CHAPTER 1

GEOGRAPHICAL CONTEXT AND ARCHAEOLOGICAL EVIDENCE

1.1 LOCATION AND NATURAL SETTING

Tell Arbid is situated in the Syrian Jezirah, in the Upper Khabur river basin, in an area also known as the Khabur Triangle [***Fig. 1.1***]. The site is located on the *wadi* running more or less north to south between the periodical rivers Wadi Jaghjagh and Wadi Khanzir (Wilkinson et al. 2010: Fig. 6). Several wadis (from west to east, there are the Wadi Aweij, the Wadi Khanzir, the Wadi Jaghjagh, the Wadi Jarrah, the Wadi Kuneizir and the Wadi Rumeilan) cut through the Upper Khabur basin from north to south and drain the Wadi el-Radd—a tributary of the Khabur. It seems that the Khabur had a much greater flow in the Pleistocene, which is why its valley is much larger than the river's current flow. As a result of overpumping for irrigation water both in Syria and Turkey, a significant drop in the flow of the Khabur and its tributaries has been observed in recent years (Wilkinson 2003: 101). Nowadays, the Wadi Jaghjagh is an intermittent stream, although it was a perennial river until recently. Geomorphological and archaeobotanical surveys demonstrate that, between the mid-4th millennium and the mid-3rd millennium BC, the Jaghjagh was a river with a strong and relatively stable flow, with willows and *Cyperus* grasses growing on its banks (Deckers, Riehl 2007b: 345).

Tell Arbid is situated in present-day north-eastern Syria, in Hasseke Province, ca. 45 km northeast from the Province's capital and ca. 30 km southwest of the city of Qamishli. Tell Arbid is located in the centre of the Upper Khabur region, at a distance of ca. 25 km from the region's important cities: Tell Mozan (Urkesh) and Tell Brak (Nagar) on the route that connected Nagar with Urkesh; the latter controlled the road going north through the Mardin pass towards Anatolia with its abundant natural resources.

Jezirah is an undulating plain elevated to the height of 300-400 m a.s.l., delineated to the north by the Tur Abdin mountain range. The only

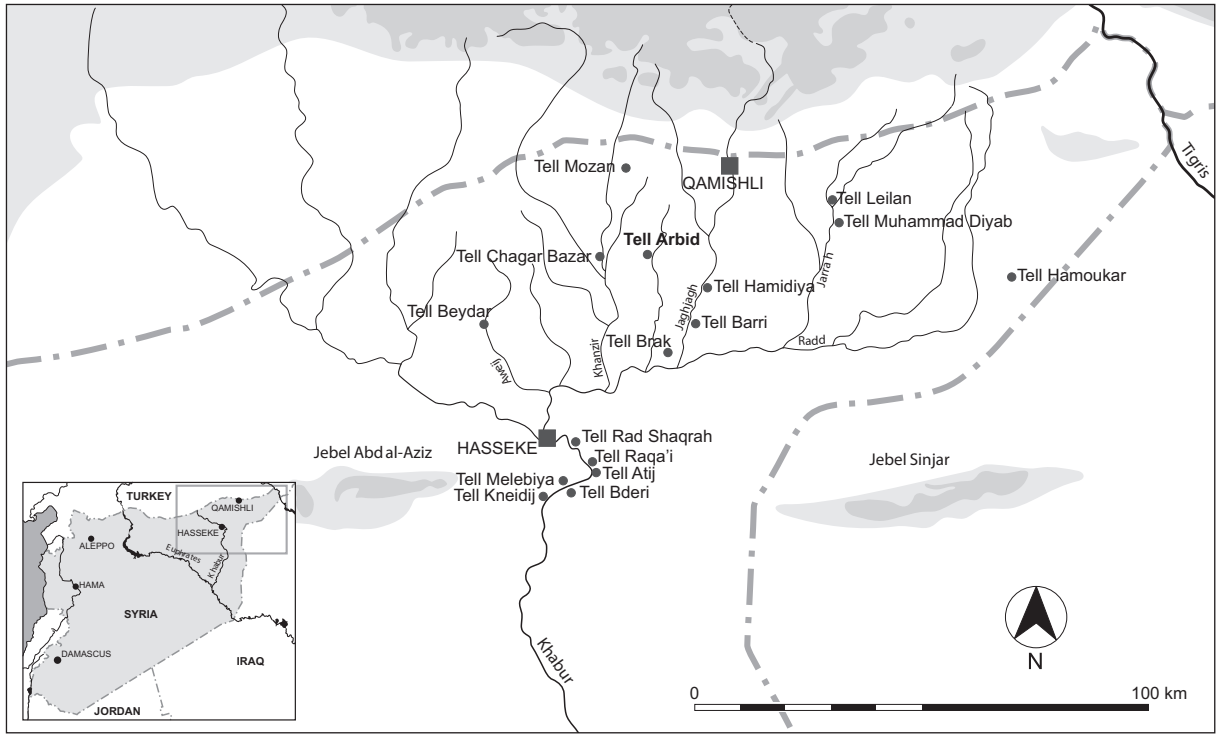

Fig. 1.1 The Upper Khabur region

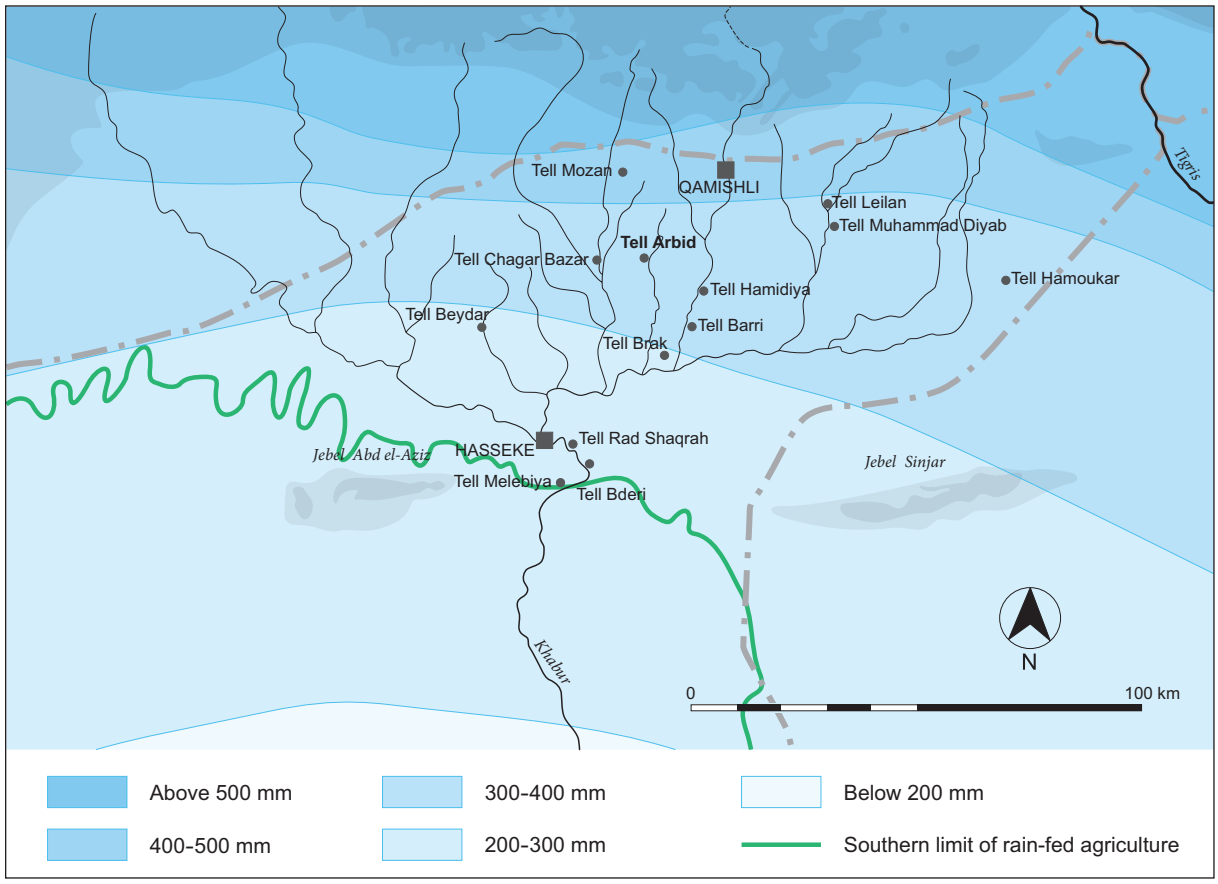

Fig. 1.2 Rainfall in the Upper Khabur region

mountain ranges in this region are the Jebel Abd al-Aziz and the Jebel Sinjar, with their tallest peaks reaching 1400 m a.s.l. The slightly rolling landscape of Jezirah is additionally interspersed with Pleistocene and Holocene volcanic peaks, such as Jebel Kawkab situated east of Hasseke, and Jebel Mankhar—east of Raqqa. Basalt lava plateaus can be found south of Jebel Abd al-Aziz and near Jerablus. In terms of its geology, most of Jezirah is built of younger sedimentary rocks, mainly limestone, sandstone and marls that were deposited during the Cretaceous and Tertiary eras (Wilkinson 2003: 101).

In the 3rd millennium BC, the Jezirah landscape was dominated by tell settlements. In the western Upper Khabur few small, low sites were inhabited at the time, as opposed to other periods (Wilkinson 2002b). Most tells, especially those from the Bronze Age, are located on the broad plains which stretch along watercourses (Menze, Ur 2012). A high concentration of tells along wadis is observable in the Upper Khabur region (Deckers, Riehl 2008: 179). Watercourses may have constituted a hazard for the settlements situated on them, due to the floods which happened in rainy seasons. The formation of tells that made the settlement higher may have protected the inhabitants against flooding ("living higher means drier") (Deckers, Riehl 2008: 180). Apart from the proximity to water, other key factors also determined the locations chosen for settlement, and they included the availability of deep cultivable soils. Fertile soils are commonly found in the wide agricultural basins of northern Jezirah plains which are some of the largest in the northern Fertile Crescent (Wilkinson et al. 2013: 14-15, Fig. 2.5). Jezirah has calcic xerosol soils which, over the centuries, have accumulated calcium carbonate concretions within the subsoil B horizon (Wilkinson 1997: 70-71). As demonstrated by archaeological surveys, tells are located mainly on such soils (Wilkinson et al. 2013: 15).

In terms of climate, the Khabur region features hot and dry summers alongside cool and rainy winters. Most rainfall comes between October and April. The volume of rainfall clearly decreases from north to south: there is 400 mm of rainfall in the north but less than 200 mm on the southern edge of the Khabur region [***Fig. 1.2***]. The majority of the climate data suggests that the first half of the 3rd millennium BC may have been more humid than the remaining part of the 3rd millennium BC

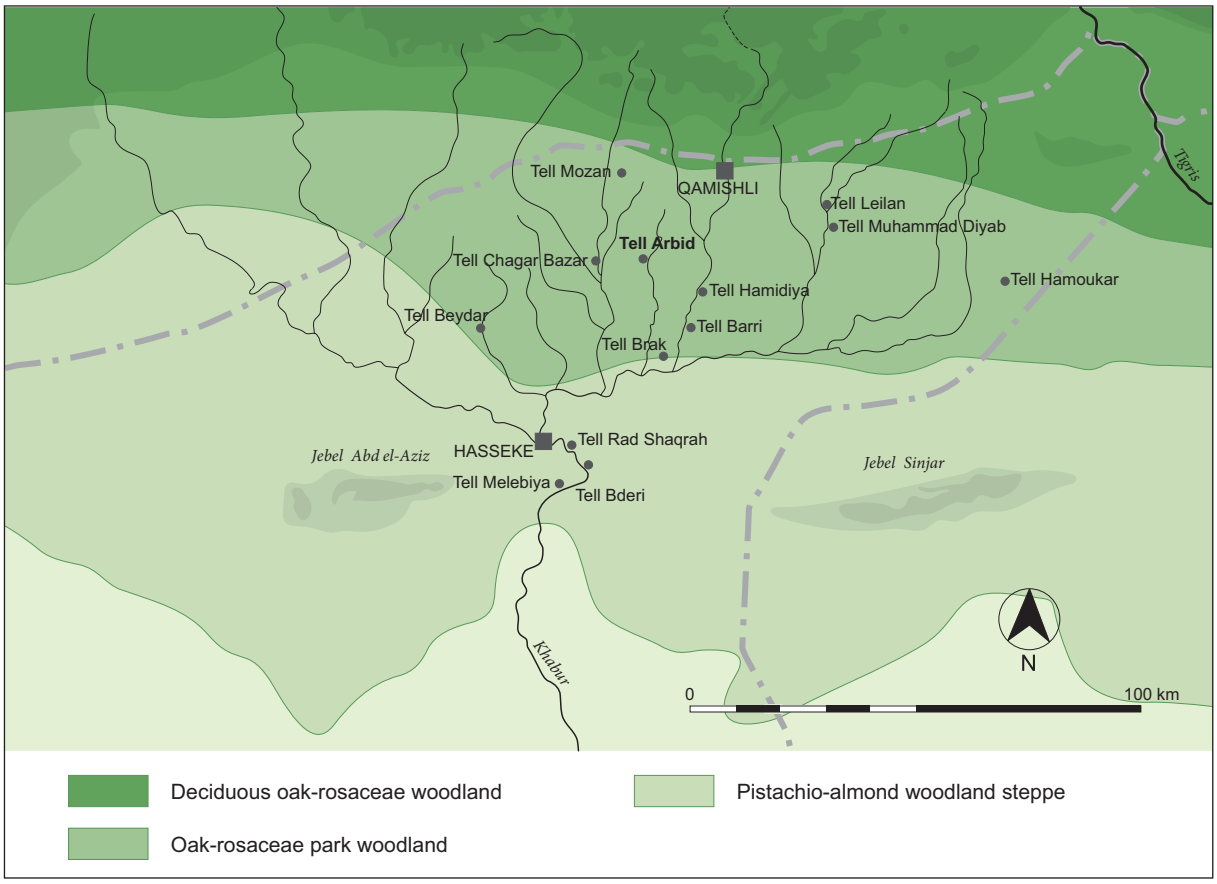

Fig. 1.3 Vegetation in the Upper Khabur region. (Source: After Hillman 2000)

(Wilkinson 2003; Courty 1994). In general, the climate conditions changed, with wet and dry phases occurring. The early- to mid-Holocene was more humid, after which—in the later part of the 3rd millennium BC—there was a phase of late-Holocene aridification, evident especially in the final quarter of the millennium (Hole 1997; Wilkinson 2002a; Deckers, Riehl 2007a).

Nowadays, the Khabur river basin has poor vegetation and has been largely converted into an agricultural area. Its northern part is used intensively for crop farming, while the southern part has more steppes. Changes in the natural environment may have been caused by climate-related factors but most of all by human interference, including the overgrazing of livestock, forest felling and intensive agriculture. After the introduction of agriculture, it is difficult to separate the climate-related factors from the human impact on the environment (Moore et al. 2000: 84). Today, the Khabur river basin is almost devoid of trees. Only some areas, including Jebel Abd al-Aziz, are still covered with woodland steppe (mostly Pistacia). In the early- and mid-Holocene, Jezirah seems to be much greener and more forested than in the late Holocene, i.e. in the period following 2000 BC (Wilkinson 2003: 103). Reconstructions have it that in the early Holocene, part of the Jezirah, including a significant portion of the Upper Khabur, in those areas where the rainfall exceeded ca. 350 mm per annum, may have been covered with deciduous oak park woodland (Hillman 2000) [***Fig. 1.3***]. Such vegetation may be reconstructed for Tell Arbid, located in this region. In deciduous oak park woodlands, oak alternates with grassland areas and is less dense in comparison with the dense deciduous oak-rosaceae woodlands of the north, in the area where the annual rainfall exceeds 400 mm. In the areas located farther south, where rainfall is 200-350 mm per annum, there was a terebinth-almond steppe (pistachio-almond woodland steppe) which included drought-tolerant pistachio trees, shrubby almonds, cherries, and hawthorns (Hillman 2000: Fig. 2.6). The banks of the watercourses were covered with a riverine forest with characteristic species, including willow, poplar, tamarisk, ash, reed, alder, plane, oleaster or elm (Zohary 1973).

Compared to the present-day situation, oak woodland grew much farther south (as far as Tell Brak) in the period between the 4th millennium BC and Medieval times, which is confirmed by the finds of archaeobotanical remains in archaeological

deposits (Deckers 2016: 27). At Tell Arbid, in the Ninevite 5 layers, a fragment of an oak (*Quercus* sp.) acorn was identified (Mueller-Bieniek et al. 2015). The presence of deciduous oak, as well as ash (*Fraxinus* sp.), elm (*Ulmus* sp.), plane (*Platanus* sp.), and poplar (*Populus* sp.), was documented at Tell Chagar Bazar (Deckers, Riehl 2008: 175). At Tell Mozan, there is a predominance of oak in archaeological deposits in the Early Bronze Age, like at Tell Leilan where—compared to Tell Mozan—a larger quantity of oriental terebinth (*Pistacia*) and almond (*Amygdalus*) was also identified, which would mean that the terebinth-almond woodland steppe was closer to Tell Leilan than to Tell Mozan (Deckers, Riehl 2008: 174-175).

Most likely, the woodland cover in the deciduous oak park woodlands was not dense in the 3rd millennium BC and may have sometimes taken on a shrub-like appearance, especially due to human impact and an intensive growth of settlements associated with the process of urbanization (Deckers 2016). The most densely populated areas of the Jezirah, where farmland covered significant areas between settlements, must have lost a large part of their woodland cover by the mid-3rd millennium BC, as demonstrated by archaeological surveys (Wilkinson, Tucker 1995; Ur 2002; 2010). Nevertheless, in the Early Bronze Age there were still significant stands of oak on the Khabur, which in some places could be encountered even until the Byzantine period (Rosen 1997; Deckers, Riehl 2007b).

The Jezirah landscape in the Bronze Age was diverse and patchy and consisted of densely populated areas with many towns and cities and extensive farmland around settlements with zones of pastures beyond (Wilkinson 2003). Less populated regions had extensive grazing areas, whereas in the intensively farmed areas, where cultivated zones were almost adjacent, grazing areas were smaller and decreased in size as the cultivated areas increased. Around the Upper Khabur sites, for example around Tell Arbid, linear hollows have been identified, extending radially from the sites (Wilkinson 2003: 111). They are usually interpreted as "hollow ways"—roadways which developed as a result of a continuous movement of people and animals along specific routes (Wilkinson 1990; 1993; 2003; Wilkinson, Tucker 1995; Ur 2003). The limits of the "hollow ways," which usually fade out 3-5 km from a settlement, would designate the end of a cultivated area and the beginning of a grazing area.

1.2 OCCUPATION HISTORY

The site of Tell Arbid consists of the main tell and several smaller tells situated on the outskirts of the site, mainly in its northern and western part [***Figs 1.4, 1.5***]. The main tell, with an area of ca. 12 ha, rises to a height of over 30 m above the surrounding terrain. It consists of the Upper City (or citadel) and Lower City. Taking into account all the components of the site, it may have covered a total area of ca. 40 ha (the outer limits of settlement have not been fully determined). No remains of fortifications have been discovered so the settlement may have been an open one.[1] The present-day settlement at this site consists of two Kurdish villages, one situated in the northwestern, the other in the southern part of the site.

The Tell Arbid settlement was inhabited with no evident interruptions throughout the entire Bronze Age, in the Ninevite 5 (EJZ 1-EJZ 2), EJZ 3, EJZ 4 and EJZ 5 periods alike, as well as in the Khabur Ware and Mitanni periods. The latest traces of settlement go back to the Neo-Babylonian and Hellenistic periods. The earliest occupational strata at Tell Arbid are dated to Ninevite 5 (EJZ 1-EJZ 2) period. Evidence of any earlier history of the settlement is scant, with just several Chalcolithic/Uruk and Neolithic/Halaf sherds recorded at the site (Koliński 2007: 84-85, 94; Lyonnet 2000: 36, site 42). Settlement from these periods has not been confirmed by excavations. Perhaps any minor settlement from the Chalcolithic period, which may have existed at Tell Arbid, was sealed up by the extensive Ninevite 5 settlement with a high accumulation of strata. Neolithic settlement, in turn, is known from the regions located immediately east of the main tell. The Late Neolithic (Halaf) site of Tell Arbid Abyad was uncovered here, located 700 m east of the main tell (Mateiciucová 2010; Mateiciucová et al. 2012).

Tell Arbid had its most prosperous period in the EJZ 2 and EJZ 3 periods, when it grew to be one of the most significant towns in the Upper Khabur region. Ninevite 5 (EJZ 1-EJZ 2) was a particularly dynamic period in terms of growth and socio-economic development for Tell Arbid. In the late EJZ 2, the settlement experienced its greatest territorial growth. Settlement from this period has been identified in almost all the areas under investigation (Areas W, D, SS, SD, A), in both the Upper City and the Lower City. In this period, the settlement

[1] The presence of a defensive wall at Tell Arbid was suggested by M.E.L. Mallowan, who mentions a city wall with a width of up to 45 m. Subsequent excavations by the Polish-Syrian Archaeological Mission did not confirm its existence (Koliński 2007: 84).

was already dominated by the citadel, where the most important structures associated with administration or religion may have been located. The remains from the EJZ 2 period include both the residential districts discovered, for example, in Areas D and SD, and official or sacred buildings. Unique finds include the Southern Temple, located in the southern part of the site (Area W) (Bieliński 2010). It is a monumental structure erected on a mud-brick platform; to this day, no analogy has been found in terms of its scale or form in this period's architecture in Jezirah.

In the EJZ 3-EJZ 4 periods, the top of the citadel was dominated by the monumental Public Building, which served as the main palace and administrative center. EJZ 3 residential districts were uncovered, among other places, in the northern and eastern parts of the site (Areas D and SD), with the remains from this period also known from other parts (Areas SS, W, M and A). In the Akkadian period (EJZ 4), settlement at Tell Arbid decreased. The settlement decline continued in the Post-Akkadian period (EJZ 5), although the place was still inhabited. The changes which took place in this period are particularly evident on the citadel. In the last century of the 3rd millennium BC, after the Public Building had gone out of use, the character of architecture of the citadel changed completely. A vast rubbish dump covered a large section of the abandoned Public Building. It was

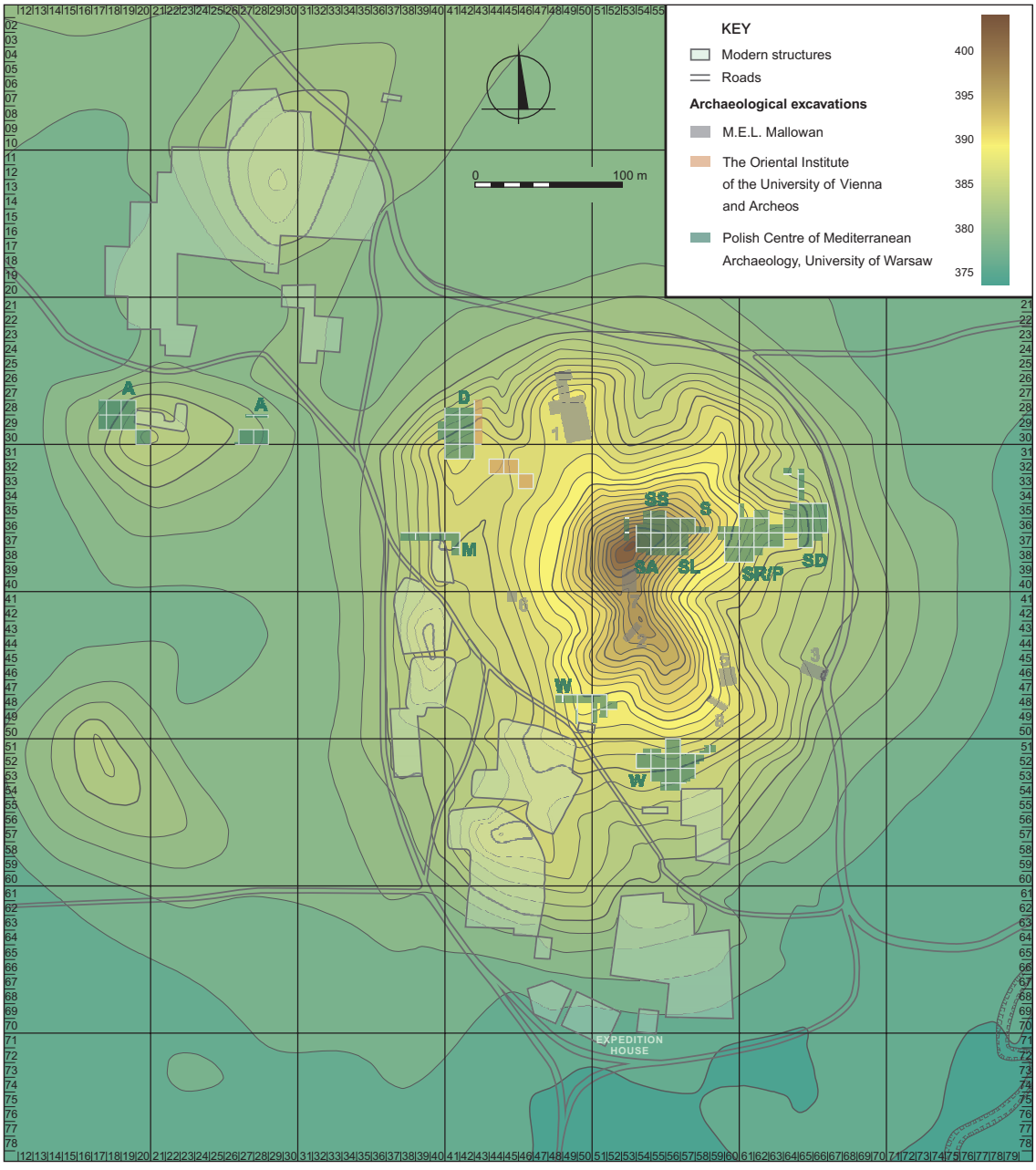

Fig. 1.4 Topographic map of Tell Arbid

Fig. 1.5 The mound of Tell Arbid looking north

associated with post-Akkadian (EJZ 5) and Khabur-Ware structures recognized at the top of the citadel. In the Khabur Ware period, the settlement system changed and, in contrast to the EJZ 3 period, settlement was less intensive, focusing in selected areas. Apart from dwelling quarters, known for example from Areas SR, P, M, SS, SD, D numerous burials were found within the settlement's limits. In the Mitanni period, settlement had moved beyond the main tell, to the western part of the site (Area A), where the main residential district was uncovered. At that time, the citadel was mainly used as a burial ground for members of the local elite and, to a small extent, for residential purposes. After the Mitanni period, when Tell Arbid was a well prospering center, there was an interruption in settlement up until the Iron Age, from which a small-scale Neo-Babylonian (Iron Age IIIa) settlement is known, uncovered in the western part of the site (Area A) (Koliński, Reiche 2008). The latest traces of occupation come from the Hellenistic period (Areas A and D), when Tell Arbid was a rather prosperous settlement, which may be evidenced by the richly furnished graves from that period. Scarce evidence points to Seleucid/Parthian and Roman presence on the site.

1.3 RESEARCH HISTORY

Tell Arbid was the subject of archaeological studies conducted by the Polish-Syrian Archaeological Mission headed by Piotr Bieliński. The studies were jointly conducted by the Polish Centre of Mediterranean Archaeology of the University of Warsaw and the Direction General of Antiquities and Museums, Damascus, on behalf of which the work was headed by Dr Ahmad Serriyeh and subsequently by Jowan Qassem and Abed Abdel Mesihi Baghdo (see relevant preliminary reports in *Polish Archaeology in the Mediterranean* volumes 8 through 22). Excavation on the site began in 1996 and continued every year until 2010 when, due to the outbreak of war in Syria, it had to be stopped. Previous archaeological studies were conducted on the site but not on a large scale. In 1936, M.E.L. Mallowan performed surveys and archaeological excavations within several trenches (Mallowan 1937: 117; Koliński 2007). Tell Arbid was also the subject of surveys carried out by Bertille Lyonnet (2000).

CHAPTER 2

AREA D. METHODOLOGY AND STRATIGRAPHY

Area D is situated on the north-western outskirts of the Lower City. This artificial hill rises to a height of almost 5 m above the surrounding terrain. Area D research was conducted in 2001-2007 by Ahmed Serriyeh (Direction General of Antiquities and Museums, Damascus) and Anna Smogorzewska. Prior to that, in 1999, archaeological excavations were conducted in Area D by the Austrian-American Mission, headed by Gebhard J. Selz (Oriental Institute of the University of Vienna) and David Gimbel (Archaeos).[2]

Excavations and documentation were carried out within squares (10x10 m) which make up a grid covering the entire site. Each square was described by means of two numbers, with the first one referring to a north-south coordinate, the second to an east-west coordinate. In Area D, excavations were performed in the following squares: 30/42, 30/41, 30/43, 29/42, 29/43, 29/41, 28/42, 30/40 and 29/40. Every three-dimensional, non-portable structure of clearly defined limits filled with archaeological deposits was designated as locus (L for short) (for example a room, courtyard, burial, street, hearth, pit, oven etc.). In accordance with the documentation system, the loci had consecutive numbers within the squares. After architectural units such as houses, consisting of several loci, were identified, in order to avoid loci number repetition, consecutive numbers were introduced within Area D. Architectural features, such as walls and floors, are treated as separate stratigraphic units. Burials and fire installations, such as ovens, hearths and heating pits, have their own designations.

All finds from the excavations have been collected within their individual contexts within the squares and tagged. A tag number consists of an abbreviation of the site's name, the season in which the excavations were conducted, the name of the area, square, locus number and a consecutive number of the find within the locus (for example ARB'07-D-30/41-23-1). Each tag number is unique within the whole site.

The earliest settlement in Area D can be dated to the late EJZ 2 period. The settlement was inhabited continuously from that time until at least the EJZ 3 period. Area D may have also been inhabited in the EJZ 4 and EJZ 5 periods, which may be evidenced by the ceramic forms that are characteristic for these periods and are unstratified finds. Later settlement comes from the Khabur Ware and Hellenistic periods. In the Hellenistic period, this region was used as a burial ground. The material published here pertains to the layers from the 3rd millennium BC (late EJZ 2-EJZ 3). The remains from the Khabur Ware and Hellenistic periods have not been included in this study and will be the subject of a separate paper.

Area D settlements coming from various phases of the EJZ 2 and EJZ 3 periods have been uncovered across a total area of more than 1000 m^2 out of which ca. 600 m^2 falls on the residential district dated to the late Ninevite 5 (late EJZ 2) period. The settlement layers uncovered in Area D have a maximum thickness of ca. 5.7 m, counting from the deepest layer reached for the 3rd millennium BC.

Based on the stratigraphic and artefactual data, 4 phases have been distinguished in Area D, corresponding to 6 occupation levels: Phase A (stratum 1), Phase B (stratum 2), Phase C (stratum 3), and Phase D (strata 4-6) [***Fig. 2.1***]. Both the usage levels and the deposits directly above them received the same stratum number.

Phase D (strata 4-6) = late EJZ 2

Phase D is dated to the late Ninevite 5 period, which corresponds to the late EJZ 2 period in the periodization of the Syrian Jezirah (Lebeau 2011). Settlement from this period has been uncovered across the largest area (more than 600 m^2) and with the greatest thickness (the maximum thickness reached is ca. 3.5 m; 380.95-384.39 m a.s.l.). Three strata of Phase D (strata 4-6) have been distinguished.

Phase C (stratum 3) = early EJZ 3a

Phase C can be considered transitional between Phases D and B based on the presence of pottery forms characteristic for Phase D, which co-occur with forms that are typical for the EJZ 3 period. Phase C can be compared with the early EJZ 3a period. Settlement from this period has been uncovered

[2] For preliminary results of excavations in Area D by the Austrian–American expedition, see Selz and Gimbel 1999.

across an area of ca. 240 m^2. There is a discernible building continuity from Phase D: Phase C houses were often built on the remains of Phase D houses, in some cases copying their layouts.

Fig. 2.1 Periodization of Tell Arbid and Area D

Tell Arbid	Area D
EJZ 1	—
EJZ 2	Phase D (late EJZ 2) (strata 4-6)
EJZ 3	Phase C (early EJZ 3a) (stratum 3) Phase B (EJZ 3a) (stratum 2) Phase A (EJZ 3b) (stratum 1)
EJZ 4	Pottery
EJZ 5	Pottery
Khabur Ware	Settlement and burials
Mitanni	—
Neo Babylonian	—
Hellenistic	Burials

Phase B (stratum 2) = EJZ 3a
Phase B can be dated to the EJZ 3a period. Although a continuity between Phase A and B can be observed in terms of pottery forms common for both phases, in Phase B more vessels have features that are characteristic for EJZ 3a pottery. The presence of pottery survivals, characteristic for EJZ 2, such as late excised decoration, also weighs in favor of dating Phase B to the EJZ 3a period. Settlement from this period was uncovered across an area of ca. 120 m^2.

Phase A (stratum 1) = EJZ 3b
Phase A corresponds to the EJZ 3b period in the periodization of the Syrian Jezirah. However, the pottery material from Phase A is not very diagnostic and constitutes a small assemblage, which does not preclude dating Phase A to the EJZ 4 period, especially considering that many pottery forms diagnostic for the EJZ 3b period are also known from the EJZ 4 period. The most diagnostic pottery assemblage comes from burials, which provide a *terminus ante quem* for stratum 1. The burials were most likely dug into stratum 1 after this area had gone out of use—towards the late EJZ 3b or in the early EJZ 4. Settlement from this period was uncovered across an area of ca. 60 m^2 and is distinguished by a high degree of continuity from Phase B.