



**HAL**  
open science

# **Chanhu-daro, a Major Urban Planned City for Better Understanding the Internal Development of the Indus Valley Civilization**

Aurore Didier

## **► To cite this version:**

Aurore Didier. Chanhu-daro, a Major Urban Planned City for Better Understanding the Internal Development of the Indus Valley Civilization. *Sindh Antiquities*, In press. <halshs-04365840>

**HAL Id: halshs-04365840**

**<https://shs.hal.science/halshs-04365840v1>**

Submitted on 28 Dec 2023

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons CC BY-NC-ND 4.0 - Attribution - Non-commercial use - No Derivative Works - International License

# **Chanhu-daro, a major urban planned city for better understanding the internal development of the Indus Valley Civilization**

**By Aurore Didier**

## **Abstract**

Since its discovery by N.G. Majumdar in 1931 and the excavations carried out by E.J.H. Mackay in 1935-1936, Chanhu-daro is considered in the archaeological literature as a major urban and artisanal centre of the Indus Valley Civilization and, perhaps, one of the most important sites for better understanding the internal development of this civilization between 2600/2500 and 1900 BCE. This paper summarizes the results of past excavations at Chanhu-daro and outlines the research questions and objectives of the new field-work carried out since 2015 by the French Archaeological Mission in the Indus Basin in cooperation with the Directorate General of Antiquities and Archaeology, Culture, Tourism, Antiquities and Archives Department, Government of Sindh. Through extensive excavations, the aim of this new research work is, in particular, to better document the architectural and craft developments during the first centuries of the Indus Civilization still little-known in the lower Indus Valley.

**Key-words:** Indus Valley Civilization; Chanhu-daro; excavations; periodization; first Indus period

## **Introduction**

After more hundred years of research starting at Harappa and Mohenjo-daro in Pakistan, we know a great deal about the Indus Valley Civilization known as the first urban phenomenon in South Asia. In past decades, the Indus studies have seen major advances in both Pakistan and India that provided new insight into its settlement patterns, urban and architectural developments. We have also now a much better understanding of its craft-producing economies and interregional interaction systems<sup>1</sup>. More recently, significant progress has also been made in the knowledge of its subsistence strategies, in both urban and rural contexts, and the impact of climate change from its emergence around 2600-2500 BCE to its decline and transformation at the very beginning of the 2<sup>nd</sup> millennium BC<sup>2</sup>. However, crucial questions still need to be answered. Behind the apparent uniformity of part of Indus material culture including elaborate crafts that testify a high level of skill, lie a chrono-geographical variability, probably

---

<sup>1</sup> For an overview, see Kenoyer 2011, 2014; Wright 2010.

<sup>2</sup> See, for example, Dixit *et al.* 2018; Madella and Fuller 2006; Petrie 2019; Petrie and Bates 2017; Sarkar *et al.* 2016.

underestimated, and patterns of regional cultural diversity<sup>3</sup>. One of the major challenges is to better understand how the Indus civilization integrated communities from diverse geographical regions and distinct cultural traditions in a vast territory, and to identify the common features that link the different regions spatially and chronologically. Another major challenge in Indus studies is also to better understand the internal development and evolution through time of the Indus Civilization over the course of seven hundred years. Several major projects in Pakistan and India led to divide what is generally called the “Mature Harappan period” into sub-periods based on stratigraphical data and a detailed investigation of pottery and artefacts. These sub-periods were evidenced, for example, at Amri (Periods IIIA, IIIB, IIIC-D)<sup>4</sup>, Nausharo (Periods II, III and IV)<sup>5</sup>, Harappa (Periods 3A, 3B and 3C)<sup>6</sup>, Dholavira (Stages III, IV and V)<sup>7</sup>, but also at Kanmer (KMR IIA-b)<sup>8</sup> or Farmana (Cemetery, Phases 1-4)<sup>9</sup>. Each sub-period can be associated with distinctive painted pottery styles as G. Quivron demonstrated it in a sounding contribution<sup>10</sup>. It should be noticed that the painted pottery style of the first Indus period (2600/2500-2300 BCE) is often very sophisticated, quite homogeneous and, so far, it seems to occur in all excavated sites. The painted style of the second Indus period (2300-2100 BCE) is less sophisticated and shows more variations among sites. A regionalization phenomenon clearly begins to emerge during the third Indus period (2100-1900 BCE) which sees new painted pottery styles integrate the Indus ceramic assemblages such as the Jhukar style in Sindh or the Kulli-B style<sup>11</sup> in Balochistan. However, despite an increasing control of stratigraphic sequences and the provision of new data, the urban or “Mature Harappan period” is still too often approached as a monolithic entity with no architectural or material variations over time. Similarly, there are, of course, diagnostic shared features and constants that link sites in terms of town planning, water management systems, building techniques, craft technologies or writing/administrative systems, but there are also differences between sites in terms of site size, general layout, settlement function, collective structures, craft-producing economies or subsistence practices. The way the cities and smaller settlements were structured was also variable as were linkages between major cities, towns and villages<sup>12</sup>. The chrono-cultural sequences established in certain regions also need to be further explored in order to better understand the processes of local formation and development of the Indus Civilization. This is particularly the case in the Middle/Lower Indus Valley where the study of the first Indus period was substantiated by limited field-data<sup>13</sup>. Chanhu-

---

<sup>3</sup> Petrie 2019.

<sup>4</sup> Casal 1964.

<sup>5</sup> Jarrige 1996 ; Quivron 2000.

<sup>6</sup> Meadow and Kenoyer 2005.

<sup>7</sup> Bisht 1991

<sup>8</sup> Kharakwal *et al.* 2012.

<sup>9</sup> Shinde *et al.* 2011.

<sup>10</sup> Quivron 2000. It is worth stating that similar observations and relevant pottery classifications (partly based on the initial work by G. Quivron) have also been proposed by A. Uesugi for Farmana, Kanmer or Ghaggar Plains in north-western India (Uesugi 2011, 2012; Dangi and Uesugi 2013).<sup>10</sup>

<sup>11</sup> Jarrige *et al.* 2011.

<sup>12</sup> Wright 2010: 142-144.

<sup>13</sup> Didier *et al.* 2017.

darō (Fig. 1), located in Shaheed Benazirabad District, Sindh, which is considered in the archaeological literature as a major urban and artisanal centre of the Indus Valley Civilization, is perhaps, one of the most important sites for studying the chrono-cultural periodization of this region and substantiating the models of gradual evolution of urbanism in the Middle/Lower Indus Valley. Before presenting the research questions and objectives of the new field-work carried out since 2015 by the French Archaeological Mission in the Indus Basin in cooperation with the Directorate General of Antiquities and Archaeology, Culture, Tourism, Antiquities and Archives Department, Government of Sindh, it is necessary to provide a brief overview of research and its limits regarding the first centuries of the Indus Civilization in Sindh.

### **Studying the initial development of Indus urbanism and material culture in the Middle/Lower Indus Valley**

With its very rich cultural heritage<sup>14</sup> and, of course, the discovery of Mohenjo-daro, Sindh Province represents, for Indus Civilization studies, one of the best field-research for working on the emergence of the Indus Civilization. However, despite a hundred years of archaeological field-research, the initial development of Indus urbanism and material culture, and their expansion during the first centuries of the Indus period, remained difficult to address. The first large-scale explorations carried out in the 1920s and 1930s by N.G. Majumdar from the Archaeological Survey of India led to identify a number of archaeological sites<sup>15</sup>, three of which are of key importance for working on this issue: Amri, Jhukar, and Chanhu-daro (Fig. 1). The extensive explorations of certain areas conducted throughout the second half of the twentieth century by the Department of Archaeology and Museums, Government of Pakistan,<sup>16</sup> a Shah Abdul Latif University team led by N. Shaikh, the Sindh Archaeological Research Project directed by L. Flam<sup>17</sup>, the University of Sindh, and the Culture, Tourism and Antiquities Department, Government of Sindh have produced major data and contributed to the archaeological map of sites in Sindh. These last thirty years, the fundamental contribution of the Italian Archaeological Expeditions in Sindh and Las Bela directed by P. Biagi also enabled the identification of numerous Chalcolithic and Bronze Age sites in the Las Bela coast and the Indus Delta country and to document the Indus Civilization chert exploitation, in particular from the data collected in the Rohri Hills<sup>18</sup>. But, overall, very few stratigraphic or large-scale excavations have been conducted in Sindh since the research work at Mohenjo-daro. Moreover, many sites buried beneath the thick sedimentary deposits of the massive floodplains remained unidentified or inaccessible to excavation.

---

<sup>14</sup> Mughal 1998; Kalhor 2021.

<sup>15</sup> Majumdar 1934: 5-18, 24-38.

<sup>16</sup> Mughal 1998.

<sup>17</sup> Flam 1984, 1987, 1993, 2006.

<sup>18</sup> For an overview, see Biagi 2019.

Among the sites excavated in the 1950s and 1960s, two have provided fundamental data for identifying and documenting the pre-Indus phases of occupation based on the occurrence of particular ceramic types: Kot Diji and Amri. Kot Diji (Fig. 1) located 25 km south of the city of Khairpur was discovered in 1935 and excavated in the 1960s by F.A. Khan<sup>19</sup>. It gave its name to the Kot Dijian culture (or phase) identified at many sites including Harappa. Amri (Fig. 1), in Dadu District, excavated between 1959 and 1962 by the French Archaeological Mission to Indus directed by J.-M. Casal<sup>20</sup> was occupied at least 3500 BCE (and possibly earlier) and continued to be inhabited throughout the urban Indus period until 1900 BCE. The pre-Indus sequence at Amri led to define the “Chalcolithic Amri culture” which serves as a reference in Sindh and Gujarat. Its pottery assemblage including ceramics related to Kechi Beg, Togau, Kot-Diji and Hakra styles is indicative of interregional relationships with central/eastern Balochistan and northern Sindh. The chronological sequences established at Amri<sup>21</sup> and Kot Diji still remain today references for the chrono-cultural periodization of the Lower Indus Valley. However, both sites did not provide substantial data on the first Indus period (2600/2500-2300 BCE). At Amri, the location of the trench opened by J.-M. Casal on the slope of Mound B was dictated by the presence of numerous Muslim tombs, so only two levels belonging to this period (Period IIIA) were excavated<sup>22</sup>. The early Period IIIA level yielded two potter's kilns associated with painted ceramics characteristic of the first Indus period pottery style (Fig. 2A). The late Period IIIa level was represented only by a section of mud-brick walls. At Kot-Diji, while the pre-Indus levels have been exposed on a large area, the excavation of the ‘Harappan’ architectural levels were more limited<sup>23</sup>. These ‘Harappan’ structures made of mudbrick and stone have been dated *a posteriori* to the first period of the Indus Civilization from comparative studies of ceramics (Fig. 2B)<sup>24</sup>. The levels dated to the second and third Indus periods had totally disappeared due to surface erosion.

Other sites were too eroded to provide consequent data on the first Indus period or they have been punctually (or not sufficiently) excavated - both on the surface and at depth - to best document the complete pre-Indus/Indus chronological sequence or the early Indus levels. This is the case at Ghazi Shah<sup>25</sup>, in Dadu District, which provided both pre-Indus and first Indus period levels, and Allahdino<sup>26</sup>, located east of Karachi, where pre-Indus levels were not exposed despite the site's great interest<sup>27</sup>. More recently, a few sites have also been punctually excavated like Nuhato in Thar<sup>28</sup>.

---

<sup>19</sup> Khan 1965.

<sup>20</sup> Casal 1964.

<sup>21</sup> The pre-Indus sequence at Amri led to define the “Chalcolithic Amri culture” which serves as a reference in Sindh and Gujarat.

<sup>22</sup> Casal 1964: 44-45; Figs. 17, 27.

<sup>23</sup> Khan 1965: 17-22; Fig. 4; Pl. V

<sup>24</sup> Quivron 2000: 164.

<sup>25</sup> Flam 1993, 2006.

<sup>26</sup> Fairservis 1982.

<sup>27</sup> Fairservis 1984

<sup>28</sup> For example, Nuhato (Mallah 2019).

For other excavated sites, the pre-Indus levels or the earlier phases of the Indus occupation remained deeply buried beneath more recent occupations dated to the second and third Indus periods or to post-Indus period (or both) like in Mohenjo-daro. From comparative analysis of ceramics<sup>29</sup>, we know *a posteriori* that the impressive architectural remains in fired brick at Mohenjo-daro belong to the second half of the Indus Civilization only. The levels associated with ceramics from the first Indus period have been reached only in the deep soundings dug in the DK Area by E.J.H. Mackay<sup>30</sup>, in the deep sounding (Trench REM I) dug in the podium of the citadel by R.E.M. Wheeler<sup>31</sup>, and in the lower levels of the DK Area (UM excavations, Phase A) excavated by G.F. Dales<sup>32</sup>. Few vessels similar to the first Indus period pottery types were also illustrated in the reports published by Marshall (Area SD)<sup>33</sup>. A few Kot Diji potsherds dated from the pre-Indus period have also been reported in the lowest levels of the REM I Trench<sup>34</sup>. Finally, several major sites have been seriously damaged or destroyed by agricultural or industrial projects like Lakhan-jo daro, in Sukkur, where recent salvage excavations have been conducted<sup>35</sup>.

Given this, it is clear that re-examining the chrono-cultural sequence of Sindh and studying the internal development of the Indus Civilization in the Southern Indus Valley have become a major challenge, but that the potential of excavated sites to achieve this goal remained limited. The Kirthar foothills in western Sindh that were subject to several survey programs conducted by N.G. Majumdar<sup>36</sup>, the Department of Archaeology and Museums, Government of Pakistan<sup>37</sup>, L. Flam<sup>38</sup>, Shah Abdul Latif University<sup>39</sup>, and the Culture, Tourism and Antiquities Department, Government of Sindh, may offer a potential of archaeological sites with more accessible levels of the pre-Indus and first Indus periods, but the area presents more important logistic (or financial) constraints for establishing excavation programs over the term. In 2015, the French Archaeological Mission in the Indus Basin (MAFBI) conducted geo-archaeological surveys in the north-western part of the Baran River (Jamshoro District), where several sites were selected to carry out test-soundings in the next years<sup>40</sup>. In order to shed a new light on the architectural and crafts developments during the first Indus period, still little-known in Sindh, and the evolution of the Indus urbanism and material culture over time, it was thus necessary to find a site where

---

<sup>29</sup> See the work by G. Quivron (2000: 164-168, Fig. 10.A).

<sup>30</sup> Mackay 1938.

<sup>31</sup> Alcock 1986. See, for example, Fig. 10: n° 52.

<sup>32</sup> Dales and Kenoyer 1986.

<sup>33</sup> Marshall 1931.

<sup>34</sup> Alcock 1986. See, for example, Fig. 2: n° 7g.

<sup>35</sup> Excavations at Lakhan-jo daro were undertaken by University of Sindh-Jamshoro between 1996 and 2000, and by Shah Abdul Latif University between 2006 and 2017. See the latest excavation reports by N. Shaikh *et al.* (2004-2005) and Q.H. Mallah (2017).

<sup>36</sup> Majumdar 1934.

<sup>37</sup> Mughal 1998.

<sup>38</sup> Flam 1981, 1987, 2006.

<sup>39</sup> Mallah 209.

<sup>40</sup> Didier *et al.* 2015, 2017. Didier 2018.

architectural remains dated from the first Indus periods could be reachable, well-preserved and extensively excavated. That is why the MAFBI Mission, in cooperation with the Culture, Tourism and Antiquities Department, Government of Sindh, selected the site of Chanhu-daro for carrying out new extensive excavations.

### **The site of Chanhu-daro and a brief account of past excavations**

Chanhu-daro<sup>41</sup> is located south of the modern village of Jamal-Kerio on the Hazari Wah - a branch of the Dad canal - between the modern towns of Sakrand and Nawabshah (Fig. 3). The site has been discovered and sounded in 1931 by N.G. Majumdar, Assistant Superintendent of the Archaeological Survey of India<sup>42</sup>. According to him, the site comprised three ancient mounds that roughly covered an area of about 6.3 hectares (300 m long by 210 m wide)<sup>43</sup>. However, the site, very eroded, should extend on a much larger area beyond the limits of the three mounds emerging above the level of the surrounding plain<sup>44</sup>. Majumdar carried out trial trenches in Mound I and Mound III. In Mound III located in the northwestern part of the site, Trench I (45.7 m long by 4.9 m wide) and Trench II (21.4 m long by 4.9 m wide), both dug to a depth of 2 to 3.6 m - without reaching the virgin soil - provided architectural remains in fired brick (including a well) and mudbrick<sup>45</sup> (not described), and about 400 objects including numerous painted ceramic vessels<sup>46</sup>. Trench III (24.4 m long by 3.7 m wide) was dug on the top of Mound I (5.2 m high) at a depth of 2 to 2.5 meters<sup>47</sup>. Majumdar exposed two stages of occupation with remains of fired brick structures including a few walls and a drain. He noticed that painted pottery was not so plentiful compared to those found in Mound III.

Chanhu-daro was then excavated during one field-season in 1935-1936 by the first American Archaeological Expedition to India under the supervision of E.J.H. Mackay<sup>48</sup>. Mackay selected Mound II - the largest one (8.5 m above the surrounding plain; 285 m in circumference)<sup>49</sup> for the most extensive field-operations. 11 trial-trenches mostly north-west orientated were first dug in the uncultivated area on the north-eastern side of the mound to “*see what lay beneath before [selecting where] dumping too*

---

<sup>41</sup> The site was named Chāñhu-daro by Majumdar (1934: 35). It is also referred under different names in Sindhi literature: Chanhu-jo daro, Chanhun-jo daro, Chayeenho-jo daro. But it has not to be confused with the site of Chanhurjo-daro, also documented by Majumdar (*Ibid.*).

<sup>42</sup> Majumdar 1931: 35-45; Pls. XVII, XIX-XXI.

<sup>43</sup> *Ibid.*: 36.

<sup>44</sup> Defining the boundaries of the site is one of the objectives of the MAFBI programme at Chanhu-daro.

<sup>45</sup> “[...] *the structures that one stood here must have been principally of sun-dried bricks, the use of burnt bricks being strictly limited*” (*Ibid.*: 36).

<sup>46</sup> *Ibid.*: 36-37.

<sup>47</sup> *Ibid.*: 37.

<sup>48</sup> Mackay 1943.

<sup>49</sup> The measurements in Mackay’s publication are given in feet. We have converted them in meters or centimeters for correlation with our work.

place”<sup>50</sup>. These trenches, which have reached a maximum depth of 3 m below the *datum* level, provided few architectural remains (small portions of walls, floors, drains) often badly-preserved and difficult to correlate stratigraphically<sup>51</sup>. The only substantial excavated architecture is a portion of a massive wall in fired brick (1.35 m wide) found in Trench A (0). The whole visible part of Mound II was then excavated. Four architectural levels related to an occupation of the Indus civilization have been identified. These levels, topped with architectural remains from Jhukar and Jhangar cultures, and with Islamic tombs, were defined as ‘Harappa I’, ‘Harappa II’, ‘Harappa III’ and ‘Harappa IV’. The ‘Harappa I-III’ levels were clearly separated from each other by accumulation of debris. The most recent Indus occupation (Harappa I) provided with architectural remains in fired brick belonging to quite small buildings partially destroyed by floods<sup>52</sup>. The ‘Harappa I’ level was separated with the ‘Harappa II’ level by a 1.2 m thick layer of debris, whose base was located at 3 to 4.5 m above the datum<sup>53</sup>. The ‘Harappa II’ architectural level - the best-preserved one - yielded buildings in fired brick which were said to be grouped around streets in a planning system comparable to Mohenjo-daro (Fig. 4)<sup>54</sup>. In the center of Mound II (Squares 8C, 8/D, 9/C, 9/D), Mackay unearthed residential quarters, but also two rectangular ‘craft’ furnaces arranged on either side of a wide street running north-west/south-east. However, the layout of the architectural remains found in the other squares of the excavation, particularly to the north-west of the Mound, does not form a coherent plan. The most remarkable discoveries in the ‘Harappa II’ levels are undoubtedly a well-preserved set of numerous hydraulic structures (drains, bathing platforms, cesspits), and “craft quarters” which evidenced lapidary activities (bead and seal making), as well as metal tool manufacturing (Fig. 4). Since then, Chanhu-daro has been described in the archaeological literature as one of the most important craft production centres of the Indus Civilization<sup>55</sup>. The base level of the Harappa II occupation was measured from 2.3 to 3 m above *datum* (about 80 cm to 1.50 m above the current ground surface). It is also mentioned that the buildings were settled on a debris layer of about 2 m thick or on large mud-brick structures interpreted as platforms. A deep exploratory cutting (7.50 m deep) embracing the south-western slopes of Mound II was also dug to reach the oldest levels of the site<sup>56</sup>. Two architectural levels (‘Harappa III’ and ‘Harappa IV’) were excavated<sup>57</sup>. They were said to be anterior to the ‘Harappa II’ level, but they could not be stratigraphically connected with the latter. In the upper part of the ‘Harappa III’ level, a few architectural remains in fired brick were uncovered, while the lower part provided with a ‘solid platform’ in mudbrick traced to a depth of about 3.6 m in the section, but not excavated. For Mackay, this platform was built

---

<sup>50</sup> *Ibid.*: 1, Pl. III.

<sup>51</sup> Unfortunately, no stratigraphical profile is available in Mackay’s report and it remains difficult to connect the architectural structures between them.

<sup>52</sup> *Ibid.*: Pl. III.

<sup>53</sup> *Ibid.* : 34.

<sup>54</sup> *Ibid.*: 38-39, Pl. IV.

<sup>55</sup> Allchin and Allchin 1982; Fairservis 1975; Kenoyer 1999; 2014; Miller 2005; Sher and Vidale 1985; Vidale 1989; Wheeler 1968; Wright 2010.

<sup>56</sup> Mackay 1943: 12-22, Pls. IV-VII.

<sup>57</sup> The deepest level (Harappa V) was identified but not excavated (see Mackay 1943: 18).

to raise houses and keep them above the flood level<sup>58</sup>. He also noticed evidence of four episodes of important floods which – according to him - explained the abandonment of the settlement before its reoccupation materialized by the ‘Harappa II’ level. The earlier ‘Harappa IV’ level provided with a well entirely emptied<sup>59</sup>. Although the *Cutting* was dug to a depth of 8 m below the *datum*, no remains correlated with an occupation anterior to the Indus civilization were found. But Mackay stated that “[...] *in spite of this difficulty, there remains a chance that evidences of the earlier culture already discovered by the late Mr. Majumdar at Amri in Sindh may come to light at Chanhu-daro when work is resumed there under more favourable conditions*<sup>60</sup>.” Lastly, Mackay dug a trench on the top of Mound I, but he did not go ahead with the excavations due to the proximity of agricultural fields and some difficulties in removing the excavated debris. Besides the discovery of small houses and drains in fired brick<sup>61</sup>, he collected numerous evidences of lapidary and faience working. Two major conclusions were raised: 1) According to Mackay, Mound I and Mound II originally formed a single mound, but major flooding episodes separated these two parts of the site. Thick layers of alluvial sediment would have been deposited between the two. 2) He also concluded that Mound I was “*occupied solely by people of the Harappa Culture*”<sup>62</sup>.

Since then, no excavations have been conducted at Chanhu-daro. In 1984, G.M. Sher and M. Vidale carried out a short survey to collect surface evidences of craft activities<sup>63</sup>. For Mound I, they reported furrows filled with kiln-wasters<sup>64</sup> which form a single whole complex having its core in the southern tip of the mound<sup>65</sup>. These kiln-wasters were made of overfired bricks, overfired sherds and ash concentrations in which remains of chert debitage, blades, tools, flakes were identified. The surface study of the location of Mound II<sup>66</sup> provided with concentrations of overfired ceramics, evidences of chert debitage, blades and flakes along with carnelian waste flakes and bead-making indicators, manufacturing wasters of conch shell, large deposits of unworked geoids and other craft indicators<sup>67</sup>. Most of these concentration areas were reported on the eastern border of Mound II. Surface collections have later been gathered by scholars from Shah Abdul Latif University<sup>68</sup>. These last twenty years, a re-examination of Chanhu-daro stratigraphy and new studies on the material assemblages collected by Mackay been carried out by H.J. Miller<sup>69</sup>. Characterization and provenance studies have also been conducted on some stone artefacts<sup>70</sup>. However, the contextualisation of these studies remained

---

<sup>58</sup> *Ibid.*: 15.

<sup>59</sup> *Ibid.*: 17.

<sup>60</sup> *Ibid.*: 65.

<sup>61</sup> *Ibid.*: 59-64, Pl. II.

<sup>62</sup> *Ibid.*: 59.

<sup>63</sup> Sher and Vidale 1985: 586; Vidale 1989.

<sup>64</sup> Sher and Vidale 1985: Pl. V; Vidale 1989: Fig. 18.2.

<sup>65</sup> Sher and Vidale 1985: 590.

<sup>66</sup> *Ibid.*: Pl. VIII; Vidale 1989: Fig. 18.3

<sup>67</sup> *Ibid.*: 592-595.

<sup>68</sup> Mallah et al. 2017.

<sup>69</sup> Miller 2005, 2014.

<sup>70</sup> Vidale 1987; Mallah and Law 2010-11; Law 2011.

constrained to the static view of the stratigraphical and architectural sequence and material culture of the 'Mature Indus Period' at Chanhu-daro.

### **Revisiting the chrono-cultural sequence of Chanhu-daro**

However, if we look in detail at the stratigraphy and the architectural and material data published for all the levels uncovered, it becomes clear that Chanhu-daro is undoubtedly a key site for furthering our knowledge of the internal development of the Indus Civilization in the Middle/Lower Indus Valley. In his paper "The Evolution on the Mature Indus Pottery Style in the Light of the Excavations at Nausharo, Pakistan"<sup>71</sup>, Gonzague Quivron argues that Chanhu-daro is perhaps "*the most interesting site to corroborate the chronological framework of the Mature Indus period of Nausharo*"<sup>72</sup>. By systematic comparisons of the painted ceramics published as a whole by Majumdar and Mackay with the painted vessels from Nausharo, he clearly showed that the two sites "*parallel each other in the stratigraphic provenience of their ceramic assemblage*"<sup>73</sup>. It thus became possible to confirm that the Indus Civilization occupation at Chanhu-daro presented the same chronological subdivision into three sub-periods comparable to those defined in other excavated sites in Pakistan and India<sup>74</sup>. Secondly, of all the Indus settlements excavated in Sindh, Chanhu-daro was the only site where the gradual evolution of the Indus painting style was clearly visible from the beginning to the end of the Indus period<sup>75</sup>. This re-examination of stratigraphic data and published ceramics, substantiated by sound comparative studies with Nausharo, but also with the published pottery from Amri, Ghazi Shah, Kot Diji, Mohenjo-daro, Harappa, or Miri Qalat, showed that the 'Harappa I', 'Harappa II' levels excavated in Mound II, the upper phase of the 'Harappa III' level in the *Cutting*, the top layer in Mound III and the levels excavated in the upper part of Mound I had to be mostly associated with the second Indus Period (Fig. 5). The combination of both Indus style ceramics and Jhukar style ceramics in the upper layers of the 'Harappa I' level (in Mound II) indicates that the Jhukar occupation was partly contemporary to the very end of the Indus Civilization during the third Indus period<sup>76</sup>. This Jhukar occupation likely continued in the period after the end of the Indus Civilization. The painted ceramics similar to the pottery of the first Indus period were unearthed in Mound III, in the trial-trenches dug in the uncultivated area on the north-eastern side of Mound II, in the deepest levels of the *Cutting* (lower 'Harappa III' and 'Harappa IV' levels) and in few dispersed areas in Mound II below the 'Harappa II' level (Figs. 5 and 6)<sup>77</sup>. However, Majumdar and Mackay provided very little contextual information on their discoveries. Very few

---

<sup>71</sup> Quivron 2000.

<sup>72</sup> *Ibid.*: 162.

<sup>73</sup> *Ibid.*: 163.

<sup>74</sup> The sub-periods were referred to as Ia (III), Ib (II) and Ic (I).

<sup>75</sup> *Ibid.*: 164.

<sup>76</sup> At Amri, the third Indus period corresponds to Period IIIC-D.

<sup>77</sup> *Ibid.*: 163, Fig. 8.A-B and Fig. 9.

architectural structures were reported in their publication: a well in Mound III, drains and portions of walls in the trial-trenches, upper portions of massive mudbrick structures (not excavated) in Mound II and the *Cutting*, and a well in the deepest level of the *Cutting*. As shown by G. Quivron, “*During this period, the potters demonstrated an extraordinary skill in the quality of their painting technique which will result in the elaborate combinations of motifs underlined by the intersecting circle pattern, a device especially popular at Chanhu Daro and used to cover large areas of the vessels*”<sup>78</sup>. G. Quivron also made fundamental observations on other crafts produced at Chanhu-daro during this first Indus period: “*Also significant, and so far unique, for the concept of development of the new Indus iconography, is the seal-making which was a craft practiced at Chanhu Daro as early as the beginning of the Mature period. Finished and unfinished seal-amulets were found in greater number than elsewhere in the levels of this period. They could be additional evidence to the idea that the Indus style might have commenced at Chanhu Daro, or at least in this area, wherefrom it radiated subsequently in various directions*”<sup>79</sup>. Regarding the terracotta figurines, he argues that “*The very distinctive hollow female figures with swollen bodies on short legs as known from Mohenjo Daro and many other Indus sites, are different at Chanhu Daro where they have been uncovered in the lower levels (where pottery from the first stage was evidenced). They have also a fan-like headdress but, contrary to later representations, the swollen bodies have a flat open base (or very rudimentary legs)*”<sup>80</sup>.

### **Selecting Chanhu-daro for documenting the internal sequence of the Indus Civilization and establishing a new excavation programme**

Once the data had been re-examined, there were several major points in favour of selecting Chanhu-daro to develop a new excavation programme focused on the study of the internal development of the Indus Civilization. First, the stratigraphic data and the material assemblage showed that Mounds I, II and III were, in fact, a single eroded settlement whose greatest part was nowadays still buried. Although Mound II was extensively excavated, we have very little contextual information on the first Indus period. Previous excavations centred on the visible part of Mound II have mainly yielded fired brick architectural structures and ceramics dating from the second Indus period. However, given the depth of the *Cutting*, we know that at least 7 m of archaeological deposits from the first Indus period lie beneath the levels of the second Indus period, which offers a great potential for further documentation. Moreover, the virgin soil has not been reached, and it cannot be ruled out that this first Indus period occupation lies on a pre-Indus settlement like in Amri and Kot Diji.

Second, mudbrick architectures are not easy to excavate and the excavation techniques were not perfected in the 1930s. It is very likely that Mackay excavated the first Indus period without a clear view

---

<sup>78</sup> *Ibid.*: 186.

<sup>79</sup> *Ibid.*

<sup>80</sup> *Ibid.*

of the mudbrick architectures apart from the massive structures interpreted as platforms. Moreover, the presence of these massive mudbrick structures identified below the ‘Harappa II’ fired brick architectures<sup>81</sup> (Figs. 4 and 6) and in the *Cutting*<sup>82</sup>, raised many questions about their nature and function. The tops of these “*compacted damp structures*” ranged from 2.25 m to 3.25 m above the *datum*<sup>83</sup> and their form and building method were not clearly visible<sup>84</sup>. They were described as “*solid platforms [...] such as these are well known at Mohenjo-daro, where they were expressly constructed to raise buildings beyond the reach of floods*”<sup>85</sup>. Before we started new excavations at Chanhu-daro, we considered that these structures might be rather groups of mudbrick architectures from earlier occupation levels or mudbrick ruins from the first Indus period intentionally transformed into massive structures to make the ground suitable for new fired brick buildings during the second Indus period.

Third, Chanhu-daro has not been the subject of any site preservation policy since the earliest excavations in the 1930s until 2015. The architectural structures in fired brick excavated in Mound I and Mound II have now totally disappeared due to erosion and brick recycling by local people (Fig. 7). This could give a unique opportunity to reach directly - and on a very large surface - the levels dated to the first Indus period. It should be noted that very few sites have been extensively excavated in the southern and western parts of Indus Valley for this period. At Nausharo in the Kachi Plain, Balochistan, excavated between 1986 and 1996 by the French Archaeological Mission to Indus directed by J.-F. Jarrige in cooperation with the Department of Archaeology and Museums, Government of Pakistan, erosion and intensive gullyng processes made possible to carry out such extensive excavations. It is, perhaps, one of the most interesting sites to address the question of the incipient urbanism of the Indus Valley and its evolution over the long term<sup>86</sup>. During Period II, which corresponds to the first Indus period, a new settlement was installed on Period ID ruins and further south in an untouched area. It shows the traditional features of an Indus planned town with streets and lanes oriented to the cardinal points. Archaeologists excavated residential quarters, large mudbrick walls, a perimeter wall equipped with a gateway reached by a ramp, a big circular structure that might be a silo, a reservoir equipped with a fired brick drain, a large drain, and a monumental building with massive walls on the top of the northern mound<sup>87</sup>. In the light of these discoveries made at Nausharo, a site considered to be a small ‘provincial’ town settled in the western margins of the Indus Valley, and given that extensive excavation of levels from the first Indus period was made impossible on sites like Mohenjo-daro due to considerable thickness of the fired brick architectures from the second and third Indus periods, it became obvious that

---

<sup>81</sup> Mackay 1943: 37

<sup>82</sup> *Ibid.*: 15.

<sup>83</sup> About 0.75 m to 1.80 m above the current ground surface.

<sup>84</sup> Mackay wrote « *We were unable to extract single bricks for measurement until the platform had dried out sufficiently to allow the courses to become clearly visible* » (*Ibid.*: 19).

<sup>85</sup> *Ibid.*: 37.

<sup>86</sup> Jarrige 1996.

<sup>87</sup> *Ibid.*

new extensive excavations on a regional city such as Chanhu-daro could considerably enhance our knowledge of the early architectural and craft developments of the Indus Civilization.

## **Conclusion**

This review of research shows that it is now essential to reassess old data on Indus urbanism and architecture in the light of new data and recent methods and tools. Among the archaeological sites identified in Sindh, Chanhu-daro occurred as an ideal place to undertake large-scale excavations (in Mound II and Mound III), to study the first Indus period occupation thoroughly, and to bring fresh data on the models of gradual evolution of urbanism in the Lower/Middle Indus Valley. Likewise, Mound I, which has been little-excavated also offers the possibility to better document the transition between the first and second Indus periods, and to answer major questions about the last phase of Indus occupation and the development, during this period, of the Jhukar culture, which still needs to be further studied.

## **Bibliographical references**

- Alcock, L. (1986). A Pottery Sequence from Mohenjo Daro: R.E.M. Wheeler's 1950 "Citadel Mound" Excavations. In G.F. Dales & J.M. Kenoyer, *Excavations at Mohenjo Daro, Pakistan: The Pottery*, 493-551. The University Museum.
- Allchin, B. & Allchin, F.R. (1982). *The Rise of Civilization in India and Pakistan*. Cambridge University Press [Cambridge World Archaeology 19].
- Biagi, P., Franco, C. & Starnini, E. (2021). Archaeological Survey along the Khadeji and Mol Rivers (Lower Sindh, Pakistan): Preliminary Results of the 2021 Season. In A. Ringer (Ed.), *Praehistoria. New Series Volume 3*, 11-34. Archaeolingua Foundation.
- Biagi, P., Nisbet, R. & Starnini, E. (2019). The Prehistory of Sindh and Las Bela (Balochistan): Thirty years of surveys and excavations (1985-2014). *Pakistan Heritage*, 1-44.
- Bisht, R.S. (2015). *Excavations at Dholavira (1989-1990 to 2004-2005)*. Archaeological Survey of India.
- Casal, J.M. (1964). *Fouilles d'Amri*. Publication de la Commission des Fouilles archéologiques.
- Dales, G.F. & Kenoyer, J.M. (1986). *Excavations at Mohenjo Daro, Pakistan: The Pottery*. The University Museum.
- Dangi, V. & Uesugi, U. (2013). A Study on the Harappan Painted Pottery from the Ghaggar Plains. *Purātattva*, 43, 195-215.
- Didier, A. (2018). Nouvelles recherches sur les débuts de la Civilisation de l'Indus (2500-1900 av. n. è.) au Pakistan. Les fouilles de Chanhu-daro (Sindh). *Comptes-Rendus des Scéances de l'Académie des Inscriptions et Belles-Lettres*, 2017, 947-980.

- Didier, A., Sarmiento-Castillo, D., Mongne, P., & Shakir Ali Shah, S. (2017). Resuming excavations at Chanhu-daro, Sindh. First Results of the 2015-2017 field-season. *Pakistan Archaeology*, 31, 69-121.
- Didier, A., Shakir Ali Shah, S., Mongne, P. & Sarmiento-Castillo, D. (2015). *French Archaeological Mission in the Indus Basin. Report on the 2015 Field-Season in Sindh*. Unpublished Report. Culture, Tourism and Antiquities Department, Government of Sindh.
- Dixit, Y., Hodell, D.A., Giesche, A. *et al.* (2018). Intensified summer monsoon and the urbanization of Indus Civilization in northwest India. *Nature Scientific Reports*, 8, 4225.
- Fairservis, W.A. Jr. (1982). Allahdino: An Excavation of a Small Harappan Site. In G.L. Possehl (Ed.), *Harappan Civilization*, 107-112. Oxford and IBH Publishing.
- Fairservis, W.A. Jr. (1975). *The Roots of Ancient India*, 2<sup>nd</sup> Revised Edition. Macmillan.
- Flam, L. (1981). *The Palaeogeography and prehistoric settlement Patterns in Sindh, Pakistan (ca. 4000-2000 B.C.)*. Unpublished Ph.D. Dissertation, University of Pennsylvania.
- Flam, L. (1984). The palaeogeography and prehistoric settlement patterns of the Lower Indus Valley, Sind, Pakistan. In K.A.R. Kennedy & G.L. Possehl (Eds). *Studies in the Archaeology and Palaeoanthropology of South Asia*, 77-82. Oxford University Press and IBH Publishing.
- Flam, L. (1987). Recent explorations in Sind: paleogeography, regional ecology, and prehistoric settlement patterns (ca. 4000–2000 B.C.). In J. Jacobsen (Ed.), *Studies in the Archaeology of India and Pakistan*, 65-89. Aris & Phillips.
- Flam, L. (1993). Excavations at Ghazi Shah 1985-1987: An Interim Report. *Pakistan Archaeology*, 28, 131-158.
- Flam, L. (2006). Archaeological Research in Western Sindh: The Kirthar Mountains, Sindh Kohistan and Excavations at Ghazi Shah. In F. Hussein (Ed.), *Sindh: Past, Present and Future*, 152-184. B.C.C.T. & Press.
- Jarrige, J.-F. (1996). Les fouilles de Nausharo au Balochistan pakistanais et leur contribution à l'étude de la civilisation de l'Indus. *Comptes rendus des Séances de l'Académie des Inscriptions et Belles-Lettres*, 1996 (III), 821-877.
- Jarrige, J.F., Quivron, G. & Jarrige, C., with the collaboration of Haquet, J.-F., Didier, A. & Meadow, R.H. (2011). *Nindowari (Pakistan). The Kulli culture: its origin and its relations with the Indus civilization*. Ginkgo Editions.
- Kalhor, Z.A. (2021). *Glimpses of Sindhi Heritage*. Silk Road Centre Islamabad.
- Kenoyer, J.M. (1999). *Ancient Cities of the Indus Valley Civilization*. Oxford University Press/American Institute of Pakistan Studies.
- Kenoyer, J.M. (2011). Changing Perspectives of the Indus Civilization: New Discoveries and Challenges. *Purātattva*, 41, 1-18.
- Kenoyer, J.M. (2014). The Indus Civilization. In C. Renfrew & P. Bahn (Eds.), *The Cambridge Prehistory*, 407-432. Cambridge University Press.

- Khan, F.A. (1965). Excavations at Kot Diji. *Pakistan Archaeology*, 2: 11-85.
- Kharakwal, J.S., Rawat, Y.S. & Osada, T. (Eds). (2012). *Excavation at Kanmer 2005-06 – 2008-09. Kanmer Archaeological Research Project. An Indo- Japanese Collaboration*. Indus Project, Research Institute for Humanity and Nature.
- Mackay, E.J.H. (1938). *Further Excavations at Mohenjo-Daro: Being an Official Account of Archaeological Excavations at Mohenjo-Daro Carried out by the Government of India between the Years 1927- and 1931*. Government of India Press.
- Mackay, E.J.H. (1943). *Chanhu-Daro Excavations 1935-1936*. American Oriental Series 20. American Oriental Society.
- Madella, M. & Fuller, D.Q. (2006). Palaeoecology and the Harappan Civilization of South Asia: A Reconsideration. *Quaternary Science Review*, 25, 1283-1301.
- Majumdar, N.G. (1934). *Explorations in Sindh. Being a Report of the Exploratory Survey carried out during the Years 1927-1928, 1929-1930, 1930-1931*. Karachi: Indus Publications. [Memoirs of the Archaeological Survey of India 48].
- Mallah, Q.H. (2009). An Archaeological Assessment of Taung Valley of Sindh-Kohistan Pakistan. *Ancient Asia*, 2: 93-112.
- Mallah Q.H. (2017). *Lakhanjo-daro: western mound salvage excavation 2017*. Culture, Tourism and Antiquities Department, Government of Sindh.
- Mallah Q.H. (2019). Excavation Report of Nuhato: An Indus Valley Civilization Settlement. *Sindh Antiquities*, 5, 5-67.
- Mallah, Q.H. & Law, R. (2011). Non-Destructive XRD Characterization of Stone Artifacts from Chanhu-Jo-Daro, Lakhan-jo-Daro and Loal Mari. *Ancient Sindh*, 11, 45-50.
- Mallah, Q.H., Veesar, G.M., Abro, T., & Shafaq, T. (2017). Recent Surface Analysis of Chanhu Daro An industrial hub city of Indus Civilization. *Journal of Asian Civilizations*, 40(2).
- Marshall, Sir J. (1931). *Mohenjo-Daro and the Indus Civilization*. Arthur Probsthain.
- Meadow, R.H. & Kenoyer, J.M. (2005). Excavations at Harappa 2000-2001: New Insights on Chronology and City Organization. In C. Jarrige & V. Lefèvre (Eds). *South Asian Archaeology 2001*, 207-225. Editions Recherche sur les Civilisations.
- Miller, H.J. (2005). A New Interpretation of the Stratigraphy at Chanhu-daro and the Jhukar Phase. In: C. Jarrige & V. Lefèvre (Eds.), *South Asian Archaeology 2001*, 253-256. Editions Recherches sur les Civilisations.
- Miller, H.J. (2014). Recently Documented Miniature Vessels from Chanhu-daro, Indus Valley (c. 2600-1900 BCE). *Man and Environment*, XXXIX (2), 42-52.
- Mughal, M.R. (1998). *The Archaeology of Sind (since 1930). Update Supplement to Henry Cousens' Antiquities of Sindh with Historical Outline*. 3<sup>rd</sup> edition. Department of Archaeology.

- Petrie, C.A. (2019). Diversity, variability, adaptation and ‘fragility’ in the Indus Civilization. In N. Yoffee (Ed.), *The Evolution of Fragility: Setting the Terms*, 109-133. McDonald Institute for Archaeological Research.
- Quivron, G. (2000). The Evolution of the Mature Indus Pottery Style in the Light of the Excavations at Nausharo, Pakistan. *East and West*, 50(1), 147-190.
- Petrie, C.A. & Bates, J. (2017). ‘Multi-cropping’, Intercropping and Adaptation to Variable Environments in Indus South Asia. *Journal of World Prehistory*, 30(2), 81-130.
- Sarkar, A., Deshpande Mukherjee, A., Bera, M.K., Das, B., Navin Juyal, Morthekai, P., Deshpande, R.D., Shinde, V.S. & Rao†, L.S. (2016). Oxygen Isotope in Archaeological Bioapatites from India: Implications to Climate Change and Decline of Bronze Age Harappan Civilization. *Nature Scientific Reports* 6, 26555.
- Shaikh, N., Veesar, G.M. & Mallah, Q.H. (2004-2005). The Excavation of Indus Period Site Lakhajodaro 2006. *Ancient Sindh*, 8: 7-194.
- Sher, G.M. & Vidale, M. (1985). Surface Evidence of Craft Activity at Chanhudaro, March 1984. *Annali dell’ Istituto Universitario Orientale*, 45, 585-598.
- Shinde, V., Osada, T. & Kumar, M. (Eds.). (2011). *Excavations at Farmana, District Rohtak, Haryana, India, 2006-2008*. Indus Project, Research Institute for Humanity and Nature.
- Uesugi, A. (2011). Pottery from the settlement area. In V. Shinde, T. Osada & M. Kumar (Eds.), *Excavations at Farmana, District Rohtak, Haryana, India 2006-2008*, 168-378. Indus Project, Research Institute for Humanity and Nature.
- Uesugi, A. (2012). Pottery. In J.S. Kharakwal, Y.S. Rawat & T. Osada (Eds.), *Excavation at Kanmer 2005-06 – 2008-09*, 219-480. Indus Project, Research Institute for Humanity and Nature.
- Vidale, M. (1987). The Paste Plaques and Cylinders of Chanhudaro: A Descriptive Report. *Annali*, 47(1), 57-66.
- Vidale, M. (1989). Specialized Producers and Urban Elites: The Role of Craft Industries in Mature Harappan Urban Contexts. In J.M. Kenoyer (Ed.), *Old Problems and New Perspectives in the Archaeology of South Asia*, 171-182. Wisconsin Archaeological Reports, WI 2.
- Wheeler, Sir R.E.M. (1968). *The Indus Civilization*, 3<sup>rd</sup> edition. Cambridge University Press.
- Wright, R.P. (2010). *The Ancient Indus*. Cambridge University Press.

### **Image captions**

Fig. 1: General map of main archaeological sites from the northwestern region of the Indo-Pakistani subcontinent with the location of Chanhudaro. Adapted from Jarrige *et al.* 2011: Map 1.

Fig. 2A: Amri, Mound B: Plan of pottery kilns from Period IIIA (after Casal 1964: Fig. 27) and painted postherds from the first Indus period (2500-2300 BCE). Photos: A. Didier.

Fig. 2B: Kot Diji: Plan and photo of architectures excavated in the “Harappan culture level”, and a painted jar ascribed *a posteriori* to the first Indus period. Adapted from Khan 1965: Fig. 4; Pls. Va, XIVa.

Fig. 3: Aerial view of Chanhu-daro in 2017. After Didier *et al.* 2017: Fig. 2.

Fig. 4: Chanhu-daro: Plan of the ‘Harappa II’ level excavated by E.J.H. Mackay in 1935-36 with the location of craft activities. Adapted from Mackay 1943: Plate IV.

Fig. 5: Chrono-stratigraphic sequence of Chanhu-daro revised on the basis of pottery comparisons made by G. Quivron (2000).

Fig. 6: Chanhu-daro: Plan of ‘Harappa II’ level in Mound II (Harappa II level) and plan of Mound III with locations of ceramic vessels dated *a posteriori* from the first Indus period. After Didier *et al.* 2017 (adapted from Quivron 2000: Fig.9 and Mackay 1943: Pls. III-IV).

Fig. 7: Top: Chanhu-daro; Mound II (from south), before Mackay’s excavation. Centre: Buildings from the ‘Harappa II’ occupation (from north-east). Bottom: Location of Mound II in 2015 (from south-east). After Didier *et al.* 2017: Fig. 5.

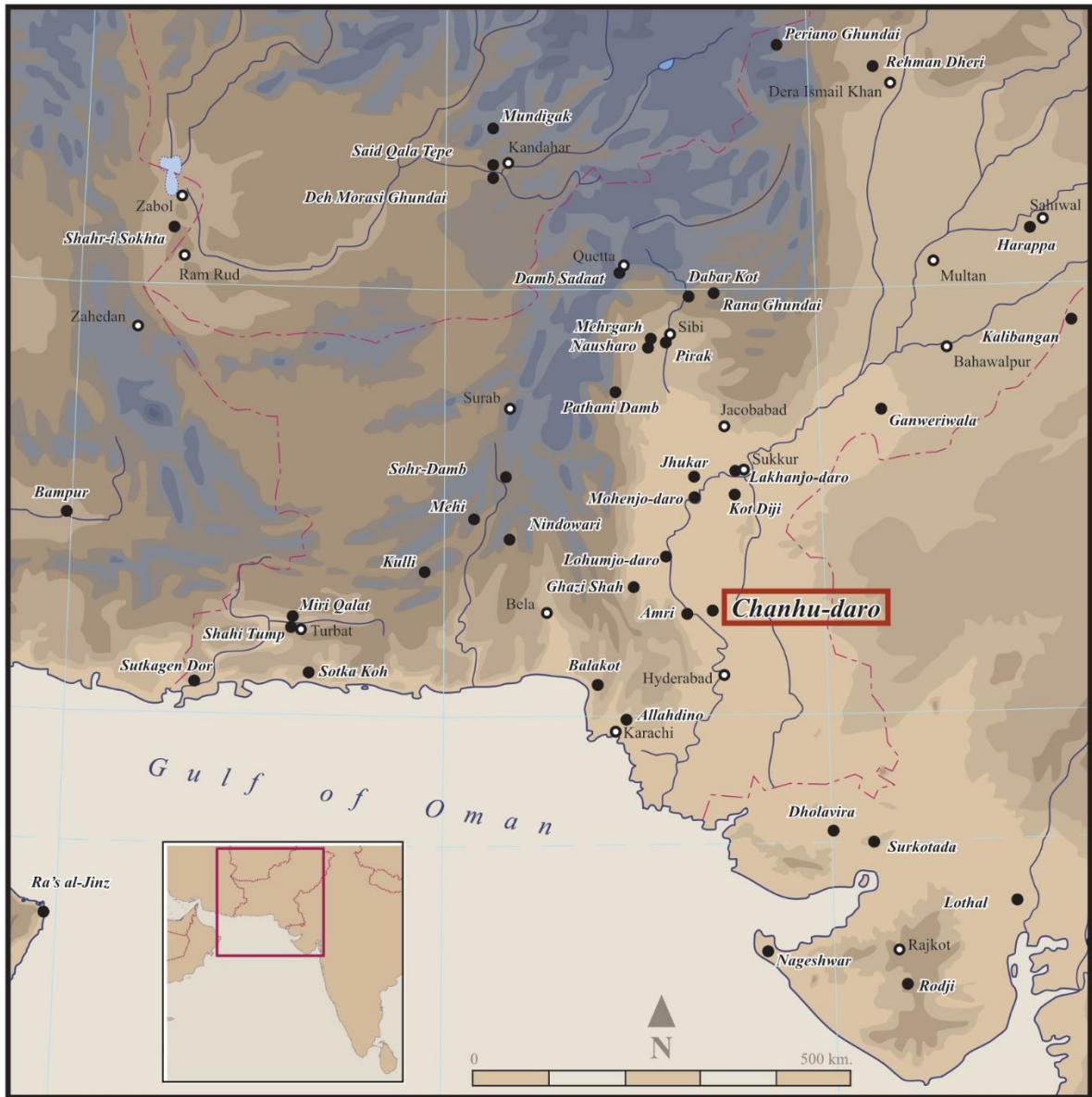


Fig. 1: General map of main archaeological sites from the northwestern region of the Indo-Pakistani subcontinent with the location of Chanhu-daro. Adapted from Jarrige *et al.* 2011: Map 1.

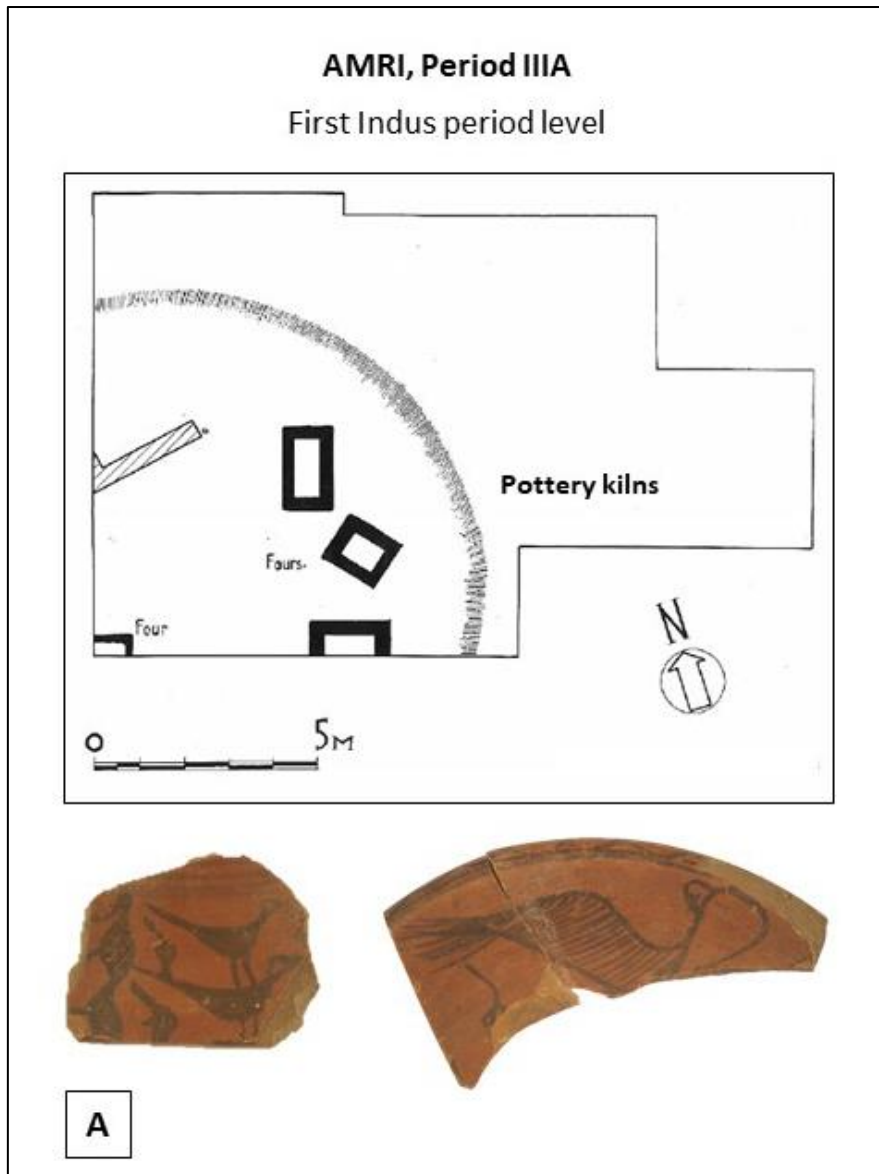


Fig. 2A: Amri, Mound B: Plan of pottery kilns from Period IIIA (after Casal 1964: Fig. 27) and painted postherds from the first Indus period (2500-2300 BCE). Photos: A. Didier.

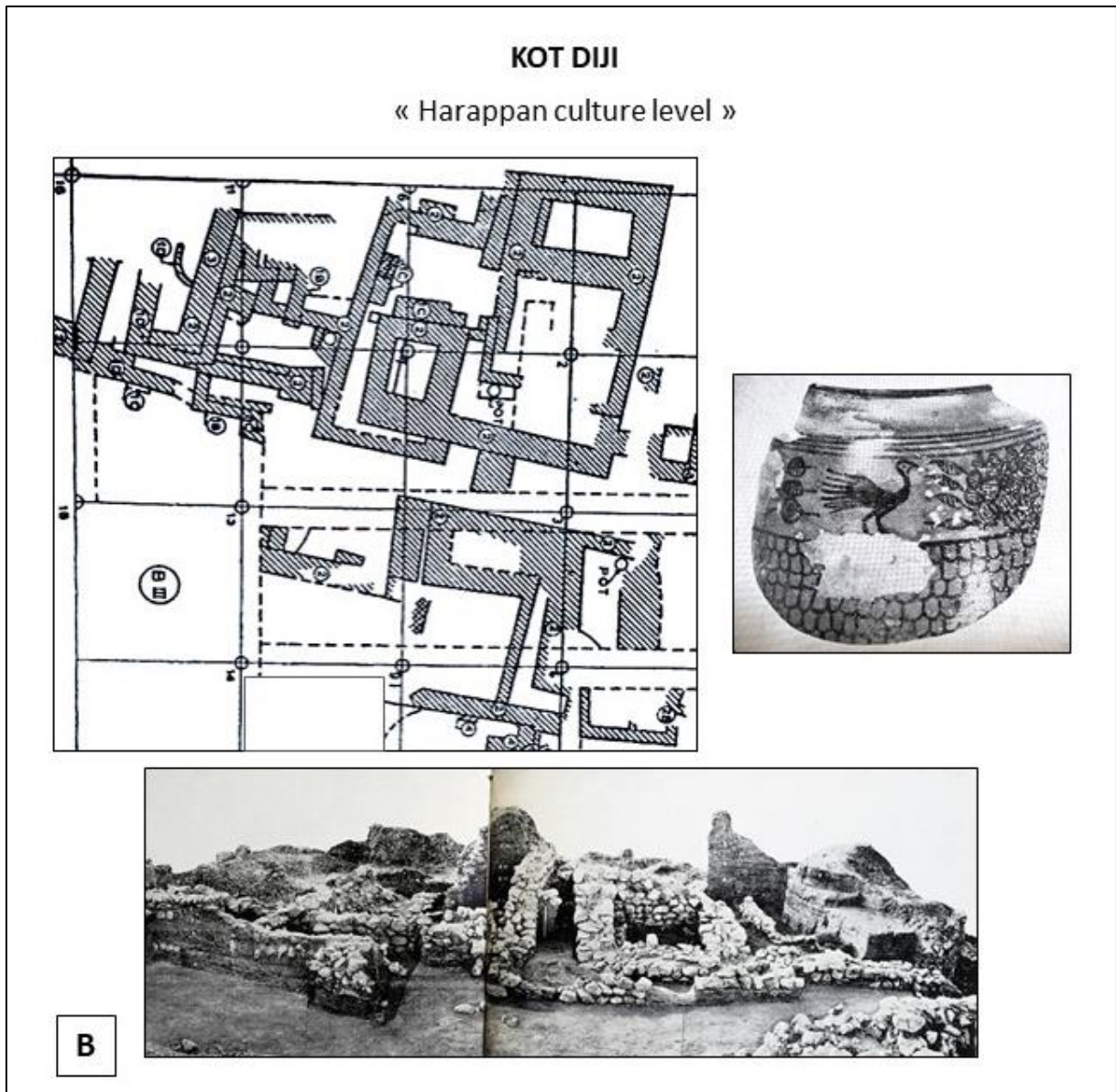


Fig. 2B: Kot Diji: Plan and photo of architectures excavated in the “Harappan culture level”, and a painted jar ascribed *a posteriori* to the first Indus period. Adapted from Khan 1965: Fig. 4; Pls. Va, XIVa.



Fig. 3: Aerial view of Chanhu-daro in 2017. After Didier *et al.* 2017: Fig. 2.

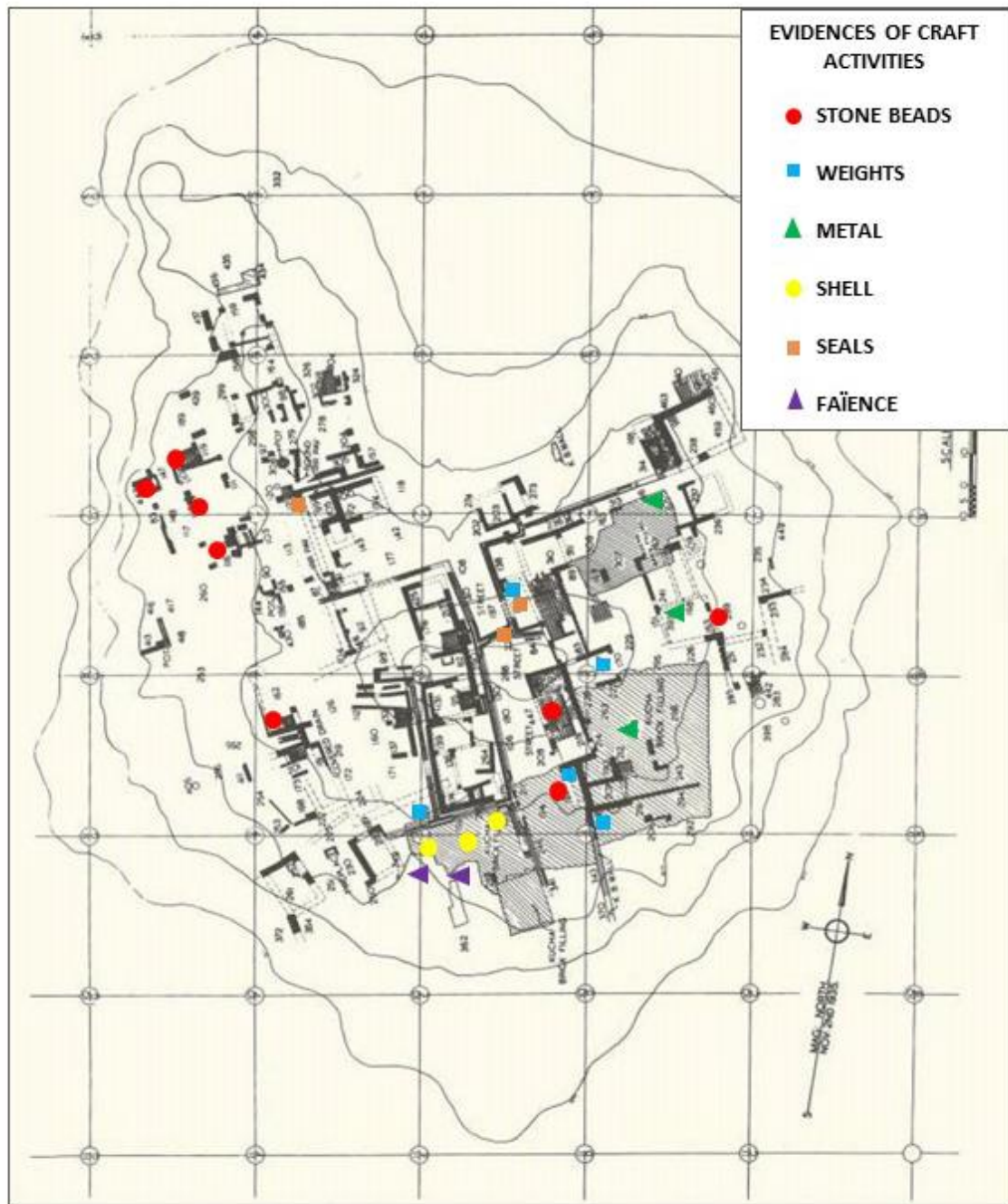


Fig. 4: Chanhu-daro: Plan of the 'Harappa II' level excavated by E.J.H. Mackay in 1935-36 with the location of craft activities. Adapted from Mackay 1943: Plate IV.

Mackay and Majumdar's architectural levels	LOCATION	PERIOD	COMPARISONS	DATING
Harappa I?	Mound II	Indus 3	Amri IIIC-D, Harappa 3C, Mohenjo-daro, Nausharo IV, Dholavira Stage VI	2100-1900 BCE
'Harappan' Harappa I Harappa II Harappa III 'Harappan'	Mound I Mound II Mound II Cutting (top levels) Trenches (top levels)	Indus 2	Amri IIIB, Harappa 3B, Mohenjo-daro, Nausharo III, Balakot, Dholavira Stage V	2300-2100 BCE
Harappa III-IV 'Harappan' Majumdar's trial-trench	Cutting (deep levels) Trenches (deep levels) Mound III	Indus 1	Amri IIIA, Mohenjo-daro (deep soundings), Kot-Diji, Ghazi Shah, Nausharo II, Miri Qalat IV, Dholavira Stages III-IV	2600/2500-2300 BCE

City built in fired brick

City built in mudbrick



1<sup>st</sup> Indus period



2<sup>nd</sup> Indus period



3<sup>rd</sup> Indus period

Fig. 5: Chrono-stratigraphic sequence of Chanhu-daro revised on the basis of pottery comparisons made by G. Quivron (2000).

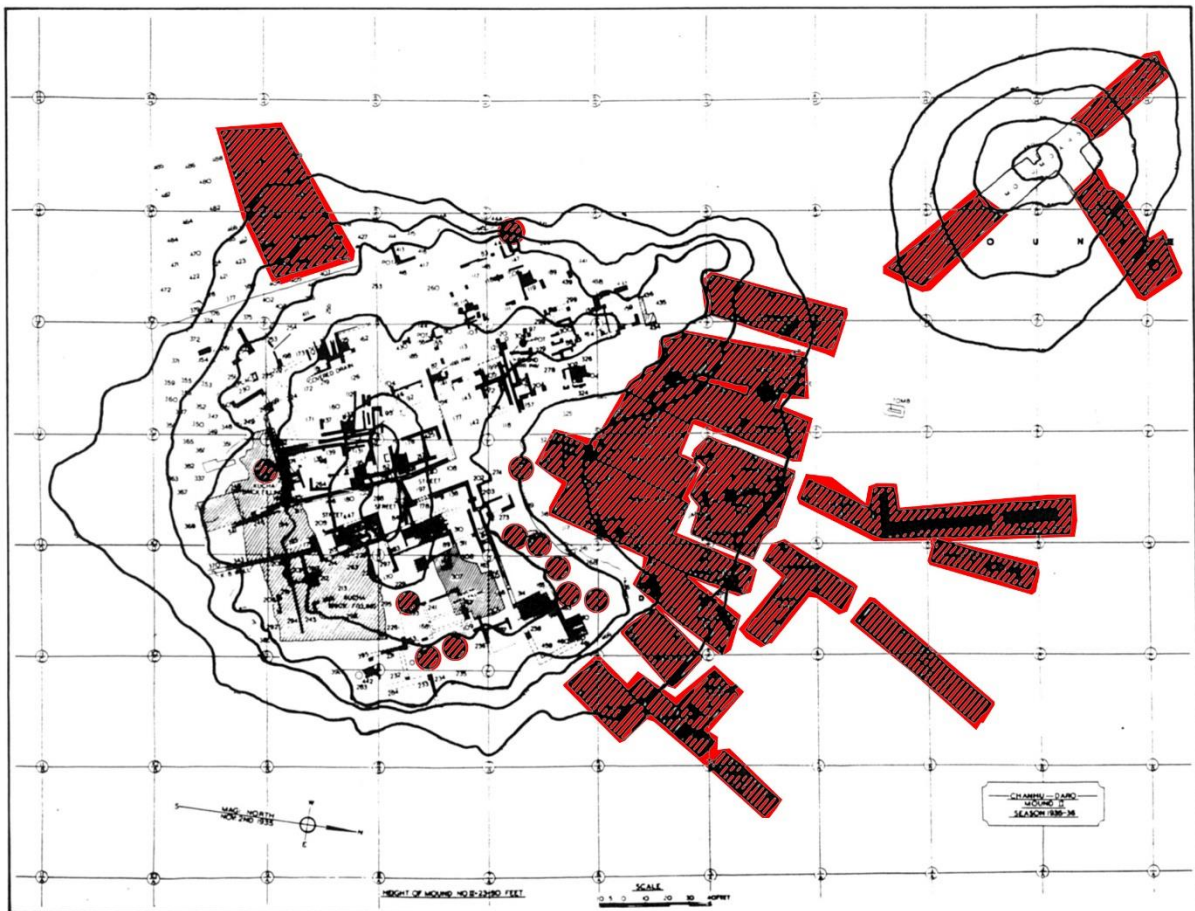


Fig. 6: Chanhu-daro: Plan of 'Harappa II' level in Mound II (Harappa II level) and plan of Mound III with locations of ceramic vessels dated *a posteriori* from the first Indus period. After Didier *et al.* 2017 (adapted from Quivron 2000: Fig.9 and Mackay 1943: Pls. III-IV).



Fig. 7: Top: Chanhu-daro; Mound II (from south), before Mackay's excavation. Centre: Buildings from the 'Harappa II' occupation (from north-east). Bottom: Location of Mound II in 2015 (from south-east). After Didier *et al.* 2017: Fig. 5.