From Mitanni to Middle Assyrians

Changes in Settlement Patterns and Agriculture in the Land of Hanigalbat

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Chapter 1: Introduction
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A few centuries before the downfall of the so-called "Dark Ages" in Eastern Mediterranean, we have the rise of the Middle Assyrian kingdom, which took control of the provinces in north Syria and southeast Turkey, the region they called Hanigalbat. For the past few decades there was only limited research on this period. The last few years however several excavations have been published and several works have been done to synthesize the finds of all these excavations in order to paint a clear picture of the Middle Assyrian period. Nevertheless there is still a lot of work to be done and questions to be answered in order to complete the puzzle of the Middle Assyrian Empire.

In this paper I will focus mainly on the transition from the Mitanni period to the Middle Assyrian Period in the area of northern Syria and Southeast Turkey. After conquering the area of Hanigalbat, Middle-Assyrians reorganized the area in different ways depending on each specific region of Hanigalbat and its own specific aspects. This transition is going to be addressed in this paper. i) What changes did the Middle-Assyrians bring to the administrative system of the area during this transitional phase? ii) What changes do we see in settlement systems? iii) How did the agricultural economy evolve, what were the results of the supposed intensification and how, if so, did this affect the changes in the settlement system.

These are some of the questions which I will try to answer mainly through a bibliographic and text research. The structure of the paper is going to be: in the first chapter/introduction I am going to do a historical overview of the period, from the 15th century to the 13th century in northern Syria, and a brief introduction of the current archaeological issues with which I will deal in this paper. The historical overview in this part will focus on the political and event history of the period. This is important in order to understand some of the archaeological finds presented in chapter two. In the second chapter I will address the subject settlement patterns and the changes in the settlement system. Going through the examination of some sites in different regions I will try to identify different policies used by the Middle Assyrians with regard to relocating or

preserving settlements and settlement systems. In the third chapter I will address the matter of agricultural production of the examined regions and what economic value was of the changes Middle Assyrians did. In the fourth chapter I will present the current state of thinking about the Middle Assyrian policy on Hanigalbat, combine and evaluate the information from chapters two and three and conclude about the transition from Mitanni to Middle Assyrians and the changes in settlements.

The logic for this structure is that each chapter provides crucial information for each concept presented on following chapters. Starting with a historical overview to create the context of the period, then to the changes in the settlements systems and from that point to what results it had in agriculture and how agricultural intensification affected Middle Assyrian policies. On the concluding chapter I bring all those information together in order to identify the basic aspects of the transition from Mitanni to Middle Assyrians.

This MA thesis will thus, try to recreate some aspects of the transition which occurred in the area of northern Syria and southeast Turkey from the 14th to 13th century BC.

1.1 Geographical setting/designation and climate

Although some geographical and climate features will be analyzed in the following chapters, it is important to do a brief sketch of the geography and climate of the Upper Mesopotamia and more specifically Northern Syria and southeast Turkey (fig. 1 and 19). The region, which is now know in Arabic as the Ğazīra ("the Island"), is a broad plateau bordered in the north and east by the Taurus and Zagros mountain ranges as well as by river Tigris and the western boundary is the Euphrates valley. The region has a climate that separates it from the Syrian-Arabian desert. The plateau is surrounded by two main rivers, which gave the region its classical name "Land between the two rivers", Tigris (*Τίγρης*) and Euphrates (*Εὐφράτης*), as well as by their tributaries: Balīḫ and Ḫābūr for the Euphrates and the two Zābs for the Tigris (Reculeau 2011, 9).

In Bronze Age texts, this region is encountered with different names, some related only to geographical terms, others related to the inhabitants of the area in

the specific time, i.e. Mitanni. Some of these terms are: Naharena (Egyptian term meaning "the Land of Two Rivers", Subartu [old geographical designation meaning "North (Country)"], the Hurrian Country or Land of Mitanni (found is some Hittite records) and Hanigalbat (reminiscent of the Hananean tribe) (Kühne 1999, 204-6). Hanigalbat was the name the Assyrians used for their western provinces, the triangle of northern Iraq, north Syria as far as the Balīḫ river and the upper Tigris region of southeast Turkey (Szuchman 2007, 2).

Upper Mesopotamia has a Mediterranean-type climate. One of the major aspects of Near-Eastern climate is the variability of rainfall. This inconsistency of the rainfall can give an isohyet even lower than the 200-250 mm, which is usually considered the limit of dry farming. Local factors however can easily overcome the aridity caused by the interannual variability of the rainfall. However the two major rivers with their tributaries, whose waters are almost exclusively of an extraneous origin, feed great parts of the area (Reculaeu 2011, 15). This contrast makes the use of systematic irrigation important for a sustainable yield but gives an area with great agricultural potential.

1.2.1 Historical context in Northern Mesopotamia: 15th and 14th century

Reconstructing the history of N. Mesopotamia in this period is a challenge due to the lack of textual evidences from the Mitannian Empire. As Kühne (1999, 203) states: "A reconstruction of the history of Mitanni must be based entirely on external sources since neither the capital of Mitanni nor any of its state archives has been discovered". The only sources we have for the Mitanni are exogenous and come mainly from Hatti, Syro-Canaan, Mesopotamia and Egypt.

It seems however that during the 15th century the Mitannian state was well established in its own territory and was able to compete with the Hittites and Egyptians in the political as well as the military matters. We have a lot of sources regarding the relationship of the Mitannian empire with Egypt and the efforts of Thutmosis III to establish control in Syria and the Levante (Kühne 1999, 213-216; Wilhelm 1989, 26-27). Despite Thutmosis continuous military success, he wasn't able to incorporate much of Syria permanently.

It is hard to understand what the role of the state of Aššur was during this period. Aššur was limited territorially and probably politically depended under some (unknown with the current documentation) conditions to the Mitanni Empire (Massetti-Rouault 2001, 56). On the international scene we continuously see the Assyrians trying to rid themselves from the Mitannian yoke. Puzur-Aššur III made a treaty with the Babylonian king Burna-Buriaš in order to delimit his boundaries (Glassner 1993, 171; Kühne 1999, 216) and extended his city walls (Grayson 1987, 91, 100). He also entered the diplomatic relations with Egypt in an effort to diminish the Mitannian power. Several gifts were exchanged (i.e. Lapis Lazuli) (Redford 2003, 250) and Aššur –nādin-ahhē had received in return of gifts a consignment of gold (Wilhelm 1987, 26). Despite all those efforts, during the reign of the Mitannian king Sauštatar there was probably a military confrontation between the Mitanni and the Assyrians which ended with the raid of the city Aššur, the plundering of the temple (the gold and silver doors of the temple were taken and transported to Wassukkani) and the Assyrian state was forced to pay a tactical tribute (Harrak, 1987 42; Kühne 1999, 26; Massetti-Rouault 2001, 56). On the verge of the 15th century however, Assyrians renewed the alliance with Babylon and rid themselves of the Mitannian control while they were busy at their western flank with the Hittites (Glassner 1993, 170). All the above show us that despite the Mitannian yoke, Assyrians managed to have a relative autonomy in their actions and they were trying repeatedly to establish their independence and their political prestige in the international scene.

In the 14th century things took a bad turn for the Mitannian Empire. Hittites strike from the west and Kassite Babylonian attacks in the east dismantled and crippled the military power of the Mitannian state. The Araphe, a kingdom bound to Mitanni for generations, became a Babylonian vassal and it is possible that even Assyria had to acknowledge Kassite sovereignty for a while (Kühne 1999, 218-219). It is during Tušratta's reign that the tides turn completely for the Mitannian Empire. As an answer to a campaign he executed in some states of northern Syria, the Hittite king Šuppiluliuma (1370-1330) (for the purposes of this paper, for the chronology of Assyrian Kings I used the revised chronology of Szuchman 2007) (fig. 2) found fertile ground to get involved in the succession matters of the Mitannian state (Kühne 1999, 219; Wilhelm 1989, 34-5). He made a treaty with Artadama II, a pretender to the throne and launched an attack on the

western front of the Mitannian Empire. He crossed the Euphrates and conquered all the western Mitannian lands and even managed to plunder the absent Tušratta's capital, Waššukanni.

A little later Tušratta got murdered by his own son (Harrak 1987, 21 fig. 1; Kühne 1999, 220; Wilhelm 1999, 37). The new situation gave the opportunity to Artadama II and his son Šuttarna III to gain control of the Mitanni throne while a Šattiwaza, Tušratta's son fled to the Hittite king. We have good knowledge of the events of this period from a treaty between Šuppiluliuma and Šattiwaza (Beckman 1999, 38-50):

§1 (obv. 1-7) *[Thus says] Šattiwaza, son of Tušratta, king of [the land] of Mitanni: Before Šuttarna, son of Artadama, [King of Hurri], altered the [...] of the land of Mitanni, King Artadama, his father, did wrong. He used up the palace of the kings, together with its treasures. He exhausted them in payment to the land of Assyria and to the land of Alshi. King Tušratta, my father, build a palace and filled it with riches, but Šuttarna destroyed it, and it became impoverished. And he broke the [...] of the kings, of silver and gold, and the cauldrons of silver from the bath house. And [from the wealth(?)] of his father and his brother he did not give anyone (in Mitanni) anything, but he threw himself down before the Assyrian, the subject of his father, who no longer pays tribute, and gave him his riches as a gift.*
§2 (obv. 8-20) *Thus says Šattiwaza, son of king Tušratta: The door of silver and gold which king Sauštatar, my (great-)great-grandfather, took by force from the land of Assyria as a token of his glory and set up in his palace in the city of Waššukanni – to his shame Šuttarna has now returned it to the land of Assyria. [...]*
(Beckman 1999, 44-45 no. 6B)

In this treaty it is also mentioned that Šattiwaza took Šuppiluliuma's daughter as a wife. It is clear from the text that the Mitanni empire has completely lost its political prestige and from the point that Šattiwaza returned to the throne he was a vassal to the Hittite king.

Aššur-Ubalit I (1365-1330) seized the opportunity to establish an independent Assyrian state and to capture some of the bordering territories. After he got rid of the tribute he had to pay to the Mitanni (as mentioned in the text

above) he transformed Aššur from a city-state to a major political power. In the royal inscriptions Aššur-Ubalit keeps the honorary title of the Assyrian kings, according to the Old Assyrian and the tradition, but now in the international diplomacy he can present himself as an equal, a brother to the Pharaoh and the Hittite king. For the first time in Assyrian history we have the title "*LUGAL*(*šarru*)", "Great king" (Grayson 1987, 114-115; Harrak, 1987 9-10 *EA* 16, 39-40; Postgate 1992, 247; Szuchman 2007, 4). During the reign of Aššur-Ubalit I Assyria became a geographical and political entity sovereign to the king of Aššur, and the its conquering pretentions became clear.

1.2.2 Historical context in Northern Mesopotamia 13th century

The 13th century is definitely the zenith of the Middle-Assyrian Empire with three long-lived kings whose rule spanned almost the entire 13th century: Adad-nîrârî I (1307-1275), Salmanazar I (1274-1245), Tukultî-Ninurta I (1244-1208). One of the main concerns of these kings was to obtain direct control of the former Mitanni Empire.

Adad-nîrârî led several campaigns against the Mitanni king Šattuara I, Šattiwaza's successor. The latter was captured and taken to Aššur to return a little later on the throne as a vassal until the end of his life (Harrak 1987, 100-102). His son and successor, Wasašatta would not accept this situation and revolted causing another march of the Assyrians against the land of Hanigalbat. In this rebellion he asked for the assistance of the Hittites but as the Assyrian Royal Inscription ironically mentions (Grayson 1987, 136 A.076.3) "*the Hittites took his brides but did not render him assistance*". In the same inscription he mentions eight cities that he conquered: the capital city Taidu, Amasaku, Kaḫat, Šuru, Nabula, Ḫurra, Šuduḫu and Waššukanu. He also mentions the city Irridu which he "*conquered, burnt destroyed and sowed salty plants over it*".

After the death of Adad-nîrârî I, his son Salmanazar also faced a revolt in Hanigalbat that was supported by the Hittites and Aḫlamu. Royal inscriptions also give us the information of his campaign in one of the longest texts published:

56-87) *When by the command of the great gods (and) with the exalted strength of Aššur, my lord, I marched to the land Hanigalbat, I opened up most difficult paths (and) passes. Šattuara, king of the land Hanigalbat, with the aid of the armies of the Hittites and Aḫlamu, captured the passes and watering-placed (in) my (path). When my army was thirsty and fatigued their army made a fierce attack in strength. But I struck back), and brought about their defeat. I slaughtered countless numbers of their extensive army. As for him, I chased him at arrowpoint until sunset. I butchered their hordes (but) 14,400 of them (who remained) alive I blinded (and) carried off. I conquered nine of his fortified cult centers (as well as) the city from which he ruled and I Turned 180 of his cities into ruin hills. I slaughtered like sheep the armies of the Hittites and Aḫlamu, his allies. At that time I captured their cities (in the region) from Ta'idu to Irridu, all of Mount Kašiiari to the city Eluḫat, the fortress of Sūdu, the fortress of Ḫarrānu to Carchemish which is on the bank of the Euphrates. I became ruler over their lands and set fire to the remainder of their cities* (Grayson 1987, 183-184 A.077.1)

After his death, Tukultî-Ninurta I took the throne, one of the most memorable kings in the Assyrian history. His 36 years long kingship includes many important events. He campaigned against and conquered the city of Babylon, the king Kaštiliaš got imprisoned, the Kassites were deported to Kalhu, the walls of Babylon were demolished and the statue of the god Marduk was transported to Aššur (Harrak 1987, 256-257). His campaign was commemorated in the "Tukultî-Ninurta Epic" (Foster 1995, 193)

Of importance were also his construction projects. A new city named Kar-Tukultî-Ninurta was built under his reign (Modern Tulu al'Aqar) "*in uncultivated plains (and) meadows where there was neither house nor dwelling, where no ruin hills or rubble had accumulated, and no bricks had been laid*" (Grayson 1987, 273 A.0.78.23). He also undertook several major construction projects in the city of Aššur i.e. he repaired the damaged temple of Ishtar.

His death was followed by a decline of the Middle-Assyrian Empire and its power in Hanigalbat diminished until the reign of Tiglath-Pileser I (1114-1076). Shortly after him though, the kingdom descended into a period of decline due to the continuous hostilities with Aramaean tribal groups.

1.3 Issues and state of archaeology considering the transition from Mitanni to Middle-Assyrians and settlement patterns

The historical knowledge of the late Bronze Age Syria has vastly improved over the past twenty years. The abundance of texts, especially from the 13th century, the early period of the Middle-Assyrian empire, gives us a full and clear picture of the mechanisms by which the kingdom functioned. They provide us with names, dates titles, places commodities and events that have enriched our knowledge of the Middle-Assyrian administrative system. In more specific way, they provide us with ethnic or political affiliation and economic orientation of specific settlements. The textual research has even shed some light on the "darker" periods of the 15th and 14th century and Mitannian Empire although it is difficult, if not impossible, to extract her administrative structure and her economic or political system.

The Middle Assyrian archaeology has also broadened its boundaries over the past few years and especially the 2nd half of the last decade. A lot of works have been published as of late which reform our knowledge of the period. Important synthetic works such as the one of Szuchman (2007) or Tenu (2009) have combined the published sites and texts in order to create a full picture of the Middle-Assyrian state. Szuchman work focuses mainly on the, less researched, later period of the Middle Assyrian Empire and the rise of the Arameans as well as on the administrative system of the Assyrian empire. Tenu interprets the Middle-Assyrian period as a whole creating a work which serves as a basis to anyone who needs to refer on this period. Also there have been a lot of investigations considering the settlement development and patterns system and production (Reculeau 2011). A very important work is also the one by Koliński (2001) considering the Mesopotamian *dimātu* in the second millennia BC. Archaeologists have surpass the "need" for "archaeological reflection" of the texts which Szuchman states (2007, 8) and the research is critical on the use of textual evidence and how to corporate them with the archaeological evidences.

There is however, probably as a result of the focus on the Middle-Assyrian period, a huge decline on the study of the Mitanni period. The lack of texts has discouraged the archaeologists to deal with this period in depth and now that the

relation between texts and archaeology is being reconsidered the focus is still on works that previously included texts. However, exactly the lack of textual evidence is what should intrigue the archaeologists to deal with the Mitanni period because they are certainly better equipped to do so than historians. So far the Assyrian expansion in Hanigalbat has been demonstrated archaeologically by the succession of the Mitanni material culture such as ceramics (Pfälzner 1995) and seal styles (Matthews 1990) in certain sites: [Tell Billa (Speiser 1932-33), Tell Mohammed Arab (Roaf 1984), Tell al Rimah (Postagate *et al.* 1997), Tell al-Hawa (Wilkinson and Tucker 1995), Tell Brak (Oates *et al.* 1997), Tell Hamidiya (Eichler *et. al* 1985; Eichler *et al.* 1990), Tell Mohammed Diyab (Faivre 1992a; Lyonnet 1990), and Tell Fakhariyah (McEwan 1958).]

Some of the most notable Mitanni sites are Tell Brak (Oates *et al.* 1997) and Tell Hamidiya (Eichler *et al.* 1985), possibly Ta'idu, residence of the Mttannian king, mentioned above which Adad-nîrârî and later his son destroyed. The excavations of the acropolis confirm that the site was a large palatial city. We also have Mitanni traces on Tell Sabi Abyad where there is a *dimātu* dated in this period right underneath the Middle-Assyrian *dunnu* (Koliński 2001, 60).

This decline of studies in Mitannian period the past decade or even the past fifteen years has resulted in a lack of knowledge on the transition from the Mitanni to Middle-Assyrian. We are now familiar with the settlement patterns and the governance of the landscape of the Middle-Assyrians. We don't know however what settlement patterns were there before, during the Mitanni period and on what Middle-Assyrians based their system. Of course traces may always be found on the Middle-Assyrian system itself and many archaeologists have mentioned aspects of the system which might be a remnant from an older system used by the previous owners of Hanigalbat but there is nothing we can say for certain.

Especially the settlement changes which the Middle-Assyrians designed should be studied from both perspectives and with knowledge of both Mitannian and Middle Assyrian cultures. Studying the subject only from the Middle Assyrian perspective can only give half of the needed results. It is important to focus on the transition which occurred in the period because from there we can deduce important aspects of both civilizations. In the following chapters I will trace this transition through the current bibliography and archaeological finds and

what results it had in the settlement patterns and in agriculture. What changes can we see in archaeological finds and what do these tell us about the cultural and political transition during the Middle-Assyrian expansion to Hanigalbat.

Chapter 2: Settlement Patterns in North Jazira

In this chapter I will identify the settlement patterns of the Syrian Jazira and how these change. The main focus will be on the transition from the Mitanni to the Middle Assyrian period. The latter is well documented and has been studied in depth for the past decades as it reveals a lot about the political and economic structure of the Middle Assyrian Empire. The Mitannian period however has unfortunately been sidelined due to the lack of evidence and the focus on the Middle Assyrian period. Therefore there are limited studies concerning the correlation of the settlement patterns of these two periods which could, if studied properly, prove invaluable to our understanding of the Middle Assyrian settlement system.

`   In this chapter I will present a bibliographical overview of the available data concerning three different regions of the Mitannian and, later, of the Middle Assyrian empire. The goal of this overview is to combine different kind of data in order to observe the differences between the settlements patterns in evidence for various parts of Jazira. That way, by identifying what changes occurred and how the different regions were reorganized according to their own specific needs, I will try to understand the transition from Mitanni to Middle Assyrians. There are however several limitations to this kind of research.

A severe limitation to this kind of study is the lack of surveys concerning the Mitanni period. The Balīḫ Valley is located in the west side of the Jazira and is the valley of the perennial tributary of the Euphrates, Balīḫ River. The exemplary work done by Lyon (2000) in this area, based on the Balīḫ Survey (BS) (Akkermans 2003), is summarized here has not been undertaken in other areas. The Upper Tigris region is located at the northern edge of the Jazira. The investigations of the Upper Tigris had to be done fast due to the Dam project which flooded the area destroying all the archaeological record. The focus of the research was on the more important and visible sites of the area and thus didn't leave time for extensive research on the Mitanni remains. The Ḫābūr region, the heartland of the Jazira is quite large and the focus has been on the larger sites and their respective Middle Assyrian levels rather than surveying the areas to identify Mitanni settlement patterns.

Another reason that these kinds of surveys are not available for the matter under discussion is the difficulty to distinguish the pottery horizons between the two periods when examined on a survey level. Pfälzner (1995) contributed on the matter with his book about Mitannian and Middle Assyrian pottery. Within context the two kind of pottery are recognizable but a survey should be much more careful on the study of pottery and assigning a site as Mitannian or Middle Assyrian. Examples of such surveys are the North Jazira Survey (Wilkinson and Tucker 1995), the Northeast Syria Survey (Meijer 1986), Ḫābūr Survey (Lyonnet 2000) and Tell Hamoukar Survey (Ur 2010) etc. (fig. 3). All of them have been invaluable to our understanding of the Middle Assyrian administration system and settlement patterns but don't answer questions concerning the Mitanni Empire.

For instance, the Tell Hamoukar Survey, conducted by Jason Ur during the periods 1999-2001at the general area of Tell Hamoukar, located on the eastern side of north Jazira, just above the area of the North Jazira Survey. In his research he thoroughly investigated the tell and its surrounding area, locating several sites of different periods. There is a gap however in the sites of the 2nd millennium BC. For the early 2nd millennium, period 8 in the book (Ur 2010, 110) he locates 9 sites. Then, skipping period 9, which should have been the Mitanni period he proceeds to period 10, the Middle Assyrian-Late Bronze Age period locating 21 sites. His reasoning for neglecting the Mitanni period is that "it remains difficult to distinguish Mitanni ceramics from Middle Assyrian ones in surface assemblages" (Ur 2010, 267). Thus he decides to neglect the period, ignoring it completely in both the archaeological and historical record. All the sites which could possibly be Mitannian are added to period 10 and he tries to identify continuity between period 8 and 10 (Ur 2010, 111-112) without taking into consideration period 9.

Similar problems exist in most of the surveys conducted in the area which neglect the Mitanni period either completely or summarize it with the Middle Assyrian period. A good exception to this is the Balīḫ Survey, but even in this case the data collected for the Mitanni period are little.

Due to the lack of data I chose a relatively different path in order to identify the transition phase between the Mitanni and the Middle Assyrian Empire and some of the reasons behind certain policy choices by the Middle Assyrians. In the first part of the chapter I will examine the general settlement patterns of the

Balīḫ Valley as presented by Lyon (2000) as well as two of the largest and most important sites of that area in order to understand the situation at this unsecure border of the Middle Assyrian Empire. Then in the next two parts of this chapter I will examine sites of the Upper Tigris and Upper Ḫābūr regions in order to observe the different kind of policies by the Middle Assyrian on regions with vastly different conditions. Each subchapter will be followed by a small conclusion creating the general picture of each region. The purpose of this chapter is to understand the different kind of policies Middle Assyrian Empire could use. In the next chapter I will investigate the economic and productive capabilities of these regions in order to add the economic factor to these policies. In the last concluding chapter I will present all the data presented and by examining the established opinions about the Middle Assyrian administration system, I will present the transitional phase between the Mitanni and the Middle Assyrians.

2.1 Settlement Patterns in the Balīḫ Valley

2.1.1 Introduction, previous research and limitations

The Balīḫ is a perennial tributary of the Syrian Euphrates which originates from the modern ʿAyn al ʿArus, some 25 km to the north of Tell Sabi Abyad, and its debouchment into the Euphrates is near Ar-Raqqah. The climate of the Balīḫ valley is arid and steppe-like and with unevenly distributed precipitation and very high evaporation. The northern part of the valley, from the origins of the river until Tell Zkero (BS152)[1] 6 km south of Tell Hammam et-Turkman (BS 175), exceeds the 250mm isohyet annually which is the theoretical limit for the rain-fed agriculture (Akkermans 1993, 20; Lewis 1988, 685-86; Wiggermann 2000, 176; Wilkinson 1998) whereas in the lower Balīḫ area agriculture is only possible with irrigation. This difference can be observed on the 1945 map of population distribution (Lewis 1988, Pl. 207); there is a high concentration of villages and towns in the upper part of the river valley and there are almost no villages or towns in the lower part.

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[1] BS stands for Balīḫ Survey

Despite the fact that Balīḫ River is a minor tributary of the Euphrates River it has been the natural and cultural frontiers during several periods. During the last half of the second millennia the valley passed from the hands of the Mitanni, which stretched to the Syrian coast, to become the western frontier of the Middle-Assyrian Empire.

The first to discuss settlement patterns in the Balīḫ valley was Max Mallowan in 1938 who conducted five small excavations in the area (Mallowan 1946). Years later, in 1983 Peter M. M. G. Akkermans conducted a survey in the area as a side project of the University of Amsterdam's archaeological project at Tell Hammam et-Turkman (Akkermans 1984) and published a full study on the project in 1993 (Akkermans 1993). Later on Tony Wilkinson (1996; 1998), leading the Western Jazira Archaeological Landscape Project conducted by the Oriental Institute, University of Chicago and in association with prof. Akkermans extended the knowledge we have on the Balīḫ valley by studying pedological, geomorphological and cultural landscapes around Tell Sabi Abyad in the northern part of the valley. His research however also highlighted our limitations on some research methods: "Although landscape survey did not increase the numbers of know settlements in most areas, survey on foot along the banks of the Balīḫ did, because adjacent to the river sites did not register so well on aerial photographs and could only be recognized by field walking" (Wilkinson 1996, 14). In 2000, J. D. Lyon published some preliminary reports of his re-surveys as well as his re-assessment of previous survey records on the settlement patterns Balīḫ valley. Unfortunately his work remains unfinished and, therefore, most of the data presented here are based on his preliminary publication. The Balīḫ chronology used is also after Lyon (2000, Table 1).

2.1.2 Mitannian settlement patterns: Balīḫ VIIIA

As it has been mentioned, due to the lack of textual information very few toponyms are known from the Mitannian period and especially for the Balīḫ there are close to none. Therefor we must rely entirely on archaeological data. So far forty one sites have given evidence of Mitanni presence in the area (fig. 4). The average site size is 2.37 ha, and the range extends from 11 ha (Tell Biʿa) for the

largest site to 0.5 ha. The average sites size in the south (3.16 ha) is greater than that in the north (2.03 ha). The total aggregate settled area for this period is 94.6 ha (Lyon 2000, 99).

Lyon used thiessen polygons to divide the area into territorial divisions and interaction clusters. This resulted into 8 territorial divisions which had more or less equal length in the southern three quarters of the valley but became much more confined in the north (Lyon 2000, 99). The result of this division corresponds to the theoretical dry farming-irrigation zones of the valley. Thiessen polygons are extremely useful for the archaeological research. For the case of Balīḫ Valley however, our limited knowledge of sites might create a false picture of the settlement patterns of the area.

Lyon suggests that there are two main interaction clusters in the south which also interact with each other: one with Tell es-Seman (BS-83) (5.2 ha) as a center and another where the valley becomes slightly constricted, at the confluence of the Qaramokh, a sidestream which contribute to Balīḫ, and Balīḫ Rivers. In the north however things are quite different with bigger and more frequent clusters. The confined clusters give the possibilities of better interconnection between settlements and therefore we can see interaction between Tell Jittal (BS-211) and Tell Sabi Abyad or Tell Hammam et-Turkman (BS-175), or Tell Abyad (BS-289) and Tell Sahlan (BS-247).

Tell Biʿa however seems to be quite a different story in a relative isolation. The ceramic assemblage found in Tell Biʿa, a distinct type called *Spätbronzezeitliche*, do not match with the ceramics of the rest of the Balīḫ valley. This type has been found in the Upper Euphrates in Tell Munbaqa (Pfälzner 1995, 198-99) and Tell Hadid (Dornemann 1979, 1981; Pfälzner 1995, 197-98). From these data it could be assumed that Tell Biʿa had more interactions with the Euphrates settlements rather than the southern settlement of the Balīḫ valley. Of course there would be a dependency with Tell Biʿa since it was the biggest settlement in the area, but Tell es-Seman, located further north, seems to be playing a more centric role.

2.1.3 Middle Assyrian expansion and settlement: Balīḫ VIIIB

During the Middle Assyrian expansion in the Balīḫ valley there is a great decrease in occupied settlements and a big difference in the way the area was organized (fig. 5). According to Lyon (2000, 100), only six sites have been identified with Middle Assyrian components: Tell Sahlan (BS-246), Tell Jittal (BS-211), Tell Hammam et Turkman (BS-175), Tell Sabi Abyad (BS-189), Khirbet esh-Shenef (BS-170) and Tell Abbara (BS-327). These sites range in size from 8 ha (Tell Sahlan) to 0.3 ha (Khirbet esh-Shenef). He also includes another six sites with possible Middle Assyrian presence, the most notable of which is Tell es-Seman. It is possible however that in many of these sites or other with no Middle Assyrian indications such as Tell Biʿa or Tell Abyad, Middle Assyrians remains may have been obscured by later occupation.

There is a high concentration of sites near the southern limit of the dry-farming. Most of the sites are located along the Balīḫ and between Tell Hammam et-Turkman and Tell Sahlan with an average nearest neighbor distance of 4 km. BS-327 is the only site outside of this cluster and could be on a route leading to Upper Euphrates. However it is hard to say about its significance due to the possibility of another settlement cluster at Tell es-Seman.

According to Lyon these patterns correspond to the image of interdependent Middle Assyrian settlements. The focus on the southern limit of feasible dry-farming might suggest an agricultural expansion in under-utilized or abandoned marginal areas. This area is also at a safe distance from other power center. Lyon also references (2000, 101) grain subsidies from Ḫabur in Dūr-Katlimmu texts and other supplies which indicate that Balīḫ was subsidized to some extent.

2.1.4 Re-assessing the data

The preliminary data presented here point to the direction of a huge decline from the VIIIA period to VIIIB. In previous periods there is a continuity documented by archaeological data and noted by many researchers (Mallowan

1947, 19-21; Wilkinson and Tucker 1995, 58-59). Especially from period VII to period VIIIA, and despite a small decline on settlements there still is cultural as well as site continuity (fig. 6). The same decline can be traced on the aggregated area as well (fig. 7). What is of interest in figure 6 are the newly established sites from periods VII-VIIIA to periods VIIIA-VIIIB. While on continuity perspective there is a huge drop on the Middle Assyrian period and less than 10 sites persist and 34 sites are abandoned, 5 new sites are being established [BS-296, BS-199, Khirbet esh-Shenef (BS-175), Khirbet al-Hajaje (BS-171), Tell Breilat (BS-161)]. Of course most of the newly established sites were in the northern part of the valley (fig. 8) since the focus of the Middle Assyrians was mainly there. Lyon (2000, 103) suggests that most of the sites were abandoned between the VIIIA and VIIIB periods before the establishments of the new settlements. This hiatus has been recognized at Tell Hammam et-Turkman and Tell Sabi Abyad but the duration can only be estimated.

The latter is also being supported by the population levels and the possible variability in population density through time. According to Lyon (fig. 9) there is an overlap in population levels for periods VII and VIIIA but the possible range is population density for VIIIB is much lower and does not overlap at any point with the previous period, not even with the one coming.

Something important to note is the decline of site size frequency from VIIIA to VIIIB (fig. 10). We have already mentioned that we have a phenomenon of abandonment in most of the sites, mostly small sites, but there is also a huge reduction in the size of the bigger settlements. The data presented by Lyon portray very well the magnitude of the dereliction in the Balīḫ area.

In a direct relation to the decline in sites is the decline in aggregated area. South has completely diminished in aggregated area and in the north the decline is quite significant (figs. 8, 11, 12).

In order to have a better understanding however on the changes that happened on the settlement patterns we should take a look at some of the sites themselves and how the decline is depicted through the archaeological finds and what we can deduce about the general trend of abandonment in the Balīḫ valley from the Mitanni to Middle Assyrian period. In the following part of the chapter I will examine on two of the most important sites of the Balīḫ valley, Tell

Hammam et-Turkman and Tell Sabi Abyad, and the changes which occurred at these sites as they changed hands from the Mitanni to the Middle Assyrians.

2.1.5 Examining the sites

Tell Hammam et-Turkman

Tell Hammam et-Turkman is located on the left bank of Balīḫ, just a bit south of Sabi Abyad 14 km south of Sahlan. It measures 500 x 450 x 40 m (Van Loon – Meijer 1988, xxvii) and seems to be one of the most important sites available for the Mitanni period. It also gives the opportunity to examine the transition to the Middle Assyrian period due to the short occupation that took place at VIIIB period and its possible dependence on Tell Sabi Abyad during VIIIB.

A palace (Meijer 1988, 88-91) dated to the VIIIA phase has been found based on walls of the previous phase and has east-west orientation. Beneath the floor of the projected hall room, on the Middle Bronze Age level, a foundation or a votive-offering (Rossmeisl – Venema 1988, 572) deposit has been uncovered. It consisted of handmade, unbaked clay objects, human figurines of different sizes, detached body parts and miniature vessels (Rossmeisl – Venema 1988, 571).

The palace is divided into two wings (fig. 13): the western wing, with a regular ground plan and well-built walls, and the less monumental eastern wing. Meijer designates the first as official and the second one as domestic in character. The west wing consisted of at least seven rooms, including the hall, three entrances to the main hall and a ramp which led down into the courtyard. The east wing has been poorly excavated and we have little knowledge about its function. In the next VIIIA level of the palace a few modifications and repairs took place. The end of this phase found the palace completely deserted and probably the inhabitants expected it as they had taken all their belongings with them and blocked the entrances of the west wing with mud bricks.

The next phase, VIIIB, is called "reoccupation phase" of the Late Bronze Age and some Middle Assyrian pottery has been found. The building however fell into ruin and became filled with erosion debris. This debris was covered by a

thick hard packed yellow layer. There are indications of architectural work on this layer but the site has soon been abandoned again.

The pottery of the VIII (Smit 1988, 457-497) has been divided both stratigraphically and typologically into phases A and B corresponding with the VIIIA and VIIIB chronology. The pottery found in the VIIIA levels of Hammam et-Turkman has a strong Mitanni character. It continues the tradition of VII, it has parallels with the Nuzi, Tell Brak, Assur, Chagar Bazar and some with Ugarit and Alalakh (Smit 1988, 488). The same abandonment period depicted in the architectural phase can also be observed in the ceramics. The VIIIB pottery has very few parallels with the preceding phase and is closer to the Middle Assyrian typology (Pfälzner 1995, 197; Smit 486-488) and has a short span of existence.

The archaeological data mentioned here provide us with some of the pieces of the puzzle concerning the transition from Mitanni to Middle Assyrians but definitely cannot complete the full picture. Hammam et-Turkman seems to be an important economical center of the Mitanni period which, for some reason, is being completely abandoned but with no evidences of forced abandonment or some kind of battle. Then there is a short reoccupation of the site which, however, does not last long and the site was deserted for more than a millennium (Meijer 1988, 91). Several hypotheses have been made concerning the decline of Hammam et-Turkman.

Meijer (1988, 91) suggests that the height of the Tell, which by the end of the Late Bronze Age was around 39 m. above the surrounding plain was one of the main reasons for the end of the habitation there. The distance from the houses to sources of water food and fuel had been greatly increased and therefore discouraged any further occupation. Akkermans *et al.* (1993, 31) however connect the decline at Hammam et-Turkman with the rise of Tell Sabi Abyad as a Middle Assyrian center. He suggests that this rise happened at the expense of Tell Hammam et-Turkman and concludes that "local institutions of power and authority, rooting in time-honoured traditions, were replaced and that social and economic relations, both intra- and intersite, were seriously disturbed. Tradition regimes were side-tracked by the establishment of new centers of power at sites formerly uninhabited…" (Akkermans *et al.*1993, 31). This view however is possibly not entirely correct as there have been found Mitanni evidences of occupation and a Mitannian *dimtu* at Tell Sabi Abyad and there is a short period

of abandonment on this site as well (Koliński 2001, 61). Szuchman (2007, 44) argues that this shift from Hammam et-Turkman to Sabi Adyad relates to more practical matters such as the more easily defensible steep slope and the circular form of the Tell, rather than any dramatic ideological reasons. This way he connects the temporary Middle Assyrian occupation of Hammam et-Turkman with Wiggermans (2000) analysis of Sabi Abyad and the surrounding subcenters (see below).

Tell Sabi Abyad

Tell Sabi Abyad is important for several reasons. It is the only known site in the Balīḫ to contain a *dimtu/dunnu*, it is of continuous importance from the Mitanni to Middle Assyrians (although there is a small hiatus between those periods) and, during the Middle Assyrian period, is owned by Ili-ipadda, a member of the royal family with the title of *Šar Hanigalbat* (Akkermans 2006, 201).

The site is relatively small (5 ha.) and the Late Bronze Age city is centered in a 60x60 walled fortress and has been excavated since 1986 by P. Akkermans who has exposed nearly the entire Middle Assyrian settlement[2]. There are at the moment 7 major building phases of the site, with the oldest being the Mitannian phase. A massive rectangular structure is the nucleus of the settlements and it measures 23 by 21 m. This tower is the only remnant available so far from the Mitanni period. This initial phase of the defensive structure consists only of 9 rooms and a staircase on the north east part of the building (room 3) suggesting that there was probably a second floor (figs. 14 and 15). The single entrance of the fortress for this level is the same as for the next phases in the northern wall of room 2, indicating a concern for security. Thirteen niches were found at room 4 constructed at floor level with various lengths. In the same room there was also a tannur-like oven built on a low mud brick platform. Akkermans (*et. al* 1993, 10, 13) believes that this room contained a now lost tablet archive. The use of the oven was possibly to bake the tablets before they were places in the niches. There

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[2] The most up-to-date information on the campaigns form 2001 is available on www.sabi-abyad.nl website. Also the recently started project about the dunnu of the Sabi Abyad can be found on www.dunnu.nl .

are no data available for the rest of the rooms [except maybe room 6 which possibly served as a latrine (Kolinski 2001, 61)] but in the following periods they served as magazines. There is also no evidence for a residential part of the building so one could make the hypothesis that they were located on the upper floor(s) of the structure.

The tower can be tentatively dated to the turn of the 14th century and there is an abandonment phase before the reoccupation of the Assyrians which resulted in a 70 cm. debris level. Due to the dimensions and the rather "safe" character of the building it can be characterized as a *dimtu* and be compared with the structure at Tell Fahar (Wiggermann 2000, 184).

In contrast to Tell Hamam et-Turkman, Tell Sabi Abyad did not decay during the Middle Assyrian period but was reoccupied and become the major Assyrian center of the Balīḫ valley. The Mitanni tower was wholly renovated and the settlement[3] was given a huge thick wall forming a square enclosure of 3600 m^2. So far there have been revealed more than 400 texts dealing with several administrative, personal and agricultural activities (which will be studied on chapter 3) but very few have been published yet[4].

As I have already mentioned the fortress was the residence of *Šar Hanigalbat,* a prestigious title during the Middle Assyrian period. What are the reasons that made it so vital? As we have seen there is a general decline on the population and the settlements of the Balīḫ valley. The river should have served as a natural mark for the border of the Empire and there was an obvious need for a defensive center. Although there had been some efforts by the Assyrians to expand beyond the Balīḫ and reach Tell Fray but they were generally unsuccessful (Szuchmann 2007, 40) and the river became the border of the empire. Beside the agricultural potential of the site there are several reasons why the Assyrians needed such a center at their border: i) it could contribute as a reinforcing station for expansion campaigns, ii) it could serve as a diplomatic base with the Hittites iii) there was need for a border patrol as well as control over the nomadic tribes of the area (which later on will cause trouble in the Balīḫ valley). As Akkermans states: "*it was a military outpost on the western frontier of Assyria; it was an*

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[3] For an architectural description of the site see Akkermans 2006

[4] Descriptions of specific texts can be found on the website www.sabi-abyad.nl as well as on Lyon 2000 and Wiggerman 2000.

administrative centre in control of the westernmost province of the kingdom; and it provided custom facilities on the route from Carchemish to the Assyrian capital of Assur" (Akkermans 2006, 201).

2.1.6 Concluding remarks on the settlement patterns of the Balīḫ valley

The case of the Balīḫ valley is rather complicated and its importance has shifted through periods. During the Mitanni period the valley didn't have the role of a border. It was a fertile region controlled by probably more than one centers of reasonable size. The contacts between these centers can be identified and assumed to a certain degree (Lyon 2000). The expansion however of the Middle Assyrians seems to have disorganized the area. The Mitannian Empire had probably found a way to deal with the nomad tribes and probably had settled them in some parts of the valley. The change of power and the small hiatus of governance must have caused some kind of chaos in the region.

The continuous will of expansion of the Assyrians at the early stages of their campaigns and therefore could not have paid much attention on reorganizing the area. When finally the borders had been established they had to establish a strong presence. Changing the political center of an area was one of the common practices of Middle Assyrians and this among the other already mentioned reasons, as well as the defensive capabilities of Sabi Abyad, might have been why they chose to create this center.

The power vacuum however had already caused several problems. The southern portion of the valley, which needed continuous maintenance of on the irrigation system, had been neglected and this can be observed by the great reduction in population and in site numbers and forced the people living there to return to a nomadic way of life. The destruction of the villages, pestilence and the general ravages of war also played their part on the general abandonment of the area. The Assyrians decided to exploit the agricultural potential of the huge area around Sabi Abyad and try to establish their power and their presence in the area through this center by dealing diplomatically with the nomadic tribes.

The transition from Mitanni to Middle Assyrians in the area of the Balīḫ River therefore does not seem so smooth. Assyrians definitely overextended on their expanding campaigns and paid the price by having a rather fragile situation in the region. Finally it is important to remember that Balīḫ valley was only one of multiple contexts of Middle Assyrian expansions. As I will present in the next sub-chapters the situation in the heartland of the empire as well as on safer boarders was dramatically different.

2.2 Settlement Patterns in the Upper Tigris region

2.2.1 Introduction, previous research and limitations

The Upper Tigris was the norhtern border of the Middle Assyrian Empire. In historical texts Assyrian kings give a lot of value to their campaigns in the region, for example both Adad Nirari I and Shalmaneser I claim to have captured Ta'idu, the Mitanni capital. The general area of Upper Tigris is well within the dry-farming zone with ca. 400-500 mm/year rainfall and dry-farming should have been practiced regularly, although supplementary irrigation was at the very least not unknown in the area (Reculeau 2011, 74).

In recent years the Turkish government has constructed a series of dams on the major waterways of southeastern Turkey. The construction of the Ilisu dam brought several rescue projects of surveys and excavations in the areas and sites which would be either flooded or heavily affected by the dam project. The projects started around 1998 and have given some extremely impressive and important results on the archaeology of the area. Several already know sites have been excavated more extensively (like Giricano, Ziyaret Tepe, Uctepe), research has been done in some recently found sites (like Salat Tepe and Kenan Tepe) and the survey projects have provided us with a very important mapping of sites of the area (fig. 16, 18, 19)[5].

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[5] For more information on the Ilisu Dam archaeological project check the publications *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs* for the years 1998, 1999, 2000, 2001, 2002. Check also: http://arcserver.usc.edu/index.html

Unfortunately, due to the limited amount of time available to the researchers, the studies of most areas have been focused on the more impressive finds. This leaves the Mitanni period poorly studied one more time. The surveys do not give any information about small Mitanni sites making it impossible to reconstruct any form of settlement patterns for the period. The only information about the Mitanni period comes from the Mitanni levels of bigger sites, some of which will be discussed in this chapter: Ziyaret Tepe/*Tušhan* and Üçtepe. There will also be discussed the *dunnu* of Giricano which contains a Mitanni level.

Since it is not possible to draw information about the settlement patters and the transition from the Mitanni to the Middle Assyrian period in this level I will focus on the sites mentioned and I will try to understand the shift that happened during the Middle Assyrian expansion. The main point is to identify the different kind of administration and governance in a safer border in comparison to the Balīḫ valley. Therefore I will go directly to the examination of the sites focus on the levels of the transition period.

2.2.2 Examining the sites

Ziyaret Tepe/*Tušhan*

Ziyaret Tepe is a mound located on the south bank of the Tigris River 20 km west of the confluence of the Tigris and Batman Rivers (fig. 17). The periods identified in the mound extends from the late Neolithic period to the Islamic period with the most important finds dating from the early 2nd through the mid. 1st millennia B.C.

The Mitanni level was identified during Operation E in the field season of 2000 (Matney *et al.* 2002a, 537). There are some structures of the Step 3 and 4 of the excavation that can be dated to the Mitanni period and several examples of Nuzi ware and Mitanni pottery were located (Matney *et al.* 2002b, 65). The sample is rather small and there is a lack of study of finds of the same period in the site, making it hard to understand the size of the Mitanni occupation. The excavator however underlines (based on Wilhelm 1989, 39-40) the importance of the Upper Tigris region "*when the royal capital was moved to Ta'idu possibly the*

nearby site of Üçtepe 30 km upstream from Ziyaret Tepe on the Tigris, argues for the possibility of urban occupation at Ziyaret Tepe during the 15ᵗʰ and early 14ᵗʰ centuries B.C." (Matney *et al.* 2002a, 537).

During the Assyrian period the site has been connected with ancient Tušhan. Through the years the arguments has been convincingly reiterated but definite archaeological and textual proofs are still lacking (Matney *et al.* 2002b, 48-49; Matney *et al.* 537; Radner and Schachner 2001). Atop the Mitanni occupation, with seemingly no break, lies the Middle Assyrian settlement. Several finds suggest the largest portion of the 32 ha. site was occupied during this period. There are pottery sherds, jewelry, and arrowhead and a cylinder seal in Operation E (Matney *et al.* 2003, 177-186) and ceramics in Operations A (Matney *et al.* 2003, 186-187) and D (Matney *et al.* 2002a, 543-545).

Several public buildings have been identified dating to the Middle Assyrian period of the site but there are no indications of a palace, which Tushan, according to the text, was likely to have (Szuchman 2007, 51). According to Harrak (1987, 198) the site itself may have functioned at the same administrative level as Assyrian palatial sites and therefore the equitation of the site with Tušhan is invalid.

Assuming that there was at least a small Mitannian center at Ziyaret Tepe then the Assyrians did not intend to make any kind of changes. In the contrary, they retained the site and probably expanded it in order to exploit its agricultural possibilities as well as its strategic position.

Üçtepe/*Ta'idu*

Üçtepe is a mound of a 44m high and 400m in diameter and it is located on the south side of the Tigris River, 50km southeast of Diyarbakir. 13 levels have been identified at Uctepe dating from Early Bronze Age to the Roman Period (Köroğlou 1998, 109). Of these, level 10 is classified as Hurrian-Mitannian, level 9 as Middle Assyrian and levels 8 and 7 as Late Assyrian (Köroğlou 1998, Resim 3, 4).

In Trenches XII, X and III at the east site of the mound there have been found an ephemeral building and a small quantity of Nuzi ware (Köroğlou 1998,

27). In the same trenches, with little to no interruption a single Middle Assyrian construction is located, with two floor levels, containing a burial with jewelry, fine vessels, carinated bowls and nipple-based jars (Köroğlou 1998, 27-30). The occupation continues again with no interruption on levels 8 and 7.

What is most important however about the site, and can be also proved by the archaeological evidence, is its identification as the ancient city of Ta'idu. Above I very briefly discussed the identification of Ziyaret Tepe as Tušhan and included a small part of the discussion. Kessler (1980) was the first to try and identify several cities of the Upper Tigris based on textual evidence and the Kurkh Monolith. Despite his convincing arguments about Ta'idu being Üçtepe, Köroğlou (1998, 105) maintain the opinion that the site should be identified as Tushan.

Ta'idu is of importance because it was the city that became capital of the Mitannian state after the sacking of Wassukanni by the Middle Assyrians. Firstly it must be cleared that, despite the possibility of the existence of another Ta'idu in the Ḫābūr triangle, the Ta'idu which became capital should be located in the Tigris River. The argument is: i) it wouldn't make sense after the occupation of the Ḫābūr area (where Wassukanni was probably located, will be discussed) to relocate the capital of the state within the occupied region ii) Upper Tigris offers a certain amount of security against enemies approaching from Assyria (Radner and Schachner 2001, 756-757). Also the general area of Upper Tigris belonged to the Mitanni and the Hurrian culture remained there even during the Neo-Assyrian period as can be seen through the names of many rulers of the area with Hurrian names.

While it is logical to locate Ta'idu in the Upper Tigris and Kessler's argument is convincing, Radner and Schachner (2001, 575) make one point which is rather problematic. They state that the absence of Nuzi or Mitannian pottery from Ziyaret Tepe supports Kessler's suggestion. However, later finds (as stated above) revealed that there is actually a Mitannian level at Ziyaret Tepe making Radner and Schachner's argument invalid. This new find complicates the picture but still the fact that Kurkh Monolith should not be equated with the stela that Ashurnasipal set up in Tušhan remains and therefore Uctepe should not be identified as Tušhan.

Once again, in Upper Tigris Middle Assyrians decide not to make any changes on the large sites but retain the previous centers as their own. One would expect at least the relocation of Ta'idu since it was the last Mitanni capital and the Middle Assyrian strategy usually suggests relocation of such major sites. They chose however to retain Ta'idu with its power and its strategic location and the site continued without stop until tha Late Assyrian period.

Giricano/ *Dunnu-ša-Uzibi*

The excavations at Giricano are part of the international salvage project in the area of the planned Ilisu Dam on the Tigris. The site was excavated by Andreas Schachner from 2000 until 2003 (Schachner 2003; Schachner 2004; Schachner *et al.* 2002; Schachner *et al.* 2002). Despite the medieval disturbance of the site it was possible to identify the occupation levels of the 2nd millennium B. C.: Middle Bronze Age – Mitanni- Middle Assyrian- Early Iron Age- Iron Age.

The mentioned levels all seem to follow each other without any sort of hiatus or abandonment between periods. At Trench 06 there were found two Middle Assyrian levels and at Trench 01 four. These layers lay upon the buildings of the Mitanni occupation and it is possible that the same buildings used by the Mitanni people were also used by Middle Assyrian (Schachner 2003, 156).

Of great importance is the small archive of 15 tablets which was found in the last phase of Trench 01 (and as such is dated to the latest phase of the Middle Assyrian occupation) and was thoroughly studied by Radner (2004). The texts are all legal documents with obligations of delivering corn, cattle and silver, 3 texts concern the conveyance of persons and one text is a receipt for corn (Radner 2004, 64-69). Through the texts she identifies the site as being the Middle Assyrian *dunnu* of Dunnu-ša-Uzibi (Radner 2004, 71) which was owned by a man living in the nearby urban center of Tušhan. The layers suggest a duration of 120-160 years for the Middle Assyrian occupation and this can be verified by the textual evidence as well.

With that in mind, and based on the fact that there is no disturbance among the different periods at the site, Radner (2004, 113-115) also sees a Late Bronze Age and Mitanni *dimtu* under the Middle Assyrian *dunnu*. If this proposal is

accepted, which in my opinion it should be based on the historical events and the written sources, then we can see once again the Middle Assyrian adopting a Mitannian organization structure and preserve its functions at their full extent. It seems that this kind of policy was a pattern for the control of the Upper Tigris region by the Middle Assyrians. The possible Mitannian *dimtu* however is a speculation and its existence can't be proven based on the current available archaeological data.

Many similarities also can be observed between Giricano and Tell Sabi Abyad. They are both *dunnus* and have similar economic values. What Giricano lacks however is the defensive importance that Sabi Abyad has. It seems to be dependent to Tušhan, a much larger urban center. The general pattern however remains the same; many smaller sites were surrounding Sabi Abyad. In Upper Tigris some smaller *dunnus* and smaller sites surround the main urban centers (i.e. Tušhan and Ta'idu) which are located with a ~20km distance of each other.

2.2.3 Concluding remarks on settlement patterns in the Upper Tigris

The picture of the Upper Tigris region seems quite different from the west border of the Assyrian empire examined above. Here all the important Assyrian sites are settled right on top of the Mitanni occupation with little to no interruption at all in their phases. Although Giricano looks surprisingly similar in terms of production and crafting activities as well as in terms of size the lack of fortification can give significant information. The Balīḫ was an unsettled border as we have seen. Middle Assyrians several times tried to expand their conquest further west but didn't manage to accomplish it. This resulted in lack of proper administration and instability in the area.

In Upper Tigris however they immediately adopted the previous administration centers. They didn't have any intentions of expanding further in north and the several *dunnus* which already existed in the area made it secure enough. Middle Assyrians immediately integrated the northern border with the rest of Hanigalbat as a productive center. As I've argued, the settlement pattern of the area already provided enough security. There was no need of trying to

establish a new power status on the local population both sedentary and nomadic. The relatively little destructions on sites as well as the incorporation of previous populations in the Middle Assyrian production machine were enough to establish them as the new governors of the area without much trouble. The local nomadic tribes of the area also did not find themselves in a new situation as the local power had remained on the same centers thus not causing the problems which arose in the Balīḫ.

2.3 Settlement patterns in the Upper Ḫābūr Basin

2.3.1 Introduction, previous research and limitations

The Upper Ḫābūr basin in northeastern Syria is located well within the limits of the annual rainfall required for dry-farming. Its boundaries are marked by the ranges of Tur Abdin/Mazi Daği to the north and by the Jabel Abd el-Aziz and Jebel Sinjar to the south. The part of the river located within the valley in addition to the average of 270-460mm of annual rainfall provide excellent conditions for dry agriculture with the assistance of irrigation systems whenever they were needed and in order to increase the productive capabilities.

The valley was of vast importance during the 2nd half of the 2nd millennia for the Assyrian Empire (figs. 18 and 19). It was the heartland and the political center of the Mitanni Empire and after the expansion of the Middle Assyrians became a core part of their empire not only for economic but also for symbolic reasons. There has been extensive research in the area with several excavations and surveys conducted. In this region there are more available Mitannian archaeological remains than the other two regions examined in this paper but still not enough to be able to reconstruct the settlement patterns and governance patterns of the empire. For the region where the capital is supposed to be located (Tell Fakhariyah/Waššukanni, will be discussed), one would expect way more finds and possibly even an archive.

However, from the little archaeological evidence available and the way Middle Assyrians organized the area we can still draw some conclusions about the

transition from one period to the other. Once again the archaeological surveys considering the smaller settlements of the Mitanni period are inexistent. Most surveys of the area don't differentiate pottery remains of Mitanni from those of Middle Assyrians despite the availability of the corpus (Pfälzner 1995). Due to the large scale of the area and the lack of data from surveys, I am going to examine some of the most important sites where we have traces of both Middle Assyrians and Mitanni and try to identify evidence for the transition.

2.3.2 Examining the sites

Tell Fakhariyah/*Waššukanni* (?)

Tell Fakhariyah is located south of Ras el-ʿAin at the source of the Ḫābūr River, south of the present-day Turkish border. Several excavations and re-evaluations have taken place since 1940's. A team from the University of Chicago, with McEwan (*et al.* 1958) was the first to conduct archaeological research at the site. In 1955 and 1956, A. Moortgat (1957; 1959) has clarified the stratigraphy of the site and in 2001, A. Pruß and ʿA.. Bagdo (2002) reevaluated the Middle Assyrian house found by McEwan. Some recent Syrian-German excavations have revealed the remains of three more building phases (Bonatz *et al*. 2008).

At sounding VI (McEwan *et al.* 1958, 19-20) there is architectural evidence of Middle Assyrian occupation and at soundings VI and IX (fig. 20) there is pottery dated to the LBA. However the pottery is not clearly distinguished and it is a mix of Middle Assyrian and Mitanni pottery (Kantor 1958a, 21-25). The recent Syro-Germanic excavations have uncovered architectural evidence of the Middle Assyrian period in Soundings B and D based on a Mitanni layer (Bonatz *et al.* 2008, 102-107, 118-121) and also three building phases in Sounding C with the latest being dated at the end of the Middle Assyrian occupation. A good repertoire of Mitanni and Middle Assyrian pottery has been found in Soundings B, C and D (Bonatz *et al.* 122-129).

What is of interest are the seals and seal impressions found in Sounding IX under the Iron Age palace which are of international character, not only Middle Assyrians. The glyptics of Tell Fakhariyah are generally of typical Middle Assyrian indicating the entrenchment of Assyrians within the administrative system (Szuchman 2007, 66) but Mitanni examples are also found in the same context as the Assyrian sealings (Kantor 1958b).

A very important discussion about Tell Fakhariyah concerns the ancient name of Tell Fakhariyah. The most popular identification is that of Waššukanni and it is linked with the Iron Age name of the tell Sikanu. However the derivation of Sikanu from Waššukanni has not been proven and the name Sigani which is used in the area since Ur III gives the possibility that Sikanu was the actual name of the city (Szuchman 2007, 68). In addition to this, nowhere in the texts found at Tell Fakhariyah the name Uššukani/Aššukani or Sikani is mentioned. The only preserved name is the name Dunnu and is connected by Szuchman with another name of a person Ninu'āyu tentatively identifying the site as Dunnu-ša-Ninu'āyu. The context of the archive found in the site also indicates the possibility of it being a *dunnus*.

Tell Fakhariyah probably functioned as an agricultural center and, according to the texts it was a private *dunnu*, much like Sabi Abyad. It definitely had a significant Mitanni occupation but the Middle Assyrian administration has probably intensified its agricultural activities. The mixed cultural finds however suggest a co-existence of Middle Assyrians and Mitanni people probably in a landlord-workers relation. The recent Iron Age finds also suggest that the site remained important through the Middle Assyrian period and until Late Assyrian period. It is important here to point out that private *dunnus* sites used as administrative or production centers were not always the case in the Upper Ḫābūr region.

Tell Chuera for example, the seat of a *bēl pāhete* was probably part of the Middle Assyrian state administrative machine. According to the texts found seems to have played a role in both international and local affairs of the empire (Szuchman 2007, 63-64). The distinction between these kind of sites and private *dunnus* is pretty hard to be determine archaeologically. There are no differences in pottery and similar public administrative buildings found at Tell Chuera are also

found in Sabi Abyad. Also both sites, as well as Tell Fakhariyah contain an archive. The only possible distinction comes through the textual evidence.

Another feature that may be related to the administrative function of the site is, according to Szuchman (2007, 65), the avoidance of the previous Mitanni occupation. Tell Chuera was probably of some cultic importance during that period, but the general Mitanni area has been completely avoided. The new Middle Assyrian settlement however seems to have been heavily emphasized and built with care. This might suggest that Middle Assyrians attempted to break any kind of relation to the previous administration and show that they were now the rulers of Hanigalbat. This feature is again in contrast to Tell Fakhariyah where we see a co-existence of the Mitanni culture with Middle Assyrians and it is also different from the Upper Tigris region where the Middle Assyrian *dunnus* and cities lay atop the Mitanni remains.

Tell Brak

Tell Brak is located west of the Jaghjagh River near Wadi radd. It is one of the largest sites (more than 40 ha.) and it is of crucial importance for the both the Mitanni period and the transition from the Mitanni to the Middle Assyrians. The first to excavate the site was Sir Max Mallowan in 1937 and 1938. The important excavations which revealed the Mitanni palace (fig. 21) were conducted by David and Joan Oates (*et al.* 1997) and lasted 14 seasons between 1976 and 1993. Several short period excavations and surveys, concerning different periods, have taken place at the site since then.

Tell Brak has substantial Mitanni occupation and contains a Mitanni temple and a palace. The evidence doesn't give an exact date of the construction of the palace but it should probably be dated somewhere in the middle of the 16th century. At the very least the palace was in existence by the early 15th century. Impressive, though broken or not well preserved, were the alien finds of Tell Brak. Several glass objects, objects of Egyptian alabaster, a Mycenaean stirrup jar (Oates *et al.* 1997, 79), Egyptianized scarabs, Hittite potter are some of the finds which underline the great importance and wealth of the site during the Mitanni period. Significant is also the Mitanni archive found in the Site which allows the

dating of several events and gives us better understanding of the Mitanni administrative system (Oates *et al.* 39-46).

Although the origins of the Mitanni state are more or less unknown, and the same goes for the establishment of their power, a cultural connection with Hurrians should be underlined as they dominated the Mitanni elite. The Hurrian background of the tell in addition to its location in the heartland of Hanigalbat suggests that it must have been under Mitanni control virtually from its inception (Oates *et al.* 1997, 146).

The palace was a fortified official residence and contained several workshops for specialized craftsmen. It also had storage rooms and a courtyard which was not fully excavated due to its size and depth. The thickness of the walls on the northern and eastern side of the palace (3.5 m. compared to the 2.5 on the other parts of the palace) suggests the existence of a second story. There is also absence of residential rooms in the ground floor of the palace and some staircases leading to this second floor (Oates *et al.* 4-11). Two destruction levels in the palace provide extremely important information about the historical role of the site as well as about the expansion of the Middle Assyrians and their choices on which sites to reoccupy and to what extent.

The two destruction levels coincide the first with the military campaign of Adad-nerari I who conquered seven other cities (see Chapter 1) and the second with the campaign of Shalmaneser against the revolt of Shattuara II (again Chapter 1; also Oates *et al.* 1997, 152-153). Adad-nerari probably tried to rebuild the city, as he did with other sites, but the destruction of Shalmaneser is to close chronologically and it is hard to trace this phase. After a small hiatus two level of Middle Assyrian occupation follow. The Middle Assyrian levels however are not of significant size. Most of the Mitanni buildings were reused as private houses. The upper story of the palace collapsed during the hiatus and some of its walls were also used for creating new residential buildings. Some staircases were filled up and resued as entrances to Middle Assyrian houses (Oates *et al.* 1997, 14-15). This kind of reuse suggests that the hiatus was not large and the site was reoccupied not a long period before its destruction. Some finds reveal occupation during the EIA as well.

The extended destructions of Tell Brak are unique for the general area of Hanigalbat. It is likely that Middle Assyrians displayed their power by destroying

one of the wealthiest centers of the Mitanni Empire. It was an important political act as the city had also been involved in the revolt of Shattuara II. There are no destruction levels at the sites of the borders because they needed their defensive positions in order to establish their own border control. But here, in the heartland of the Mitanni Empire they needed to destroy a symbol of Mitanni power. The choice of Tell Brak was excellent because it was not the capital of the Mitanni Empire and would not have caused great disturbance in the balance of the previous order but it was significant enough to show who was now in control of the area. Following Szuchman (2007, 72) the choice of rebuilding it small and with little to no administrative power should also be considered as a political act by the Middle Assyrians and seen as part of their plan on the control of Hanigalbat. There was no reason for them to abandon the site completely. Displaying power by force is one way to inspire fear and awe but capitalizing and literally extinguishing the previous power is much more important. This is what, in my opinion Middle Assyrians did with Tell Brak. They showed that they not only can destroy completely an important center but they also don't need its location and previous power in order to establish their own.

Tell Bari/*Kahat*

Tell Bari is a roughly 23 ha. site situated just 10km north of Tell Brak. It has been excavated since 1980 by an Italian team led by M. Salvini and P. E. Pecorella (Pecorella 1998; Pecorella 2003). Three areas have been investigated so far, Area G, Area J and Area P with the latter being the most recent one, excavated during the periods 2007 and 2009. Tell Barri is of significant archaeological and historical importance for both the Mitanni and the Middle Assyrian periods. It should be identified with Kahat, an important Mitannian religious site. We know about this site from the treaty between Shattizawa and Šuppiluliuma discussed in chapter 1. One copy of the treaty was to be stored in the temple of the sun god Arinna and the other at the temple of the storm god Teššub in Kahat. Kahat is also mentioned in the catalogue of the cities destroyed by Adan –nirari I (also chapter 1). After the destruction of the city, Shalmaneser I did reconstruction works rebuilding the temple of the storm god.

The investigations in Area G proved to be of great interest for the period concerning this paper. Through the years a continuous stratigraphic sequence has been revealed, spanning from the Mitannian period up to Assyrian period (Pecorella 1998, 83-118). The Mitanni level of the area contains a small settlement with low population in comparison to the previous Old Babylonian or the following Middle Assyrian period. A great shift in the usage of the area can be observed during on the Middle Assyrian level. A big residential building, furnished with baked brick bathroms, open courtyards and two rich graves of women of high rank dug in a sort of chapel (D'Agostino 2008, 527) were found on top of the Mitanni debris. The excavated area however is small and there is room for more fieldwork which might change some of the preliminary observations.

D'Agostino (2008) does a great observation about the change of use in the settlement and the transition from the Mitanni period to the Middle Assyrian period by using the pottery horizon found in Area G. During the Mitanni period several different pottery types have been identified. Painted Ḫābūr ware with typical Mitanni characteristics, Nuzi ware, a luxury commodity for the period which was found in both household and working areas, grey ware, shallow bowls and plates with red-edged rim, which are a distinct element of the Mitanni level and a few other found less frequent are the ceramical horizon of the Mitanni period. The most part of the Mitannian assemblage is characterized by a diversified production and a high variability in morphology.

During the Middle Assyrian period this variability is drastically reduced. We now have the standard types of the period as noted by Pfälzner (1995): conical bowls, carinated bowls, jars with ribbon rims and conical pot stands. The common ware is also quite standardized. There is a great lack of fine painted ware or grey ware. The only kind of fine ware is to be identified in shoulder beakers or nippled goblets and in a group of small and medium sized bowls (D'Agostino 2008, 532). However, despite the standardization of the shapes, there are some similarities in the pottery assemblages, mainly in the functional purposes of some bowls.

What we can derive from the observation of pottery and the bigger architectural activity of the Area G is that Middle Assyrians intensified the production of the city in several aspects beside agriculture. The small Mitanni occupation transformed in a more effective and active productive center in a trade

basis. The reconstruction of the temple by Shalmaneser shows that Middle Assyrians were interested in retaining the symbolic meaning of the site and making it a Middle Assyrian center. This however comes in a contrast to what they did with Tell Brak which was very close to the site. Why then did they do this distinction? A possible explanation is the different symbolic meaning of the two sites. Tell Brak seemed to be more of an international trade center, a source of wealth and political power. Middle Assyrians needed to destruct the political symbols of the area in order to establish their own order. Tell Barri on the other side had a greater symbolic meaning. Destroying a religious center depicts you as a complete dominator of the area. Middle Assyrians preferred to establish the ideology that they were successors in the local traditions rather than a foreign power coming to unroot the previous culture. A similar policy was used later by the Late Assyrians (Parker 2001) as it will be presented in chapter 4.

2.3.3 Concluding remarks on settlement patterns of Upper Ḫābūr Basin

The transition in the very heartland of the Mitanni Empire would by default be different from the border areas. There was no insecurity here like the Balīḫ but there was the need to establish a new power status unlike the Tigris area. There are several other sites in the large region of Upper Ḫābūr which cannot be thoroughly examined here but they all add to the same picture. Such sites are Tell Hamidiya, Tell Amuda, Tell Halaf, Tell Beydar and more.

The common tactic of the Middle Assyrians resettling the main centers of the area can be easily observed here as I have already showed in the sites presented here. Depending on the case Middle Assyrians chose different policies for each Mitannian center in order to establish their new power status on one hand and prove that they are the natural successors of the region on the other. In the next chapter I will discuss the economic capabilities of the regions discussed above and them I will come back in chapter four to discuss the different policies of settlement patterns presented here.

Chapter 3: Agricultural Aspects of Settlements Changes

So far I have presented, in comparison to the archaeological evidence, possible political, ideological and military factors that affected the changes in settlement systems that occur in the Middle Assyrian period. In this chapter I am going to briefly study the very important agricultural factor and what was its role in the decision of relocating or rearranging settlements. Unfortunately there is a lack of evidence considering the agricultural production of the Mitanni period. There are however the results of Zaccagnini (1979, 1990, 1999) considering the Nuzi yield rates which can be invaluable for understanding the difference, if any, to the Middle Assyrian period.

I am going to present two case studies for the purpose of understanding Middle Assyrian agricultural administration and yields: i) the already presented Tell Sabi Abyad and ii) Dūr-Katlimu located at the Lower Ḫābūr. The reason behind these choices is that they are the two most well documented sites on their agricultural production. We have texts for annual yield, distribution of labor and products etc. They are both also sites of importance for the Middle Assyrian period and have succeeded earlier Mitanni sites of less importance. Another important factor is that they have different patterns of agricultural activity due to their different location. One is based on a domain where dry-farming is possible (Sabi Abyad) and the other is in an area where is irrigation is mandatory as we will see. Before that, though, I will present any available, documents considering other areas of the Syrian Jazira.

Agriculture is of course vital for the survival of an empire. Good organization and distribution of the agricultural products can make the difference not only for the wellbeing of an empire but also in cases of military expeditions or the defense of a sieged city. Therefore, when conquering and reorganizing the area, it is important to recreate its agricultural infrastructure. How important was that though for Middle Assyrians during their expansion on Hanigalbat? It is generally accepted that Middle Assyrians intensified agriculture in the area of Hanigalbat. More recent finds however, as will be presented, can prove this wrong. Also, what was the role of agriculture during the expansion of Middle Assyrians in the area? The purpose of this chapter is to add agriculture to the

picture of Middle Assyrian policy in the conquered areas and how it affected their political decisions.

3.1 Agriculture in the dry-farming domain

3.1.1 Textual evidence of dry-farming agriculture

The largest part of Syrian Jazira lies well within the dry-farming zone of marginal cultivation. Even until 1990, the northern part of Upper Mesopotamia was under strictly rain-fed systems (Adary *et al.* 2002). Irrigation was probably used supplementary. The problem is that evidence regarding dry-farming is, by nature, elusive. We can see irrigation from mentions of canals, wells and other waterworks in texts from their respective sites, we can even find archaeological evidence of irrigation. With rain-fed agriculture on the other hand there we can only rely on mentions of rain affecting crops and in the lack of mention of irrigation devices, which may be seen as an indication of dry farming, although it is greatly unreliable (Reculeau, 2011, 73). Of the regions mentioned in the previous chapter, within the domain of rain-fed agriculture is: the Balīḫ valley, the Upper Tigris region and the Upper Ḫābūr region.

Five sites belonging to the dry-farming area have, so far, yielded texts and archives considering agricultural administration and products: Tell Chuera/HARbe (Jakob 2009) on the western part of Upper Ḫābūr, Tell Fakhariyah (Kraeling in Mc Ewan *et al.* 1958) in the Upper Ḫābūr, Tell Āmūda (Faivre 1992b), Giricano (Radner 2004) on the Upper Tigris, and Tell Billā/ Šibaniba (Finkelstein 1953). Unfortunately the text found in these cities, gives little to no indication about the nature of agricultural practices and the possible use of supplementary irrigation (Reculeau 2011, 74). There is one exception for the site of Billā/ Šibaniba where, in one of the texts there is a mention of a canal (*palgu*) in a barley loan. It has been suggested that this canal was used to divert rain-waters and as an alternative for supplementary irrigation during the dry season (Bagg 2000, 87-88).

According to Reculeau (2011, 74), it is safe to assume that dry-farming was largely predominant in the area but supplementary irrigation was, at the very least, not unknown.

3.1.2 Irrigation and Agriculture: The case of Tell Sabi Abyad

Archaeological evidence considering Tell Sabi Abyad has already been presented in chapter 2. In this part, I am going to tackle the subject of administration and agricultural production (annual yields, irrigation etc.) of Sabi Abyad. The average precipitation of the area is ca. 250 mm per annum (Wiggermann 2000, 176) making rain-fed agriculture possible but risky. Securing the annual harvest would require irrigation to supplement the dry-farming. According to Wilkinson (1998, 81) the base flow of the Balīḫ has an estimated potential of 3600 to 6000 ha of irrigated land which could support 2400-6000 people. With the Balih being the main source of irrigation, other sources of water for Sabi Abyad and its subsidiary at Khirbet esh-shenef were the Nahr Slouq and the Wadi el-Kheder which derived from Slouq, and created between them a moist part of the valley with good farmland.

The climatic conditions allow dry-farming agriculture. Irrigation is needed though in order to secure the annual field without being dependent on possible changes of the climate. This alone however, is not enough to justify the existence of agriculture. There are texts and finds which prove the practice of irrigation. Wiggermann (2000, 177) mentions the irrigation possibilities of the Balīḫ river in modern times before and after the introduction of the motor pumps.

Irrigation in the area is known since the Middle Bronze age with the mention of water conflicts at the Mari letters. Irrigation was probably practiced around Zalpaḫ (possibly Tell Hammam) and at Tuttul (Villard 1987). There is a Middle Assyrian letter form Dūr-Katlimmu (Cancik-Kirschbaum 1996 no. 2) describing a military action of Sin-mudammeq, who seals off the Balīḫ in order to prevent Hittite fugitives from escaping. In this text there is a mention of troops from Dunni-Aššur (Tell Abyad) occupying, among others, the *erretu* of Tuttul

from Gilma to Dunni-Dagal[6]. The existence of an *erretu* directly points to the use of the river for irrigation. The direction implied on the text, upstream, has the added advantage of supplying with water Tuttul which could only be irrigated from the Balīḫ and not from Euphrates (Villard 1987). Other indications for the existence of irrigation are the quality and the type of the wheat which require well watered conditions, unachievable without the assistance of irrigation in the area, as well the existence of summer crops such as sesame and cress which require additional water (Wiggermann 2000, 178). The aforementioned text mentions of irrigation and the finds of summer crops, with the addition of the low effort required for creating infrastructure for irrigation in the area conclude that irrigation was actually practiced in the area.

Although we can prove the existence of irrigation in Tell Sabi Abyad, our knowledge of its annual yields are limited to only one text. This text (T 98-115) was extensively discussed by Wiggermann (2000) and it concerns all the arable land of the *dunnu* and the complete harvest of one year. Wiggermann suggests that this text is based on an administrative procedure called "the dissolution of the grain heap" (*pišerti karū'e).* This procedure consists of subtracting from the harvest next year's production costs, under official supervision since it concerns crown lands. Whatever remains of the harvest after this operation goes into storage where the fresh barley is added to the barley left from previous years (Wiggerman 2000, 179-180). Reculeau however doubts that the "dissolution of the grain heap" occurred at Sabi Abya. In his view Sabi Abyad should not be compared to Aššur or Dūr-Katlimmu (settlements where the procedure took place). Sabi Abyad is a rural unit (*dunnu*) which belongs to the "king of Ḫanigalbat", as mentioned on chapter 2, which belongs to Ili-pada. Even if the *dunnu*was primarily granted by the king of Assyria to Ili-pada, the agricultural products raised there should be seen as those of *oikos* and not as products of crown land (Reculeau 2011, 97).

Reculeau (2011, 98) criticizes, correctly in my opinion and based on the newer evidence he uses, Wiggermann (2000) further by adding that, due to the nature of the text, there are insufficient data for the task of estimating annual yields. He makes several points on where Wiggermann miscalculated with the

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[6] An *erretu* or *errêtum* is a complex system of sluice which regulates excess water. For its use in Mari see Lafont 2000, 137.

most important being a new reading of the text deducing that the production costs were indicated as referring to several production centers and not to a single one centered on Tell Sabi Abyad. Recuelau finds this problematic since the document does not register the acreage of arable land on which cereal were grown whereas Wiggerman simply assumed it from the seed costs for the following year mentioned and based on the assumptions that a sowing rate of 30 *qu/iku* was in use at Sabi Abyad just like it was on Dūr-Katlimmu or as he mentions the nearly universal MA sowing rate (Wiggermann 2000, 181). Although this assumption fits Wiggermman's reconstruction it has a problem as it seems that it implies that the acreage which can be deduced from the seed costs does not correspond to the whole agrarian zone under the control of the *dunnu* (Reculeau 2011, 98). The whole harvest therefore is being related only to one part of the whole acreage making the result heavily misleading as it drastically increases the seed/yield ratio. The only thing therefore we can be certain about is that the yield was lower, and probably significantly lower, than the one estimated by Wiggermann. Reculeau (2011, 98) believes that based on the current data we cannot even approximately calculate it on a satisfactory probability.

3.1.3 Concluding remarks on agriculture in the dry-farming domain and Sabi Abyad

Despite the fact that yields cannot be estimated even in the settlement of Sabi Abyad, the results of Wiggermann are still useful for the purpose of this paper. In his article he makes some hypotheses on how the surplus of the Sabi Abyad agricultural production was spent. Although the numbers he provides are most likely wrong there is still the possibility to make some valid assumptions on the role of economy for the site. Even with Wiggermann's high estimation of yield, the production does not seem very high. He says that taking into account all the possible yield losses and expenses it would take more than 3 years to amass the 7393 homer of "old barley". If we accept Reculeau's opinion that the yield was significantly lower, then the production seems to be barely enough in order to cover the needs of the *dunnu* and its surrounding areas based on the estimated

population. Although this is but a speculation, since we don't know the exact numbers of the annual yields, it shows that there was not a significant effort by the Middle Assyrians to increase the production of the site. There are no indications that there was some kind of intensification of agriculture in the site or the general area of the Balīḫ. The area of Sabi Abyad was not farmed during previous period but the general production of the area should have been higher. As I have shown in the first chapter there were significantly more sites during the Mitanni period. We must also not forget Tell Hammam et-Turkman which was a palace and should have at least similar to Tell Sabi Abyads farming area in its supervision We can deduce therefore that there were no, at least not significant, agricultural reasons for Middle Assyrians to shift the administration focus of the Balīḫ valley from Tell Hammam et-Turkman to Tell Sabi Abyad. The two sites are located close to each other anyway and could easily govern the same surrounding area without problem. The choice had probably to do with administrative and political purposes as already discussed in chapter two rather than its agricultural capabilities.

One could argue that we could use the same concept of Sabi Abyad in other areas where dry-farming with supplementary irrigation is possible. The lack of any kind of data however considering yields and production makes this kind of speculation very risky, especially if we take into account how easy it is to make wrong calculations based on wrong interpretation of the texts. For that reason, and despite not being discussed in chapter 2, I will discuss the case of Dūr-Katlimmu and Lower Ḫābūr in the rest of the chapter.

3.2 Agriculture on the Lower Ḫābūr: The case of Dūr-Katlimmu

Tell Šēḫ Hamad is located some 80 km beyond the 200 mm isohyet (Kühne 2010), around 70 km northwest of modern Deir-ez-Zor in the area of Lower Ḫābūr (fig. 22). Up to now it is the only documented Middle Assyrian site which is located beyond the zone of dry-farming agriculture and can also be associated with the previous Mitanni period. In 1977, 30 tablets were uncovered

and H. Kühne began excavations revealing a settlement of over 120 ha. The site has been occupied since the Late Uruk period but its large expansion started during the Middle Assyrian when the city covered an area of 25 ha. (Kühne 2006-2008, 545 Abb. 2b). The site reached its maximum size during the Late Assyrian period, when the settlement area covered about 60 ha. intra muros (Kühne 2006-2008, 546-9 Abb. 2c).

The best documentation available for the site comes from the western slope of the tell where a large building (Building P) was uncovered revealing about 600 tablets, sealings and bullae dated to the reigns of Shalmaneser I and Tukulti-Ninurta I and which identify the city as ancient Dūr-Katlimmu (Cancik-Kirschbaum 1996). According to the tablets, Dūr-Katlimmu functioned as a seat of a governor (*bēl pāḫete*) who headed an administrative unit, a *pāḫutu*, which was possibly some kind of distric during the 13th century B.C. (Cancik-Kirschbaum 1996, 25). It also was the seat of *sukallu rabi* or *Šar Hanigalbat*, the grand vizier who administrated the area of Hanigalbat (Cancik-Kirschbaum 1996, 25-29). During the 9th century B.C. the city functioned as a seat of a garrison and of military elite troops as well as of units of the secret service, possibly also as a provincial, economic and administrative center (Kühne 2008, 216).

The texts from the archive are mostly concerned with administrative and agricultural activities of Dūr-Katlimmu. The texts include lists of rations for personnel, assignment of herds, inventories, loan documents, receipts, harvest reposrt, itineraries and letters. The letters provide important information about the role of Dūr-Katlimmu and its ruler within the region of Hanigalbat whereas the other textual evidence gives crucial information about the agricultural and economic life and administration of an important site. The archive however is not complete and the evidence are rather elusive and unequivocal but they are enough to provide us with certain aspects of the administration of the site as well as proofs for irrigation practice in the area of Lower Ḫābūr.

Texts will be examined first here. The existence of irrigation at Middle Assyrian Dūr-Katlimmu has been a subject of debate the past few years. Röllig (1987, *in* Kühne 1990b, 20) was the first, based on preliminary reports, to suggest that the low yields obtained from the seeds-harvest ratio were indicative of dry-farming agriculture. This was, however, contradicted by the archaeological evidence gathered by Kühne and his team. Finds along the Lower Ḫābūr led them

to suggest the existence of a regional canal on the eastern bank of the Ḫābūr deriving from the Ǧagǧag and ending beyond Dūr-Katlimmu (Kühne 1990a). The settlement patterns suggest that this canal was in use during the Middle Assyrian period but there is no indication as to whether its technical aspects were already that of the Neo-assyrian one, or whether the digging of the latter destroyed all traced of the previous waterwork (Ergenzinger 1991).

The suggested settlement patterns were rejected by Morandi Bonacossi and Wiggerman. Morandi Bonacossi (1996, 100-101) considered that the distances between settlements during the Late Bronze Age did not favor the hypothesis of a regional canal system which, in turn, should be dated around the 10th or 9th century B.C. Wiggerman (2000, 178-179), following Röllig's argument about the low yields and the poor quality of grain as indicators of exclusive dry-farming, argued that the evidence brought by Kühne were insufficient to prove the existence of irrigation. In recent years Röllig slightly changed his view after retranslating some of the texts found in Dūr-Katlimmu. He suggested that the *šer'um* or *ši-ri-'e-e* fields, a common term to describe cultivated fields, were of small dimensions and high productivity and were probably irrigated either from the abovementioned canal or from Ḫābūr itself, while all the other fields were rain-fed (Röllig 2008a, 22-23; Röllig 2008b, 193).

Kühne (2008, 216) once again rejected the possibility of dry farming at Dūr-Katlimmu. His views were based on the present-day and reconstructed conditions in the area as well as the geographical position of the area. The site is situated between two wādīs (Sa'ib Hamad to the North and Garībe to the south). During the 1987 excavations there was a strong flood which overwhelmed the first levels of terrace. According to Kühne these kinds of flood provide sufficient water to the soil on the lower lands to ensure crop cultivation without requiring additional irrigation and thus giving the impression of dry-farming in the area.

Following Reculeau's view however (2011, 81-82), there are several reasons why the arguments for exclusive dry-farming in the area cannot be accepted. Firstly they fail to explain the Middle Assyrian settlement pattern of the area pointed out by Kühne. Secondly there are several textual evidences, dating from the Middle Bronze age testifying the existence of irrigation. Mari letters for instance, mention a canal, probably of local importance. Texts from the so-called "Ḫana Kingdom" also indicate the existence of canals of some importance which

can be seen as predecessors of Middle Assyrian local and regional canals (Durand 2010; Reculeau 2010).

In addition to these, irrigation is mentioned in one Middle Assyrian letter from Dūr-Katlimmu, BATSH 4 8 (Cancik-Kirschbaum 1996, 134-136). For military reasons water from canal upstream from Dūr-Katlimmu was to blocked or diverted (Reculeau in preparation *in* Reculeau 2011, 82) but the official in charge wishes to wait first that the fields bordering that canal are irrigated. In text BATSH 4 17, two teams of seven men are being sent to work on two canals (*palgum*), a greater one and a smaller one (Reculeau 2011, 82). The existence therefore of irrigation agriculture in Middle Assyrian Dūr-Katlimmu is thus certain. Yields now should be taken into account to study the productive capabilities of Dūr-Katlimmu and investigate if it is possible to justify through reasons of agriculture why Middle Assyrians chose Dūr-Katlimmu as the rural center of the Ḫābūr valley, a site of low significance during the Mitanni period.

For the reconstruction of the yields in this paper I follow the most recent view on the subject published by Reculeau (2011). His work takes into account almost all previous works considering the Middle Assyrian yields and reinterprets them in order to clear out possible mistakes that have been made in the past. According to him the textual evidence from this period used for estimating cereal yields is related to the administration of land, but the texts differ according to their provenance and the nature of the operations. Therefore we must acknowledge this variability properly in order to process the data without mistakes.

The texts found in Dūr-Katlimmu, among others, include the already mentioned "clearance of the grain heap", an operation heavily debated among scholars (see for instance Postgate 1988, 73 and Röllig 2008a, 20). In this text I accept the terminology clearance which derives from the translation of the word *pašārum/*"to clear" used by Reculeau (2011) which is also preferred by Röllig (2008a), rather than the term "to withdraw" proposed by Postgate (1988) or the "dissolution" used by Wiggermann (2000). The global background of the operation is as follows:

The harvest of ones (or several) year(s) is registered together with the acreage it grew on, followed most of the time by an indication of the yield

per *ikû*. Operational costs for the following year, including seed and food rations for draft animals used for ploughing and *šiluḫlū*-workers, are then deducted from the harvest, and the surplus is stored in granaries, together with grain from previous years sometimes mentioned as "ancient grain" (sumun/*labēru*), as opposed to the "new grain" (gibil/*eššu*) harvested that year. This operation was supervised by high members of the administration, plenipotentiaries of the King (*qēpu*) assisted by royal scribes (*tupšarru*) or the local district governor (Reculeau 2011, 96).

This operation is not linked with taxation as suggested by Röllig (2008a, 20). It seems more likely that all the grain from the land minus exploitation costs (seeds, fodder and rations) was aimed at being stored in the royal granaries (Reculeau 2011, 96). The texts found at Dūr-Katlimmu cover local administration matters, the management of crown-land of that city and of one of its satellites, Duara (Röllig 2008b). The available documents from the site cover the annual harvest of local fields and its storage for a period of ca. 50 years including two years when the military situation prevented the performing of agricultural activities (Reculeau 2011, 173-175). The extensive analysis done by Reculeau however on these texts did not reveal any possible way to clearly distinguish zones of predominant dry-farming and zones or predominant irrigation. On the contrary, Dūr-Katlimmu did not seem to exceed in seed/yield rates other areas of the empire. In addition to this, texts by Dūr-Katlimmu reveal a great interannual variability of barley yields (Reculeau 2011, 173-175) and wheat yields (Reculeau 2011, 180-182). Apart from the strong inter-annual variability, the fields of Dūr-Katlimmu and Duara are also marked by their strong intra-annual variability, i.e. by the fact that the annual yields vary greatly from one field to another. This kind of variability however appears all across the empire and should not be taken into account as a way to distinguish between the two kinds of agriculture as Wiggermann suggests (2000).

Adding to the concept of see/yield variability, texts by Nuzi, which practiced mixed agriculture and were studied by Zaccagnini (1979; 1990) also reveal the same kind of yield variability. Globally speaking, but the same goes for the case of Dūr-Katlimmu, Middle Assyrian yields appear to be rather poor, with average see/yield rates in the range of 1:3 to 1:3,5, good yields in the range of 1:6

to 1:9, and many yields just covering the invested seeds, or even failing to do that (Reculeau 2011, 153). These values places them even under the production recorded in the Nuzi documents (Reculeau 2011, 121-128)

3.2.1 Concluding remarks on agriculture of Lower Ḫābūr: why Dūr-Katlimmu?

As already mentioned Dūr-Katlimmu functioned as the "capital" of Hanigalbat and it was the residence of *Šar Hanigalbat*. This seems to be a rather strange choice. During the Mitanni period the site was of low, if not any at all, significance. It was also geographically removed from the political center of Mitanni which, as shown, was located in the Upper Ḫābūr valley. Considering the production capabilities during the Middle Assyrian period, Dūr-Katlimmu was not any sort of exception. The seed/yields ratios from the site are similar to those from the rest of the empire. Therefore what lead Middle Assyrians to use Dūr-Katlimmu as a political center?

Szuchman (2007, 88-89) suggest a possible strategic choice. In his view the decision was made in order to ensure the security of Assyria in Hanigalbat. Fear of Mitanni loyalists in the Upper Ḫābūr and Balīḫ may have caused reluctance on the part of Shalmaneser I to place the capital of Assyrian Hanigalbat in the north. He sees the choice as a more secure and more central location and the Assyrian claim to Hanigalbat could be maintained even if the north was lost. In addition to these he adds the fact that the site was closer to the capital Aššur, making trade and connections faster.

Although most of the points made are valid, these were probably not the only factors for choosing Dūr-Katlimmu as capital. Firstly the argument of security is not a convincing one. Having the capital very far from the center, although it would ensure its own security, it would reduce the Middle Assyrian capabilities of intervening on crucial matters. If we accept the aforementioned hypothesis that power establishment was in the core of the Middle Assyrian policy in Hanigalbat, having the capital of Hanigalbat far away from its region of control is a sign of weakness which Middle Assyrians probably didn't want to reveal.

Furthermore, if fear for the stability of the area was the case, then why not move the capital of Hanigalbat later on, when security had been established in Upper Ḫābūr?

In my opinion agricultural reasons for the specific case of Dūr-Katlimmu should be taken into account. We've seen that in the rest of Assyria the yields had not been drastically, if not at all, improved. There are no indications that sites were resettled in order to maximize the agricultural production. All across the empire the see/yield ratios remained more or less the same. Two arguments however can come out of the study of yields in Dūr-Katlimmu. Firstly, the site, in order to keep up in production, required irrigation works. Although we can't distinguish types of agriculture depending on see/yield ratio, it is logical to assume that Dūr-Katlimmu required a larger investment in order to keep up. Secondly, the close proximity of the site to Aššur would secure its constant maintaining as well as a very close place from where the capital of the empire could acquire agricultural products in case of need. Despite my disagreement, strategic reasons should not be expelled from the argument completely. The site could, as texts reveal, function as a short-time place of residence for armies to resupply.

Concluding, agricultural production does not seem to play a huge role in the choices of resettlement by Middle Assyrians. The intensification of agriculture is not great and there are no evidences to connect it with changing the settlement patterns. Especially in Upper Ḫābūr the Mitanni sites abandoned were not of less or more productive capabilities than the newly established sites. The policy concerning agriculture of the empire shifted only after the stability on Hanigalbat had been secured and even then not drastically. Agriculture therefore didn't play a significant role on the transitional phase from Mitanni to Middle Assyrians.

Chapter 4: Discussion and Conclusions

Bringing it all together

4.1 Discussion: a theoretical perspective of the Middle Assyrian expansion

Before I conclude this paper I am going to connect all the information presented here concerning the transition from the Mitanni to the Middle Assyrian Empire. Then I will identify the aspects of the Middle Assyrian policy and strategy during this transitional phase. I am going to approach the transition as a phase of a multi-layered strategic plan of Middle Assyrians. What I am suggesting is that we cannot simply try to recognize the administration policy of the Middle Assyrians in Hanigalbat without understanding its origins. It is also incorrect to assume that the actions and political choices used by Middle Assyrians when they conquered Hanigalbat were the same as the administrative strategy used during their reign on the region. By that I mean that Middle Assyrians didn't use the same policy for conquering and ruling a region. The archaeological and textual evidence lead us to a more flexible adjustable and multi-layered strategy used by the Middle Assyrians in order to achieve and establish their control in Hanigalbat.

Several researchers have studied the administrative strategy of Middle Assyrians throughout their history: Machinist (1982), Harrak (1987), Liverani (1988), Postgate (1988; 1992; 2002), Cancik-Kirschbaum (1996; 2000), Jakob (2003), Szuchman (2007), Tenu (2009). Despite the abundance of information and studies concerning the administrative system and strategy of the Middle Assyrians during the period of their reign in Hanigalbat, there is only a limited amount of literature about the expansion and the planning of the expansion which gave the possibility for the Middle Assyrians to actually establish their administrative system in Hanigalbat. Liverani (1988) though, by defining the Assyrian presence in Hanigalbat as a "network empire" suggested some possible expansion strategies in the region. Liverani defined this administrative system as a network of palaces and Assyrian cities, which overlay the large area of Hanigalbat including villages and towns inhabited by local population (Hurrians, Arameans and nomadic

tribes). At the nodes of the network there were the Assyrian cities either newly established or already existing, where Assyrians had constructed palaces, temples, established garrisons etc.

Postgate (1992) expanded and altered this framework by suggesting that the Middle Assyrian power both state and individual, was not concentrated only in rural settlements or large cities. On the contrary, by establishing Assyrians or Assyrian-friendly people in key positions of smaller settlements, like chiefs and mayors they managed to closely monitor the agricultural production of the entire Hanigalbat and at the same time insure the security and stability of the area. What Postgate suggests is that the Middle Assyrian strategy was to integrate the newly occupied territory into the existing administrative system. Due to the fact that in this paper I examine the general strategy and expansion of Middle Assyrians, I am not going to go further into the Postgate view concerning the individual economy, private houses etc. nor on the points that Machinist makes on his view of the administrative organization of Middle Assyria.

Szuchman (2007, 92-96) creates a framework of how and why the Middle Assyrian expansion occurred. In his view the reasons behind the expansion were mostly economic in order take advantage of the rich land of Hanigalbat. He supports this argument by referring to the agricultural potential of the area and the intensification of agriculture which in his view occurred during this period. Further on he suggests that Assyria pursued diverse strategies in order to establish its power in the area by reorganizing the administrative landscape of Hanigalbat. Some of his arguments about the re-organization of Hanigalbat will be used here but at this point it is crucial to point out the flaw of agricultural intensification. As I presented in chapter 3 and based on the new approach of agricultural productivity suggested by Reculeau (2011) the agricultural intensification was not as great as it was previously thought. This is very crucial for our understanding of the expansion and the strategies of Middle Assyrians. While the concept of network empire most likely existed, and there were some sort of networks established in the entire region of Hanigalbat, the purpose was not to assist the circulation and security of products from the higher productive centers. Since the productivity did not increase, at least not vastly, the created networks should probably serve other purposes as well, for instance better control of areas at the edge of the empire.

It would be wrong to assume that Middle Assyrians had no economic motives on their expansions in Hanigalbat. It is very important however to evaluate correctly the economic value, the productive capabilities and the extent of exploitation and intensification of the area during this period. It is also wrong however to justify the expansion and the administrative technics of the Middle Assyrians purely on an agricultural base. The reorganization of settlements speaks in favor of that as sites with high productive capabilities like Tell Brak were abandoned.

In the previous chapters I have tried to review and explain the different kind of approach Middle Assyrians had on different region. I also tried to identify the transition that took place in each region from Mitanni to Middle Assyrians. Now I will try to reconstruct the various methods and strategy used by Middle Assyrians over their subject territories. As it has been presented Assyrians didn't have a unified way to approach conquered regions. On the contrary, based on the characteristics and the specific conditions of each area they adjusted their military and administrative policy. What I am about to suggest is a similar approach to the Middle Assyrian Empire as to the approach Bradley J. Parker (2001) has for the Neo Assyrian Empire. In contrast to Liverani (1988) who regarded the Neo Assyrian Empire to be a "territorial empire" based on the sheer scale, Parker suggests that the Neo Assyrian Empire defies categorization. Rather, the core employed flexibility in exerting imperial authority in conquered regions.

Parker (2001, 249-255) proposes four imperial structures utilized by Neo Assyrians in the northern frontier of their empire: provinces, vassal states, buffer states and buffer zones. Provinces are defined as areas where territorial control was maintained through a hierarchical system of provincial officials. There was also a hierarchy over the provincial settlements with the provincial capital being on top and included smaller towns and villages integrated from the previously existing settlement system as well as public infrastructure like roads, road stations outposts etc. These capitals, which contained a provincial palace, included the offices of various governmental departments as well as industrial installations and storage facilities. Vassal states are usually peripheral regions where a vassal was imposed and his status involves certain (although varying) degrees of obligations. The most important thing Assyrians demanded was the flow of information and stability in the area. In return they offered military assistance in case of foreign

aggression. Of course there were other demands from the vassals as well like taxes and tributes on military operations or project constructions. Vassal obligations were monitored by stationed Assyrian officials. Buffer states and buffer zones are similar in the way that they both consist of neutral areas that lie between two or more rival states or their spheres of influence. What a buffer zone lacks however that exists in a buffer state is a viable political structure which controls the area. Parker recreates a version of D'Altroy's Territorial-Hegemonic continuum (fig. 23) in order to show the difference in terms of imperial control on each imperial structure. This figure shows that Neo Assyrians did not try to impose the same degree of territorial or hegemonic control in every region they conquered but rather they used a flexible system of administration in order to achieve the maximum control efficiency in each area. Parker however does not exclude the concept of the network empire (2001, 255-258). Despite the fact that he does not suggest that the concept was used in the entire empire, he can fit the model in the region of Upper Tigris and the area of Tur Abdin. In his model (fig. 24) outlying provinces and as all states were possibly connected with the imperial core via a network of fortified communication system and transportation corridors. The concept of "network empire" therefore was one of the imperial structures used by the Neo Assyrians in order to achieve the stability and security with their administrative system and cannot define the entire strategy of the empire.

I propose a similar reconstruction for the Middle Assyrian expansion in the Hanigalbat. First however we need to define two other important aspects of the Middle Assyrian expansion, the use of military force and the movement of the population in conquered territories.

As presented in chapter 1 Middle Assyrians took several campaigns against the Mitanni Empire before the managed to conquer it completely. In the texts considering these campaigns they always speak of the destruction of cities and of acts of cruel war like the text presented in chapter 1.1.2 which deals with the campaign of Salmanazar against a revolt in Hanigalbat. In this text we are informed that he did not only "butcher" the enemy force but took captives and blinded 14.400 people and sacked 180 cities. Beside the possible propagandistic exaggerations of these kinds of texts, it is clear that among other things Middle Assyrians used sheer force. Force is an effective way of establishing and

maintaining power over a region. Force however is also expensive in terms of resources and energy and therefore cannot be the only mean of maintaining power. Similar to the Neo Assyrian use of force, Middle Assyrians, especially when it came to revolutions, when they felt confident they dealt with them with an overwhelming force in order to not only crash the revolution but also inspire awe and fear and prevent any possible future revolts. The good and "economic" use of force allowed Middle Assyrians to secure their presence in Hanigalbat. It also affected the settlement patterns we examined because certain key locations had to be destroyed in order to successfully present their overwhelming power. This was probably the case with sites like Tell Brak.

Another way of establishing control by Middle Assyrians was the movement of people. They moved local populations not only to other locations of the empire but also within the Hanigalbat. The deported populations were used as laborers in the fields (Harrak 1987, 191-194). However there is a lack of Hurrian or other local names from Hanigalbat in Middle Assyrian texts. Therefore our knowledge on the position of these people both socially and in labor is limited. Harrak (1987, 204) presents the idea that locals were considered as inferiors and regarded only as a source of cheap labor in the agricultural lands of the *dunnus*. A similar paradigm might be identified in the case of Tell Hammam et-Turkman and Tell Sabi Abyad. The population of the first was forced to abandon it by the Middle Assyrians and used as laborers in the agricultural fields of the latter.

With these two important aspects of the Middle Assyrian policy defined, I will now suggest a reconstruction of certain aspects of the Middle Assyrian policy concerning the changes of settlements patterns in different areas. Starting with the first presented region, the Balīḫ Valley, I would characterize it as a buffer zone. From small hiatus in the reorganization of the area but also from text information we understand that Middle Assyrians didn't want to stop there their conquering campaigns. When they failed to expand they withdrew in the Balīḫ and its *dunnu* in Tell Sabi Abyad. The region however, due to lack of central administration, had seen a decrease in population and the local people had returned to a nomadic way of living. Resettling the area in its previous state was difficult if not unachievable, especially considering the fact that Hittites had their border in the southern end of the Balīḫ in Euphrates. The northern part of the valley became therefore the border of the Middle Assyrian Empire and the southern part, which sites had been

mostly abandoned became a buffer zone between the Middle Assyrians and the Hittites. The choice of Tell Sabi Abyad as the center of control for the area has to do with its more defensive location as well as with the policy of moving local population presented above.

On the other hand there is the northern border of the Empire in Upper Tigris. Beside the mentions of campaigns in the area by the Assyrians there is little evidence for severe destruction in the sites. As also presented in chapter 2.2 there are cases where local rulers of sites in the area had Hurrian names. The region probably functioned with a mix of vassal states and territorial control. In some cases the Middle Assyrians allowed for local rulers to maintain their power in order to achieve a degree of local acceptance. In other cases they established Assyrians as rulers of settlements. This mix created security in the area. The lack of external threat made the northern border of the empire a highly productive region which most likely included a network between the *dunnus* which allowed the circulation of the products and a more secure way to supply the heartland of the empire.

In the Upper Ḫābūr Basin Middle Assyrians used a hybrid policy. They didn't use however a system of vassal states but they used provinces. They incorporated however the changing of the settlement system on the area. Middle Assyrians abandoned several Mitanni centers in favor of new administrative capitals in order to underscore their power in the area. Such examples is the presented Tell Brak or Tell Mohammad Diyab which had been important Mitanni centers but they were reduced to almost nothing during the Middle Assyrian period. On the other hand certain smaller Mitanni settlements like Tell Chuera became important economic centers. A third aspect of this policy can be identified in Tell Fakhariyah where Assyrians maintained the administrative and symbolic power of the site. Even if the equitation of the site with the Mitanni capital of Waššukanni is incorrect, important Mitanni presence in the site is certain. A similar approach can be identified in Tell Barri as well. By retaining the power of some centers of the area, Middle Assyrians managed to cast themselves as rightful inheritor of the old Mitanni authority. The effect of the combined strategies managed to create the base of the Middle Assyrian control of the area. By combining strategies they managed to present themselves in different ways: fearful conquerors on one hand and rightful successors of the area on the other.

In the preceding chapters I have attempted to combine the archaeological evidence from the area of Hanigalbat in order to present the transitional phase from Mitanni to Middle Assyrians. My intentions were to understand what changes happened during this phase in the settlement systems of the area and how did this affect the administrative policy of the Middle Assyrians. By presenting the agricultural activity I disconnected the supposed agricultural intensification from the changes in settlement patterns and presented a model of the Middle Assyrian Empire.

In this model, I propose an empire which uses different and flexible ways in order to maintain control over its conquered areas rather than the network empire suggested by Liveranni and Postgate. This kind of model is similar to Parker's (2001) model for the Neo Assyrian Empire and leaves room for further investigation on the continuation from the Middle to Neo Assyrians. The two empires used similar policies in order to achieve control over the same areas and maybe the gap between them is not as large as previously thought.

4.2 Conclusions

In this paper I have attempted to reconstruct the changes in settlement patterns during the transitional phase from the Empire of Mitanni to the Empire of Middle Assyrians in Hanigalbat. The purpose was to identify the changes that occurred during this period in settlement systems and the reasons behind those changes. Summarized in a question would be: what changes did Middle Assyrians brought to the settlement systems of Hanigalbat and why? Another aspect of this paper was to investigate the changes in agriculture after the transition from Mitanni to Middle Assyrians and if it is possible to connect the changes in agriculture to the changes of settlement patterns. By answering these questions I was aiming to recreate the transition from Mitanni to Middle Assyrians.

In order to achieve this goal I divided the paper in three parts. Firstly, I did a historical overview of the period. The available texts of this period provide us with very important names of locations which we can identify through the archaeological record and are able to better understand possible changes in the

settlement system. Through the historical overview and the texts we can also observe the propaganda of the Middle Assyrians on their conquest of Hanigalbat. Why and how they managed several important political acts and how they wanted to present their achievements.

In the second chapter I thoroughly investigated three important areas of the Hanigalbat, the Balīḫ Valley, the Upper Tigris region and the Upper Ḫābūr region. Those three different political environments allowed for a better understanding of the different policies used by Middle Assyrians in the changes of the settlement patterns. Several limitations where posed during this research due to limited available data for the Mitanni period. These limitations were overcome by the fact that all regions provided at least a few sites which had enough information for both periods and allowed the observation of changes in settlements patterns. In addition to some mentions on textual evidence it became possible to identify the different policies Middle Assyrians used in different areas and understand some of the reasons behind the changes in settlement systems. By adding concluding remarks on each part of chapter two it was easier to identify and present the different policies used by Middle Assyrians without the danger of confusion. This proved to be invaluable to the final result of this paper.

In the third chapter the very important agricultural factor was added. The limitations of the data were greater but more recent publications (Reculeau 2011) provided crucial information in order to identify possible connections of agriculture with changes in settlement systems. Two sites were thoroughly examined due to the fact that they were the sites with better documentation on the subjects.

Finally, a theoretical discussion was important in order to create a theoretical framework for the changes in settlement systems from Mitanni to Middle Assyrians.

To a certain extent the goals of this paper were achieved through this process of bibliographical overview. I was able to answer the questions concerning the changes on settlement systems during the transitional phase. I also tried to identify different policies and reasons used by Middle Assyrians and in some cases the role of the previous existing settlement system, like in the Upper Tigris area. The results of the study of agriculture were not as productive though very useful. The most recent finds prove that the assumed intensification of

agriculture during the Middle Assyrian period is not in fact so great. Thus I could not identify reasons to connect agriculture with the changes in settlement system. This is important because it changes the approach we previously had about the Middle Assyrian administrative policy over Hanigalbat. They did not choose a new location to create a center based on its agricultural capabilities but there were other political reasons. This should be taken into account on several cases like the case of Tell Sabi Abyad.

The theoretical model proposed for the changes in the settlement system brings in new questions. Why did Middle Assyrians not choose to exploit agriculturally specific sites like Tell Brak? Political reasons can be identified but the productive capabilities of the site would have been important to Middle Assyrian economy. Even if during the transitional phase there were reasons of demonstrating power in the region, why wasn't the site exploited later? Similar questions can be asked for other abandoned sites. The theoretical model proposed here also allows further investigation in the continuation from Middle to Neo Assyrians. The two empires use similar expanding and administrative policies. Thus the cultural continuation might have been much greater than previously thought.

To conclude, the combined study of changes in settlement patterns and agriculture of different areas allowed me to develop the aforementioned model. The main purpose of this paper, to reconstruct the changes of settlement patterns during the transitional phase from Mitanni to Middle Assyrians was achieved. Examples were presented which revealed the policy based on which Middle Assyrians took certain actions on resettling each region. In addition to this, the fact that agriculture should not be our primary focus of study during this period when we investigate changes in settlement patterns became clear.

However, the bibliographical overview presented here also reveals that there is a gap in the research. Mitanni period has not been investigated enough and as a result the transitional phase from Mitanni to Middle Assyrians has been neglected. By re-examining finds of surveys and further improving our knowledge of the Mitanni period such a study could be greatly expanded. The results of this paper show that if we study the archaeological record more thoroughly we can have a better understanding for both the Mitanni Empire, which we lack knowledge of, and The Middle Assyrian Empire.

Abstract

When Middle Assyrians conquered the land of Hanigalbat during the 14th and 13th century, they did several changes in the settlement systems of the area. This paper is mainly concerned with the changes happened during the transitional phase from the Mitanni to the Middle Assyrian period. Several works have been lately published about the Middle Assyrians in general but the Mitanni period has been generally neglected. The research of this paper tackles the subject through a bibliographical overview of the current archaeological data concerning the period.

The questions which are going to be investigated in this paper about the transition from Mitanni to Middle Assyrians are: What changes did the Middle Assyrians brought to the administrative system of the area? What changes do we see in the settlement system? How did the agricultural economy evolved, what are the results of the intensification of agriculture and how did this affect the changes in settlement systems?

In order to answer those questions the paper is divided in 4 chapters. In the first chapter I do a historical overview of the periods from the 15th to the 13th century BC. The historical overview is important to create the context in which I am going to work and it provides crucial information about the names of certain sites which will be investigated. In the first chapter I also provide a brief state of the archaeological research of the periods.

In the second chapter I thoroughly investigate three areas, the Balīḫ Valley, the Upper Ḫābūr Valley and the Upper Tigris region. I provide general information of the areas and examination of certain sites which are used as examples. At the end of each subchapter there are conclusions concerning each specific region.

The third chapter deals with agriculture and the changes of agriculture during the early period of the Middle Assyrian Empire. In order to examine the subject of agriculture I use two well documented sites, Tell Sabi Abyad and Dūr-Katlimmu. These sites have been chose because they provide us with important textual evidence and allow the reconstruction of their agricultural productivity. The study of agriculture allows us to see the role of agriculture in the settlement changes of the period.

In the final chapter I firstly present a discussion in order to create a theoretical framework for the changes on settlement systems. In this part I discuss the policies used by Middle Assyrian in each region and the reasons behind certain decisions on changing the settlement patterns of an area. The last part of the chapter contains the conclusions and results of the research.

The purpose of this MA thesis is to recreate certain aspects of the transitions from the Mitanni Empire to the Middle Assyrian Empire with main focus on the changes of settlement patterns.

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Figures

Figure 1: Map of northern Mesopotamia showing major rivers, mountain ranges, modern places and political borders. Inset map shows the area in its wider Near Eastern context (Wossink 2011, 10 fig. 2.1)

Aššur-uballit I	(1365-1330)	Independence
Enlili-nirari	(1329-1320)	
Arik-den-ili	(1319-1308)	
Adad-nirari I	(1307-1275)	
Shalmaneser I	(1274-1245)	Consolidation
Tukulti-Ninurta I	(1244-1208)	
Aššur-nadin-apli	(1207-1204)	
Aššur-nirari III	(1203-1198)	
Enlil-kudurri-usur	(1197-1193)	Decline
Ninurta-apil-Ekur	(1192-1180)	
Aššur-dan I	(1179-1134)	
Ninurta-tukulti-Aššur	(1133)	
Mutakkil-Nusku	(1133)	
Aššur-reša-iši I	(1132-1115)	Stability
Tiglath-pileser I	(1114-1076)	
Ašared-apil-Ekur	(1075-1074)	
Aššur-bel-kala	(1073-1056)	
Eriba-Adad II	(1055-1054)	
Šamši-Adad IV	(1053-1050)	
Aššurnasirpal I	(1049-1030)	
Shalmaneser II	(1030-1019)	Decline
Aššur-nirari IV	(1018-1013)	
Aššur-rabi II	(1012-972)	
Aššur-reša-iši II	(971-967)	
Tiglath-pileser II	(966-935)	

1300

1200

1100

1000

Figure 2: Revised chronology of the Middle Assyrian period (Szuchman 2007, 222 fig 12)

74
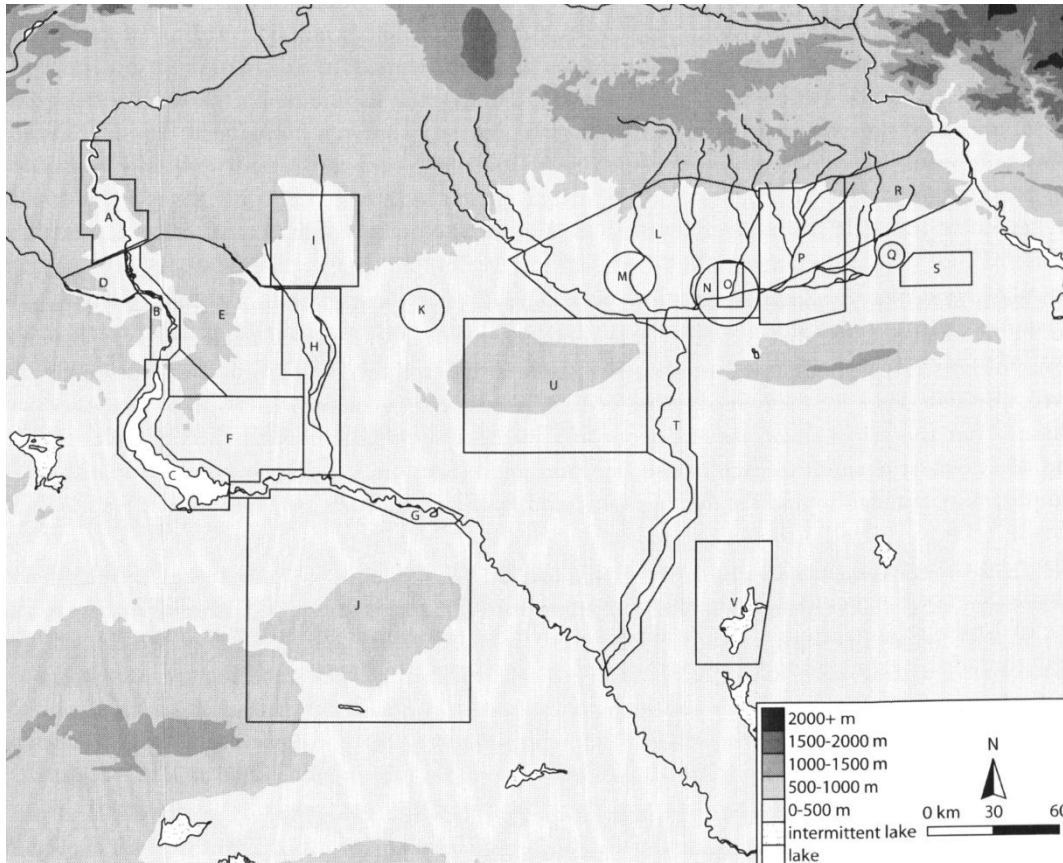
Figure 3: Map of northern Mesopotamia indicating spatial coverage achieved by recent surveys (Wossink 2011, 66 fig. 5.1) (A) Birecik-Euphrates Dam Survery (B-EDS). (B) Tishrin Dam surveys. (C) Tabqa Dam surveys. (D) Land of Carchemish survey. (E) Westgazira survey. (F) Balīḫ-Euphrates uplands survey. (G) Middle Euphrates Survey. (H) Balīḫ Survey (BS) and Wadi Qaramogh survey. (I) Harran survey. (J) Jebel Bishri survey. (K) Wadi Hammar survey. (L) Upper Ḫābūr survey. (M) Tell Beydar survey (TBS). (N) Brak sustaining area survey. (O) 1988 Tell Brak Survey. (P) Leilan Regional Survey (LRS). (Q) Tell Hamoukar survey (THS). (R) Northeast Syria survey. (S) North Jazira Survey (NJS). (T) Lower and Middle Ḫābūr survey. (U) Ḫābūr Basin Project. (V) Wadi Ağiğ survey.
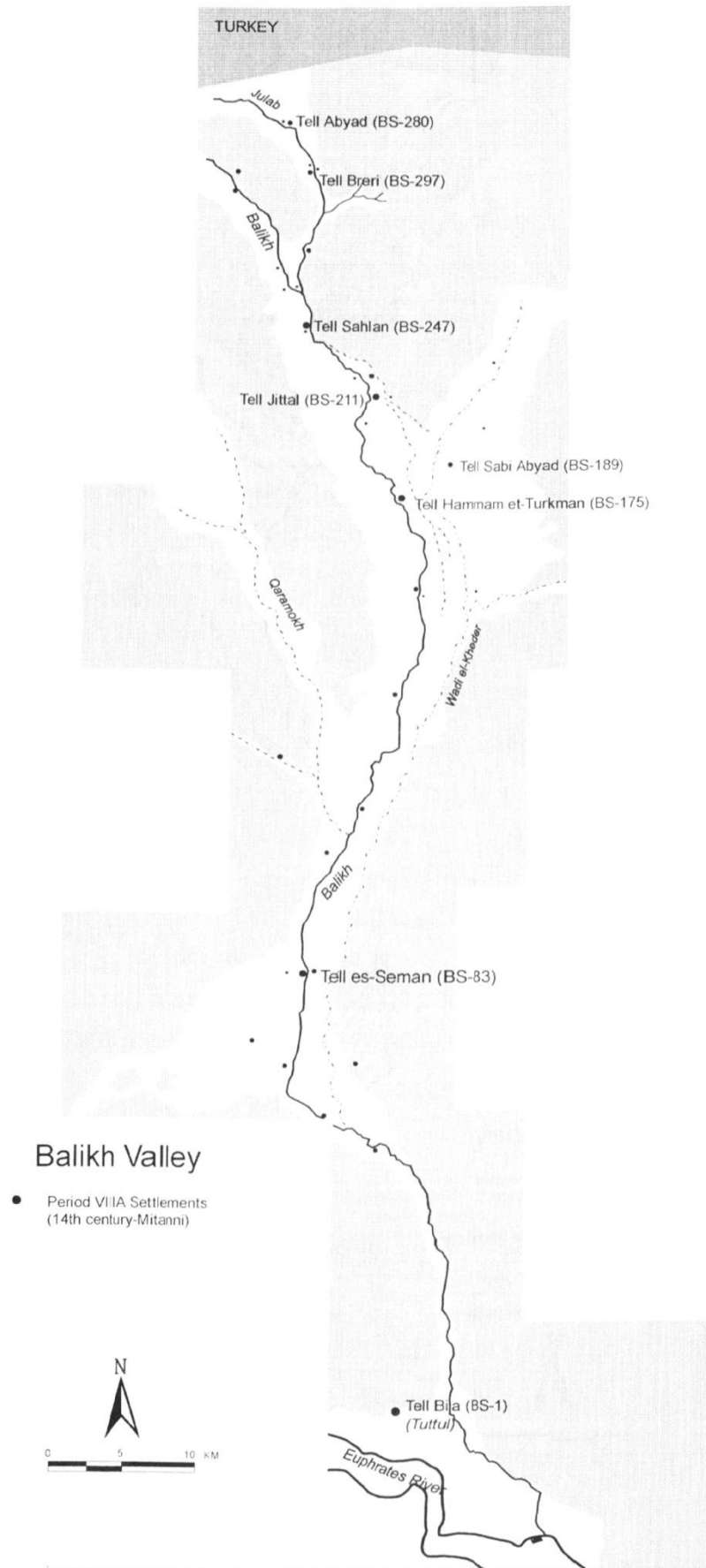
Figure 4: Map of Balih VIIIA (14th century) sites (Lyon 2000, 117 fig. 4)
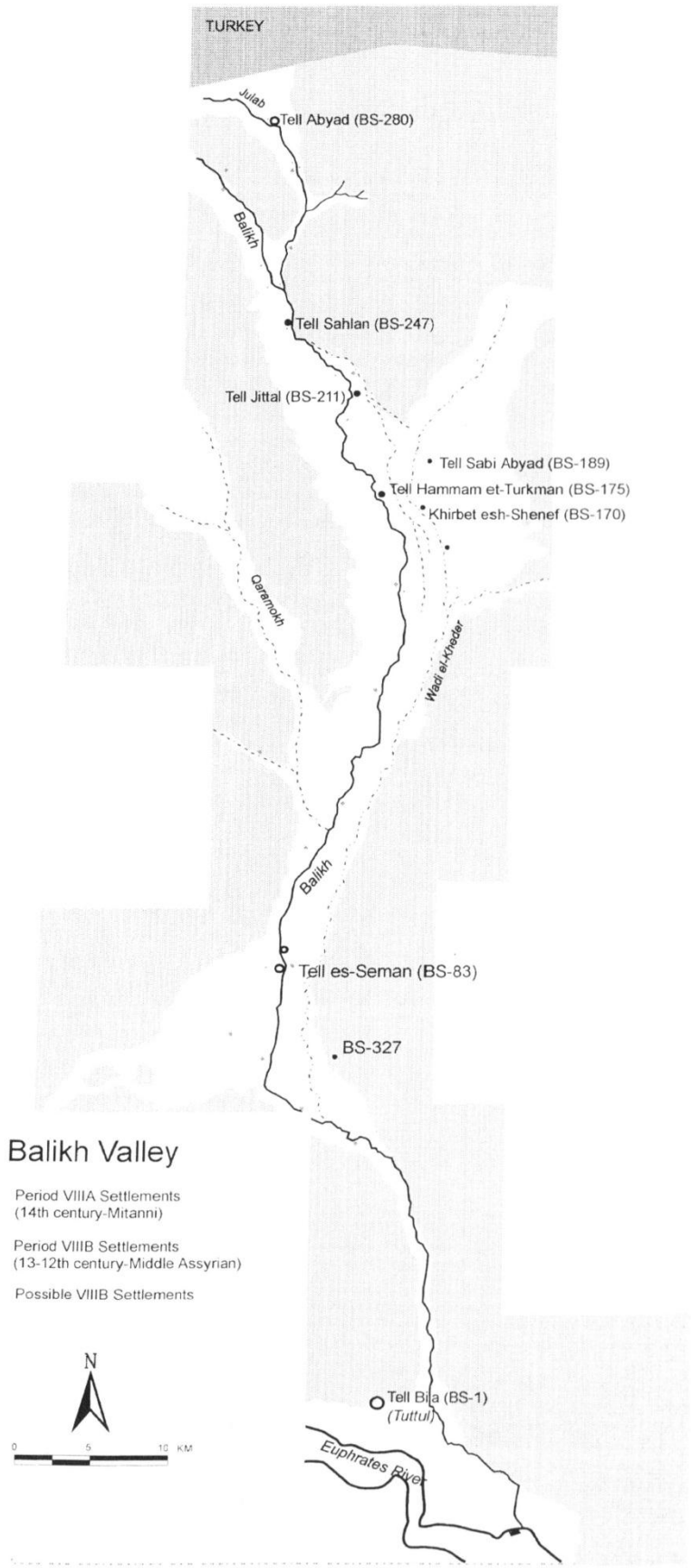
Figure 5: Map of Middle Assyrian sites (Lyon 2000, 120 fig. 7)
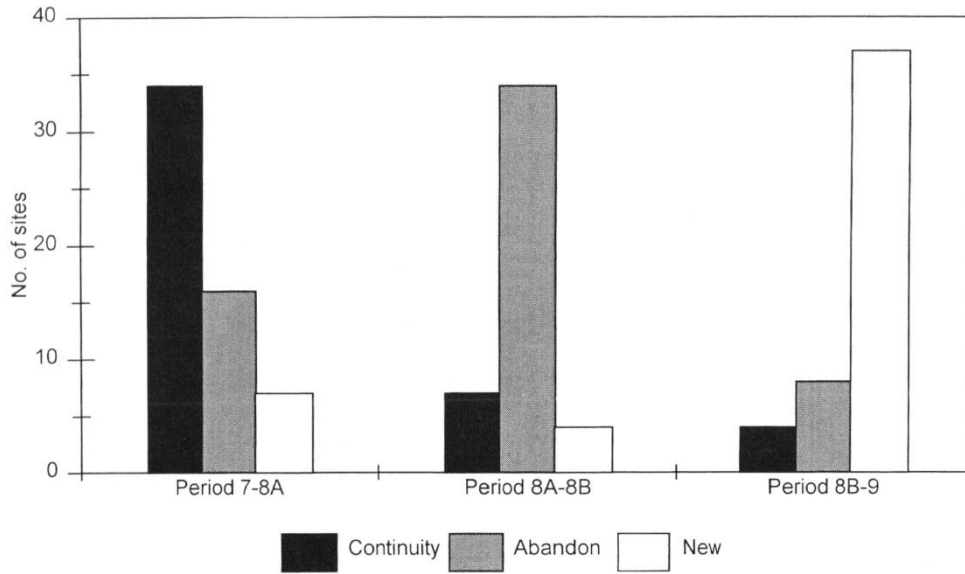
Figure 6: Settlement continuity measurements for 2nd through 1st millennia B. C. (Lyon 2000, 121 fig. 9)
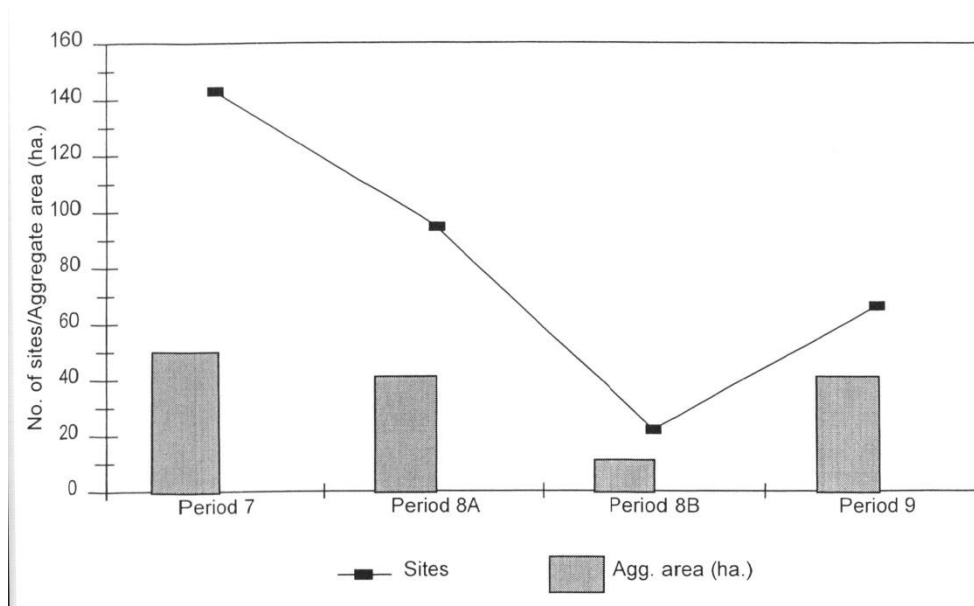
Figure 7: Sites and aggregate area from the late 2nd through 1st millennia B. C. (Lyon 2000, 121 fig. 8)
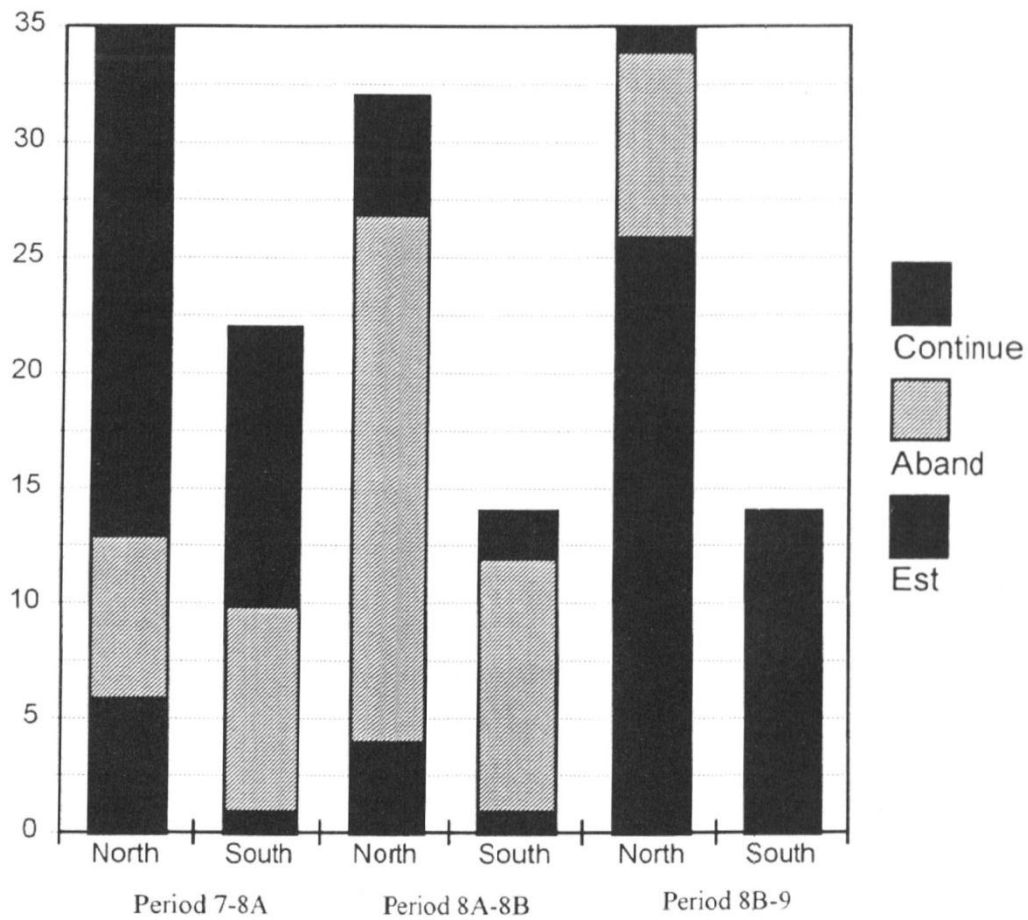
Figure 8: Continuity measurements for the northern and southern portions of the Balīḫ Valley (Lyon 2000, 122 fig. 11)
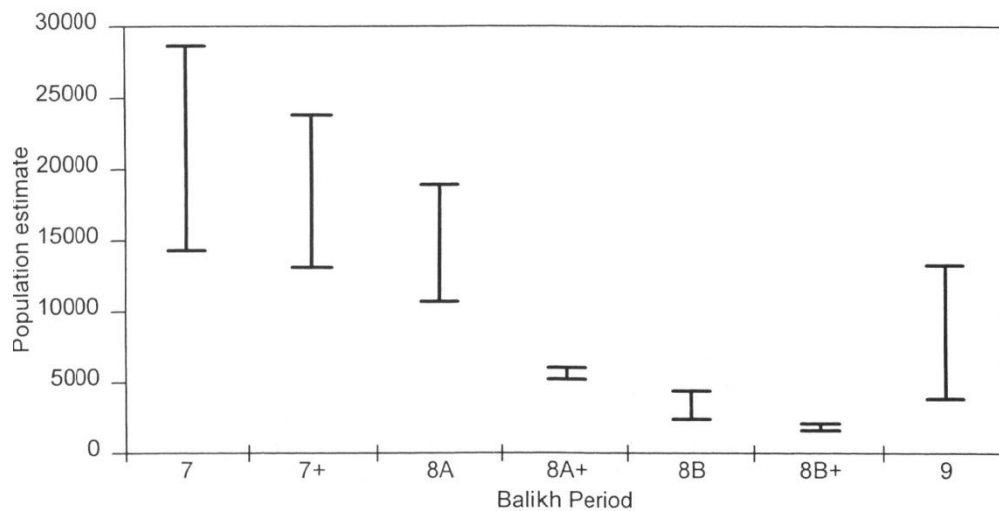
Figure 9: Hi-low plot of estimated population for the Balih Valley 2nd through 1st millennia B. C. (Lyon 2000, 123 fig. 13)
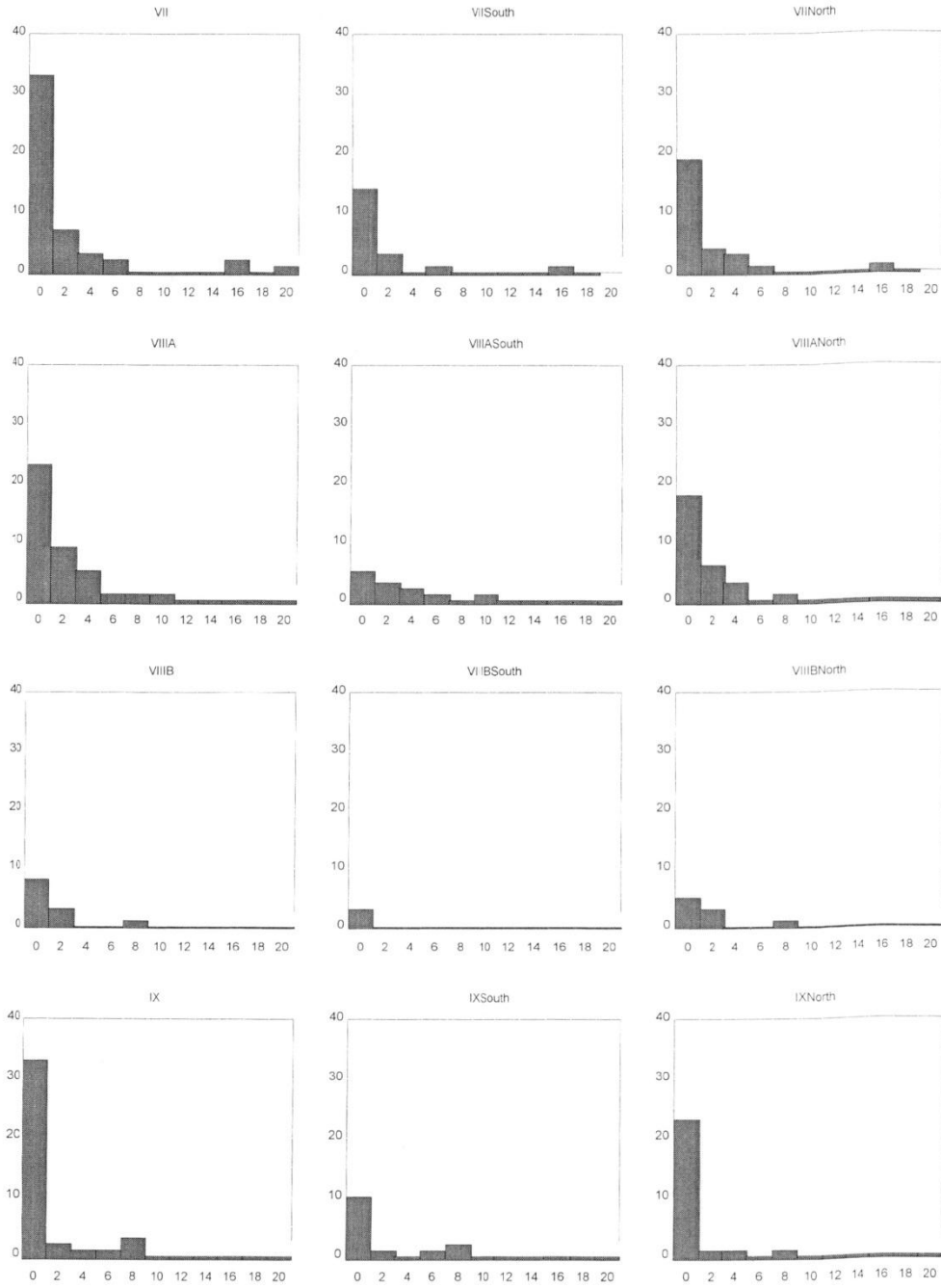
Figure 10: Site size frequency for Balīḫ sites, 2nd through 1st millennia B. C. (Lyon 2000, 124 fig. 14)
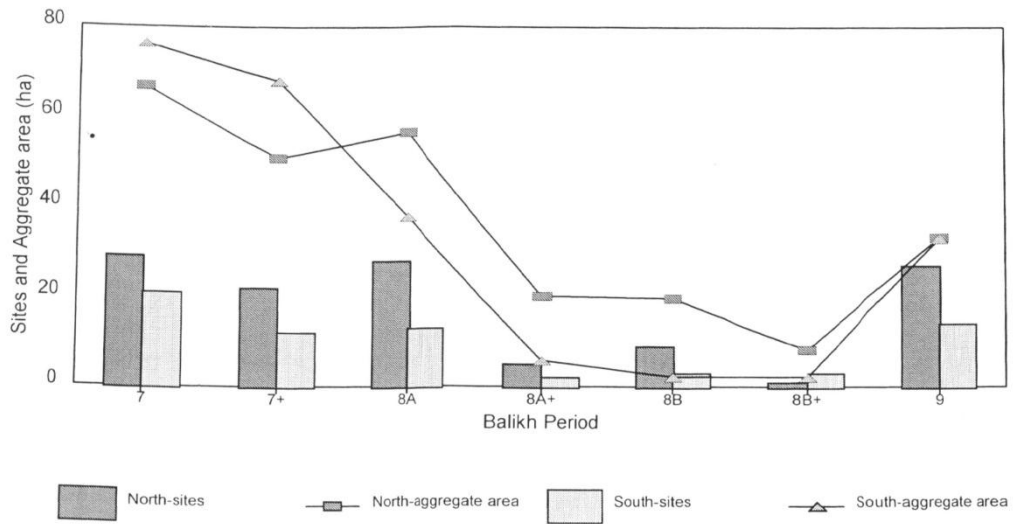
Figure 11: Sites and aggregate area with continuity variable (Lyon 2000, 123 fig. 12)
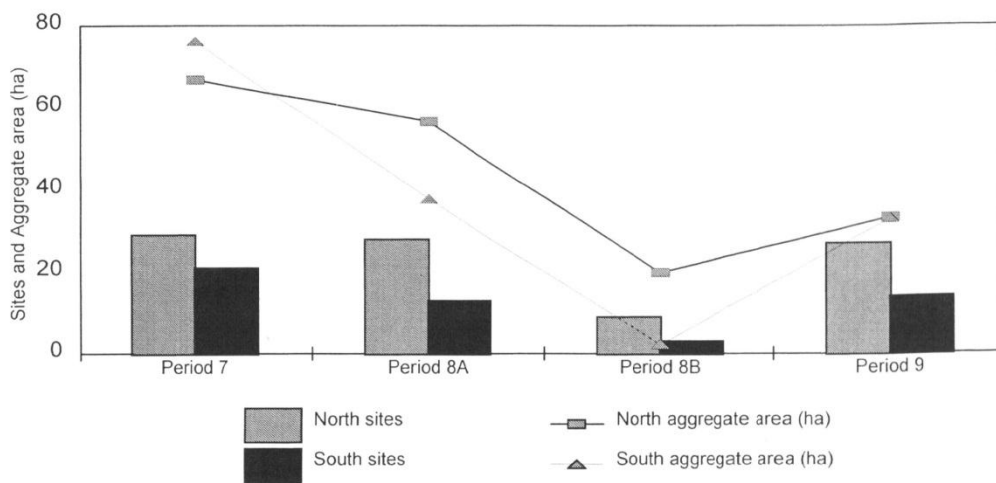
Figure 12: Sites and aggregate area for the northern and southern portions of the Balih Valley (Lyon 2000, 122 fig. 10)
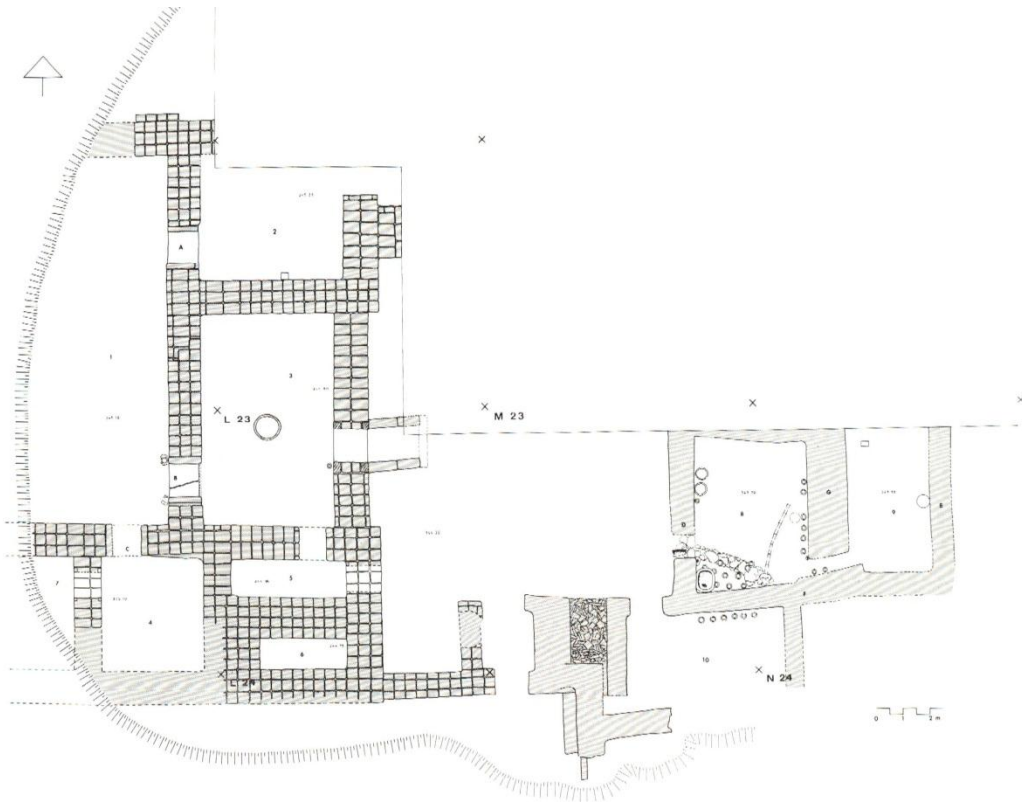
Figure 13: Map of the palace of Tell Hammam et-Turkman, first LB phase (Meijer 1988, 119 pl. 43)

TELL SABI ABYAD

1991 / 92

0   5m

Old walls
New walls
Domestic architecture
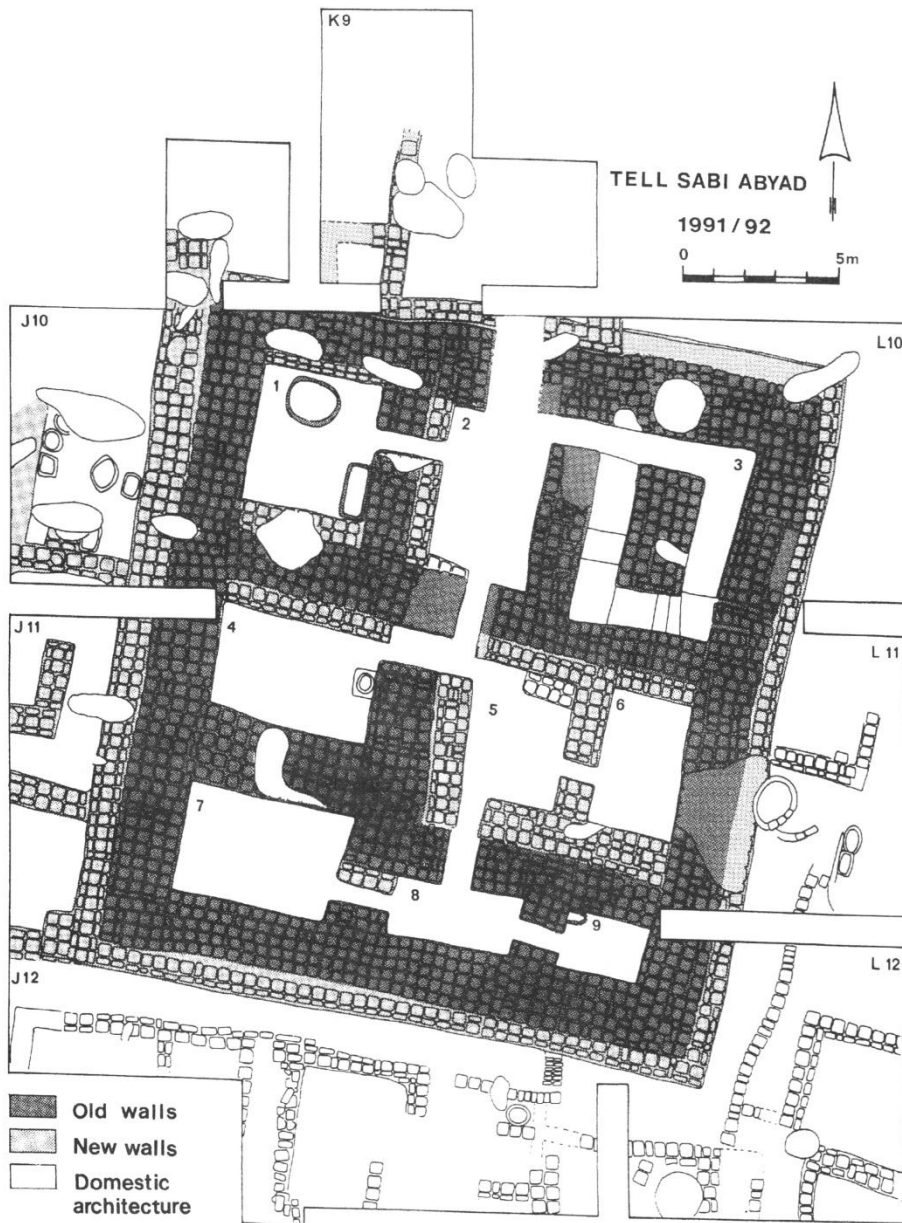
Figure 14: Plan of the Fortress of Tell Sabi Abyad showing the various modifications (Akkermans *et al.* 1993, 10 fig. 4)
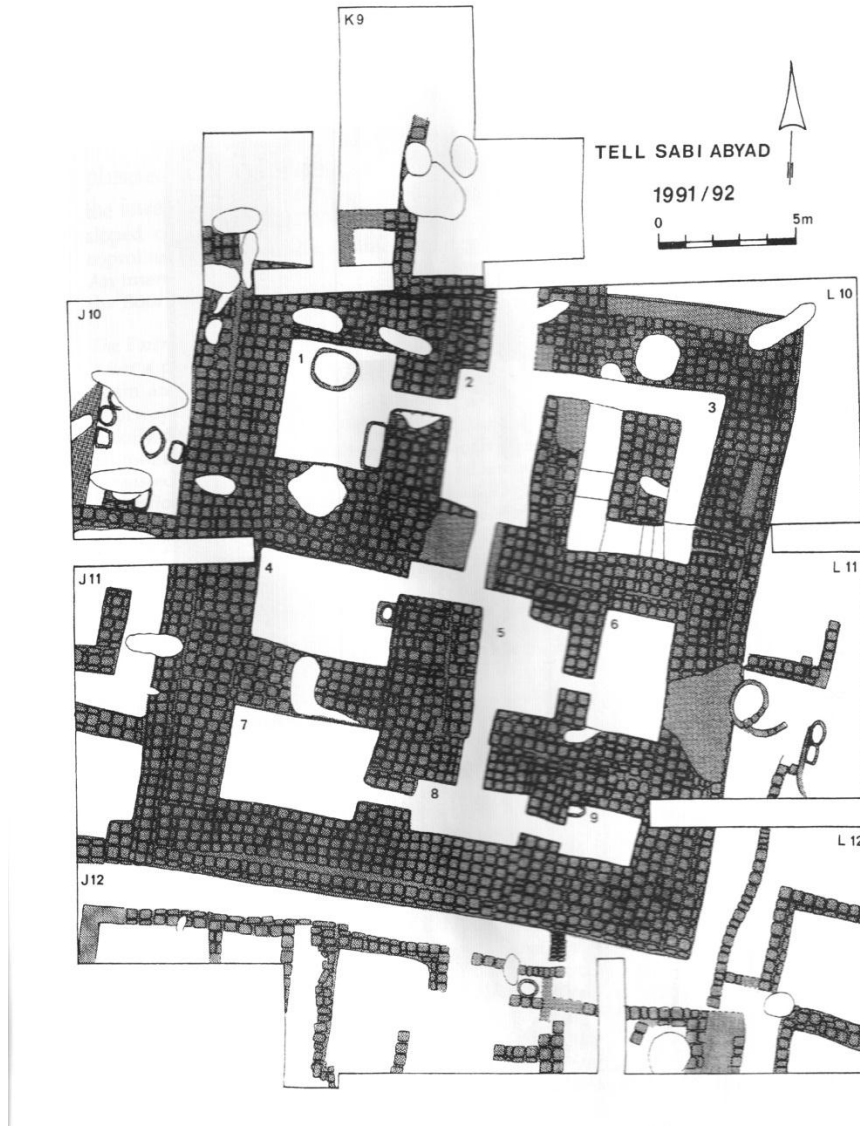
Figure 15: The phase-two Fortress of Tell Sabi Abyad (Akkermans *et al.* 1993, 11 fig. 5)
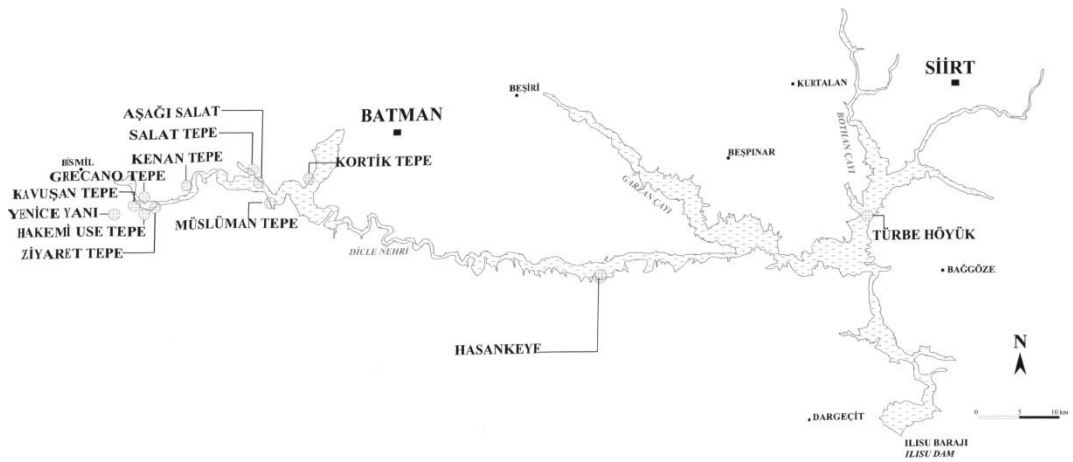
Figure 16: Ilisu dam reservoir area and archaeological sites investigated in 2002 (Tuna and Doonan 2011)
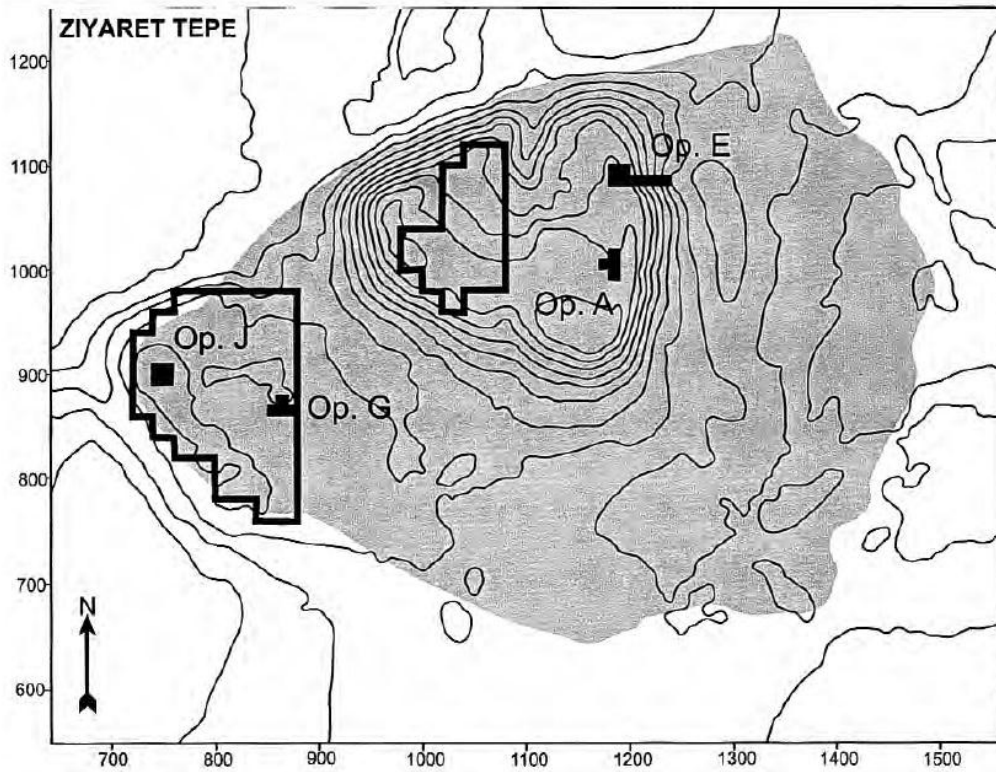
Figure 17: Topographic plan of Ziyaret Tepe showing the location of excavation and geophysical survey units in 2002 (Matney *et al.* 2003, 210 fig. 12)

Figure 18: Map of northern Mesopotamia with Middle Assyrian sites (Tenu 2009, 362 carte 16)

85
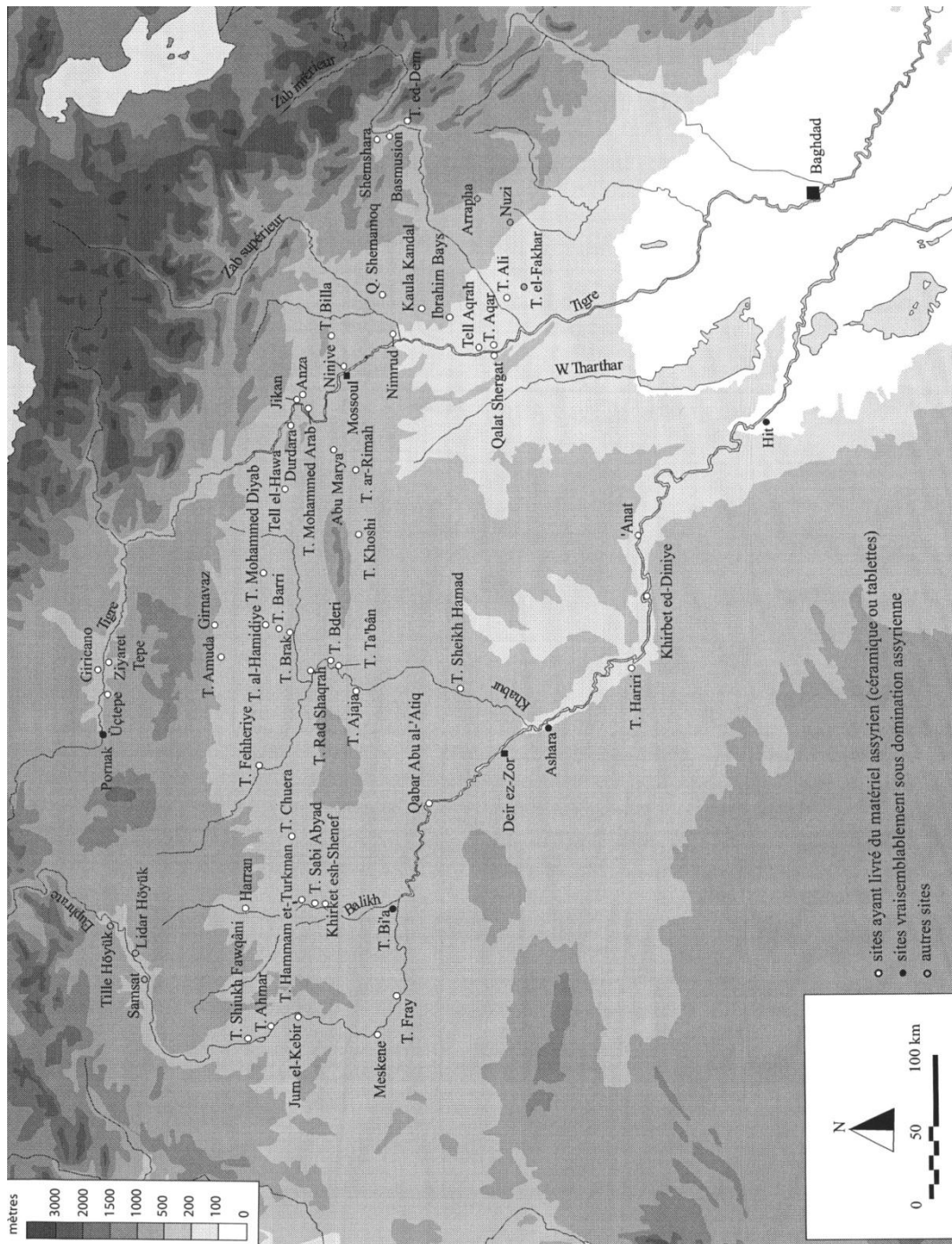
Figure 19: Map of Mesopotamia with Middle Assyrian sites (Tenu 2009, 348 carte 2)
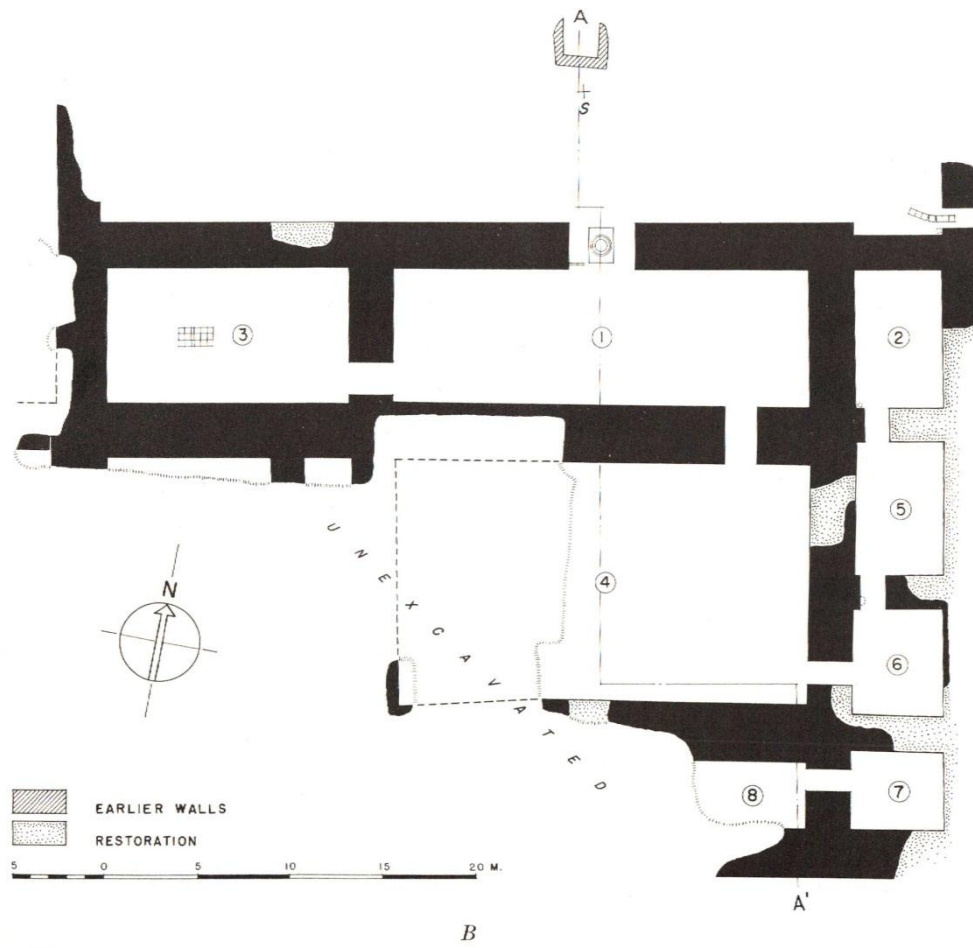
Figure 20: Tell Fakhariyah sounding IX, plan of the palace, floors 4-5 (McEwan et al. 1958, pl 7)
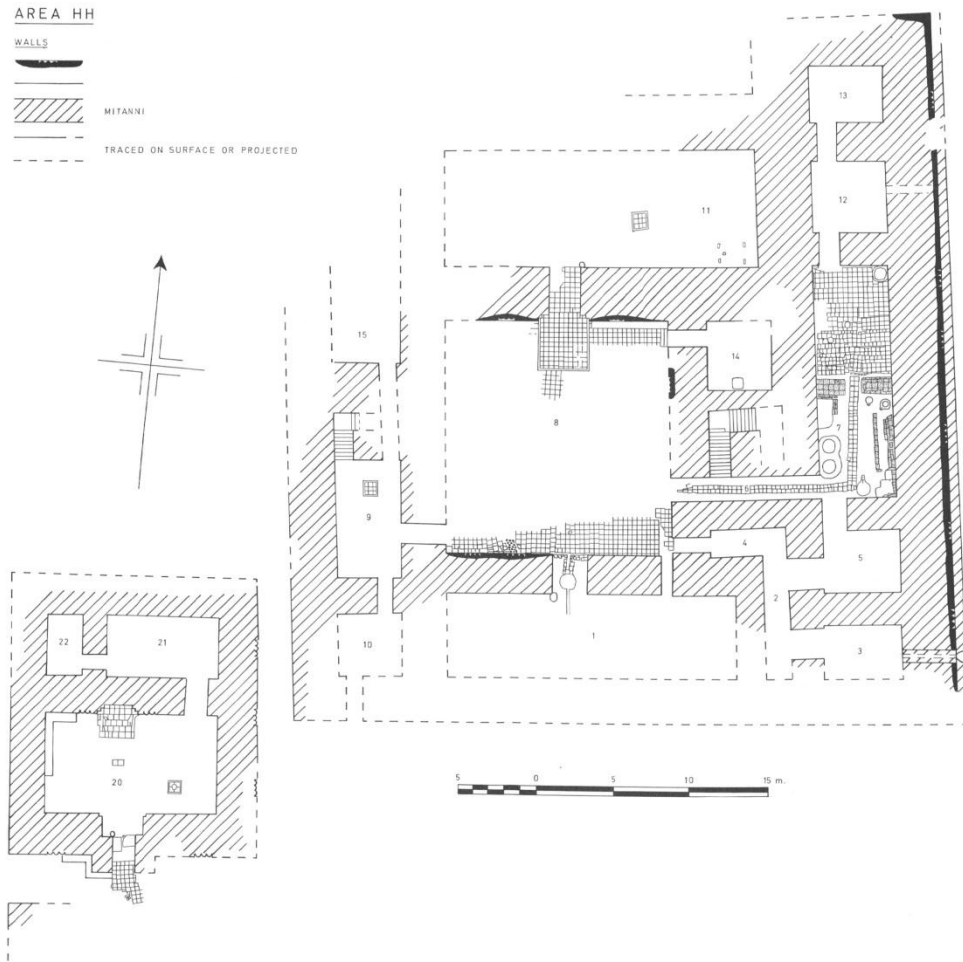
Figure 21: Plan of the Mitanni Palace and Temple at Tell Brak (Oates et al. 1997, fig. 12)
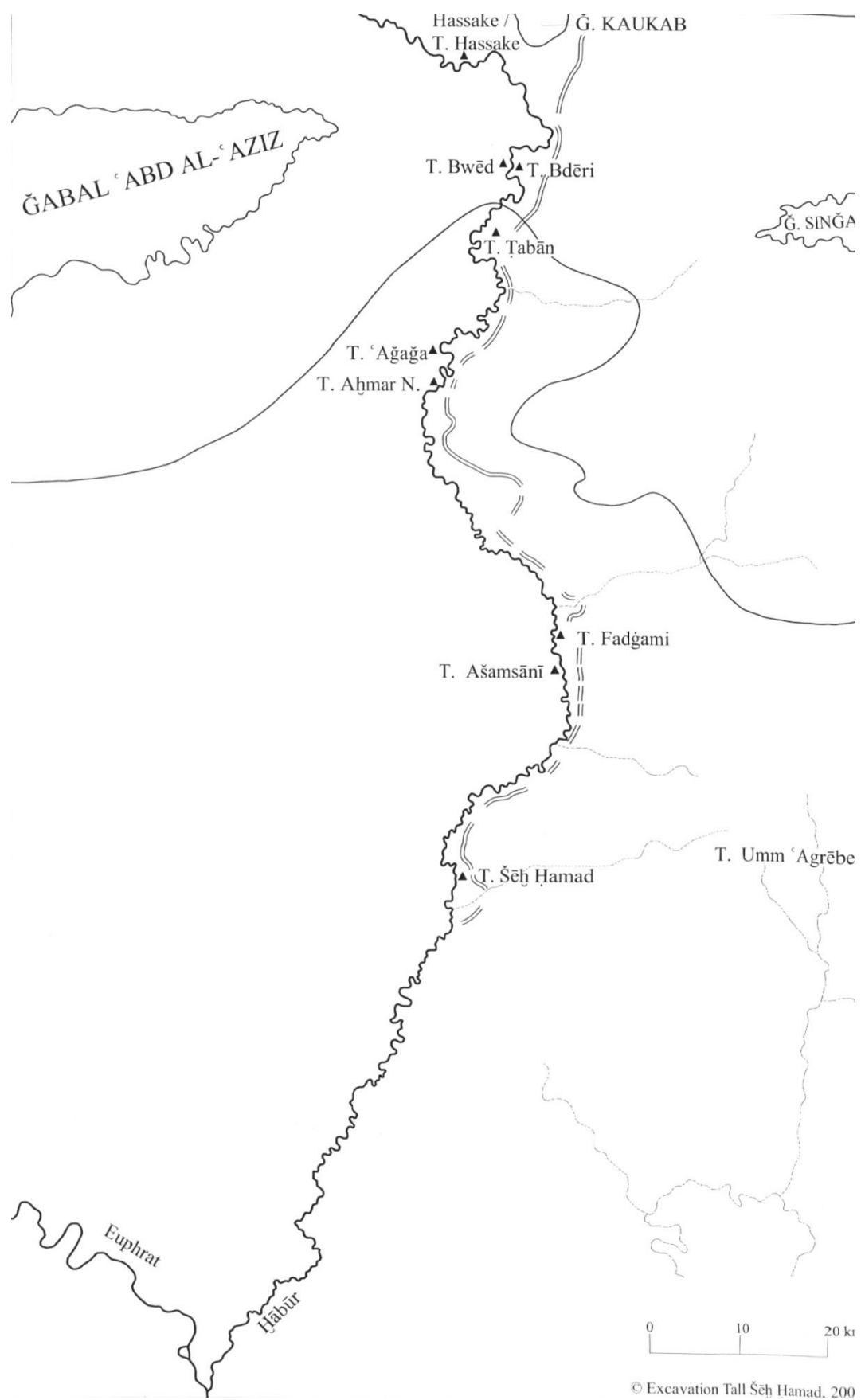
Figure 22: Settlement pattern of the Lower Ḫābūr during the Middle Assyrian Period showing the site of Šēḫ Hamad/Dūr-Katlimmu (Kühne 2010, 117 fig. 02)

Territorial Control · Hegemonic Control · Neutrality · Autonomy · Opposition

Provinces · Vassal States · Buffer States/Zones · Autonomous States · Enemy States

Positive Imperial Control · Negative Imperial Control

Degree of Autonomy from Imperial Rule

Figure 23: The degree of Autonomy from Imperial control (Parker 2001, 254 fig. 5)

Imperial Core

Outlying Provinces

Vassal States

Buffer States or Zones

Corridors Connecting Provinces to Imperial Core

Corridors Connecting Vassals to Provinces

Figure 24: Theoretical model of the Neo-Assyrian Empire (Parker 2001, 257 fig. 6)

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