## Building between the Two Rivers

An introduction to the building archaeology of ancient Mesopotamia

Stefano Anastasio
with an Appendix by Piero Gilento



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## **Preface**

Near Eastern archaeology is extremely rich in studies on architecture. This volume aims to make a further contribution, focusing on the architectural evidences from Mesopotamia, dating from the early Neolithic to the Achaemenian period, i.e. between the 10th millennium BC and the 4th century BC.

In particular, this essay concerns the so-called 'building archaeology', that is the discipline dealing with the registration and analysis of all the building materials and techniques involved in the assembly and erection of constructions.

Especially from the 1980s, studies on ancient architecture increasingly concentrated on all the topics related to 'building construction', even without neglecting the historic-artistic approach. It has often been emphasised that architectural remains require special attention by archaeologists. In fact, they need a different methodological approach, compared to the dating of 'movable' items. In most cases, a construction is the result of the sum of several building interventions realised over a span of time: a frequently quoted example is the Pantheon in Rome, that has an inscription by Marcus Agrippa on its pediment, but it ultimately came to us in the form realised under Hadrian (Giuliani 2008: 25). Such a situation occurs in any archaeological context as a rule, and it can therefore be a hard task for archaeologists to reconstruct the building history of the monument concerned. From this point of view, the registration of building materials and techniques is the proper starting point for archaeological investigation.

The methods for surveying and registering these data, as well as those for undertaking the stratigraphic reading of the various elements of any single building structure, play a key role in building archaeology. It is worth noting that, apart for this common feature, the discipline developed differently, from the 1980s on, depending on the country and the research area (Prehistory, Classical or Medieval archaeology, etc). However, there is now widespread acceptance that stylistic and functional analyses are not enough to duly interpret an architectural monument. Detailed registration of the metric data, material features and construction techniques is required to ensure correct reconstruction of the total building history of structures realised long ago, and coming to us after an eventful life.

In-depth registration and analysis of building materials and techniques require professional skills and experience that cannot be achieved only after a standard university training in archaeology. At the same time, the architect's training is often insufficient to allow the effective use of technical information for the purpose of archaeological research. Coexistence between archaeologists and architects has not always been easy. However, it is clear that archaeologists cannot do the job of architects, and vice versa: somehow they must collaborate, which first means communicating with each other.

From the archaeologist's point of view – i.e. that of the current writer – it is necessary to know the basics of classification of building materials, their physical properties, the main techniques of their finishing, as well as the basic principles of statics. Archaeologists should also let architects understand how better to tune the registration of data to ensure a fruitful

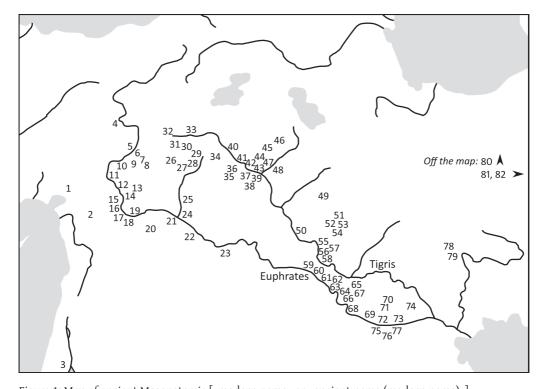


Figure 1: Map of ancient Mesopotamia [<modern name> or <ancient name (modern name)>]. In geographical order: 1: Sam'al (Zincirli); 2: Ebla (Tell Mardikh); 3: Jericho (Tell es-Sultan); 4: Arslantepe; 5: Tille Höyük; 6: Nevalı Çori; 7: Göbekli Tepe; 8: Guzana (Tell Halaf); 9: Tell Aswad; 10: Tell Khuera; 11: Karkemish (Jarablus); 12: Til Barsip (Tell Ahmar); 13: Hadatu (Arslan Taş); 14: Jerf al-Ahmar; 15: Halula; 16: Habuba Kabira; 17: Tell Kannas; 18: Emar; 19: Mureybet; 20: al-Kowm; 21: Tell Buqras; 22: Mari (Tell Hariri); 23: Haradum (Khirbet ed-Dinya); 24: Tell Masaikh; 25: Dur-Katlimmu (Tell Shekh Hamad); 26: Nabada (Tell Beydar); 27: Tell Brak; 28: Kahat (Tell Barri); 29: Shubat-Enlil (Tell Leilan); 30: Urkesh (Tell Mozan); 31: Tushan (Ziyaret Tepe); 32: Çayonü Tepesi; 33: Hallan Çemi; 34: Tell Maghzalya; 35: Karana (Tell ar-Rimah); 36: Tell Taya; 37: Ashur (Qalat Shergat); 38: Umm Dabaghya; 39: Hassuna; 40: Nemrik; 41: Tell Arpachya; 42: Tepe Gawra; 43: Nineveh (Kuyunjk-Nebi Yunus); 44: Kalhu (Nimrud); 45: Dur-Sharrukin (Khorsabad); 46: Jerwan; 47: Imgur-Enlil (Balawat); 48: Kilizu (Qasr Shamamuk); 49: Nuzi (Yorgan Tepe); 50: Tell es-Sawan; 51: Tell Razuk; 52: Abada; 53: Tell Madhur; 54: Choga Mami; 55: Eshnunna (Tell Asmar); 56: Shadappum (Tell Harmal); 57: Tutub (Khafaja); 58: Neribtum (Ischchali); 59: Dur-Kurigalzu (Aqar Quf); 60: Sippar (Abu Habba); 61: Tell Uqair; 62: Babylon (Babil); 63: Borsippa (Birs Nimrud); 64: Kish (Tell Ingharra); 65: Mashkan ash-Shapir; 66: Abu Salabikh, 67: Nippur (Nuffar); 68: Shuruppak (Fara); 69: Uruk (Warka); 70: Girsu (Tello); 71: Abu Tbairah; 72: Tell el-Oueili; 73: Larsa (Senkereh); 74: Lagash (Tell al-Hiba); 75: al-Ubaid; 76: Eridu (Abu Sharain); 77: Ur (Tell Mukayar); 78: Susa (Shush); 79: Dur-Untash (Choga Zambil); 80: Kamiltepe; 81: Pasargade; 82: Persepolis. In alphabetical order: Abada: 52; Abu Salabikh: 66; Abu Tbairah: 71; al-Kowm: 20; al-Ubaid: 75; Arslantepe: 4; Ashur (Qalat Shergat): 37; Babylon (Babil): 62; Borsippa (Birs Nimrud): 63; Çayonü Tepesi: 32; Choga Mami: 54; Dur-Katlimmu (Tell Shekh Hamad): 25; Dur-Kurigalzu (Agar Quf): 59; Dur-Sharrukin (Khorsabad): 45; Dur-Untash (Choga Zambil): 79; Ebla (Tell Mardikh): 2; Emar: 18; Eridu (Abu Sharain): 76; Eshnunna (Tell Asmar): 55; Girsu (Tello): 70; Göbekli Tepe: 7; Guzana (Tell Halaf): 8; Habuba Kabira: 16; Hadatu (Arslan Taş): 13; Halula: 15; Hallan Çemi: 33; Haradum (Khirbet ed-Dinya): 23; Hassuna: 39; Imgur-Enlil (Balawat): 47; Jerf al-Ahmar: 14; Jericho (Tell es-Sultan): 3; Jerwan: 46; Kahat (Tell Barri): 28; Kalhu (Nimrud): 44; Kamiltepe: 80; Karana (Tell ar-Rimah): 35; Karkemish (Jarablus): 11; Kilizu (Qasr Shamamuk): 48; Kish (Tell Ingharra): 64; Lagash (Tell al-Hiba): 74; Larsa (Senkereh): 73; Mari (Tell Hariri): 22; Mashkan ash-Shapir: 65; Mureybet: 19; Nabada (Tell Beydar): 26; Nemrik: 40; Neribtum (Ischchali): 58; Nevalı Çori: 6; Nineveh (Kuyunjk-Nebi Yunus): 43; Nippur (Nuffar): 67; Nuzi (Yorgan Tepe): 49; Pasargade: 81; Persepolis: 82; Sam'al (Zincirli): 1; Shadappum (Tell Harmal): 56; Shubat-Enlil (Tell Leilan): 29; Shuruppak (Fara): 68; Sippar (Abu Habba): 60; Susa (Shush): 78; Tell Arpachya: 41; Tell Aswad: 9; Tell Brak: 27; Tell Buqras: 21; Tell el-Oueili: 72; Tell es-Sawan: 50; Tell Kannas: 17; Tell Khuera: 10; Tell Madhur: 53; Tell Maghzalya: 34; Tell Masaikh: 24; Tell Razuk: 51; Tell Taya: 36; Tell Uqair: 61; Tepe Gawra: 42; Til Barsip (Tell Ahmar): 12; Tille Höyük: 5; Tushan (Ziyaret Tepe): 31; Tutub (Khafaja): 57; Umm Dabaghya: 38; Ur (Tell Mukayar): 77; Urkesh (Tell Mozan): 30; Uruk (Warka): 69.

archaeological interpretation. A basic knowledge of such architectural skills will also allow archaeologists to avoid a common mistake – the lack of distinction between 'registration' and 'interpretation'. Actually, they are complementary, but separate, steps of the research. Finally, a better understanding of the architectural basics will also enable archaeologists to make informed choices when planning future researches.

Near Eastern archaeology applies the methods of building archaeology, and many architectural remains have been published with a rich and detailed description of their material and technical characteristics. However, compared to other research areas, such as Roman or Medieval archaeology, the research is still strongly oriented to a stylistic and art historical approach. Sometimes technical analysis still struggles to find its space. Moreover, the intrinsic perishability of the architectural heritage of ancient Mesopotamia makes it hard fully to evaluate the information gathered from surveys and excavations carried out in the past, and any analysis is therefore bound by the available documentation. In spite of all this, a huge amount of potentially valuable data exists, both thanks to the architecture still standing, and the dedicated literature and archive documentation.

This volume focuses on ancient Mesopotamia (considered in a broad sense, including bordering, but consistent, regions such as Assyria and inner Syria, immediately west of the Euphrates – Figure 1). Of course, this region can no longer be considered as being of 'major' importance (and my thoughts turn to Henri Frankfort's label 'peripheral regions', used for grouping Asia Minor, the Levant and Persia with respect to Mesopotamia – Frankfort 1954). However, the historical framework of Mesopotamia is characterised by a cultural continuity and an amount and quality of available information which justifies, in my opinion, a dedicated essay.

This book, written by an archaeologist, cannot be an exhaustive and detailed handbook on architectural building techniques: its goal is to introduce university students and scholars in Near Eastern archaeology to those building archaeology methods applied within the Mesopotamian context. This should help the reader to understand the principles underlying this discipline, and to realise what knowledge and skills are needed, beyond those specific to archaeologists.

Because of the introductory nature of the book, the contents have been organised in chapters as didactic as possible, trying to cover all the main topics and illustrating them by means of selected examples. The inevitable gap in the choice of examples should be filled in somewhat, in the author's intention, with the aid of the Thematic Bibliography chapter, in which the reader will find references and reading tips.

The method of 'stratigraphic reading' is considered fundamental for any analysis of building archaeology, and therefore a special appendix, authored by Piero Gilento, is dedicated to this topic.

This work is an updated English version of an essay published ten years ago (*Costruire tra i due fiumi*). That particular work was written while undertaking a very fruitful and rewarding building archaeology survey at the site of Umm al-Surab, in Jordan, under the direction of Roberto Parenti. I owe to him my interest and passion for the intriguing job of reconstructing the history of standing walls. Moreover, many colleagues have supported this publication with

tips, comments, and the supply of images for the illustrations. Consequently the best thanks from Piero Gilento and me are due to Susan Allison, Valentina Aversa, Jenina Bas, Brigitte Boissavit-Camus, Guy Bunnens, Amalia Catagnoti, Jennifer Celani, Costanza Coppini, Gina Coulthard, María de los Ángeles Utrero Agudo, Dora D'Auria, Maria Cristina Guidotti, Christine Kepinski, Marc Lebeau, Mario Liverani, Cristina Meneses, Daniele Morandi Bonacossi, Giovanni Pesce, Francesco Rizzi, Francesco Saliola, Eric W. Schnittke, Osama Shukir Muhammed Amin, Enrico Quagliarini, François Villeneuve, Harvey Weiss. Also, my gratitude goes to the team at Archaeopress for the whole editorial support process, including the revision of the English translation.

Finally, this book comes out after the disappearance of my Doktorvater, Prof. Dr Harald Hauptmann, who taught me so many things, despite the little (too little!) time I could spend with him, and I would like to dedicate this work to him.

Firenze, 12 July 2020 Stefano Anastasio