Pottery from the University of California, Berkeley Excavations in the Area of the Maški Gate (MG22), Nineveh, 1989-1990

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and

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Cover: University of California, Berkeley, excavations in Area MG22 in Nineveh, looking east from the Maški Gate, 1990. Photo credit: Stephen Lumsden.

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Abbreviations

baskt.	basket
c	century
cm.	centimetre
Dec. Sherd	decorated sherd
Diam., diam.	diameter
Ext.	exterior
Fig.	figure
FS	Fort Shalmaneser
FB	fundbereich
Gen.	general
indet.	indeterminate
Int.	interior
Lev.	level
Loc., L	locus
Pl.	Plate
RH	Red House (Tell Sheikh Hamad)
TW	Town Wall (Nimrud)
UC	University of California

Preface

In 1987, the University of California at Berkeley initiated a program of archaeological investigations at Nineveh, Iraq, under the direction of David Stronach. One of the goals of the expedition was to elucidate the character and layout of the city's urban neighbourhoods; an aspect of Assyrian urbanism that had received little close attention in prior excavations at the site. One component of this initiative, which was introduced in 1989 during the second field season, was the excavation of an area just inside the Maški Gate (MG22), one of the monumental gateways on the western side of the city wall. Although this area had been bulldozed in the 1960s, it was here in 1989 and 1990 that the UC Berkeley team uncovered what appears to have been a residential district occupied by large dwellings and wide streets, partially bordered by a broad road running eastward on the same axis as the Maški Gate, and another road running north-south along the inside of the city wall. In at least two main occupation levels, the buildings were characterized by mudbrick walls, floors paved with baked bricks, and drainage systems. Architectural elements and painted wall decorations in one occupation level suggest a building of some importance existed in MG22 during the 7th century BC. Multiple layers of occupation and rebuilding suggest that the area was occupied during the period when the city was handsomely embellished and enlarged by the vaunted Assyrian monarch, Sennacherib (705/704-681 BC). The excavations appear to provide a stratigraphic history of Late Assyrian ceramics at the centre of the empire during that time. However, the record is made complex by evidence of destruction, abandonment, and subsequent reoccupation. This volume, comprising a catalogue of the pottery assemblage from the UC Berkeley excavations in the Maški Gate area of Nineveh is one of several planned volumes presenting the UC Berkeley project results. A comprehensive report on the excavations in MG22 by Stephen Lumsden, the director of the UC Berkeley Lower Town Project in Nineveh, is forthcoming. Special thanks must be given to Lumsden for providing copies of the MG22 field records and draft versions of his excavation report during the preparation of this catalogue, as well as for his input throughout. Regrettably, David Stronach did not live long enough to see this catalogue published but he remained actively engaged in its completion, and his opinions and insights have shaped both the content and the presentation. I did not excavate in Nineveh but was brought on as project architect primarily to record the architecture and other features in the Halzi Gate excavations, across the site, in the 1990 season. David became my PhD advisor two years later but by then he was a good friend, and he remained a reliable source for both inspiration and opportunities. His invaluable input must be acknowledged here with gratitude. Special thanks is also extended to the many colleagues who have provided pottery-related information, advice and assistance at crucial stages throughout the long process, especially Mark Altaweel, Janoscha Kreppner, Helen McDonald, Michael Roaf, and Tony Wilkinson. A warm note of thanks is also in order for the kind assistance and encouragement given, especially in the early stages of this project, by Farouk al-Rawi, Muzahim Mahmoud Hussein, Layla Salih, and Lamia Al-Gailani Werr. Among the many points of style and content which could be contested in this volume, it should be noted that in this catalogue the term Late Assyrian is applied to the pottery from within the entire period defined by the chronological limits of the Neo-Assyrian empire, and it is not intended to indicate the very end of Assyrian rule, as some might prefer. Maški was preferred over Mašqi or Mashki for the gate, and Assur was used instead of Aššur for the site. The use of the term post-Assyrian is explained in the Introduction and in Chapter 4. During the preparation of this study some descriptions, drawings, and photographs of the registered objects from the UC Berkeley excavations were provided by David Stronach from his personal collection of field records. Those records and some others from the UC Berkeley Expedition to Nineveh are now housed and available for public access in the Bancroft Library, University of California at Berkeley. This study benefitted from logistical and administrative support from the Archaeology departments at the University of Edinburgh, Durham University, and the University of California at Berkeley and from the generous financial support of the Shelby White and Leon Levy Program for Archaeological Publications and the British Universities Iraq Consortium.

Eleanor Barbanes Wilkinson

Chapter 1.
Introduction

The MG22 Pottery Catalogue: Project History

This catalogue presents a collection of pottery recorded during archaeological excavations conducted by a team from the University of California, Berkeley, at the site of Nineveh in Iraq during 1989 and 1990. Referred to as operation MG22, the area investigated was situated to the north of Kuyunjik mound and just east of the Maški Gate on the perimeter wall surrounding the lower town of the ancient city (see Figure 1.1). After the last field season concluded in May 1990, the expedition was prevented from returning to Iraq by the onset of the first Gulf War, although further seasons had been planned. The Maški Gate had been the focus of archaeological investigation during the late 1960s, when a team of Iraqi archaeologists led by Tariq Madhloom undertook a program of restoration and conservation in Nineveh. While completing extensive renovation work on the Maški Gate, the Iraqi team uncovered ancient architectural remains in trenches just east of the gateway.[1] The research remit of the UC Berkeley expedition included delineating and clearing those older trenches while expanding the archaeological investigations in this area of the site. The Maški Gate excavations were only one component of the UC Berkeley investigations in 1987, 1989 and 1990, as multiple operations were conducted under a comprehensive research agenda designated as The Lower Town Project. The original intention of the project was to complete a programme of intensive archaeological survey and recording across the roughly 300 hectares of the intramural lower town north of the Khosr river. A topographic plan of the northern sector was completed, and pottery was collected from nineteen sample units in the lower town project area. Concurrently, eighteen deep trenches dug for modern wells were investigated in the vicinity of the Maški Gate. In two of the well hole operations, Well Holes A and B, detailed records of the stratigraphy and pottery were produced.[2] Apart from the Lower Town Project, other operations during these three seasons comprised: A brief investigation in the south tower of the Maški Gate complex; excavations in the northwest quadrant of the lower town (Area NWM); excavations on Kuyunjik mound on the southeast edge (Area KG) and in Sennacherib's Eastern Building; documentation of extant architecture in the throne room of Sennacherib's Palace (the Southwest Palace); and excavations at the Halzi Gate (Area HG), at the southeast perimeter of the site. Although there has been no comprehensive final report on the UC Berkeley investigations to date, data resulting from some of these operations have appeared in previous publications.[3] The UC Berkeley excavations were conducted before digital capture became the norm in archaeological fieldwork and all field records utilized for this catalogue were in paper form. Since the fieldwork was terminated earlier than anticipated, no calibrated radiocarbon dates have been produced from the MG22 excavations, though samples were obtained in the field.[4] In this chapter, the findings of operation MG22 will be outlined briefly, introducing the excavations and key results. The excavated stratigraphy is described in slightly more detail in Chapter 3 to provide the chronological framework for the pottery. Chapter 4 is devoted to some considerations concerning the implications that the results of this pottery study may have in terms of the archaeological record from the later period of the Neo-Assyrian empire and the aftermath of its dissolution. A more comprehensive report containing full descriptions and analysis of the excavated architecture and stratigraphy is planned.[5]

The stratigraphic sequence excavated in MG22 was subdivided into three main phases of occupation: Level V, Level IV, and Level III; two more levels above Level III consisted of pits and highly disturbed material. Level V, the deepest level excavated, comprised the earliest level of architecture within limited areas. Field records show no indication that the architectural remains in this level were foundations rather than walls, but no distinct floor levels were identified in this level. According to the field records, the pottery in Level V was dominated by standard Late Assyrian forms in some ways distinct from pottery excavated subsequently, but due to the confused nature of the stratigraphy in the limited areas excavated at this level, no pottery was associated exclusively with the Level V architecture. Wherever possible, the sherds illustrated from Levels IVd and IVc, which might be associated with the Level V building level, have been identified in the catalogue tables and in relevant sections of the discussion. In Levels IV and III the second and third coherent buildings were uncovered, each consisting of rooms arranged around a large courtyard.

[1] Madhloom 1967; 1968: 45-51, Pls. 2, 11-13, 25; 1969: 43-9, Pls. 1-2, 4, 9, 11, 14-19, 21, 26; Madhloom and Mahdi 1976: 31-4; Salman 1970: d; 1971: e; 1973: c-d; 1974: b; 1975: c.

[2] The MG22 excavation and all work of the UC Berkeley Lower Town Project was overseen by Stephen Lumsden. For a preliminary discussion of some pottery from MG22 see Lumsden 1999. Other results from the Lower Town Project have appeared in Lumsden 1991; 1998; 2000; 2006; MacGinnis 1989; MacGinnis and Scott 1990.

[3] Publications resulting from data collected by the UC Berkeley expedition include the following: on the Halzi Gate excavations, see Pickworth 2005; Stronach 1989; 1990; 1997; 2017. For the archaeological history of Sennacherib's Eastern Building, see Russell 1991; 1999. More general reports and analysis of the investigations can be found in Stronach 1991; 1994; Stronach and Lumsden 1992. On the pottery excavated on Kuyunjik mound (Area KG), see McMahon 1998; Roaf 2000. The ceramics from the other areas excavated and collected in survey by the UC Berkeley expedition are not included in this catalogue.

[4] Results from radiocarbon dating performed on samples from three human skeletons excavated in the Halzi Gate can be found in Taylor *et al.* 2010.

[5] See Lumsden's forthcoming report on the excavations in MG22 for a more comprehensive description and interpretation of the stratigraphic sequence.

Figure 1.2 compares the plans of the buildings excavated in Level IV and Level III. The suite of rooms and courtyard excavated in each of these levels may have been attached to a much larger architectural complex, at least during Levels IVb and IVc, when the excavated remains of the building occupied a total area of about 475m square. The excavators contend that during these phases the building, in plan and in its features, appeared related to a type of building known in Assur in contexts from the first millennium BC, where they have been interpreted as elite residences. Level IV, considered to be the main period of use in MG22, appears to have occurred during the 7th century BC when Nineveh functioned as the capital of the Assyrian empire. Archaeological evidence suggests that the occupation in MG22 was probably at least in part contemporaneous with the construction of the Maški Gate at the very end of the 8th or the beginning of the 7th century BC. Judging from the texts of the king Sennacherib (705/4-681 BC), this probably occurred early in his reign (Luckenbill 1924: 111-13; Frahm 1997: 273; Reade 1998b: 397-402). Within Level IV, the two subphases Levels IVb and IVc were associated with at least two ancient intercity roads; one ran north-south along the interior of the city wall while a second seems to have entered the city through the city gate and continued eastward. The excavated buildings would have stood on the north side of this east-west street. Level IV terminated with a phase of apparent destruction, possible flooding, ash accumulation and probably sat disused for at least a short time before the next level of occupation.

In all the other Assyrian capitals and at many urban centres and rural sites of lesser rank there was evidence for site-wide destruction in the late 7th century BC. In Nimrud, Assur and Khorsabad evidence interpreted as "squatter" re-occupation followed the destruction (Curtis 2003: 158-63). In Nineveh itself, in the palaces and temples on Kuyunjik, and in the Adad and the Halzi Gates, extensive evidence has been found associated with the attack in 612 BC (Russell 1991: 1; Reade 1998b; 2005; Stronach 1997; 2017; Suleiman 1971). In the Maški Gate excavations, apart from the pottery, archaeological evidence potentially related to the devastation of 612 BC was identified in limited areas. In some cases, it was represented only by a layer of ash 5 cm thick. More generally, the loci recorded as 'destruction level' consisted of multiple lenses of ashy debris, soil, and water borne pebbles. No direct evidence of burning was found inside the buildings.[6] Drawing chronological relationships across the excavated area was made difficult by the fact that the ancient occupation levels in every trench were disturbed or destroyed by the excavation of ancient pits and modern archaeological work. Additionally, the east-to-west ground slope of the entire MG22 area ensured that connections between stratigraphic features across the site were obliterated or difficult to trace. It is an unfortunate fact that the destruction of Nineveh, arguably one of the most well-known events in Mesopotamian history, is less clear than one might expect in the archaeological record from the MG22 excavations, largely due to the disturbed and complex stratigraphy existing in the excavation area.

Level III, an entirely new phase of construction activity above and built into the Level IV destruction may represent occupation subsequent to the fall of Nineveh in 612 BC, or it may have occurred sometime during the latter phase of the Neo-Assyrian period. Excavation records indicate that it did not appear to be simply a renovation or re-use of the building in Level IV, since the construction differed in overall size, in quality, and perhaps in the general orientation of the building relative to the street. Above Level III, a fill layer complicated by numerous pits cutting deep into the main occupation levels was characterized as Level II. The uppermost level, Level I, also very mixed, consisted of topsoil, modern debris, and fill layers from previous excavations. Within the two disturbed layers of I and II, the pottery appeared to replicate the typology appearing in previous levels, but both Level II and Level I also contained small amounts of pottery that could date from the Hellenistic, Sasanian, and perhaps Islamic periods. Occasionally, examples of such pottery appeared in the deeper levels of III and IV but in those contexts the late material was interpreted generally as pit intrusion. Evidence from these later periods found elsewhere in the lower town of Nineveh, though not plentiful, further attests to some degree of occupation in limited areas during these eras (Scott and MacGinnis 1990; Reade 1998a; Palermo 2017).[7] Since the pottery from Level V was largely mixed, and the stratigraphy above Level III was heavily disturbed showing no further indications of a coherent settlement, Levels IV and III are the focus of study in this catalogue. The remainder of this chapter contains a brief sketch of the historical context in which the excavated occupation levels may have arisen and an explanation of the selection of sites referenced for comparison to the MG22 pottery.

Historical Context of the MG22 Pottery Assemblage

The previous excavations by the Iraqi archaeologists near the Maški Gate uncovered architecture and material culture attributed to the Neo-Assyrian period, and it would be reasonable to assume that in this area of the lower town the archaeological record from that time period in Nineveh could comprise a stratigraphic sequence encompassing at least two formidable inflection points in the life of the city.

[6] During the1990 season, Tony Wilkinson examined the stratigraphy in limited areas of the Maški Gate excavations. His assessment comprised only the physical characteristics of the strata using standard geomorphological terms. Other than general descriptions for strata (such as 'ash layer') and references to depositional processes (such as 'water borne'), no suggestion was made linking the strata to specific destruction events such as fires or floods, historically documented or otherwise.

[7] In the lower town, early British excavations about 100 m northeast of the MG22 excavations reported 'early Romano-Parthian and Seleucid levels' (Thompson and Mallowan 1933) and about 200m southeast of MG22, Islamic and Hellenistic material was recorded in the Iraqi excavations during the 1960s (Madhloom 1968). According to Lumsden, Late Assyrian dominated the pottery collected in the surface survey of the lower town during 1990; a small percentage of sherds post-dating the Late Assyrian period were identified (mainly Parthian, Sasanian and Islamic), and one of the survey units contained a relatively large amount of Hellenistic pottery (Lumsden 2006).

The first of these was the decision by king Sennacherib to designate Nineveh as the new capital, a move which resulted in the lower town being considerably expanded and surrounded by a perimeter wall, probably during this king's reign.[8] The second major event was the annihilation of the city in 612 BC, when Nineveh was the administrative and ideological capital of the empire (Porter 2017: 213). Therefore, the pottery assemblage from MG22 was assessed in comparison with robust assemblages of pottery from archaeological sites in northern Mesopotamia situated chronologically within the Neo-Assyrian period, and from a more limited group of sites with excavated assemblages of pottery from the period commonly characterized as 'post-Assyrian.' The very beginning of the Neo-Assyrian period is commonly associated with the territorial gains made during the reign of king Adad-nirari II in 912/911 BC, while the final collapse of Nineveh, and of the Assyrian imperial capital cities more generally, in 612 BC has long been considered a convenient historical marker representing the end of the Neo-Assyrian period. When applied to material culture, the label 'post-Assyrian' is typically intended to refer to the period from 612 BC until the absorption of the Assyrian core region into the Achaemenid empire in 539 BC following Cyrus' capture of Babylon.[9] Admittedly, the perpetuation of the term 'post-Assyrian' in this catalogue requires some explanation, since it implies that Assyria and Assyrian traditions ended abruptly at 612 BC, and the evidence from the Maški Gate excavations seems to suggest that the opposite was true: Though the two main occupation phases in MG22 were separated by an episode of destruction and possibly abandonment, the transition between them was marked by a general continuity in the pottery. Nevertheless, the pottery above the destruction level is characterized as post-Assyrian in this catalogue because it was the term used most frequently in the publications of pottery assemblages referenced for comparison in this study. It is intended to indicate a coherent grouping of pottery that is chronologically, if not morphologically, distinct from the pottery of the preceding occupation levels. While not ideal, during analysis this was the most expedient means of maintaining consistency when drawing comparisons among pottery categories across different sites. There is yet no concordance among scholars as to what chronological label is the optimal one for describing material culture in use in the former Assyrian territories following the events of 612 BC in lieu of a term that is historically derived. However, with these results from the Maški Gate excavations shedding some light on the emerging picture of occupation in the centre of the empire, a better understanding of this poorly defined period in the archaeological record may arise, particularly as the excavated record may encompass the two pivotal historical events of the major expansion of the city and its destruction. Though an obvious point, it is important to emphasize at the outset that the identification of occupation post-dating the 612 BC destruction of Nineveh in MG22 hinges upon the interpretation of the evidence of the destruction contexts. At this stage the pottery alone does not appear to represent conclusive evidence either of Nineveh's complete abandonment or its resettlement surrounding 612 BC. Further consideration of the applicability of the label 'post-Assyrian' in the Nineveh region, and the complex challenges that remain in the identification of the pottery of the period, are expanded upon in the discussion of Chapter 4.

While the Neo-Assyrian period in Nineveh is relatively well documented in texts and in archaeological evidence, and the destruction of Nineveh is recounted in various textual sources, considerably less is known of the period immediately following 612 BC. Since the excavations at the Maški Gate uncovered apparent evidence of destruction and abandonment seemingly occurring during the 7th century BC, it is worth summarizing the written sources which provide insights into the final phase of Nineveh as an imperial capital and later. The Babylonian Chronicles are a key source of information concerning the last days of Nineveh. Chronicle 3 states that after a three-month siege, from May/June through July/August of 612 BC, a combined force of Medes, Babylonians, Persians and others turned Nineveh 'into a ruin heap' (Grayson 2000: 94, line 45). The targeted defacing of royal imagery and the intentional despoiling of specific public buildings on Kuyunjik mound appear to manifest the definitive end of Assyrian control in Nineveh at this point (Simpson 2021). However, textual and archaeological evidence, from Nineveh and from other sites such as Tell Sheikh Hamad, can be seen as confirmation that the Assyrian imperial administration did not collapse completely with the fall of the capital cities (see Dalley 1993). The Chronicles relate that in 612 BC the Babylonian king Nabopolassar was in Nineveh to receive booty and prisoners from the army's campaign in Nisibin (Curtis 2003: 158) and soon after the invasion, on 14 September, the Median army under Cyaxares returned home (Van De Mieroop 2017: 243). For two years at least, Nineveh seems to have then served as the base from which the Babylonian army continued to wage war against the last remnants of the Assyrian Empire. The Babylonian army was still active around Nineveh in 611-610 BC.[10] Perhaps aligned with Median army, they succeeded in routing the Assyrians from their last foothold in Harran in 610 BC and 609 BC, before extinguishing the Assyrian Empire definitively at Karkemiš and at Hama in 605 BC (Curtis 2003: 158). Mention of the Nineveh region reappears next in texts during the Achaemenid period. Texts place the Medes in Erbil and Harran in at least in the mid-6th century BC (Curtis 2005: 1) but there is no evidence that they established a permanent presence anywhere in

[8] In Sennacherib's accounts of his work on the city wall, he claimed to be the first king to build a wall around Nineveh (Frahm 1997: 198; Luckenbill 1924: 111). Successive texts from his reign illustrate that the plan for the construction of the city wall and gateways was an evolving one with changes made in the number of gateways over time (Reade 1998b: 401).

[9] This time frame is based on the summary of the period in the Assyrian heartland by Curtis (2003: 157-160). In recent years the post-Assyrian period is most often understood as specifically applicable to the first few decades after 612 BC.

[10] For a comprehensive discussion of the textual and archaeological evidence supporting the Babylonian control of the Nineveh region in the aftermath of 612 BC, see Kuhrt 1995.

the area (Curtis 2005: 1; 2003: 165-7).[11] Median control of Assyria, and of Erbil in particular, has not been established (Kuhrt 1995: 241-3; Curtis 2005:1-4). Despite the accounts of Herodotus and Xenophon, both of whom describe Nineveh (Mespila) as formerly 'Median,' it is not clear whether they or the Babylonians consistently controlled the region then.[12] In 401 BC Xenophon described Nineveh as "... deserted and lying in ruins" (*Anabasis* III.4.10-11). Regardless of the accuracy of this description for Nineveh itself, as Reade has argued, there must have been people living in the area to inform Xenophon that it was called Mespila (Reade 1998b: 428), a factor perhaps contradicting the impression that Xenophon's account might present, that the Nineveh countryside was devoid of people. Additional evidence of settlement in the countryside surrounding Nineveh is an issue which will be dealt with further, in Chapter 4. From the few relevant textual sources mentioning the area from 612 BC until the rise of the Seleucids, it is not clear exactly how Nineveh figured in the strategic ambitions of either the Babylonians or the Medes.

Regional Archaeological Context: Relating the MG22 Pottery to Other Sites

Archaeologically, pottery assemblages identified as Neo- or Late Assyrian most often represent pottery from at earliest the mid-8th and 7th centuries BC, the span of time most often identified in the publications from the excavations in the Assyrians capital cities (Hausleiter 2010: 13). Pottery assemblages from securely dated excavated occupations from within the 9th and early 8th centuries BC are much less well documented.[13] Smaller rural sites dated to the Neo-Assyrian period which are documented through regional survey are often similarly assessed chronologically, since in some areas such settlement may have been related to the expansion of the provincial system and the major administrative reorganization by Tiglath-pileser III in the second half of the 8th century BC (Radner 2011; Postgate 1979; Wilkinson 2003: 128) or to the Assyrian imperial policy of resettling deportees throughout the countryside (Oded 1979:19; Postgate 1974: 237-8; Wilkinson and Tucker 1995: 62; Wilkinson et al. 2005: 38). Some broad synthetic studies have proposed defining typological similarities across multiple sites according to subdivisions within the Iron Age sequence (Hausleiter 2010; Anastasio 2010) and recognition of a set of 'imperial types' has been attempted by some (Parker 2001: 283-85; 2003) though with varying success; even at sites at which the Assyrian presence is historically documented through epigraphic evidence such as Carchemish, 'imperial types' are not consistently visible in the pottery record (Wilkinson et al. 2016: 143). Unfortunately, most studies - including this one – are still limited to an approach that amounts to an interregional comparison of vessel types or, as Dittmann has termed it, a type of 'here and there' approach, with little focus on intra-site and local or regional developments (Dittmann 2011: 172, note 26). Differences in the Iron Age chronological subdivision in different regions, as well as terminological differences in the assessment of wares, have long challenged attempts to establish a set of diagnostic standards for Late Assyrian pottery (Wilkinson 1995: 140-44), and for post-Assyrian pottery the challenge is even greater.

The majority of sites used in comparison for this study were situated within the Assyrian core region; in this catalogue, the terms 'core' and 'heartland' are equivalent. Following Radner's definition, the 'Assyrian heartland,' refers to the territory consisting of the eleven administrative provinces controlled continuously by the Assyrian kings from the 14th to the 7th century BC, defined by the geographical triangle of Nineveh (modern Mosul) in the north, Arbela (Erbil) in the east, and Assur (Qala'at Sherqat) in the south (Radner 2011: 321).[14] Local influences affecting ceramic traditions at sites outside the Assyrian core territories have the potential to complicate the rendering of realistic comparisons with pottery from a city such as Nineveh, the imperial capital; at some sites with significant Iron Age pottery assemblages, such as Tille Höyük and Tell Ahmar, the pottery from the period of Neo-Assyrian involvement at the site indicates that local ceramic traditions developed concurrently alongside Assyrian practices. For this reason, Stronach advocated limiting the geographical scope of the comparative analysis of the MG22 ceramics to sites within the Assyrian heartland. Consequently, comparative assemblages in the more peripheral Assyrian territories have been referenced only when they provided better comparisons than those found at sites within the Assyrian core. Relevant sites utilized for comparisons are shown in the catalogue tables for the individual sherds compared and are mentioned throughout the discussion section.

In terms of geographical and sociocultural associations, the other Assyrian capital cities of Assur/Sharqat,[15] Nimrud/Kalhu, Khorsabad/Dur-Šarrukin, and Kar-Tukulti-Ninurta were the obvious sources of comparison for the MG22 ceramic assemblage, but not all of them provided the greatest number of direct comparisons with the Maški Gate pottery. In part, this was due to the limited amounts of pottery in some of the published collections. Nimrud and Assur represent the most thoroughly published pottery assemblages, while far less pottery was available for comparison from excavations at Khorsabad and Kar-

[11] Summarizing the literature surrounding the control of Nineveh after 612 BC, Curtis (2003:157-8), notes that the interpretation of some passages of the Babylonian chronicles remain in question (see Zawadski 1988), but for the evidence supporting the argument that the Medes took control of Assyria, see Diakonoff 1985: 125; Dandamayev and Grantovskii 1987: 815; and Olmstead 1948: 32 ff.

[12] Curtis 2005: 1.

[13] Anastasio 2010: 4-5 with citations.

[14] The term 'Assyrian heartland' is also commonly used with reference to a much larger swath of northern Mesopotamia in which some sites appear to share ideological and cultural influences. At its maximum extent, this could include areas from the Syrian steppe to the Zagros (see Kuhne 1995).

[15] Following the most recent reassessment by Beuger (2007, Table 13), the relevant strata in Assur are as follows: IIa0 = Post-Assyrian (IA 3); IIa1 = End of Neo-Assyrian period (7th century BC, related to the 612 BC destruction); IIa2 = Neo-Assyrian (8th-7th centuries BC). Less relevant for this study was stratum IIb2 (a-b) = Early Neo-Assyrian (after Tiglath-pileser I, 1114-1076 BC).

Tukulti-Ninurta. Of all the capitals, Nimrud represented the closest comparable assemblage overall, particularly the pottery from Levels 4 through 2 in the excavations of the private houses on the main mound (designated T.W. 53 in the publications), dated to the second half of the 7th century BC (Lines 1954; Reichel 1990), as was Level 1 in Fort Shalmaneser, which was associated with 'squatter occupation' from the period following the attacks on the city in 614 and 612 BC (Oates 1959).[16] The pottery from both before and soon after the destruction levels at Nimrud was described by the excavators as identical (D. Oates 1968: 58-59). In addition to the capitals, closely comparable pottery was found at sites in the Assyrian core territory which have published relevant Late and post-Assyrian ceramic typologies resulting from systematic excavation. Especially significant in this regard were two sites excavated as part of the Saddam (Eski Mosul) Dam Salvage Project in Northern Iraq from 1983 through 1985: Khirbet Qasrij, which was considered by its excavator to date probably to the first few decades of the 6th century BC (Curtis 1989: 52); and Khirbet Khatuniyeh, especially Level 4, the settlement brought to a violent end at about 612 BC (Curtis and Green 1997: 88), although only a few comparisons were found in Level 3 of Khirbet Khatuniyeh, the occupation immediately following the destruction level in this site,[17] and in Qasrij Cliff, attributed to the 8th century BC (Curtis 1989: 18).

The issue of continuity of pottery forms is a profoundly significant factor complicating the analysis of Late Assyrian and so-called 'post-Assyrian' ceramics alike. The archaeological signatures of the Neo-Babylonians, Medes, and Achaemenids in the Nineveh region remain relatively elusive. Consequently, the pottery typology for the rather long period following the fall of the capital cites until the onset of Achaemenid control is poorly defined. Increasingly, evidence from the small number of excavations with occupation surrounding 612 BC, in the pottery record at least, the transition from the end of the Neo-Assyrian period into the period following the demise of the Assyrian Empire can be described as virtually seamless.[18] The more recent publications from the Italian excavations in Nimrud (Chiocchetti 2008; Fiorina 2008; Fiorina et al. 2005) were especially useful in understanding some of the key vessel types having long periods of use in the Nimrud assemblage. At Nimrud, where destruction levels related to the 614 BC and 612 BC events provides a clear stratigraphic break in occupation sequence there was, according to J. Oates, 'absolutely no difference between the pottery that was in use at the time of the sack and that of the latest squatter settlement' (Oates 1959: 130), and the continued excavations at Nimrud have illustrated, 'there are no sharp gaps in the production after the fall of [the] Assyrian empire, as the shapes that characterized the Late Assyrian corpus persist through the whole sequence' (Chiocchetti 2006: 419). This general consistency in shapes and wares can be seen across the empire. Only a few key sites have produced secure reference collections for the period after the fall of the imperial capitals, and as a group they are regionally disparate. Some sites outside the Assyrian core with significant Late Assyrian and post-Assyrian pottery assemblages were referenced when the comparisons seemed especially significant. The first of these is Tell Sheikh Hamad/Dūr-Katlimmu (Kreppner 2016), a former regional capital in the lower Khabur region of eastern Syria, distinguished by a continuous sequence from the 9th century BC down through the 6th and into the 5th centuries BC. Especially relevant for comparison with the MG22 pottery was the pottery from the Lower Town II excavations in the Red House, Phases 7.1, 4, 3.18, 3.19 and 3.20, which included occupation, destruction and re-use in a residential building from the late 7th through the 5th centuries BC.[19] Evidence from Tell Sheikh Hamad demonstrates, according to Kreppner, that it is impossible to differentiate between Iron Age II and Iron Age III pottery, and the idea of a break in the pottery at 612 BC should not be maintained (Kreppner 2008b: 156). Another more distant assemblage was found at Tille Höyük (Blaylock et al. 2016), an important settlement in the upper Euphrates region of Turkey where a long, stratified excavation sequence spanning the 11th to the 5th/4th centuries BC has been recorded. In this site the most relevant levels were Levels VII and VIII, the periods reflecting Neo-Assyrian influence in occupation from the 8th through 7th centuries BC, through a period of major destruction and subsequent occupation in the later 7th and/or 6th century BC in Level IX, continuing through the late 6th or early 5th century BC, in Level X.[20] While these two sites were not as closely comparable to the Nineveh assemblage as the sites within the Assyrian core, such as Nimrud and Khirbet Qasrij, the number of parallels found in both Tell Sheikh Hamad and Tille Höyük in their Late Assyrian (or Neo-Assyrian) through post-Assyrian pottery sequences are nevertheless worthy of note. Importantly, unlike the MG22 assemblage, the Tell Sheikh Hamad and Tille Höyük sequences were anchored by scientific analysis and associated material culture, making the results within

[16] Oates 1959: 130; Lines 1954: 164; see also Hausleiter 2008: 221 and Hausleiter 1999 for a comprehensive review of the periodization of the pottery from the different areas excavated in Nimrud.

[17] Under the auspices of the Saddam (Eski Mosul) Dam Salvage Project these three sites were among 60 excavated in 1983 and 1984 by a team from the British Museum led by John Curtis, in collaboration with the State Organization of Antiquities and Heritage of Iraq, under the direction of Dr Muʿayyad Saʾid. See Curtis 1989; 1992; 1996; Curtis and Green 1997; Ball 1987; 2003; Green 1999; Simpson 1990; 2007. According to Curtis, 18 sites showed evidence of Neo-Assyrian or immediately 'post-Assyrian' (i.e., post-imperial) occupation (Curtis 2016: 97; see also Green 1999: 94).

[18] See Dittman (2011: 165 and note 3) referring to the pottery from the Kar-Tulkulti-Ninurta, Tell Sheikh Ḥamad (Kreppner 2006) and Tell Barri (Bombardieri & Forassasi 2008). It should be noted that in Dittman's estimation the continuity was more apparent in the pottery from the survey around Kar-Tulkulti-Ninurta (Dittmann 1990, 166) rather than the excavations (Areas A-F, dates Phase 2, 3a-b and 4a-c. See Schmidt 1999: 69).

[19] Throughout this catalogue, when referring to the chronology at Tell Sheikh Hamad the term FB (Fundbereich) describes an area of simultaneously deposited pottery (Kreppner 2008a: 168). The earliest occupation of the Red House at Tell Sheikh Hamad began during the late 7th century BC, perhaps from the 630s BC onward, documented in FB 7.1. The end of the main occupation through its destruction sometime after 600 BC is recorded in FB 4. The building was subsequently re-used in FB 3.18-20, and these levels were dated to the end of the 6th/early 5th centuries BC (Kreppner 2006; 2008a: 168-69).

[20] Blaylock et al. 2016.

the long sequences in these two sites all the more significant in their relevance for the Nineveh pottery. Regarding the post-Assyrian period specifically, pottery assemblages from Ziyaret Tepe/Tušhan[21] and Tell Ahmar/Til Barsip Area C (Jamieson 1999; 2012), were consulted for comparisons in the MG22 particularly because of their documented relationship with the Assyrian imperial administration, and for the presence of certain pottery forms continuing past the end of 7th century BC. In addition to these regional centres, was the published pottery from the more distant Tell Barri (Bombardieri & Forassasi 2008).[22] Some assemblages from the excavations at Tell Shiukh Fawkani (Luciani 2000; 2005; Makinson 2005) had relevance for the MG22 assemblage in terms of chronological association, although far fewer close comparisons were found for the Nineveh wares in these sites than were found in the sites of the geographically closer Eski Mosul Salvage Project.

Regional surveys, increasingly a source for new information on Iron Age pottery, have not been included as a main reference set in this catalogue since there is a certain circular reasoning in the application of data obtained during survey; in survey, pottery is generally identified by comparison with excavated assemblages with securely dated contexts. While information from survey is critical in obtaining a wider perspective on the nature of settlement outside of the main urban areas, as a data set regional surveys were referenced for comparison of pottery types only in limited instances where they provided unique information on certain specific pottery forms, or where the survey data enlarged upon or corroborated points concerning the MG22 excavation results within a broader historical context, particularly in the discussion of data from the hinterlands of Nineveh in Chapter 4. The identification of post-Assyrian pottery across the Assyrian territories remains challenging, and the degree of difficulty in the task is clearly reflected in the fact that a key reference source for the pottery from this enigmatic period continues to be Wilkinson and Tucker's publication of the North Jazira Project survey (NJP), which resulted from excavation and survey around Tell al-Hawa in the north Jazira region in Iraq (Wilkinson and Tucker 1995; Ball, Tucker and Wilkinson 1989). However, in 1995 the assessment of post-Assyrian pottery was based on limited data mainly from two sites, Khirbet Qasrij (Curtis 1989) and Kharabeh Shattani (Goodwin 1995), both in the Eski Mosul region (Wilkinson and Tucker 1995: 101). The North Jazira Project typology for the post-Assyrian period, at the time described by the authors as preliminary, has more recently been adopted essentially unchanged by multiple surveys both within and outside the immediate Nineveh region. These include the Jazira Salvage Project (Altaweel 2006; 2007), which overlapped the NJP survey region and which increased the record of sites in that region with identifiable post-Assyrian occupation; in the north-eastern Jazira region of Syria, the Tell Hamoukar Survey (Ur 2010) also adopted the Late and post-Assyrian typologies of the NJP unchanged. Although the Hamoukar Survey managed to expand the NJP typology somewhat, in it the assessment of post-Assyrian wares was still described as preliminary and the only excavated sites pointed to for comparable post-Assyrian types at that time were Nimrud and Khirbet Qasrij; otherwise, the prototypes cited for dating purposes were attributed to survey projects; the NJP and Lyonnet's survey of the upper Khabur in Syria, in 1989-90 (Lyonnet 1992). Further illustrating the challenge posed by distinguishing Iron Age/Neo-Assyrian wares from post-Assyrian wares, in the Hamoukar typology prototypes from post-Assyrian contexts were cited as reasonable comparisons for pottery dated to both the Iron Age/Neo-Assyrian period (THS Period 11) and the post-Assyrian period (THS Period 12) (see Ur 2010: 272-280). This seeming contradiction is not atypical in the sources on Late and post-Assyrian pottery; in fact, it is common. The situation today does not seem to be much improved since Green observed this exact problem of unavoidable chronological conflict in attempting to assign dates to the pottery from the Eski Mosul region over twenty years ago (Green 1999: 107). Other large-scale surveys covering an expansive area to the north and east of Nineveh have also adopted the NJP/THS typology, with the aim of obtaining a consistent and homogenous system for dating pottery, including The Land of Nineveh Archaeological Project, the Upper Greater Zab Archaeological Reconnaissance, the Erbil Plain Archaeological Survey, and the Eastern Khabur Archaeological Survey (Morandi Bonacossi 2016: 142). However, despite the efforts towards standardization using larger data sets, obstacles in identifying post-Assyrian wares clearly persist within surveys attempting a regional perspective. Although the Late Assyrian and Hellenistic typologies are well defined in all the surveys mentioned, the difficulties in defining the post-Assyrian period ceramically will likely remain until more sites with stratified assemblages are excavated, and the Median, Neo-Babylonian, and Achaemenid involvement in northern Mesopotamia becomes more clearly defined archaeologically.

Methodology

As an organizing principle in the analysis of the MG22 pottery, a limited number of rim forms and decorated sherds have been grouped into broad categories and discussed as MG22 Vessel Types in Chapter 2. Each MG22 Type, apart from Decorated Sherds, is a category of diagnostic sherds defined according to essential characteristics of rim shape and vessel function, such as bowl or jar. This includes only characteristics visible though simple visual inspection in the field. Fabric was not a component in the determination of the categories, as will be explained further in this section, because that information was not available for the entire assemblage. Decorated sherds are discussed in groups according to the type of decoration visible on them. The primary rationale in the selection of the representative sherds designated MG22 Vessel Types was to identify vessel shapes which had an established

[21] Ziyaret Tepe: Operation A, Phase C and Operation L, Phase B, see Matney et al. 2002: 53-8; 2003: 186-7.
[22] Tell Barri: Area G, sectors A-D 7-10, especially the Neo- and 'post-Assyrian' Phases beginning with IV through X.

chronological context based upon their appearance at other sites relevant to this study. There was not one single site which provided parallels for every MG22 Vessel Type. The categories and their labels do not correlate completely with one classification system created by any particular site, since parallels were found in multiple sites, though in many cases the MG22 Types correspond to protypes widely accepted as standard vessel forms known from within Late Assyrian ceramic assemblages. In some cases the most commonly used labels were adopted for MG22 Type labels, such as 'ribbed rim bowls' and 'grooved top jars.' The correspondences are noted in the detailed discussion section devoted to each MG22 Type in Chapter 2. Due to the long-term morphological continuity in Late Assyrian pottery, many of the most common vessel types considered indicative of Late Assyrian and post-Assyrian occupation retain the same basic physical appearance not only over a long time but also across a wide region. In some cases, even sherds within the same MG22 locus found corresponding vessels with conflicting dates at different sites. As a means of dealing with this challenge of ceramic continuity, in the description tables of Chapter 2, each variation of an MG22 Vessel Type is accompanied by the date range taken from the original excavation report featuring the protype vessel, except in a limited number of cases where secondary sources have been cited, such as Hausleiter's synthesis of multiple pottery assemblages (2010). More than one corresponding prototype was included in the description tables when two reasonable comparisons were found at other sites, and the date for the two prototypes conflicted or, in some cases, where the two protypes represented an especially important point of discussion. Unlike Chapter 2 which discusses the pottery in categories of vessels, the Catalogue plates illustrate each of the MG22 Vessel Type variants within the rest of the assemblage according to each stratigraphic level. By discussing the most distinctive vessel types first within their MG22 Vessel Type category, along with the date suggested for the prototypes at other sites, the chronological parameters of each MG22 Type variant should be explicit, giving context to the interpretation of the MG22 occupation sequence.

Where possible, MG22 Types have also been identified in comparison with two studies both analysing Late Assyrian pottery within a wide regional framework. Hausleiter's comprehensive review of pottery from the Assyrian heartland in the Neo-Assyrian period (2010) was employed extensively as a source for situating the MG22 collection chronologically, and comparisons from within that typology are included in the Figure Tables describing the MG22 Types. Anastasio's *Atlas of Iron Age Pottery from Northern Mesopotamia* (2010), which has become a standard reference for the identification of Late and post-Assyrian pottery in regions relevant to the MG22 collection, was also relied upon for comparisons. Parallels with Hausletier's study and with Anastasio's typology are noted in the Figure Tables in Chapter 2, with the corresponding Type number, Plate number, and chronological assignment in Anastasio's *Atlas* cited separately in the tables (see Tables 2.1 - 2.19 with accompanying Figures).

Obtaining a nuanced picture of the quantities of the different vessel types collected in both the 1989 and 1990 seasons was challenging; the degree of frequency of each of the variations throughout the excavations is discussed in Chapter 2, and in the interpretation of the results in Chapter 4. Some indication of the quantities in each general category recorded in the 1990 season is illustrated in Table 1.1. However, not all of the drawn sherds could be related with certainty to the categories counted in the 1990 field records. It was therefore difficult to quantify the frequency with which the vessel types appeared with real specificity. To gain a general sense of the chronological spread of the general MG22 Vessel Type categories, see Table 1.2, which illustrates each general MG22 Vessel Type category relative to the stratigraphic levels in which at least one variation of the category was recorded. In some cases, supplemental information existed in the field records concerning the general qualities of the pottery relative to the excavated contexts, such as noticeable changes in the colour or fabric of the pottery recognized during excavation. In the selection of sherds to be drawn in the field, new vessel shapes were prioritized over common ones.[23] Consequently, although it was not possible to obtain an accurate count of the total number collected within each variation of each MG22 Type category according to level, it was possible to gain some idea of the first appearance of each shape within the stratigraphy, and to perhaps infer some degree of frequency of the type from the number of drawings made of each variation in the field. Chapter 4 discusses the pottery within the context of the stratigraphy excavated in MG22, and the impact of the pottery on the interpretation of the occupation sequence. In an effort to assess the frequency of the different vessel types through time, Table 4.2 in Chapter 4 presents all variations drawn within the MG22 Type categories according to the level in which each drawn sherd was found.

This volume is divided into two main components: the illustrated discussion section and the pottery Catalogue. The discussion section comprises Chapter 1; Chapter 2 describing MG22 Types with identification tables and illustrations; Chapter 3 which examines the pottery of each level in sequence; and Chapter 4, summarising the results. The MG22 Catalogue consists of Plates 1-33, with continuous description tables, and it presents the pottery drawn in the field organized according to the stratigraphic level in which it was recorded. In the discussion sections, when reference is made to a Figure number, this refers to the illustrations of MG22 Types, or category groups, in Chapter 2 (i.e., Figure 5.04 is Figure 5, illustration 4 in Chapter 2). In the case of sherds discussed but not assigned to an MG22 category, the text will refer instead to the sherd's Catalogue Plate number (i.e., Plate 15 etc.). In the MG22 pottery Catalogue the pottery identified as fine wares or palace wares are grouped

[23] S. Lumsden, personal communication.

together at the beginning of the illustrations for each level, followed by vessels organized into functional categories; bowls, and jars, followed by other vessels such as stands, lamps, and decorated sherds. Note that in the MG22 Figure Table descriptions in Chapter 2, the full date range for each MG22 Type is included, while in the Catalogue descriptions not every sherd was related to a comparison at another site.

The MG22 Pottery Data Set

Some broad generalizations may be made about the MG22 pottery assemblage in this catalogue. Overall, there was a high degree of continuity in the forms from the earliest stratum through the most recent. Many pottery shapes identified as MG22 Vessel Types appeared in more than one stratigraphic level in the excavations, in both sealed strata and disturbed levels. This should not be surprising given the high degree of standardization of forms that has been long recognized as a hallmark of Late Assyrian pottery from the 9th through the 6th centuries BC, as noted above. This standardization may have its roots in the Middle Assyrian period (Roaf 2001; Kreppner 2015; Simpson 1990).[24] The destruction of the capital cities in 614 and 612 BC seems to have had little effect on the pottery from within the capitals and from smaller sites occupied at the end of the 7th century BC and into the 6th centuries BC. This long morphological continuity in the pottery is certainly visible in the pottery from Nineveh. While conventional wisdom recommends that an archaeological context must be dated according to the most recent pottery contained in it, for the Maški Gate assemblage that approach posed certain disadvantages and did not prove to be practical. While comparing the Maški Gate pottery to other assemblages from Late Assyrian sites, often the corresponding sherd from elsewhere seemed more useful as proof of the longevity of a vessel shape than as confirmation of the dating of the vessel, since some vessel shapes persist in the archaeological record for many centuries and may appear at different sites in different periods. However, there was some variation apparent in the pottery within the four main stratigraphic levels, in terms of dominant shapes, fabrics, and in the proportion of certain vessel types relative to each substratum. These variations became clear when the two main occupation levels, Level III and IV, were compared and they are discussed in the sections describing Levels IVd through Ia. No pottery was drawn from Level V, the deepest level excavated, though it may be possible that some pottery recorded in Level IVc and IVd may in fact be attributable to Level V, and wherever that information was possible to glean from the records, it has been noted in the text.

In comparison with most other sites referred to in this study for comparisons, the MG22 sample is exceptionally small. Of the total of 923 drawn and numbered sherds from the combined 1989 and 1990 seasons of excavation in the Maški Gate area, 658 were selected for illustration in this catalogue.[25] The pottery was most often described as wheel made. Most of the sherds were small in size, typically only a few centimetres in length and in width. Complete profiles were rare and there were only seven whole vessels within the set of drawn pottery. Fine ware, which was alternatively referred to as palace ware in the field notes, was found in every level. Table 1.3 expresses the distribution of drawn sherds by level, and the proportions illustrated for each sub-phase, from 1989 and 1990 combined. Due to the variation in the numbers of drawings available and the criteria for selection, it was not possible to achieve a direct proportionality of total sherds to total illustrated in every sub-phase. In term of quantities recorded, the greatest amount of pottery recorded was in Level IIIc, interpreted as the preparations and foundations for the Level III building (25% of the total recorded in the field), followed closely by Level IIa pits (20% of the total). However, comparing the overall counts in the two main building levels, Level III and Level IV, it is Level IV which has slightly greater representation in the recorded pottery, being 32% of the total count as opposed to Level III at 26%. Level IV represents almost one third of the assemblage illustrated in the Catalogue, while Level III represents slightly more than one quarter of the total pottery drawn in the field. The number of sherds illustrated in each sub-phase does not necessarily precisely mirror the proportion of sherds in that sub-phase relative to the total recorded, though the effort was made to provide a reasonably close proportional representation.

The classification system used to produce the MG22 pottery catalogue was based upon the original field drawings and standard field record sheets which recorded formal attributes and, in some cases, remarks on visual assessments of fabric composition, probable method of manufacture, or deposition. It was not possible to fully utilize attributes of colour or fabric composition in the analysis for all the pottery from the entire drawn assemblage, as that information was only available in the records from the 1990 season. Since those characteristics could not be applied universally, the resulting generalizations that have been drawn from the subset are admittedly less meaningful than if the quantification had been applied to the entire assemblage. However, where fabric descriptions were available in the field records, they have been included in the catalogue entries, and some very tentative patterns can be distilled from those records. Table 1.4 shows a break-down of the types of temper recorded in the sherds from 1990. Since the numbers of sherds in some levels were quite limited, an assessment of possible changes in pottery fabric through time requires a review of the different proportions of drawn sherds and fully described sherds in each substratum relative to the total. In the field notes, the terms ‘organic’ and ‘chaff’ seem to have been applied interchangeably, and mineral content was often described as either ‘sand’ or ‘grit’, though in some case it was clear

[24] Concerning the persistence of Middle Assyrian pottery forms into the Neo-Assyrian period see also Pfälzner 1995; Schmidt 1999; and Postgate 2010.

[25] Much of the pottery excavated in trench S4, a trench opened to the east of the main MG22 operation, was omitted from this catalogue due to questions in the field records unresolved at the time of publication.

that grit implied mineral inclusions which were visibly larger than sand. These distinctions are included where relevant in the sections discussing the MG22 Vessel Types.

Fewer than half of the catalogued sherds were accompanied by fabric characteristics in the field notes (42% of the total catalogued). A very unscientific count of those indicates that the most common ware colours were reddish buff (typically Munsell colours 5 YR 7/4, 10 YR 7/3 and 10 YR 8/3), and whitish green (most often 2.5 Y 8/2, 5 Y 8/2 and 5 Y 7/3), with a small proportion being described as brownish grey, dark brownish grey, reddish brown and whitish green/brownish grey buff. The amount of reddish buff pottery recorded was more than twice the amount of whitish green, a significant difference. Similarly, organic tempers dominated those with fabric recorded in every level (73% of the overall total drawn sherds), cumulatively much more often than mineral tempered ware (12%). Sherds with exclusively mineral tempers appeared from the earliest level recorded in Level IVd. A small proportion of sherds confirmed that in some vessels both mineral and organic tempers were used concurrently (7% of total drawn) beginning with 3% in Level IVd, increasing to a high of 38% in Level IVc.[26] Therefore, although mineral tempers were in use, both exclusively and in combination with organic tempers, from the earliest phase of Level IV, it was a relatively small component in the pottery until Level IVc, then decreased noticeably in the records until Level IIa, when it became more common in the pottery found in the pits. The relative quantities within each subphase in this category do not seem to point toward an increase in mineral tempered wares within each subphase. However, in a comparison of Level III and Level IV, if both the mineral and mineral/organic totals in each subphase are combined, the result shows an increase in mineral content from 13% in Level IV to 21% in Level III. Mineral content increased in the subsequent phases as well, to 23% in Level II, then 27% in Level I. The proportion of organic tempered wares stayed relatively constant throughout all main Levels, changing from 92% in Level IV to 80% in Level III, 83% in Level II and 88% in the uppermost Level I. Even though the number of sherds analysed for fabric represents less than one half of the total assemblage, and the identification was based only on visible assessment in the field, this change may prove significant with further research, especially since the field notes beginning with Level IIIc frequently note the visibility of grit and large white inclusions, perhaps quartz or calcite, in the pottery of many loci, whereas the records from Level IV do not remark on this feature to the same degree. However, even if the amount of mineral content of the pottery was higher in Level III than Level IV, this factor does not necessarily correlate with a temporal or sociocultural shift, from the Assyrian to post-Assyrian. There is an increasing body of evidence counteracting the notion that post-Assyrian pottery was predominantly sand tempered. High mineral content in Late Assyrian wares has now been corroborated by evidence from both survey (Gavagnin et al. 2016: 144-146) and from systematic excavation, just as high organic content has been documented in pottery from post-Assyrian contexts. Especially significant in this regard is the evidence from Tell Sheikh Hamad, with its long and continuous sequence of occupation. Referring to contexts at that site dating from the 630s through the 5th century BC,[27] Kreppner reports, 'Contrary to various assumptions, also after the fall of the Neo-Assyrian Empire – during the so-called "Post"-Assyrian period – the clay used for pottery was continuously prepared with straw temper and the forms known from the 7th century were also used during the 6th century BC.' Moreover, at Tell Sheikh Hamad, the straw tempered ware (Ware A1) actually increased in some later contexts (Kreppner 2008a: 169; 171). In the Maški Gate excavations, a total rise in mineral content from 13% in Level IV to 21% in Level III is not huge, and the percentage of organic temper remained considerably higher than mineral temper in every level. It is nevertheless useful to recognize this factor as one characteristic potentially differentiating the pottery of Level III from that of Level IV, particularly since the assemblages from the two main occupation levels were so similar morphologically.

The set of MG22 Vessel Types was based only upon those wares not designated as fine ware or palace ware, two terms which were used interchangeably in the field records. From the drawings and notes on fabric, it was impossible to distinguish consistently between these two potentially distinct categories of specialized wares in the Maški Gate excavations. The sherds identified as fine wares were not included in the MG22 Vessel Type categories and were not treated in detail as a group in this catalogue. The term 'common ware,' when used in this catalogue, is applied only to distinguish between those identified as fine wares and all other wares, and it does not represent any single set of diagnostic characteristics obvious in the records. A small sample of fine ware/palace ware sherds from MG22 was incorporated into a previous study (Hunt 2015). As one component of that analysis, palace ware sherds from both MG22 and Nimrud were compared. The results indicated that although the two assemblages fell into essentially the same geological fabric group, there were slight differences in their mineralogical and geochemical characteristics. The Nineveh sample contained more inclusions, but the Nimrud sample contained a mineral type not found in the Nineveh sherds. Hunt suggests this might reflect the use of a local source for clay in Nimrud, related to its situation closer to the point where the Upper Zab joins the Tigris (Hunt 2015: 85-9).[28]

[26] Mixed temper was recorded in 50% of the drawn sherds in Level IIIb, but there were only 4 sherds drawn.

[27] FB 7.1, 4, 3.18, 3.19 and 3.20 at Tell Sheikh Hamad (Kreppner 2008a: 168).

[28] Hunt's study of the palace ware sample from MG22 also identified characteristics of morphology and manufacturing technique, such as the use of bone tools (including one found in the UC Berkeley excavations in the Northwest Mound), and organic tempered clay plugs in the bases of vessels to optimize the drying process (Hunt 2015: 51-2; 67-9; 72; 94).

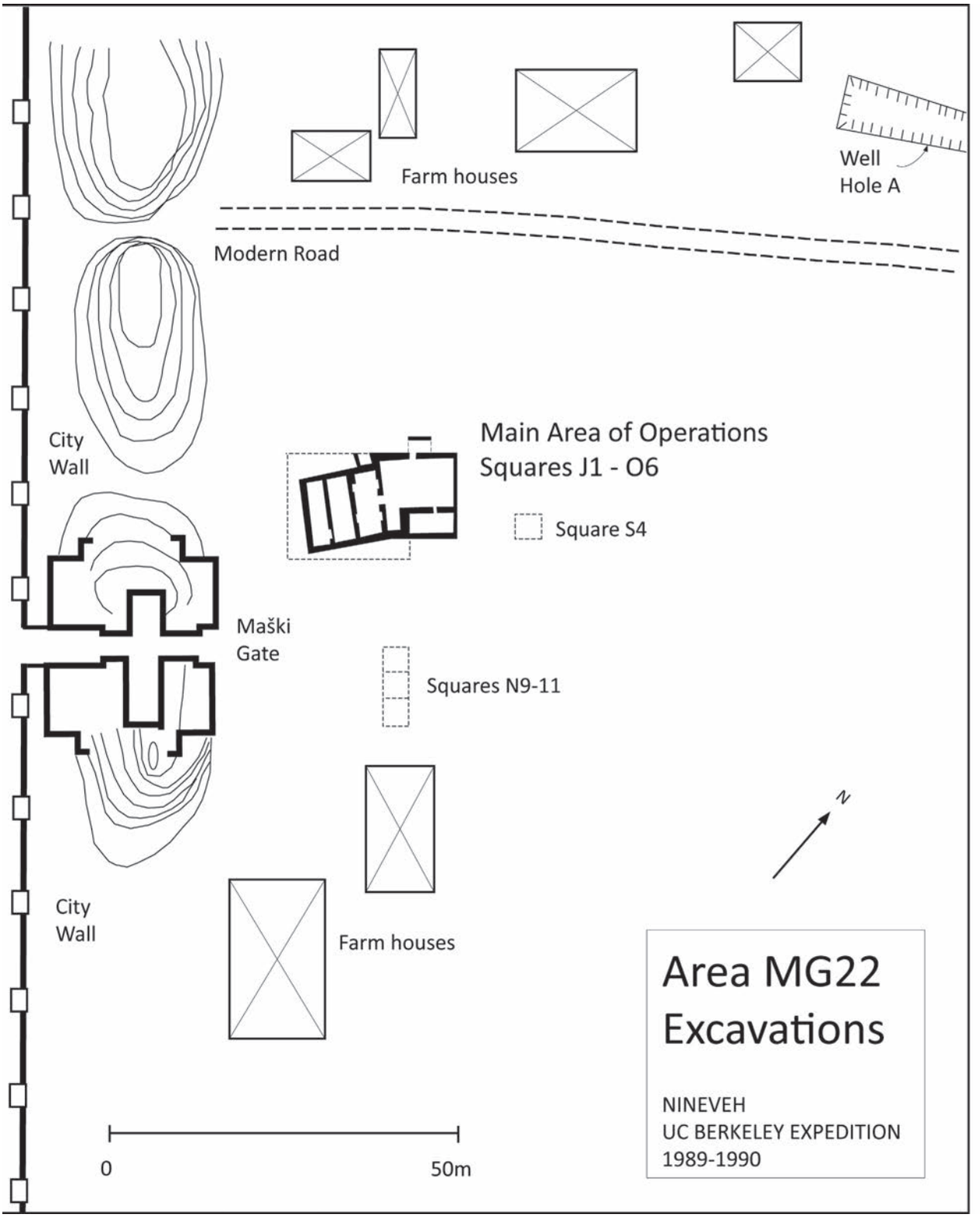

Figure 1.1 Plan of the MG22 area of operation
Based on an original map by S. Lumsden (Lumsden 1999, p. 9, Figure 2).

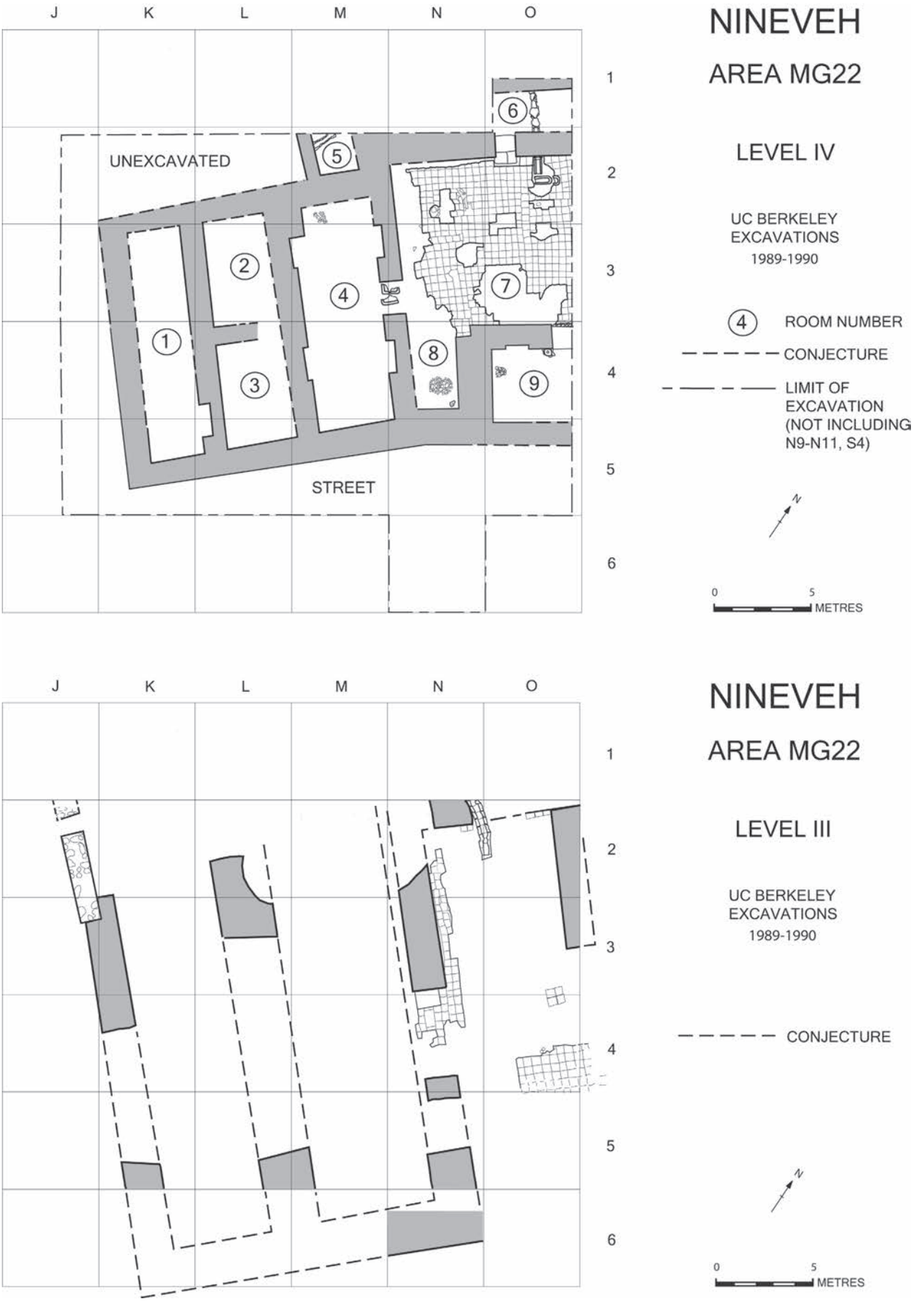

Figure 1.2 Excavated buildings in Level IV (top) and Level III (bottom) compared
Based on original plan and field sketches by S. Lumsden (see Lumsden 1999, p. 10, Figure 3).

Table 1.1 Quantities of vessel types recorded in 1990.
Note that in the quantities shown for some type categories, two or more MG22 Types were combined in the count; separate counts are not available for the different Types within those categories.

Quantities of Pottery Recorded (1990 only)														
MG22 Type Categories														
	B1a	B1b	B2 + B4a	B3	B4b	B5a	B5b	B5c	B6a + B6b	B7 + B8	J2a + J1b + J2	J3	J4	J5
#	50	x	78	50	34	107	74	8	251	72	499	33	172	x
%	3.3	x	5	3.3	2	7	4.8	0.5	16.4	4.6	32.6	2.2	11.2	x

= Total sherds counted within type category, 1990
% = Percentage of total open (724 bowls) and closed vessel (810 jars) counts combined (1,534)
x = No data

Table 1.2 General categories of pottery (MG22 Vessel Types) from 1989-1990 field seasons.
Solid fields indicate at least one variation recorded. Table 4.2 (Chapter 4) shows variations within each Type category.

MG22 Vessel Type Categories 1989-1990																			
Level	B1a	B1b	B2	B3	B4a	B4b	B5a	B5b	B5c	B6a	B6b	B7	B8	J1a	J1b	J2	J3	J4	J5
I																			
IIa																			
IIb																			
IIIa																			
IIIb																			
IIIc																			
IVa																			
IVb																			
IVc																			
IVd																			
V																			

Table 1.3 Illustrated pottery according to levels, from 1989-1990 field seasons.

Level	Total Count of Drawings Found & Described (x)	% of Total by Subphase (x/923)	Total Count by Level Including Subphases (y)	% of Total Count by Level (y/923)	Total Illustrated in Catalogue (z)		Illustrated in Catalogue % of Total Count (z/923)	Illustrated in Catalogue % by Level (z/y)	% of Illustrated (z/658)
I	144	16%	144	16%	86		9%	60%	13%
IIa	180	20%	180	20%	122		13%	68%	19%
IIb	60	7%	60	7%	43		5%	72%	7%
IIIa	10	1%			8		<1%	3%	1%
IIIb	4	<1%			3		<1%	1%	<1%
IIIc	230	25%			164		18%	67%	25%
III			243	26%		175			27%
IVa	88	10%			75		8%	25%	11%
IVb	32	3%			11		1%	4%	2%
IVc	77	8%			60		6%	20%	9%
IVd	98	11%			86		9%	29%	13%
IV			295	32%		232			35%
	923				658		71%		

Table 1.4 Counts of pottery temper according to levels recorded, 1990.

Level	Total Count of Drawings Found & Described (a)	% of Total by Subphase (a/923)	Temper Recorded Total (b)	Temper % of Total Count (b/a)	Organic Total (c)	Mineral Total (d)	Organic & Mineral Total (e)	Organic % of Total by Level (c/b)	Mineral % of Total by Level (d/b)	Mixed % of Total by Level (e/b)
I	144	16%	26	18%	19	3	4	73%	12%	15%
IIa	180	20%	114	63%	87	19	8	76%	17%	7%
IIb	60	7%	7	12%	6	1	<1%	86%	14%	<1%
IIIa	10	1%	8	80%	7	1	<1%	87%	13%	<1%
IIIb	4	<1%	2	50%	1	<1%	1	50%	<1%	50%
IIIc	230	25%	122	53%	90	19	7	74%	16%	6%
IVa	88	10%	18	20%	16	1	1	89%	6%	6%
IVb	32	3%	3	9%	3	<1%	<1%	100%	<1%	<1%
IVc	77	8%	8	10%	2	1	3	25%	17%	38%
IVd	98	11%	59	60%	54	3	2	92%	5%	3%
	923		392	42%	285	48	26	73%	12%	7%