PART IV

THE HELLENISTIC STATES

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CHAPTER 15

THE HELLENISTIC NEAR EAST

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1 INTRODUCTION

Between 334 and 323 BC Alexander the Great conquered an empire stretching from Macedonia and Egypt to the Indus. Alexander died young without heirs, but Macedonian dynasties dominated the Near East for two or three centuries, encouraging Greek and Macedonian immigration and founding new cities with Greek citizens and political institutions. After Alexander's death his feeble-minded brother Philip III and posthumously born son Alexander IV maintained the fiction of kingship (323–317 and 317–?310, respectively), while his generals (particularly Antigonus the One-eyed, *strategos* of Asia; Seleucus, satrap [governor] of Babylonia; Lysimachus, satrap of Thrace; and Ptolemy, satrap of Egypt) warred over his empire.

The two kings were murdered and three new states emerged. The Seleucid empire occupied the greater part of Asia (hence the empire is often called Asia in contemporary sources), from Turkey to Afghanistan. Ptolemy founded the Ptolemaic empire in Egypt and Syria-Palestine. Descendants of Antigonus came to rule Macedonia, with political hegemony over Greece. All these states succumbed to Rome: Macedonia in 148 BC, the Seleucids in 64 BC, and Egypt in 30 BC. The imperial boundaries were never stable, and war was almost continuous. Smaller new kingdoms emerged, like the Attalid state of Pergamum on the west coast of Asia Minor in the second half of the third century and the Jewish kingdom of the Maccabees around 150. Antiochus III conquered Syria-Palestine from the Ptolemies in 200 BC, but lost Asia Minor to Pergamum and Rhodes after being defeated by Rome in 189 BC. Antiochus IV invaded Egypt in 169 and 168, the Romans forced him to retreat. The loss of Mesopotamia in 141 to the new Parthian empire of Iran was another severe blow for the Seleucids. Overall, this was a time of instability by comparison with the Persian empire's rule of the Near East between 550 and 330 BC.

Alexander's accomplishment deeply impressed later generations, including modern historians. Most modern textbooks on the ancient Near East stop with Alexander's conquest; but this periodization obscures the fact that this event probably meant little more to most inhabitants of the Near

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East than did earlier invasions.[1] The Babylonians, for instance, "welcomed" Alexander as they had done Cyrus of Persia in 539 BC and Sargon of Assyria in 710 BC.[2] They probably had mixed feelings about a new king who more or less respected their traditions but wore a simple string of cloth rather than a tiara, a miniskirt in place of a royal robe, and was beardless, which was the mark of a eunuch. Greek civilization will not have impressed the Babylonians. Some learned Greek and took Greek names for political reasons, but in religion, architecture, science, and literature they maintained their own traditions throughout Hellenistic times.[3] The Greeks, however, learned the essentials of astronomy from the Babylonians (Alexander's conquest is indeed a caesura in the history of astronomy), and could have learned a lot (but did not) from Babylonian agricultural practices, including the use of the seeder plough (see below).

If all this is so, why separate the Hellenistic period from what came before? Largely because in the "Hellenistic" period (a concept first elaborated by Johann Gustav Droysen in the nineteenth century), Greek and Near Eastern traditions came into closer contact than before, increasing the cohabitation of Greeks and non-Greeks (sometimes leading to fusion, more often to segregation), which stimulated adaptations of cultural phenomena and new trends in religion, philosophy, and other fields. These contacts and developments were not entirely new – Greeks had borrowed from the Near East throughout their history – but their intensification merits treating the Hellenistic period as a distinct phase, while recognizing its continuity with the periods before and after. This underscores the error of ending books on the ancient Near East right at the moment that Mesopotamian and Egyptian civilizations came in close contact with "western" Greek civilization.[4]

But even if the Hellenistic period is significant for scholars of religion, art, science, and philosophy, should economic historians also treat it as distinctive? The answer, again, is yes. Before the Hellenistic period there were marked differences between the economic structures of the Aegean, western Asia, and Egypt. Did one of these systems prevail, or did something new emerge, when Greco-Macedonian dynasties were to rule the Near East and Egypt for two to three centuries? The Hellenistic period saw increases in scale in many dimensions; is this also true of economic performance?

The question has been treated repeatedly and from varied viewpoints. Many Marxists define an "Asiatic Mode of Production" in which the state owned the land, and its subjects were tenants, and contrast this with a "Slave Mode of Production" in classical Greece and Rome, in which free citizens owned land and other factors of production, with privately owned slaves as the labor force.[5] Karl Polanyi's view on the Near Eastern economies as

[1] Kuhrt 1995a: 8–9. [2] Kuhrt 1990. [3] Van der Spek 1987; 2003.
[4] For an elaborate study of the history of the concept of Hellenism, see Bichler 1983.
[5] Kreissig 1978.

marketless has been influential indeed (cf. above, Chapter 11). These ideal types have heuristic value, but are misleading in important ways. It is simply not true that kings owned all cultivable land in the Near East or that the Near East was not subject to market mechanisms; but on the other hand, temples and palaces had great economic power, and markets functioned differently in Asia and Egypt than in classical Greece or Rome.[6] Slavery existed in both worlds, but the functions of dependent labor nevertheless differed.

This chapter focuses on the Seleucid empire, since it was the main heir of the earlier Persian empire. The vast Seleucid realm encompassed highly varied geography, climates, and cultures. There were mountains in Iran and Afghanistan, lowland river plains in Iraq, and steppes and desert in Syria. Iranian Indo-European speakers in the east, mostly Aramaic speakers in the west, and Greek-speakers in Asia Minor mingled with groups who preserved local languages, such as Lycian. The empire contained high civilizations with their own ancient histories: Babylonians, Persians, Greeks, Phoenicians, Jews, and half-Hellenized states in Asia Minor. Some historians argue that this diversity doomed the Seleucid Empire to rapid decline, but the Achaemenid Persian Empire survived with the same features for two hundred years. The Near East only disintegrated into small political units in 1918, when western powers dismembered the Ottoman empire.

I focus on the issues raised in this volume's introduction, above all the economy's performance and structure.[7] Prior to the Industrial Revolution, sustained growth was limited, and periods of improvement were followed by stagnation and decline.[8] I therefore ask how the Seleucid economy performed relative to earlier and later periods.

II AGRICULTURE

(a) *Agricultural production*

Everywhere in antiquity, agriculture was the main means of subsistence. Agricultural conditions, however, varied greatly. Bedford's description of Near Eastern ecology (above, Chapter 11) applies to the Hellenistic Near East. There were major differences between irrigated agriculture in south Iraq and rain-fed agriculture elsewhere. Yields from the former far outstripped those from the latter. Dry-farming areas in Asia Minor and Syria-Palestine, lying barely above the 250-millimeter isohyet required for

[6] Cf. Manning and Morris 2005.

[7] For more extensive treatments, see Rostovtzeff 1953; Heichelheim 1970; Préaux 1978: 358–88, 474–524; Kreissig 1978; Briant 1982; Musti 1984: 193–204; Davies 1984; Van der Spek 1981; 1986; 1993; 1998a; 1998b; Green 1990: 362–81; Schuler 1998; Shipley 2000: 86–107, 272–86; Archibald et al. 2001; 2005; Aperghis 2004.

[8] Saller 2002; Van Driel 2002: vol. 1, 318, 327.

successful harvests, were vulnerable to crop failures. I therefore treat each region separately.

(a.1) Babylonia

Thanks to its rich water supply, easily spread over vast flat alluviate plains, Babylonia was an agricultural paradise. Neo-Babylonian and Persian Babylonia saw returns of circa 15:1 at seeding rates of 133 liters per hectare, yielding 2,000 liters per hectare (see above, Chapter 11). These apply to Hellenistic Babylonia too. High outputs demanded good organization of irrigation, and Jacobsen has argued that political stability was also essential.[9] Productivity went up and down with political stability, creating growth (aggregate as well as per capita) whenever stable government was established.

Temples, palaces, and large landowners had driven the economy since the Bronze Age. The Hellenistic situation was not very different, although we cannot calculate the size of royal and temple domains. Private smallholders (or families) are also attested, owning tracts within cities' territories, and leasing temple properties. The kings favored the temples; they donated land to them, and allowed them to collect tithes.[10] On the other hand, the kings also drew income from temple property, including 50 percent of the harvest of the Shamash temple in Sippar (or Larsa) in an emergency in 309 BC.[11] In times of need they also took ("robbed") from the temple treasuries.[12]

The Achaemenid kings had created colonies of soldiers, who received land for military service and who paid taxes in peacetime.[13] The Seleucid kings also created military colonies and continued the system of "bow fiefs" in Babylonia.[14]

As well as food production, Babylonians bred cattle and sheep, with the temples owning large flocks of sheep.

If we accept Ester Boserup's argument that population growth stimulates agricultural advances (intensification; crop rotation; new products; improvement of irrigation), Greek immigration and the founding of Seleucia on the Tigris around 300 BC[15] must have triggered agricultural expansion. Food prices did not rise at Babylon, just sixty kilometers from Seleucia, suggesting that food supply increased. Archaeological research in the Diyala region northeast of Seleucia shows marked agricultural development (see below). Even if Seleucia reached Pliny the Elder's estimate (*HN* 6.122) of

[9] Jacobsen 1982; but cf. Powell 1985.

[10] Van der Spek 1986; Jursa 1998. [11] Van der Spek 1995: 238–41 = Text 9.

[12] Van der Spek 1994. [13] Stolper 1985; above, Chapter 11.

[14] Colonies: Cohen 1978. Fiefs: Van der Spek 1986: 104–8, in Uruk; 183–7, Text 1 (*UET* IV 43: 8), a document from January 317 BC mentioning the receipt of 12 shekels of silver by a lessor of one fifth of a tract of land "subject to service of the king" in an archive with leases of other bow fiefs from the late Achaemenid period. It may have been the payment of the taxes assessed at one mina (= 60 shekel = c. 120 drachms) on a complete bow fief.

[15] Cf. Invernizzi 1993.

600,000 inhabitants (which is hardly believable; with a surface area of 550 hectares, this would require 1,100 people per hectare), it could have been fed by the irrigated land of the Diyala region alone.[16]

It is hard to know whether there were technical inventions. Hellenistic writers reveal increasing interest in agricultural innovation, but it is less clear how new the Hellenistic agronomists' insights were (since their treatises are almost completely lost) or how widespread innovations and new crops were in Babylonia.[17] Hellenistic authors show little concern with Mesopotamian agriculture (apart from regular references to its high yields), and cuneiform tablets mainly concern prices and rations of agricultural products or sales and leases of (arable) land, so we have little information on technological change. However, even if there was no technological progress, Babylonian agriculture had for centuries been more advanced than Mediterranean techniques. Babylonian farmers did not waste seed by broadcast sowing, but used the seeding plough, which carefully deposited seeds in furrows cut at regular intervals.[18] When the seeding plough was introduced in Britain in the nineteenth century it produced an estimated 50 percent saving on wasted seed as compared to broadcast sowing by hand over a ploughed field.[19] The temples and palaces used teams of four oxen and iron ploughshares,[20] with gains in efficiency as compared to smallholders, who could not dispose of plough teams.

Other ways of raising (or restoring) production included extension of the canal system, improvement of drainage, reclaiming unused land, introducing new crops, intensification, and crop rotation. There are some indications that the kings exploited these possibilities. Alexander improved the canal system,[21] and archaeological surveys in the Diyala and Middle Euphrates regions indicate state-initiated schemes of urbanization and agricultural expansion.[22] Antiochus III issued a royal edict (*diagramma*) concerning the exploitation of date groves by temples.[23] That Antiochus and his predecessors were interested in income from temples in other areas too is clear from a Greek inscription from Pamukçu in Mysia (Asia Minor) about the appointment of Nikanor as "high-priest of the sanctuaries,"[24] who would "also be in charge of the sanctuaries, and that their revenues and the other matters should be administered by him, just as was done under our grandfather by Dion" (lines 38–41). It is rarely clear how far economic, military, or fiscal motives were behind these steps.[25]

[16] Van der Spek forthcoming, a.
[17] Cf. Hodges 1970; Lloyd 1973; 1984; Thompson 1984; Greene 2000.
[18] Jacobsen 1982: 57–67; Potts 1997: 80–2.
[19] Potts 1997: 80, quoting Halstead 1990: 87.
[20] Cocquerillat 1968: 28, 38–45; Stolper 1985: 129; Van Driel 2002: 166–70, 208.
[21] Arr. *Anab*. 7.21.6; Boiy and Verhoeven 1998; but cf. Briant 1986a.
[22] Adams 1981: 179.
[23] Van der Spek 2000b: 31–2.
[24] *archiereus ton hieron*, *SEG* 37, 1010; cf. Ma 1999: 288–92, line 31.
[25] Van der Spek 2000b; 2005a.

Finally, new crops. Barley and dates formed the core of the Babylonian diet. Cuneiform documents give no information on new crops. The astronomical diaries stick to their traditional five crops plus wool, but a degree of conservatism (the diaries' goal was astrological research) may be expected. Many products known from Achaemenid documents (e.g., onions, garlic, flax) do not feature in the list.[26] The classical sources also mention other crops: Strabo (15.3.11) speaks of wine and rice, probably in the lowlands around Susa, and Diodorus' account of Eumenes' march through Babylonia and Susiana confirms this (19.13.6). Seleucid kings were reportedly interested in acclimatizing European and Indian plants.[27]

(a.2) Asia Minor and Syria

Conditions were quite different in Asia Minor and Syria. In Syria and northern Mesopotamia irrigation agriculture is seldom possible and rainfall only barely adequate. It rarely exceeded 250 millimeters per year. Central Anatolia received up to 500 millimeters, but winter temperatures could be very low, going down to −20 °C. Many areas are mountainous and unsuited to cereals.[28] In Syria, the boundary between arable land and steppe was fluid. The best area was the coast west of the Lebanon Mountains, but in many regions even a slight reduction in rainfall could be devastating for farmers. Overall, returns were much lower than in the river valleys of Egypt and Mesopotamia, ranging between 4:1 and 8:1, as elsewhere around the Mediterranean. As in Greece and the Aegean islands, people had to reckon with regular harvest failures, making storage and trade important.[29]

Agricultural land was managed differently in each region. Cities lived in the first place off their own city territory (*chora politike*), tilled by citizen landowners. The city's land could be extensive, with villages on it. Not all inhabitants of these cities and villages were citizens. Other people of lower status are attested, with titles such as *paroikoi*, "co-inhabitants," and *pedioi*, "inhabitants of the plain." Their position is unclear, but some may have been indigenous people tilling the land for citizen-landlords.[30] Most of these plots must have been small, designed for subsistence agriculture. These city peasants did not have much margin for coping with bad harvests, and grain shortages were a main concern for city authorities. A magistrate (*agoranomos*, "market official") was entrusted with the grain trade, and rich citizens set up funds to overcome shortages. Many inscriptions honor citizens for selling cheap grain in lean years.[31]

[26] Cf. the lease contract BE IX 29 from the Murashu archive, dated to 433 BC, concerning barley, wheat, emmer, chickpeas, lentils, millet, sesame, mustard/cuscuta, garlic, and shallots (translation: Augapfel 1917: 70).

[27] Rostovtzeff 1953: 164–6.

[28] Mitchell 1993: 143–7; Shipley 2000: 272–81. [29] Wilkinson 2003.

[30] Blavatskaja et al. 1972; Briant 1973; 1978; 1982; Papazoglou 1997; Schuler 1998: 195–215.

[31] Shipley 2000: 98.

In the territories outside the cities (*chora*, "the land," in Greek texts) the situation was more complex. In central Anatolia there were several temple states, where the land belonged to the gods and where servile populations tilled the land as *hierodouloi*, "holy slaves." There were also royal domains (*chora basilike*, "royal land"), where serf-like peasants, here called *laoi basilikoi*, "king's people," also tilled the land. The revenues (*prosodoi*), mainly rents paid by the farmers, belonged to the king. We also find here large estates of royal favorites (*doreai*, "gifts"). The king gave this land in precarious possession as land for service, and could take it back.[32] In two cases (Antiochus I's land grant to Aristodicides of Assus and Antiochus II's sale of land to his divorced wife Laodice), the grantees had the right to assign their grants to a city, which apparently was considered as a favor to the city in question as well.[33] The grantee could consider his estate as private property, whatever that meant in an autocratic state. The Aristodicides inscription explicitly says that the estate was formerly "royal land"; otherwise it had to be taken from "the land," of which the king was technically not the owner, but which in a political sense belonged to him as king. He could exact tribute and it was therefore "tributary land" (*chora phorologoumene*). This land was dotted with villages, which had some local autonomy and were obliged to pay fixed tribute.[34]

The Seleucids founded military colonies for veterans. We rarely know whether these were established on royal domains, tributary land, or land expropriated from great or small landowners. Unoccupied land was preferred, so its reclamation was a collateral advantage.[35] Since these lands were more thinly populated than city lands, they could produce surpluses, which could be sold to cities or used for the army.

A letter from Antigonus I to the people of Teos clarifies the relationship between "tributary land" and the cities. Antigonus forbade the Teians from setting up a fund to buy grain, "for the tributary [land] (*chora phorologoumene*) is near [and if a need] of grain arose, we think there could easily be brought from [there whatever] one wished."[36] The text also shows that despite Antigonus' slogans about "freedom and autonomy," he had no scruples about moving the entire population of Lebedos to Teos and interfering in local affairs like food provisioning. Antigonus clearly intended to make the new city dependent on a royal food supply and to create an outlet for grain from the neighboring land, thereby generating taxes in money.[37]

[32] The classic text is the Mnesimachus Inscription: *Sardis* VII, no. 1. *Editio princeps*: Buckler 1932: no. 1. For discussions see *inter alia* Briant 1978: 94, 120; Atkinson 1972; Kreissig 1978: 41–5, with Van der Spek 1981: 213–17; Debord 1982: 244–51; Descat 1985; Dignas 2002: 70–3; 279–87; Aperghis 2004: 137–9, 145, 278–9, 320–3.

[33] Two cases: Welles 1934: 10–12, 18–20. On land grants see Bringmann and von Steuben 1995.

[34] *phoros*: Bikerman 1938: 106–32. [35] Cf. Joseph. *AJ* 12.138–53; Cohen 1978; Billows 1995.

[36] Welles 1934: 3, § 10, 83–5. [37] Briant 1994: 75.

These conditions differ little from those under the Persian monarchy. Population probably grew (see below), which will have affected agricultural output (Boserup). New land may have been reclaimed, and the foundation of cities suggests more surplus. But the average inhabitant's standard of living may not have improved. The *laoi* and *paroikoi* were perhaps exploited more heavily than before; numerous wars were fought in Anatolia and Syria, and royal and tributary land given to the kings' favorites could have been pressed harder, because the king often continued to tax these estates, even as the new owner exacted his share (see below).[38]

(b) *Money and prices*

In smoothly functioning markets, the relationship between supply and demand sets price levels. Prices were expressed in money terms in the Seleucid empire. Mesopotamians had expressed products' exchange value in weights of silver since the third millennium BC, and the shekel (8.33 grams) remained the key measure.[39] However, the economy was not fully monetized. Barter (the exchange value could be measured in shekels without actually using silver) and payments and taxes in kind were common. Salaries were paid as rations of food and cloth.[40] There are other complicating factors. Alongside silver, gold and (in Hellenistic times) bronze served as money. Even grain functioned as money, and was very useful as small change. Further, all these substances were commodities as well as being "money." Silver had its own price, expressed in other commodities, such as grain. Scarcity of silver drove up the metal's value, while moderate prices of grain and abundant silver had the opposite effect: inflation.[41]

Alexander the Great coined about 5,000 tons of silver and gold (close to the weight of the gold reserve in Fort Knox) from the Persian treasuries.[42] Many historians assume that this created a monetized economy, and that the introduction of the Attic standard fostered trade.[43]

But this theory has problems. First, Alexander did not create a monetized economy. Money in the form of silver had existed for millennia in the Near East. Weight and quality were carefully controlled, and the fact that money was weighed rather than counted facilitated exchange. The introduction of coinage was hardly advantageous: the abundance of currencies increased transaction costs. After Alexander the Attic standard prevailed in

[38] Briant 1978. On royal land, see Van der Spek 1986; 1993; 1995; 1998b; Schuler 1998; Mileta 2002; differently, Capdetrey 2005.

[39] Powell 1996. [40] Van de Mieroop 1997: ch. 7.

[41] Powell 1996; Müller 1996. Vargyas 2001: 8–51 argues that the value of silver was more or less stable.

[42] Cf. De Callataÿ 1989.

[43] Rostovtzeff 1953: 129–35; Heichelheim 1970: 10; Golenko 1993; Le Rider 2003.

the Seleucid empire, but was not adopted everywhere. The Ptolemies used a lighter drachma and forbade other coinages within their empire, much to the detriment of trade. Further, most coins were tetradrachmas, weighing 17.2 grams, which was far too heavy for use in daily trade. Coins could be subdivided by cutting,[44] but this was not a common practice. Babylonian shekels could be divided into units as small as 1/98th of a shekel, and so coins were still weighed in Babylonia. Cuneiform transactions continued to reckon in shekels, even when they stipulated that the shekels should be paid in staters. The main innovation was the introduction of bronze coinage, new in that it was fiduciary money. It was useful for small exchange, but plays no part in official documents. Silver remained the standard in the Greek and Babylonian worlds, but functioned differently in Egypt (cf. below, Chapter 16).

Monetization did increase in Hellenistic times, but the process had begun in the tax reforms of Darius I (521–486 BC), who apparently wanted taxes paid in silver. This meant that farmers had to sell products to get silver (cf. above, Chapter 11). The Seleucids continued this policy, and cuneiform texts suggest that payment in silver became increasingly important.[45]

Second, bringing large amounts of bullion into circulation may not contribute to production and growth in itself. If production does not grow to keep pace with the increase in money in circulation, inflation results. We see just this in Babylonia in and after the 320s BC. Prices of the main commodities rise so sharply that it must have had a devastating effect on the economy.[46] However, after c. 300 BC, prices returned to lower levels, and there was no long-term inflation until c. 150 BC. The comparatively peaceful period Babylonia experienced with consequent good agricultural management and scarcity of silver may both have played a part.[47]

The Seleucid kings may not have had conscious monetary policies. They issued coinage primarily to facilitate payments of soldiers and other royal expenses, and Aperghis argues that the Seleucid kings pursued a deliberate policy of issuing just enough coinage to cover tax revenues and restore loss and wear.[48] Shortage of silver, rather than monetary policy, may explain why not too much silver came into circulation in the first place. Silver remained a scarce product, found in southeast Asia Minor and probably Bactria, but not in Mesopotamia. It could be earned by selling exports, and the Phoenician seaports (in Ptolemaic hands in the third century) and the new Greek ports Laodicea and Seleucia-on-the-Sea will have played a role.

[44] Cf. Reade 1986. [45] Van der Spek 1998a; 2005a.

[46] In addition to the devastations Alexander and his successors wrought with their armies: see Grainger 1999b; Van der Spek 2000a; Temin 2002.

[47] On the Babylonian prices see Slotsky 1997; Vargyas 1997; 2001; but cf. Van der Spek and Mandemakers 2003; Temin 2002.

[48] De Callataÿ 2000b. Aperghis 2001: 93–6, 2004: ch. 11.

Success in war could bring in bullion, such as the plunder that Antiochus IV brought back from Egypt in 168.[49] On the other hand, money also flowed out of the country. Greek mercenary soldiers brought money home to Greece, and Antiochus IV and other kings spent heavily on buildings in the old Greek cities. Antiochus III had to pay 15,000 talents of silver to the Romans in 188 BC (Polyb. 21.42.19).[50] But despite the scarcity of silver, the Seleucid kings maintained high standards in their coinage until the mid-second century BC.[51] All this prevented inflation.[52]

As noted above, bronze coinage circulated as fiduciary money.[53] The Babylonian Astronomical diary (AD 1, p. 345, No. -273 B 'Rev. 33' and Upper edge 2) comments for the year 38 SE (= 274/3 BC) that "purchases in Babylon and the other cities were made with Greek bronze coins," apparently because the satrap had withdrawn so much silver for Antiochus' campaign against Egypt in the first Syrian war. This seemed strange to the Babylonians; but they were not unused to paper money, or better clay money. *CT* 49, 173, a record of deposit from circa 274 BC is a fine example.[54] It concerns a deposit of "12 shekels of refined silver, elephant staters in fine condition, wrapped up and under seal" and stipulates: "Any authorized person who holds the document may collect that 12 shekels of silver, that is, that deposit, according to the royal decree (*data* – Iranian word!)." In two other examples from the Arsacid period (125 BC and 93 BC) the word *tahsistu* seems to mean something like "security note" or "bank note."[55] It is hard to assess the phenomenon's economic significance.

Hopkins' taxes and trade model may make sense of the Seleucid empire as well as the Roman.[56] Near Eastern empires extracted large sums of money as taxes, tribute, and plunder, and spent it mainly in the capitals, but also on armies garrisoned around their territories. Subsistence farmers had to sell part of their surplus on the market to get money to pay the taxes, furthering monetization. Kippenberg describes this process for the Achaemenid empire.[57] Some people suffered from it, like the small farmers who sold their children to pay their taxes in Judah;[58] others set up companies to convert taxes in kind into silver for a price, like the Murashu firm in Nippur.[59] This process must have continued under the Seleucids.

[49] Polyb. 31.6; cf. Aperghis 2004: 8.8.

[50] Le Rider 1992; 1993; 2001 argues that indemnities were not a major problem for the Seleucid treasury.

[51] Mørkholm et al. 1991; Houghton and Lorber 2002.

[52] De Callataÿ 2004 argues that the Seleucids had enough silver, but doubts whether there was a deliberate Seleucid policy concerning the scale of silver coinage issues. Cf. Houghton 2005.

[53] Houghton and Lorber 2002: vol. II, 1–36. [54] Edited and discussed by Stolper 1993: 25–8, 60.

[55] Van der Spek 1998a: texts 1 and 32. [56] Hopkins 1980; 2002. [57] Kippenberg 1978: 49–53.

[58] Nehemiah 5:4; cf. Babylonia in 274 BC: AD 1 p. 347, No. -273 B Upper edge 1.

[59] Stolper 1985; Van Driel 2002: 314–22, ch. 12; above, Chapter 11.

From the prices as recorded in the Babylonian Astronomical Diaries (Fig. 15.1(a)) we may deduce some conclusions about agricultural development. I suggest that low prices indicate increasing agricultural output. Low prices might be a sign of stagnation, but that fits better a modern expanding economy. In a relatively stable economy low food prices indicate a sufficient supply of food, contributing to people's well-being. The effect of low prices is reduced only if wages are low as well.

Warfare at home was disastrous. This can be inferred from the development of prices. I referred above to the extremely high prices between about 325 and 300 BC while the Wars of the Successors ravaged Babylonia. Prices were again high in 274, when Antiochus I raised an army for the First Syrian War, and were high in 257 and 256 (Second Syrian War). Prices were generally very low under Antiochus III and IV, but rose after the latter's death in 164, when two contenders fought over the regency of the minor Antiochus V. These years also saw local strife between the recently established Greek colony in Babylon and the Babylonians.[60] The Parthian period ushered in constant warfare, causing high grain prices. All these wars must have harmed the upkeep of the canals, regular sowing and harvesting, storage, etc. I conclude that peace at home brought low prices, and war brought high prices.[61]

While we may conclude that the Seleucid period saw relatively low prices, it is less clear whether the average Babylonian could buy food and be dressed and housed properly, because we have very little information on incomes. In 321 BC wages for simple work amounted to 4 shekels (8 drachmas) a month, and around 93 BC wages for simple work varied from 0.67 to 2 shekels (1 dr. 2 obols to 4 drachmas). If Seleucid wages were similar (say 2 shekels per month), the lower classes could be fed in 60 percent of the period (294–141 BC) but probably more, since we may assume that most people had additional income from gardens, food rations, and extra jobs. Famine occurred when the prices of barley reached 25 shekels (50 drachmas) per 1,000 liters.[62]

If Babylonia typically had high agricultural yields, we might imagine that these were exported to poorer regions, such as newly urbanized Syria. But this may not have been the case. Ships could be pulled against the current of the Euphrates up to Thapsacus and then overland to Antioch, but that was probably too difficult for bulk goods. The reverse trade route, from Phoenicia to Babylonia, is better documented.[63] Overland transportation was practically impossible. The absence of evidence on grain shipments

[60] Van der Spek 2005b. [61] Van der Spek 2000a.
[62] 40 shekels (80 drachmas) per ton; Van der Spek 2006: 295.
[63] Hdt. 1.194; Diod. Sic. 14.81.4; Arr. *Anab*. 7.20.4; Oppenheim 1967; Briant 2002: 377–83.

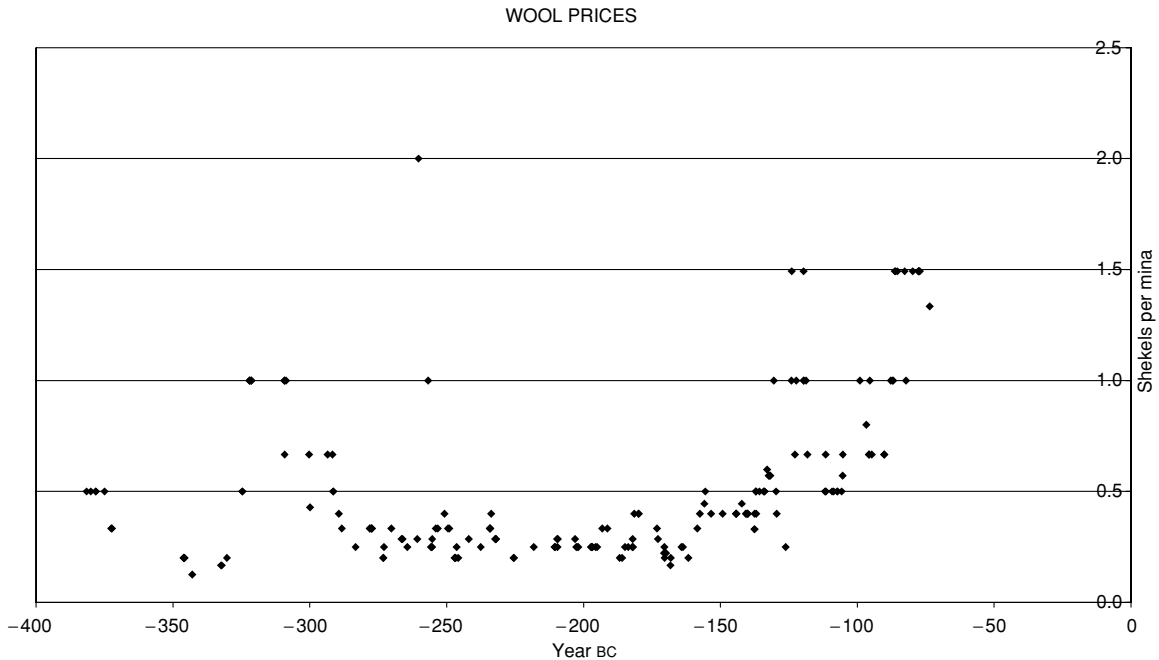

Figure 15.1(a) Wool prices in Babylon in shekels (= 8.33 gr. silver = c. 2 drachmas) per mina (= 500 gr.)
Collection of data: R. J. van der Spek; graph: G. G. Aperghis

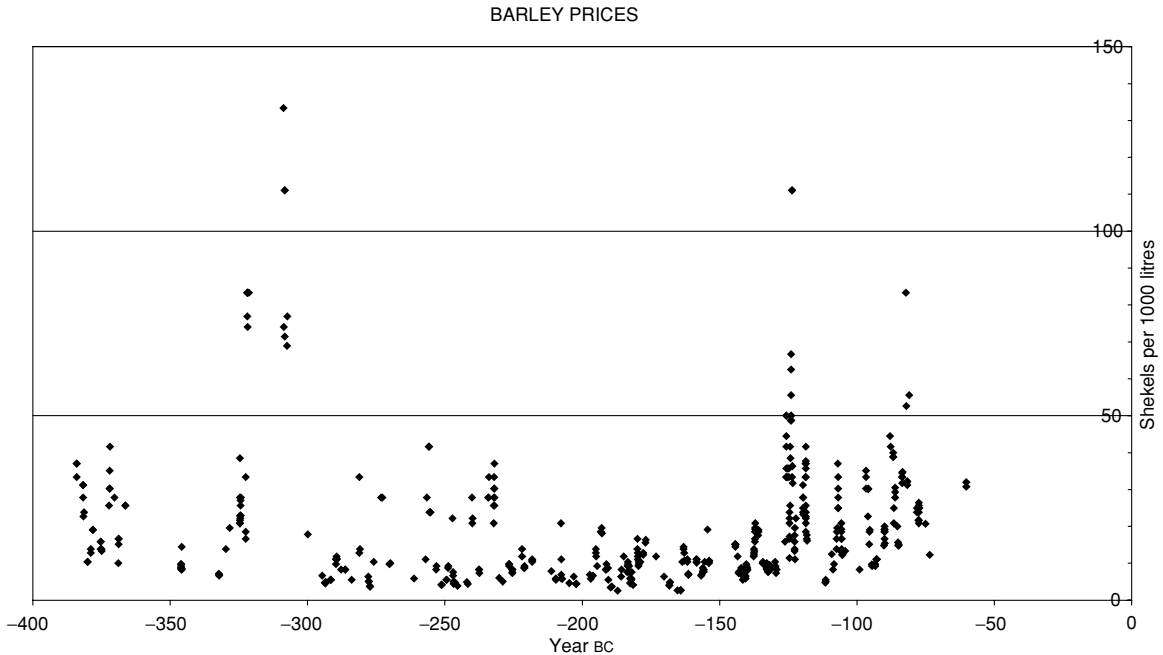

Figure 15.1(b) Barley prices in Babylon in shekels of silver (= 8.33 gr. = c. 2 drachmas) per 1000 liters
Collection of data: R. J. van der Spek; graph: G. G. Aperghis

in this direction may therefore not be the result of accidents of survival. The volatility of the Babylonian food prices points the same way. In an integrated food market trade tends to smooth out fluctuations in prices.[64] In Babylonia, however, prices sometimes fell close to zero. In 188 and 166 BC for example, the price of a ton of grain was only about 4.2 shekels (8.5 drachmas). In normal times the price was still comparatively low (circa 13 shekels [26 drachmas]), but prices of 40 shekels (80 drachmas) and higher are attested and caused famine in Babylonia.[65]

Some agricultural products, such as woolen and flax textiles, may have been exported. Borsippa was a center of flax production (Strabo 16.1.7). In the second half of the first millennium Babylonia apparently greatly increased its linen production.[66] Woolen textiles were exported in Old-Assyrian times[67] and this may have been the case in the Seleucid period. The prices of wool may give a clue here. While prices of food fluctuate heavily, the price of wool is relatively stable, but shows some long-term fluctuations (see Fig. 15.1(a)). The stability of wool prices relative to barley prices must be attributed largely to the price elasticity of demand for wool, market integration may have played a role as well. That would explain why after the Parthian conquest of Babylonia wool prices became more volatile. Trade routes to the west were now hindered by a new border.

III INDUSTRIAL PRODUCTION AND CONSUMPTION

(a) *Organization of production*

The Seleucid empire was probably not very different from other ancient empires. Industrial production was linked to agriculture, and many items (e.g., textiles) were produced at home. In cities there were companies and craft organizations (of unknown size). Some regions developed specialties: Phoenicia was famous for purple dyes, glass (glass blowing was invented in the Levant in this period), and ships, and Babylonia for woolen and linen textiles, salt, and bitumen. Babylonia was agriculturally rich, but poor in other natural resources. There was little timber. The date palm was the most important tree, but was unsuitable as timber. Strong wood had to be imported, like cedar from the Lebanon. There were no metals (gold, iron, copper, tin), and very few stone quarries.[68]

Minting was a state industry, and mints existed all over the empire. Pottery was initially imported from the old Greek world, but was soon replaced by local production.[69]

[64] Persson 1999: 91–3. [65] Van der Spek 2006: 295. [66] Oppenheim 1967: 251.
[67] Veenhof 1972: 98–103; Kuhrt 1998. [68] Cf. Potts 1997: 91–121.
[69] Davies 1984: 275; Aperghis 2004: ch. 5.4–5.5.

(b) *Connecting supply and demand*

The ideal of autarky had not died out in the Hellenistic period. Large workshops in the temples produced in the first place for their own personnel. Some products, especially luxury goods and basic raw materials that were not available locally, had to be imported, and the regions that produced special products exported them along caravan routes. Trade routes connected India and the Mediterranean, though they are better documented for Parthian and Roman times (Map 15.1). Some cities emerged and flourished on these routes, like Palmyra in the Syrian desert. Peasants brought their products to neighboring villages, cities, and periodic markets, which sometimes received royal tax exemptions.

As noted above, Babylonia was poor in non-agricultural products, but some industrial products may have been exported. I have already mentioned flax and wool; other exports may have included salt and bitumen. Documents from Uruk and Seleucia record the salt tax.[70]

However, the Seleucid empire was by no means a perfect market economy. Most products were consumed by the primary producers, be they private individuals or great organizations. State intervention played a major role, providing silver and some other commodities. The kings brought in their taxes, gifts, and spoils of war. Seleucus I founded Seleucia-on-the-Tigris, Antiochus I rebuilt temples in Babylon and Borsippa, and the temple of Anu was rebuilt in Uruk in 244 BC.[71]

It is hard to say whether trade within Asia increased in Hellenistic times. New cities must have encouraged it, but safety, transport, law, and political stability hardly improved. Trade in bulk goods overseas was easier, but the extent is debated (see below, Chapter 17). The new *lingua franca*, *koine* Greek, will have helped trade with the Aegean.

We can perhaps trace internal trade through the circulation of money. Preliminary studies of coin hoards show that coins struck in the several mints of the Seleucid empire were found all over the empire. Coins from Babylon and Seleucia-on-the-Tigris had particularly wide distributions in Asia Minor and Syria. On the other hand, only a few coins from other mints found their way to Babylonia.[72] These contradictory data need further research. Another approach to trade routes is to ask *where* coin hoards were found. Frédérique Duyrat's inventory (Map 15.2)[73] reveals an interesting distribution, which must to some extent reflect trade routes. However, we must remember that the initial diffusion of coins was to mercenary troops, so distribution patterns reflect the routes of armies as well as trade.

[70] Cf. Rostovtzeff 1932a: 81; McDowell 1935: 180–4; Aperghis 2004: 154–6.
[71] Falkenstein 1941; Finkbeiner 1987; Kose 1998.
[72] Houghton and Lorber 2002: 73–131; Van der Spek 2005a. [73] Cf. Duyrat 2005.

‘The map which appears here in the printed edition has been removed for ease of use and now appears as an additional resource on the chapter overview page’.

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IV URBANIZATION AND POPULATION

Urbanization perhaps correlates positively with economic development: towns require trade, provide cheap labor, foster economic rationality, and create a forum for cultural and intellectual change that aids institutional and technological innovation. Was this true in the Seleucid empire?

Seleucus took over an empire with densely urbanized regions. Southern Mesopotamia had very ancient cities: Babylon, Borsippa, Cuthah, Kish, Sippar, Nippur, Ur, Uruk, Larsa, Udannu, and Marad are all mentioned in Hellenistic cuneiform texts. Variations in excavation mean that we cannot tell how densely some of these cities were populated in Hellenistic times. Some certainly flourished; Nippur, covering about 84 hectares, had denser settlement than in Achaemenid times. The temple of Enlil still functioned in the 150s BC.[74] Uruk has produced hundreds of tablets, and two-thirds of the walled area (300 hectares) was inhabited.[75] In Iran, Susa and Ecbatana (Hamadan) survived Alexander; other cities of note are Bactra and Marakanda (Samarkand).[76] The Syro-Palestinian coast had many ports, but with the exception of Arados, these were long in Ptolemaic hands. Artaxerxes III destroyed Sidon in 345, and Alexander did the same for Tyre in 332.[77] Western Asia Minor had long been urbanized, but this intensified in Hellenistic and Roman times. New cities were founded, and older cities like Miletus, Ephesus, and Sardis grew.[78]

Alexander's and the Seleucids' urbanization policies are well known. Many Macedonians and Greeks emigrated to the east; new cities were founded, often on more or less vacant territories. This was especially true for northern Syria, "Seleucis," where four large cities were founded: Seleucia-on-the-Sea (Samandağı), Laodicea-on-the-Sea (Al Ladhiqiyah), Antioch-on-the-Orontes (Antakya) and Apamea-on-the-Orontes.[79] Seleucia-on-the-Sea, near the mouth of the river Orontes, was particularly important. Despite the roughness of the coast, Seleucus developed Seleucia as a port, because the Phoenician cities were in Ptolemaic hands after 312.[80] Seleucia became a major capital of the empire, and Seleucus I was buried there. Unfortunately for the Seleucids the Ptolemies held the city from 246 through 219.

Many other cities were founded. The most important was Seleucia-on-the-Tigris (Tell 'Umar, destroyed by the Romans in AD 165), covering 550 hectares, with Greek, Macedonian, Babylonian, Syrian, and Jewish inhabitants.[81] It was not the only city: Seleucia-on-the-Euphrates

[74] Gibson 1992; Van der Spek 1992: 250–60.
[75] Finkbeiner 1982; 1987; 1991. For overviews of all the Babylonian evidence, see Oelsner 1986; Boiy 2004.
[76] Le Rider 1965; Sherwin-White and Kuhrt 1993: chs. 3–4. [77] Grainger 1991: 23–31, 34–40.
[78] Tscherikower 1927; Gauthier 1985; Hanfmann 1983; Mitchell 1993.
[79] Cf. Millar 1987; Grainger 1990. [80] Seyrig 1970. [81] Invernizzi 1993.

Table 15.1 *Changes in certain key areas in the study regions**

Region	Level of urbanization?	Signs of colonization?	Population	Agricultural intensification
Greece	Unchanged, some synoecism	–	Down in LHL	Down in LHL
Macedonia	Up	–	Up?	Up?
Crete	Unchanged, some synoecism	–	Variable	Variable
Cyprus	Unchanged, destructions/ foundations	Yes?	Variable	Variable
Asia Minor/Turkey	Up, synoecisms	–	Up?	Up?
Syria	Up	–	Up?	Up?
Palestine/Israel	Up	–	Variable	Variable
Jordan	–	–	Unchanged	Unchanged
Arab-Persian Gulf	Unchanged	Yes?	Unchanged?	Up?
Mesopotamia/Iraq	Up	Yes?	Up	Up
Susiana/Iran	Unchanged	Yes?	Up	Up
Bactria/Afghanistan	Up	Yes?	Up	Up

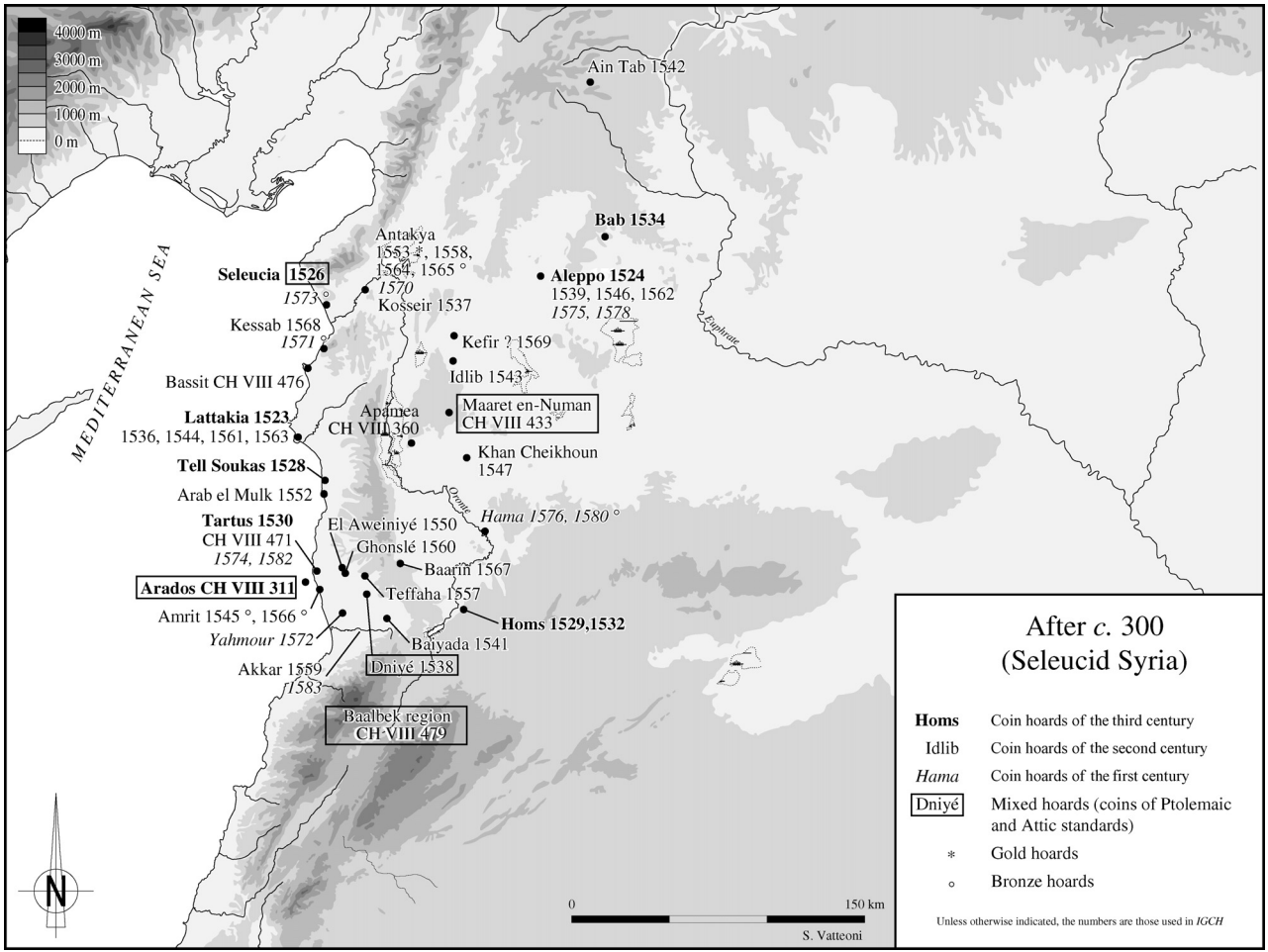
*Adapted from Alcock 1994: 187.

(Zeugma), Seleucia-on-the-Red-Sea, and others were created. Ai Khanoum in Afghanistan is a case in point. It was a large city with a palace, far outshining that at Vergina in Macedonia. The extension of its irrigation system indicates growing population and heavier exploitation of the land.[82] Other noteworthy foundations include the island of Failaka in the Persian Gulf, and Doura (Semitic name) or Europos (Macedonian name) on the Euphrates, founded as a military colony. Evidence for Hellenistic activity in the Persian Gulf and Arabia is growing.[83]

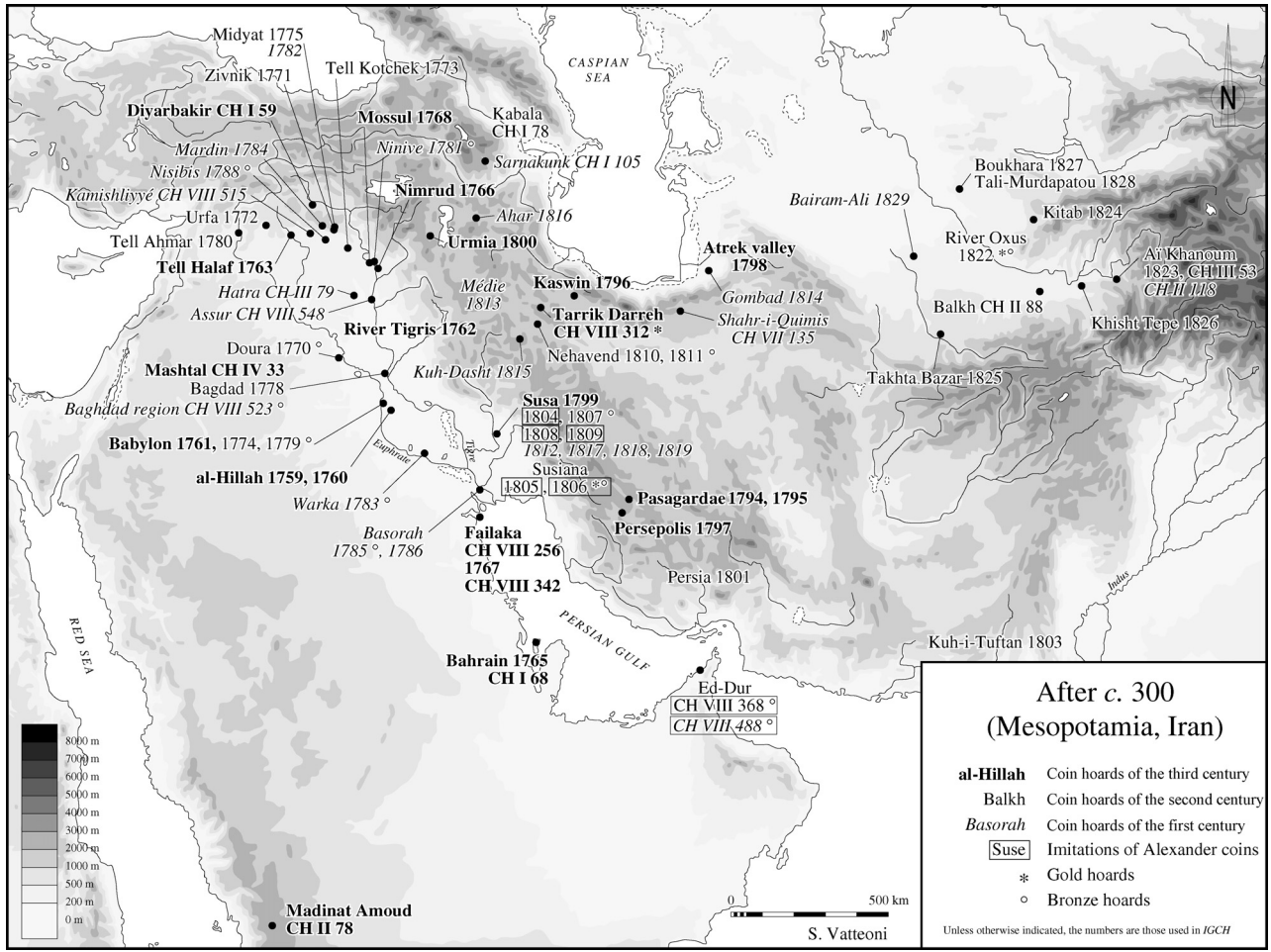
Greeks also entered indigenous cities and gave them Macedonian names. Susa (Seleucia-on-the-Eulaeus), Aleppo (Beroea), and Hamath (Epiphaneia) are cases in point. Greeks and indigenous inhabitants often lived in segregation.[84]

If this picture of urbanization is correct, it must have stimulated land reclamation and agricultural intensification. Archaeological surveys may illustrate this (Table 15.1).[85] The Diyala region and the central Euphrates floodplain (northeast of Nippur and Uruk) show an impressive increase in numbers of settlements and canals, probably reflecting increasing population and state intervention.[86] The largest *ziqqurat* (temple tower) ever built in Mesopotamia was not Nebuchadnezzar's "tower of Babel" but one built by Anu-uballit, whose second name was Nikarchos, in 244 BC. The ancient city of Nippur grew substantially.[87] New trade opportunities were created,

[82] Sherwin-White and Kuhrt 1993: 70, 111–12.
[83] Roueché and Sherwin-White 1985; Salles 1987; Callot 1989; Potts 1990.
[84] Van der Spek 1986: 50; 2005b.
[85] Alcock 1994; Wilkinson 2000; 2003.
[86] Adams 1965; 1981; Adams and Nissen 1972; Kose 1998.
[87] Downey 1988: 18 (*ziqqurat*); Gibson 1992 (Nippur).



Map 15.2 Main coin hoards of the Hellenistic period (copyright Frédérique Duyrat)



Map 15.2 (*cont.*)

especially in Seleucia-on-the-Tigris, favorably located on the confluence of the Tigris and the Royal Canal between the Euphrates and the Tigris, and at Seleucia-on-the-Sea. Mesopotamia's urban center of gravity shifted toward the Tigris, and the Seleucia area has remained the core of Iraq's urbanization into modern times.

Aperghis has estimated that the population of the Seleucid empire peaked around 14–18 million people c. 280 BC (at the death of Seleucus I) and c. 190 BC (just before Antiochus III's defeat by the Romans). He suggests 4–6 million people in Seleucid Mesopotamia including Susiana.[88] This may be too high. Iraq had 7 million inhabitants in 1960, although the large desert in today's southern Iraq was irrigated in Hellenistic times. Scheidel (above, Chapter 3) offers lower estimates.

The size of temple buildings and the number of their personnel may give a clue to city sizes. The cuneiform administrative texts document personnel in Babylon.[89] A ration list from 312/11 BC lists fifty lamentation priests, adding that this was only half of their number (*CT* 44.84), and three ration lists preserve the names of 34 millers.[90]

As late as 93 BC a scribe of the millers is recorded, who receives money to buy 540 liters of barley, to be used in one month, i.e. 18 liters a day.[91] In addition, the millers receive 2.5 shekels (c. 5 drachmas) as monthly wages. The fact that a scribe was needed to administer the millers implies that there was a large number of millers; but the amounts are small, suggesting to the contrary that few millers were left in temple service. The solution may be that these expenses, made from the offertory box of a temple, were only made for daily offerings to the gods (18 liters per day) and not for feeding the temple personnel, and that the wages were only paid for this particular job.

V STOCK OF KNOWLEDGE

Historians often suggest that technological progress was limited in antiquity because Greek intellectual efforts tended toward philosophical issues, not menial, "banausic" technical applications.[92] Babylonian scientific attitudes differed from Greeks', showing more interest in solving daily problems, such as measuring land, than in formulating abstract theories. Babylonian mathematics was a practical pursuit, which helped the Babylonians with geometry, irrigation, architecture, and seeding devices.[93]

However, Babylonian science also had its impractical side. Scholars put enormous efforts into divination. They raised astronomy to high levels,

[88] Aperghis 2004: 56–8. In an earlier study, Aperghis defended higher estimates (2001: 76–7).
[89] Boiy 2004: 240–62. [90] Boiy 2004: 249–50, 267–9; Jursa 2002b.
[91] Van der Spek 1998a: no. 11: 7–9; 13: 8–11; 18: 5–8. [92] But cf. Greene 2000. [93] Powell 1984.

and were the Greeks' teachers, but used it only as the foundation for astrology. The astronomical diaries, which are so important for us as historical source, were a database for astrological research. A bewildering corpus of cuneiform texts consists of endless lists of omens. Alexander the Great was impressed by the astrologers' advice, and the "Chaldaeans," as these scholars were incorrectly called, earned a great reputation in the Greek and Roman world.[94]

VI INSTITUTIONS

The state is the most important institution. Deliberate economic policy hardly existed, but state activities had economic consequences. The kings' main goal was to accumulate wealth for the royal household and army. Taxation, plunder, and coinage were the main instruments. Land registers were kept in archives. Some kings actively furthered investment in land. State activities had unintended consequences for the economy. Unsuccessful warfare, the devastation it brought, and heavy spending outside the empire to buy prestige had negative effects, while the foundation of cities, building programs, building of roads, minting (both intended for soldiers), successful wars,[95] and the maintenance of justice had positive results.

The Seleucid kingdom had no constitution. Many legal systems coexisted: Greek institutions, varying from one city to another; Babylonian practices (which were very old and are well documented); Jewish law; etc.[96] Sometimes these systems coexisted within one city, as in Ptolemaic Egypt.[97] The diverse legal systems protected contracts and property rights with clauses about ownership, eviction, and penalties in case of default. The use of law was at the discretion of the contract partners and could be overruled only by royal legislation, as happened with royal taxes on salt and slaves circa 274 BC.[98] Royal decrees were the only unifying element in the Seleucid legal system.

Nor were city governments uniform. Since Alexander "democracy" was the norm in Greek cities, but differences prevailed. Some types of magistrates, councils, and assemblies were found in most places, such as royal overseers (*epistatai*). In some Greek cities Macedonian institutions are apparent, like the council of elders (*peliganes*) in Laodicea, Seleucia-on-the-Tigris, and the Greek colony within Babylon.[99] Non-Greek cities retained their ancestral institutions alongside Hellenizing influences. The high priest and Sanhedrin governed Jerusalem; the *shatammu* (chief temple administrator) and *kinishtu* (board of temple functionaries/prebendaries) ran Babylon, Nippur, and Uruk,[100] in Babylon since c. 170 juxtaposed to Greek

[94] Van der Spek 2003. [95] Cf. Austin 1986. [96] Geller and Maehler 1995.
[97] Goudriaan 1988. [98] Doty 1977: 308–35. [99] Van der Spek 2005b.
[100] Van der Spek 1987; 1992.

institutions; and a *dikastes*, which must be a Greek translation of Phoenician *shofet*, "judge," oversaw Sidon.[101] Greek cities were not particularly favored. They had to pay taxes and tolerate garrisons and overseers, just like non-Greek cities. They could even be deported or given as gifts. The word *polis*, "city," in spite of the usual assertions to the contrary, had no juridical implications.[102]

Other relevant institutions include banks, professional organizations, occasional common trade enterprises, and annual fairs, often combined with religious festivals (*panegyreis*). These fairs were attractive for cities, since they brought in visitors and merchants and allowed peasants to sell surpluses and buy necessities they could not produce themselves.[103]

The Babylonian temples are of special interest. They had elaborate workforces with far-reaching divisions of labor. Hellenistic documents record carpenters, smiths, jewelers, reed-weavers, leather workers, bleachers, weavers, potters, builders, millers, brewers, bakers, cooks, butchers, doorkeepers, cleaners, agricultural laborers, herders, fowlers, fishers, tablet scribes, parchment scribes, boatmen, boat-towers, orchard managers, hired laborers, workers.[104]

VII CONCLUSION

There was a great economic continuity from the Persian to the Seleucid empire. The palaces and temples retained their importance and economic impact in both Mesopotamia and Asia Minor. The agricultural labor force consisted of several types of dependent labor (royal slaves, temple slaves, people attached to estates). Private small and large landowners must have existed everywhere, in Greek and in oriental cities, but their numbers cannot be established. Markets existed everywhere, but those in Babylon differed from those in Sardis or Antioch-on-the-Orontes.

But there was also change. A new *lingua franca* conquered the world: Greek. While Aramaic had been the language of the international relations in the Near East before Alexander, Greek now became a language of traffic from Spain to Afghanistan. The Seleucid empire played an important role in this: Greek became (without obliterating indigenous languages) the language of trade and government in Asia. This diminished transaction costs.

Monetization accelerated in the Hellenistic period, but was not a uniquely Greek phenomenon. Silver had been used as a means of payment for millennia, but its role now increased. Persian royal policy encouraged this and the Seleucids continued, to be followed by the Romans. The use of coinage was an innovation, but not in all respects an improvement. Coinage

[101] Bikerman 1939. [102] Van der Spek 1987: 58. [103] De Ligt 1993a. [104] Boiy 2004: 241–62.

mattered more as a propaganda weapon than as an economic medium. It burdened the Near East with exchange rates, exchange offices, and moneychangers, which increased transaction costs for millennia to come. The Roman empire, which introduced Roman coinage into the entire Mediterranean, was indeed a step forward.

The foundation of many cities was another important development. Assyrian and Persian kings had founded new cities, but the scale of Hellenistic urbanization was unprecedented. This process probably triggered aggregate growth, and possibly per capita growth. Aggregate growth was crucially important for the kings, since it meant an increase in tax revenue. This in turn allowed heavier spending on wars that might bring more plunder and tribute.

Did the Hellenistic kings pursue economic policies aimed at increasing their subjects' prosperity? My answer must be no. Their policies were primarily directed toward their own wealth, prestige, and power. Everything else was secondary. These secondary objectives could include the prosperity of their subjects, if it would increase tax revenues and make them more loyal. Royal interest in irrigation, land reclamation, international trade, etc., all served the same purpose: the king's glory. Royal support for temples had its basis partly in religious scruples, but the temples were also sources of regular income and could be robbed in emergencies.[105] When economic growth occurred, the palaces captured much of it; but this also made possible the growth of great cities, like Seleucia-on-the-Tigris and Antioch-on-the-Orontes.

The Seleucid empire flourished for about 170 years, before succumbing to other imperial powers: the Parthians (in 141) and then the Romans (64 BC). Were these empires economically more successful? Possibly not. Military success or failure can decisively change world history. The Parthian conquest of Mesopotamia weakened the Seleucid empire, and the incompetence of Seleucid kings after Antiochus IV and Roman intrigues and military superiority did the rest. In Roman Asia developments that had begun in Seleucid times developed further, including Hellenization, urbanization, road building, monetization, and the unification of law and institutions, providing a firm basis for Greco-Roman empire for seven centuries to come. The Eastern Roman empire outlived the western empire, and the Seleucia region (Baghdad) was the center of an Arab empire under Harun al Rashid around 800. Western Europe only came to rival the empires of the East in early modern times.

[105] Van der Spek 1994.