger households consisted of several smaller economic units, such as agricultural fields, palm groves, and workshops, and they would therefore be responsible for supplying the workers in these smaller units with grain, dates, oil, etc., which they received from the granary or the storehouse. In addition to this, both institutions would also receive and deliver goods within the state's wide network of interregional transactions, which included various types of provincial taxation, tributes and entitlement systems (e.g. Sharlach 2004).

The economic structure of the palace in the third millennium is still not entirely clear, although it seems likely that it resembled that of the other larger urban households. In addition to the redistribution of products to the basic production units, a part of the palace's resources was used to support state interests and officials, as well as on the army and on long-distance trade.

The internal structure of the administrative units

As mentioned in Chapter 5 on the staple production, major Mesopotamian households could include a specific office in charge of fattening animals for consumption. The largest temple in the city of Umma, dedicated to the city's patron deity Šara, included such an office. Based on Widell 2009, we are now able to reconstruct the internal structure and what in all likelihood should be regarded as the standard succession pattern within smaller administrative units of the major urban households in the third millennium. For a period of roughly four decades, during the final century of the third millennium, it is possible to follow in detail the appointments and individual careers of the sons and grandsons of the animal fattener Ur-dingira within the office of the animal fattener of this very important household in Umma.

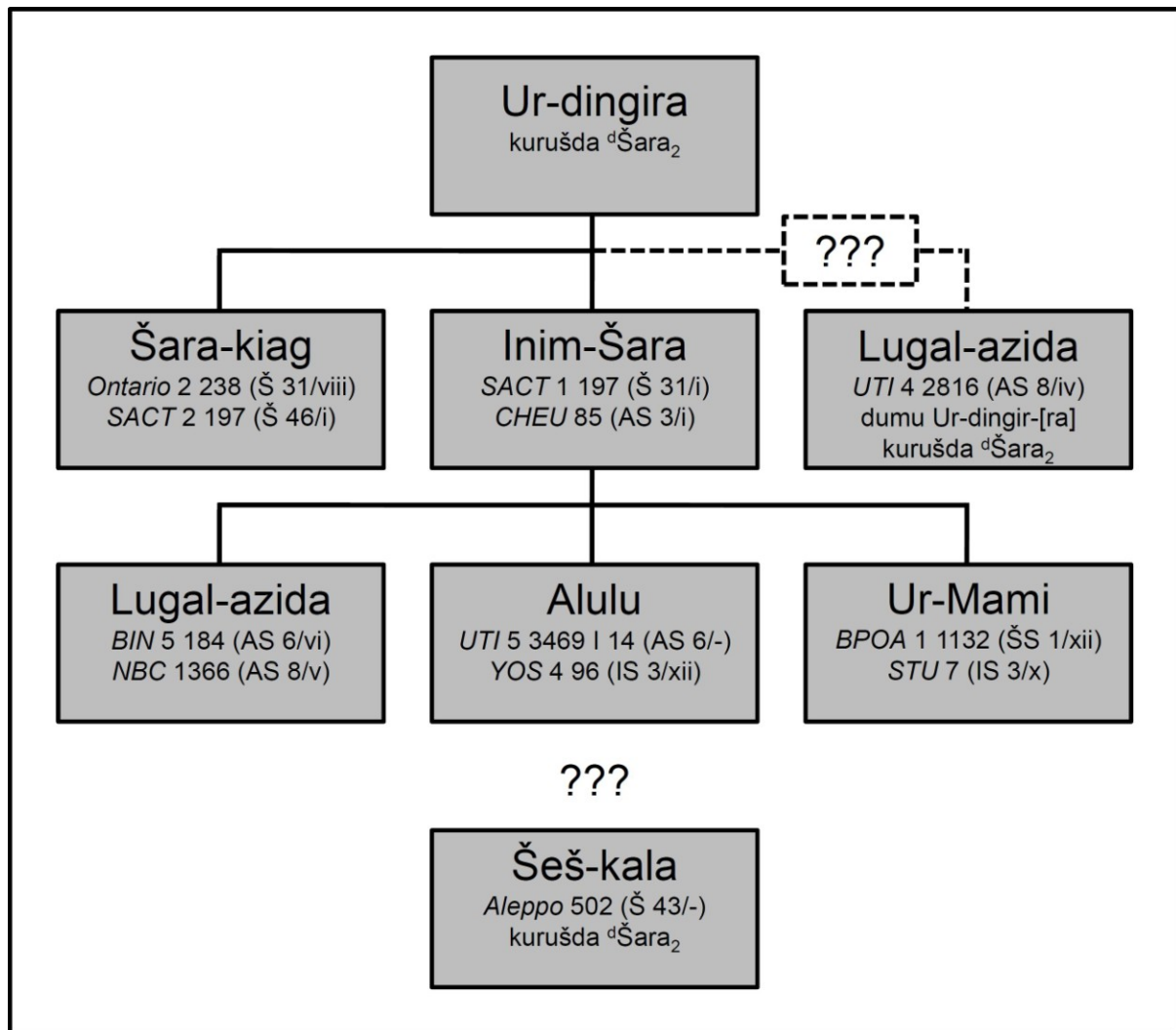


Fig. 7.5 The family of the animal fattener Ur-dingira with the text references to the first and last secure attestation of each individual as the animal fattener of the god Šara. Š = Šulgi; AS = Amar-Suen; ŠŠ = Šu-Suen; IS = Ibbi-Suen (adopted from Widell 2009).

As Figure 7.5 indicates, this relatively small office within the large temple organization was kept within the same family for at least three generations (i.e. throughout the documented history of Ur III Umma).

It is possible that the fattener Lugal-azida 'son of Ur-dingir[ra]' attested in a single transaction dated to Amar-Suen 8, month 4 in Umma (UTI 4 2816 and UTI 4 2654) really represented a third son of Ur-dingira. However,

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

an equally plausible interpretation would be that this is a reference to Ur-dingira's grandson Lugal-azida, who is well attested as the animal fattener of the Šara temple during this period of time. The use of patronymics in the Ur III documentation is not fully understood (see Widell 2004), and it is perfectly possible, even likely, that Lugal-azida would find it perfectly natural to refer to himself as the son of his grandfather Ur-dingira. The textual documentation indicates that Ur-dingira was still alive and active during the tenure of his grandson Alulu (*ASJ* 19, 226 72 rev. ii 2'-11' and Widell 2009: §3.3.2), and it is therefore plausibly that he was the oldest living male in the family in the year Amar-Suen 8, and thus 'the father' of all members of the office of the fatteners of the Šara temple.

Of the seven—or eight—individuals officially referred to as animal fatteners of the Šara temple, only Šeš-kala, whose service in the temple overlapped with two other fatteners (Šara-kiag and Inim-Šara), cannot be securely connected to the family of Ur-dingira. While no evidence can be found proving that Šeš-kala was a member of Ur-dingira's family, it should also be noted that no evidence indicates that he was not part of this family. Since all other fatteners in the office can be demonstrated to have been part of Ur-dingira's family, it may be reasonable to tentatively assume that also Šeš-kala was one of Ur-dingira's sons.

With the exception of the aforementioned brief period with three documented fatteners, the office of the animal fattener seem to have included only one senior and one junior fattener at the same time, and the textual evidence allow us to reconstruct the succession pattern of these two positions within the office and Ur-dingira's family as follows (Fig. 7.6):

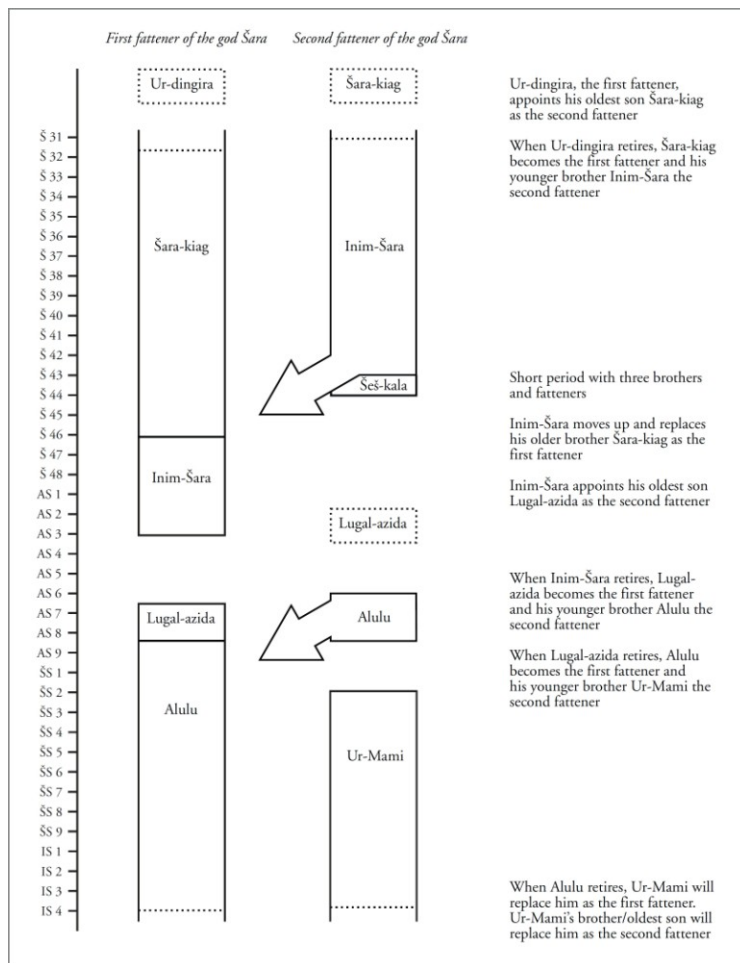


Fig. 7.6 Tentative reconstruction of the senior and junior animal fatteners of the Šara temple in Umma over a period of 39 years. Š = Šulgi; AS = Amar-Suen; ŠS = Šu-Suen; IS = Ibbi-Suen (from Widell 2009).

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

The existence of smaller households, or household units, organised around the family structure, was already argued by Piotr Steinkeller in his study on the organisation of the forester work-crews in Umma, which he reconstructed as patrimonial organisations in which the father of the family held the most senior position and the lower positions were held by his various sons in order of seniority. When the father died or retired he was succeeded by his eldest son (Steinkeller 1987: 80, figs. 2-4).

As Figure 7.6 shows, the office of the animal fattener of the Šara temple was organized according to the same system, although it is necessary to emphasize that fratrilineal succession would in fact be more common than patrilineal succession. Patrilineal succession would only occur when there were no more brothers available for a position; only the last (youngest) brother would be replaced in his position by his eldest son. Thus, the two animal fatteners in the Šara temple were typically brothers, although occasionally, at the end of every generation of fatteners, they would consist of a father and his oldest son (e.g. Ur-dingira/Šara-kiag and Inim-Šara/Lugal-azida). That this work fraternal work structure was the norm in early Mesopotamia can be seen in the term used for assistant or apprentice in Sumerian: *šeš-tab-ba*, which literary means 'additional brother.'

BROADER SECTORS OF SOCIETY

Because cuneiform sources tend to privilege the official and elite sectors of society or the laboring sectors, it is difficult to estimate the full range of social groups that existed during the third millennium BC. However, if archaeological data is added to the mix, including those derived from settlement surveys, it appears that a large number of settlements and communities existed, but were 'invisible' according to official sources. This is perhaps not entirely surprising. A quick scan of any of the volumes concerned with the earlier geography of ancient Mesopotamia in the series *Répertoire Géographique des Textes Cunéiformes* (RGTC) will reveal that the vast majority of the third millennium cities, towns and settlements that we know of from the cuneiform texts remain unidentified in the archaeological landscape. Although it is difficult to infer precisely what categories of people inhabited many of these settlements away from the main centers, it is important to try to fit such groups into the main societal framework. Using textual as well as other archaeological sources, Stein (2005: 131-35) has identified nine 'sectors' of Mesopotamian society ranging from those of the 'great institutions' of the palace-temple sector to the elusive pastoral groups that existed on the fringe of society. These sectors are as follows:

- The Palace, including the king, his household and their economic holdings: irrigated land, orchards, flocks of sheep administrated by officials and including craft specialists and others.
- The temples and their priests, which played both an economic and ritual role in society, and which also constituted households in themselves.
- Large Estates, which did not form part of the temple or palace economy, but which similarly controlled large holdings of land, flocks and other forms of wealth.
- Craft specialists, which included both attached and independent specialists and which produced many of the key products required by Mesopotamian society. These often appear in the texts as lists of people who received rations or supplies from the palaces or temples.
- Urban commoners, although hardly mentioned in the texts, can be inferred from archaeological sources. These probably included independent craft specialists, and it is to this group of people that some of the members of the modeled communities belonged.
- Semi-free individuals. These include those referred to as *guruš* / *geme₂*, namely individuals who had been reduced by debt or poverty to the point that they became indentured by the great institutions for which they worked for rations and under restricted levels of freedom. Probably some of the members of simulated communities who become ejected from the model would constitute this class of individuals.
- Slaves. These were common and frequently worked in domestic service.
- Villagers. This group, which again hardly appears in the cuneiform texts, must represent perhaps 50% of Mesopotamian society. This is because archaeological surveys record large numbers of village-type communities which only appear as various types of royal purchases or exchanges in texts. These again form one of the main groups being modeled as part of the MASS Project.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

- Nomads, which represent a major invisible sector often on the margins of society. They occasionally merit mention in the cuneiform texts either when they were in conflict with various kings or mentioned in treaties. This sector is discussed in more detail in Chapter 8.

Of these groups, the MASS Project has focused mainly upon the Villagers, although Nomads occasionally are included (see Chapter 12), and the semi-free group probably arise out of the model when families dissolve during crises as discussed in Chapter 11.

MATERIAL CORRELATES OF THE SOCIAL SECTORS

Archaeology provides a wealth of information on houses and households although it is often difficult to compare the demographic data derived from cuneiform texts directly with the plans of excavated houses (but see Stone 1987 and, more recently, Feuerherm 2007). Southern Mesopotamian cities were often characterized by overcrowding: whereas fourth and early third millennium towns seem to have been less crowded and possessed sufficient open space to accommodate livestock, cities of the later third millennium and later appear to have been much more crowded and generally lacked space for keeping cattle and sheep within the city itself (Stone 2013: 161). However, housing density varied significantly between cities, with houses at for example Early Dynastic Khafajah and Asmar being significantly smaller in size than those at, for example Abu Salabikh (Stone 2013: 167-68). But by the mid-third millennium BC urban fabrics were usually so dense that there was little room to accommodate animals (Stone 2013: 173).

In terms of their general patterning, Mesopotamian cities were sub-divided into broad housing blocks or quarters which formed or were divided into neighborhoods (Keith 2003). Significantly, they were 'without the manifestations of extreme class differentiation familiar from modern cities' (Stone 2013: 174). Instead, they appear to have been 'socially mixed microcosms of the city as a whole' and more like villages within the city, occupying areas of perhaps 4-5 ha with populations up to around 1200 to 1500 people' (Schloen 2001: 129). Consequently the populations of such quarters falls within the lower end of the scale of the community being modeled by the MASS Project. Although it would be overly simplistic to simply 'scale up' these quarters to the full size of cities, many of the mechanisms and processes in operation would have been those that operated within the full-size ancient Near Eastern city. This makes the model relevant to cities of greater size than the 400-1000 of the modeled community itself.

Because of the over-riding affect of overcrowding, it is hardly surprising that there is little correlation between house size and household wealth. Consequently, whereas ethnographic studies show some (albeit a weak) correlation between these two variables (Horne 1994: 158; Wattenmaker 1998: 69f.), in southern Mesopotamian communities factors such as overcrowding or a shift in the residential structure of communities may account for such a lack of correlation between house size and family wealth (Postgate (1992: 89-90).

In northern Mesopotamia, although evidence for large scale town plans is less common, house sizes, even in densely settled centers such as Türiş Höyük (Turkey), can be large, ranging from less than 10 to more than 20 rooms per house with houses usually including a central courtyard and an array of outer rooms (Algaze 2012: 1001) although again, as with southern Mesopotamian cities, open spaces are lacking.

In the mid-late third millennium BC courtyard houses are common in the north (Pfälzner 2001) with examples coming from Hamoukar, Mari, Brak, Melebiya, Taya and Chuera (Colantoni & Ur 2011: 34). Sizes range from 66 m² at Tell Chuera to 244 m² at Tell Taya, with the majority of units group around 127–205 m² (Colantoni & Ur 2011: 36). Because overcrowding in cities can influence house size, it is difficult to use house size alone as a proxy for the type of family (i.e. nuclear vs. extended). Nevertheless, if house size is used as a measure, the area of domestic units categorized as nuclear are regarded as ranging from 40–100 m² (Chavalas 1988: 166; Henrickson 1981). In addition Stone has suggested that nuclear families required a 'suite' of spaces: a living room, two additional rooms and a courtyard (Stone 1981: 29). Therefore, although their size is only slightly above the threshold for nuclear family dwellings the large multi-roomed central-space houses in Area H at

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Hamoukar (with H I, at 126 m²) appear to match the requirement of multiple 'suites' for extended family units (Colantoni & Ur 2011: 36).

As with the problems of definition of household types discussed above, the dilemma of whether to associate houses with nuclear versus extended or multiple family types may be too arbitrary. This is because during a number of cycles it is likely that any given family will range from single nuclear units to extended / multiple types; similarly room types in the north Mesopotamian cities are equally likely to change over the generations to accommodate either nuclear or extended families.

In her study of Iranian villages, Lee Horne (1994: 92) defines the functional role of villages as follows:

- A place of work.
- Shelter.
- Social setting to include social and kinship networks.
- A cultural setting, including for religious practice, etc.

Village-size settlements (namely those < 5ha area) are common in the survey record from Upper Mesopotamia, with 1-2 ha tells forming the predominant class of site in the middle Euphrates valley (Chapter 3). However, it is more difficult to infer that every small site actually functioned as a village (namely a small community based around agricultural production). This is because whereas some may have been little more than fortified 'towers' perhaps equivalent to the second millennium BC *dimtu* sites in northern Iraq, others may have had specialist functions such as cult centers or storage functions. Van Driel (2001: 107) rightly points out that many villages depended upon plow teams, often based around families (or multiple households), to cultivate the community's fields, and in addition they acted as storage silos (for grain) or as depots for tools. He also notes that 'there is no reason why such a settlement should be more than one hectare in size and housing an extended family and its plow team' (Van Driel 2001:107). Although it is possible that a small 1 ha tell with a population of around 100 people could have been supported by a single plow team, especially if it was shared between many households, it seems more likely that each small tell may have shared several plow teams.

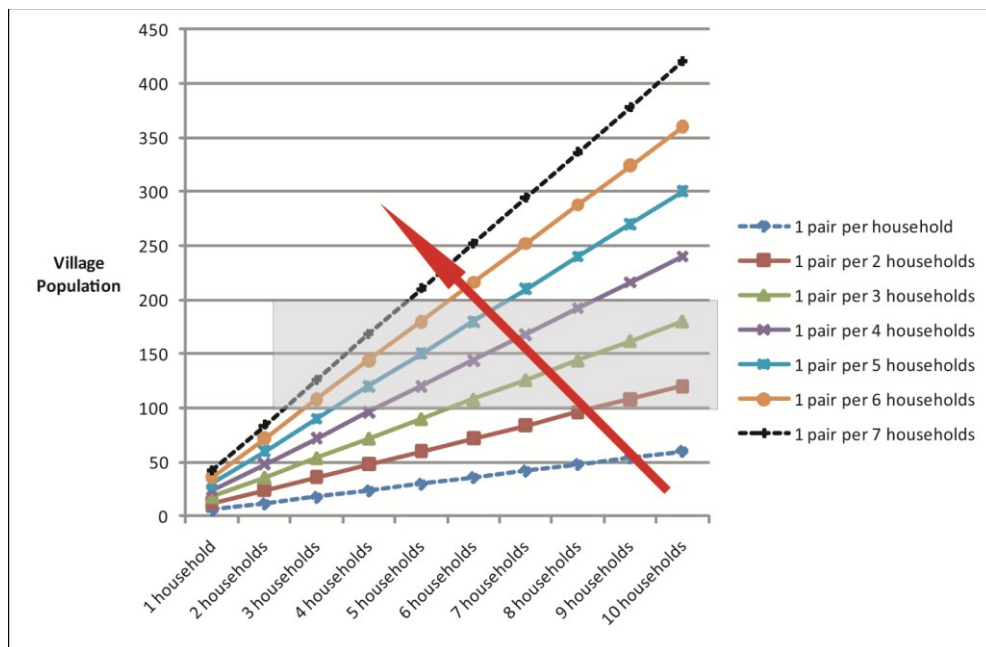


Fig. 7.7 The number of people supportable by a given number of plow teams assuming that 1 plow team (i.e. 1 pair of animals) is shared between 1, 2, 3 to 7 households. In this case 1 household is assumed to consist of 6 individuals. Note, the shaded block (between 100 and 200 people) indicates the estimated population of a typical small Near Eastern tell of 1-2 ha area. The arrow indicates the direction of increasing constraint as more animals are shared between households.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

This is indicated on Figure 7.7 which shows that when plow teams are shared between increasing numbers of households (a plow team consists of a pair of oxen or donkeys: Palmer 1998; Widell 2004a) it is indeed possible to support a larger population. However, as will become evident in Chapter 11, as more families must share a pair of plow animals, some families will have to make do with plowing at times when soil or sowing conditions are less than optimal. In other words, as the number of households sharing a plow team increases, there are increasing physical and social constraints as well as in the potential for conflict (indicated by the direction of the large arrow on Fig. 7.7).⁴

MODELED HOUSEHOLD DEMOGRAPHICS AND SOCIAL STRUCTURE

The following section, adapted from Christiansen and Altaweel (2006) and Wilkinson *et al.* (2007), outlines how the family structure of Middle Eastern communities can be adapted to the MASS model.

For the present models we consider that social interactions in Bronze Age Mesopotamia occurred primarily at the household level, with household heads making decisions affecting many or all the household members (Stone 1981; Schloen 2001; Blanton 1994). In the simulation discussed in Chapters 11 and 12, individuals are assigned to households and certain resources and labor are cooperatively shared within a given household.

From medieval and ancient demographic data in the Mediterranean region, we can estimate demographic trends in the pre-industrial Mediterranean world (Bagnall & Frier 1994; Herlihy & Klapisch-Zuber 1985). Census data from rural Ptolemaic Egypt are used initially to reconstruct the percentages of household types potentially encountered in any community (Bagnall & Frier 1994). These data match closely Coale and Demeny's model life tables (Model West Levels 2 and 4 for females and males respectively), enabling us to create demographic algorithms that can produce our model settlement's general demographic data (Coale & Demeny 1966). Reference numbers and names for the individuals in the model can be randomly created and used to trace family history throughout a simulation run. Individuals are also made aware of their interconnections with kin members, enabling lineage networks to be utilized for a variety of kin-based social behaviors. We created demographic algorithms that can produce populations of 'Person' objects for our simulations that are consistent with the Coale and Demeny model (see Chapter 10). This creates a population with relatively high death rates at very young and old ages, and a life expectancy at birth in the mid to early twenties for males and females respectively. The probability of male births is slightly higher than female (51 vs. 49 percent), furthermore, high birth rates (average of approximately six children per woman) are given. However, a high number of children die before they produce offspring (Bagnall & Frier 1994).

Modeled basic household types are typical of those found in the ancient Near East, including: single person, non-family or unrelated members, nuclear, extended, and multiple family households as discussed above. Although, patrilocal multiple family households may have been preferred, Postgate (1992: 93) reminds us that according to the textual record these may be either absent or rare. It is therefore likely that social stresses and mortality rates may have prevented many households from achieving their optimum size and structure (Schloen 2001).

Behaviors and decisions of households are also influenced by natural and social circumstances such as low crop yields, endogamous or exogamous marriage patterns, and high rates of death. Economic exchanges and transfers, such as bride price and dowry, reflect some of the behavioral traits associated with the marriage patterns in our present simulations (Holy 1989). Whereas initially such exchanges of goods were limited to grain and field shares, in later simulations economic exchange were incorporated into household-based behaviors to utilize kin and non-kin relationships. Labor activities are organized through the household level, as is often the case in both ancient sources and ethnographies (Gelb 1979; Sweet 1979).

⁴ In this case, mean household size is 6 and one plow team will support a family of 6 people.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Household and kinship affiliations (e.g. collateral kinsmen) are key drivers and modulators of social relationships and interactions in the simulations. Thus, the strength of social and kinship ties are important in creating behavioral options for the agent households. In the model runs discussed in Chapters 11 and 12, kin-related households can be called on in many cases to help alleviate a household's economic stress. On the other hand, households that provide economic support to other households may increase their influence on the community through patronage (Saller 1994; Schloen 2001). In the simulation such mechanisms could ultimately result in the emergence of elites and political leaders.

Social interactions in the ancient Near East very often occurred at the household level (Stone 1981). Once we have created demographically consistent populations of unrelated individuals, our population generation sub-model assigns individuals to households and establishes kinship connections. In our early models, household census data from rural Ptolemaic Egypt were used to initially reconstruct the percentages of household types encountered in a rural society. This data source matches quite well with historical records from other similar regions (i.e. Medieval Tuscany; Herlihy & Klapisch-Zuber 1985).

In Figure 7.8, we represent five basic household types found in the Near East in ancient periods: single person households, households without kin-related members, and nuclear, extended, and multiple family households (as defined above). We have constructed these households based on the definitions provided by Bagnall and Frier (1994). Although in the Near East, it appears that multiple family households may have been preferred, at Kassite Nippur it seems that only 18.3% of the sample was of this kind and in northern Babylonia was even less (Postgate 1992: 93). In fact, various physical and social factors may have prevented many households from achieving their ideal patrilocal type (Schloen 2001).

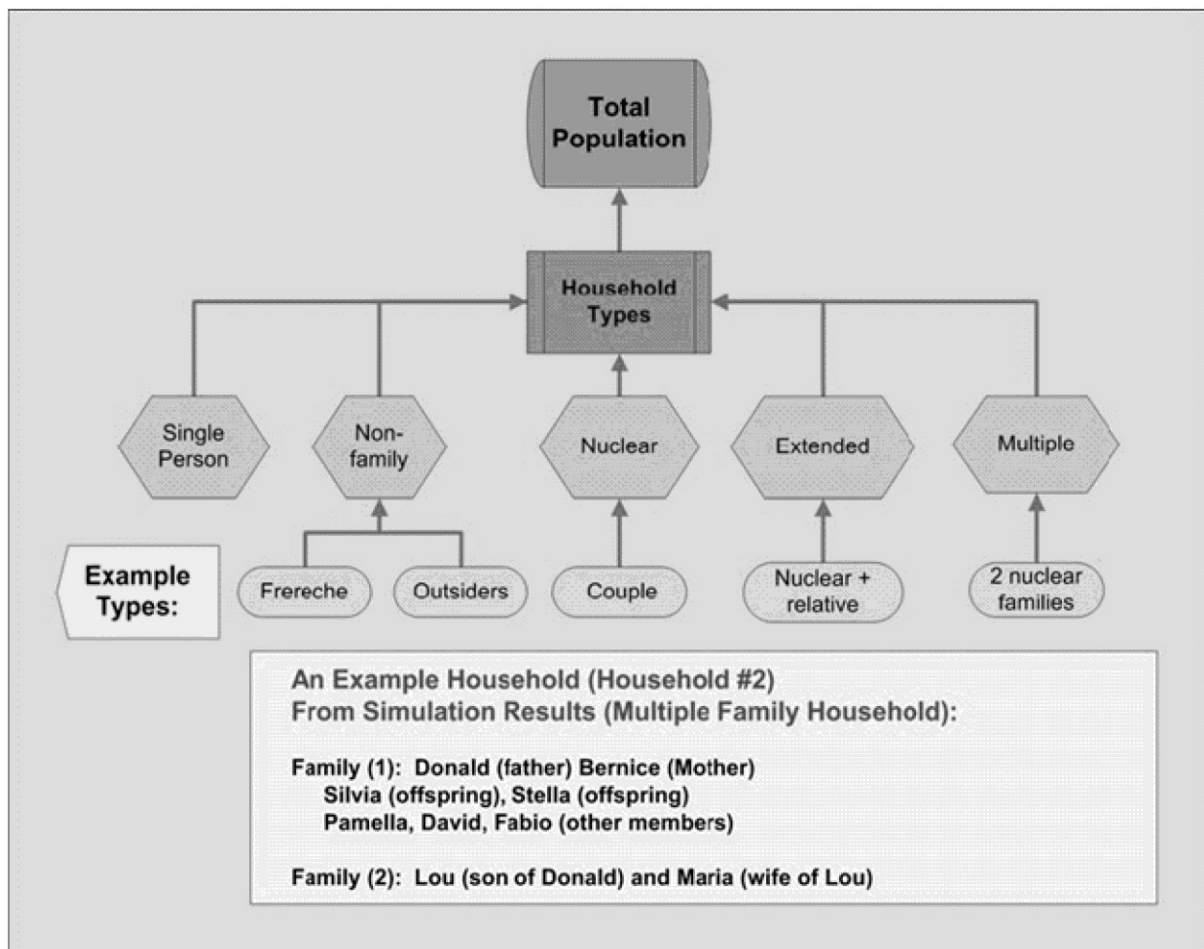


Fig. 7.8 Household types from Ptolemaic Egyptian census data.

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

Figure 7.9 shows some of the population results, using the demographic sub-model just described, from a 100-year pilot study using the ENKIMDU simulator to represent a northern Mesopotamian village based loosely on site data from the Upper Khabur basin.

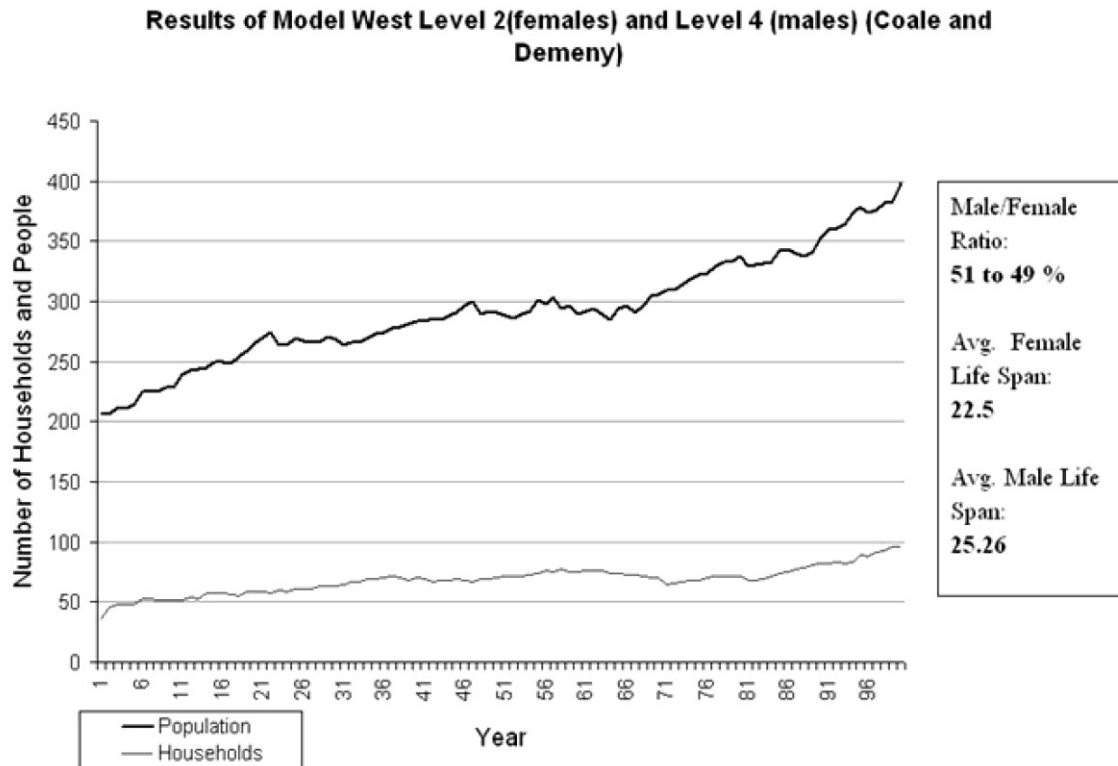


Fig. 7.9 Example of modeled 100-year population trajectory.

Household types within the simulation include a number of variations, such as conjugal pairs that have no offspring (a type of nuclear family) or a couple residing in a virilocal household with the parent or parents of the husband present. All of these variations represent examples one may encounter in ancient Near Eastern societies (Bagnall & Frier 1994). The dynamics of the simulated settlement population reflect both the inherent demographic reproductive and mortality rates (Coale & Demeny 1966) and the social mores such as those related to marriage age, re-marriage, etc. Other factors such as economic and health stress, (e.g., resulting from famine and disease) further affect population growth and household structure and dynamics.

Behaviors and decisions of households are influenced by natural and social circumstances such as low crop yields, endogamous or exogamous marriage patterns, and high rates of death. As noted at the beginning of this chapter, in the Near East, patrilineal cousin marriages were a common occurrence; however, exogamous marriage patterns also occurred and may have been preferred in cases where there was an economic benefit or social motivation (e.g., conflict resolution). Limited economic exchanges and transfers, such as payment of bride price and dowry, reflect some of the other behavioral traits associated with the simulation's marriage patterns (Holly 1989). In the present ENKIMDU framework, when there is an exchange of goods among households, the transfer of items is only limited to grain and inheritable shares in a community-held cache of agricultural fields. In future, however, with the incorporation of more developed exchange systems, household behaviors can be further developed. Therefore, as we create more complex social behaviors in the simulation, household behavior and structure can be more representative of historical results known from Mesopotamia.

Day-to-day labor activities of a Near Eastern village are also planned and executed at the household level (Sweet 1974). Accordingly, in the model runs, households are the agents that organize labor tasks, such as

HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

planting, harvesting, and herding of animals. Strength of social and kinship ties is important in creating and modulating behavioral options for the simulated social agents. In times of economic stress, a household may look to other kin-related households for assistance. Inheritance decisions are based on an individual's relationship with other blood relatives as well as social position in society (e.g. a male getting a smaller inheritance than his elder brother; Roth 1987). Other households may increase their influence in the community through patronage (Saller 1994; Schloen 2001), which could be one mechanism that the simulation could use to form and sustain elites in a society.

Communities and their component households can also be influenced by changes brought about by the migration and movement of people between settlements, and in many cases these can adaptively alter their lifestyles (e.g. nomadic vs. sedentary behavior) in response to stress. Such dynamics are a major factor in replenishing or depleting a local population. Thus, as we move from a closed system model of a north Mesopotamian village to a more complex regional system, we can begin to perceive how households are influenced by regional behavioral dynamics and outside populations. Slaves and temporary migrants can also be incorporated into the settlements, although these are not included in the current simulations. These, however, can only be developed when more complex exchange and economic behaviors are incorporated into the simulation, because slaves and migrant workers were important agents in ancient economies.

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HOUSEHOLD & VILLAGE IN EARLY MESOPOTAMIA

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