### Timurid Period Rural Settlement in the Sar-o-Tar Desert, Afghanistan

Mitchell Allen and William B. Trousdale Research Associate and Curator Emeritus National Museum of Natural History Smithsonian Institution, Washington DC

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#### **ABSTRACT:**

Archaeologists generally recreate settlement patterns based on vestigial remains of rural landscapes destroyed by later settlement, agricultural activity, or environmental degradation. The 14th and 15th century Timurid settlement of the Sar-oTar plain, east of the lower Helmand River in southwest Afghanistan, is a notable exception. Dry desert conditions allowed for occupation only during times when the extensive canal system, first developed 2500 years earlier, could be reexcavated and maintained. These same desert conditions—and intensive sanding that filled the empty buildings-prevented later agricultural activity, pluvial erosion, and even limited site looting in the six centuries after the area was abandoned. Thus, we have as close to a pristine environment from the 15th century CE as archaeology has had the opportunity to study. The 1000 square km is filled with almost untouched medieval houses, some standing three stories high, fortresses, mosques, mausoleums, canals, even field walls. The Helmand Sistan Project, working in this region in the 1970s, documented the Timurid remains of Sar-o-Tar through survey and limited excavation. This paper will summarize our findings of the Timurid period in Sar-o-Tar and suggest some general themes that may assist archaeologists working in less visible rural environments.

§The Sistan region is the southwest corner of Afghanistan and adjacent parts of Iran and Pakistan. It has been documented historically since the 6<sup>th</sup> century BC and is known archaeologically since the beginning of the Bronze Age.

§The Helmand Sistan Project, of which I was a part, was in the field in Afghanistan between 1971 and 1979. Conducted as a joint endeavor between the Smithsonian Institution and Institute of Archaeology of Afghanistan, it was directed by Smithsonian anthropologist William B. Trousdale, my coauthor on this paper. §Though some work had been done previously by French, German, and American scholars, §ours was the first long-term systematic archaeological survey and excavation project in the region, encompassing some 40,000 square kilometers from the confluence of the Helmand and Arghandab Rivers to the river's end at the hamun lakes that straddle the border between Afghanistan and Iran.

Our survey produced almost 200 sites, most previously not recorded. We partially excavated 12 of them. §We left the field with the Soviet invasion of 1979, §but hopes of returning held off producing a final report of the project until now.

§We documented 5000 years of settlement in the region §and created the first cultural history of the Afghan part of Sistan. Today's presentation will discuss the most recent period of extensive settlement, the Timurid era of the 14<sup>th</sup>-15<sup>th</sup> centuries CE.

§The Helmand River is the largest river in Afghanistan, running east to west from the Hindu Kush mountains before turning north and emptying into the Hamun Lakes at the Iranian border. §In Sistan, the river valley is narrow, rarely more than 3-4 km. §To the east of the river sits the Sar-o-Tar plain, roughly translated as "emptiness and desolation," an area of 1000 sq km that was last abandoned at the end of the Timurid period. The majority of our survey's sites come from this area.

§Besides the influence of hydrological factors, Sistan is continually buffeted by strong northwest winds, including the well-known Wind of 120 Days, the summer phenomenon where winds blow constantly often at hurricane levels, picking up sand and silt with relentless force and periodically overrunning the region with sand dunes. §It shaped living patterns in Sistan and had large effects the preservation and visibility of sites.

§Occupation away from the river in an area like Sar-o-Tar is only possible through canal irrigation. These canals indicate periods of societal complexity and reasonably peaceful existence for a lengthy period. §Originally built by the Iron Age inhabitants of the lower Helmand, they were redug and maintained sporadically over the following 2500 years, including the Timurid period, §after which time they, and Sar-o-Tar, were abandoned.

§While we have ample evidence of large sites such as Qala Sirak, Qala-I Fath, Chil Burg, and Peshawarun along the Helmand occupied during the Timurid era and again in more recent centuries, the chance to study an almost pristine 15<sup>th</sup> century landscape created when Sar-o-Tar reverted from a rich agricultural area to a dune-covered desert is an opportunity that few archaeologists have.

§A little historical context first. The Sistan region was ruled by a local Islamic dynasty, the Saffarids, from the 9<sup>th</sup> century CE onward. Sar-o-Tar was heavily occupied during this time, with significant rural settlement surrounding the breathtaking fortress city of Shahr-I Gholghola, possibly ancient Taq, in its center. The region was overrun by Genghis Khan's army in 1222, Sar-o-Tar region abandoned, and was slow to recover. The Saffarids regained control of the region but under the imperial oversight of the Ghaznavids and Ghorids for the next two centuries. Part of the time, the region was ruled by the Kartid dynasty from the large city of Herat 500 km to the north. With the arrival of Tamerlane's Mongols in 1389 and the absorption of the Herat region into their empire, widespread prosperity returned to the area as the 15<sup>th</sup> century lacked the political upheavals of the previous two. Prominent families from prosperous cities like Herat repopulated Sistan, constructing large rural manor houses, and turned the region into what contemporary historians called "the granary of the East."

Within this historical context, the survey attempted to reconstruct Sar-o-Tar through archaeological data. §We recorded almost 30 Timurid sites, including many of these manor houses, as I will show you in a minute. §Our recording methods don't properly give credit to the density of occupation in his area. Our walking survey of the northern half of Sar-o-Tar lasted only 12 days in an area of almost 1000 square km, sand dunes covering many areas we wished to explore. Time pressure and the density of Timurid settlement led us to only sporadically record what we saw. §The true picture was far more intense and complex. For example, our site labeled "House 338" actually comprised an area of 2-3 km with dozens of houses, windmills, towers, and other structures. Our 30 sites would be more like 300 if we had recorded each Timurid building we saw.

§That also doesn't account for the broader landscape of the region in the Timurid period. We were able to identify the routes of canals and roads, walled gardens, irrigation pipes, and even field rows of what we presume to be cultivated grapes based on historical records.

§The project worked extensively at the largest site in Sar-o-Tar, Shahr-I Gholghola. Our excavations there disclosed a large 10<sup>th</sup> century CE palace surrounded by 5 walls and 3 moats. This was built on earlier Parthian and Sasanian public buildings and was reused in Ghaznavid times, before being destroyed by Ghengiz Khan's armies. In the Timurid period, the city did not revert to its central role. Our excavations uncovered reuse in this period of the Citadel and its bathhouse, probably for a military garrison, §and light reoccupation of the Ghaznavid Lower Palace. §As many as 10 manor houses were built inside the enclosure surrounded by the furthest, square, wall system. This included digging a canal into the enclosure over a destroyed part of the city wall.

§§The largest single collection of houses, and possibly the only thing resembling a town in Sar-o-Tar is the area we labeled House 338. The area stretched for several km along a series of canals and included watch towers, two windmills, a well preserved mausoleum, graveyard, dovecotes, and even a mosque. Due to the very brief time we spent there, we were able to only selectively document the area. There's a lot left for the next archaeologist who visits this site.

Downtown 338 would not be visible in a satellite photo, but was located at the northeast part of the settlement. The bazaar was established around a pool into which a small canal fed, and was surrounded by a cemetery, a small, simple mosque, and several other unidentified structures. A paving made of broken baked bricks surrounded the pool. One side of the street leading up to the pool contained a graveyard, unusual for Timurid town planning. Unfortunately, we have no field photos of this area.

§A small mosque sat on the south side of a lane 8 m wide bisecting the northern part of the village and was 22 m in length and 12.5 m in width. Entrance was on the eastern part of the north side. Just outside the east entryway was a rectangular foundation for a vaulted tomb made of baked bricks and possibly a second tomb just to its east.

The mosque was constructed around a courtyard measuring approximately 10 m square with ruins of a staircase sitting at the northeast. Two large pillars and two free standing pillars led to the mihrab to the west. A ziyaret sat behind the kiblah wall.

§To the west of the mosque sat the foundations of other built tombs. Houses made up the rest of the neighborhood.

§To the west and south of downtown were a collection of large houses. These followed standard Timurid house designs but were large and often accompanied by walled gardens and other out buildings. §House D, for example, §had a dovecote attached to it. §This neighborhood also featured a square building that we believe was a watch tower, though it might have served for storage or other purposes.

§Unusual for this collection of houses was a square structure made of baked brick. We don't know the function of this building and did not attempt to excavate it. A second baked brick building anchored the southern edge of the village. §Well constructed windmills sat at both the north and south ends of the community.

§The most elaborate building in the area was a square mausoleum, just south of the cluster of large houses. §Built around 4 corner pillars in baked brick, mudbrick, and packed mud, the square building sat two stories high with a central dome and numerous windows, niches, and decorative elements.

Our initial analysis of this village was that it was constructed and occupied over a brief period of time, the 15th century. However, as we reexamine our photos, there seems to be more than a single architectural style used, which might imply that the occupation was longer and involved several generations of houses, following changes in elite architectural fashion. §Note the thin walls and highly decorated iwan and side rooms of House B versus the more squat, heavy walled and less decorated House E nearby.

§While the houses in H338 were large and elaborate, they followed a similar design pattern for houses throughout Sar-o-Tar. The "standard" Timurid house surrounded a central courtyard. To the northwest was an iwan with large rooms on either side, likely living quarters. A second floor probably contained additional living quarters. Along the east and west sides were small rooms. Entrance to the building was generally at the southeast corner. Larger houses often added wings to the west and east of the main structure. Some had a walled garden to the south, as this one here. Defensive towers were usually located on the southwest.

§A false door was often placed on the north wall of the iwan, less likely for entrance than to allow the hot, northwest winds into the building in the summer, a form of air conditioning. These entrances were mudded up in the winter to shut out the cold wind. The same technology is used in Sistan houses today.

§Courtyards and iwans of these buildings were often highly decorated with keyhole and straight arches, merlon designs, and faux and rectangular windows. Little is known

about domestic architecture of this period and the subject needs a much more detailed analysis than I can provide here.

§We explored in detail one of the larger Timurid houses near Shahr-I Gholghola, that we named House 218. §You can see here, the standard Timurid house is embedded within a much larger structure: a wing built to the east, another to the southwest that had the entrance to the entire structure, a walled garden to the west, a second, larger courtyard to the south with rooms surrounding it, and a large walled garden to the south. §Not surprising, its architectural decoration was also quite elaborate, but generally repeating the same motifs found elsewhere in Sistan.

§Just to the south of this house and probably related to it was Mausoleum 214. Again, the design of Timurid mausolea was consistent, square with a dome held up by corner pillars over a central chamber. Mausoleum 214 had side rooms leading from each doorway and a baked brick porch on the south. We identified at least 18 burial sites in the building. §We excavated around the edges of one at the southwest corner of the central chamber. Embedded on three sides were baked tiles decorated in black under a turquoise glaze. §A pentagonal inscription identified the inhabitant of the tomb, a man who died at age 80 in 1429 CE, followed by portions of two poems in Persian. A fourth, broken tile was found elsewhere in the building.

§To get a better sense of the Timurids' use of space, we conducted several test excavations in 3 of the houses of H183, just south of Shahr-I Gholghola.

§House 183A was at the southeast part of the cluster of houses. Its plan is what I earlier showed to describe the typical Timurid house. §We excavated parts of two rooms along the west wall of the house.

§What did we find?

Dung. Lots of dung.

Room 1 at the southwest corner was simple was full of it, like over 1 meter deep. It clearly housed animals for a very long time. Above the organic deposition in the room was a layer of debris, presumably related to the abandonment of the house or later squatters

§Room 2 was also utilitarian, though seemed to have at least one occupational level before being turned over to being an animal pen. Note the well-constructed fire pit on the lowest floor. §Within these two rooms we found a wide array of household items, including many rarely preserved in 600 year old archaeological contexts: fragments of cloth in red, green and beige, woven rug pieces, a wood comb, bone jewelry, pieces of stone vessels, and a complete oil lamp. Other objects from this excavation included grindstones, querns, fragments of copper jewelry, matting, glass vessels and beads, and a piece of a tomb tile. The nature of these two rooms suggests that they were used for support personnel, animal pens, storage of agricultural goods, and cooking. §Excavations in side rooms of neighboring houses 183B and C produced similar results,

utilitarian occupational layers later replaced with animal husbandry. The layers of silt in houses A and B also suggest considerable periods of abandonment, thus a fairly complicated history of occupation.

We expected to find plenty of unglazed utilitarian ceramics in these rooms. §But we were surprised to also find much fine Timurid glazed wares. Timurid glazed pottery is easily identifiable because of the painted black designs beneath a turquoise glaze. §We find these wares in prodigious quantities throughout Sar-o-Tar and they were our type fossil for Timurid presence. Given the number of elaborate manor houses, it is not surprising that these wares are ubiquitous there as well.

§In addition to local fine wares, we also found good evidence of imported Chinese pottery, such as these 14-15<sup>th</sup> century pieces (R and bottom). People in Sar-o-Tar were living well.

Dating this rural settlement landscape to the Timurid period is fairly certain. We have coins from that era, carbon dates from the House 183 excavation, and tons of ceramics to confirm the 15<sup>th</sup> century occupation.

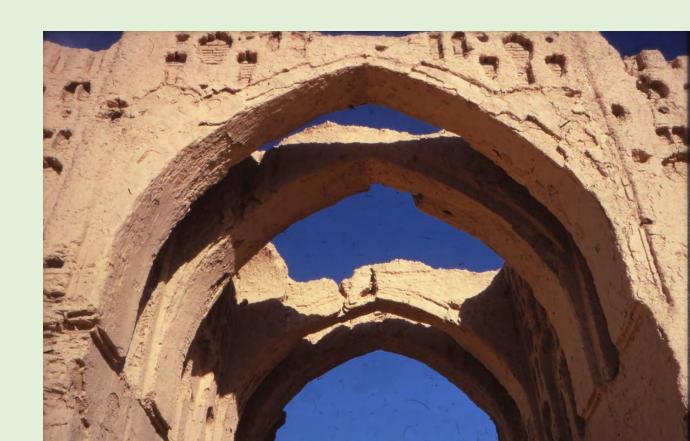
But the picture is not completely clear. The largest group of datable coins found in Saro-Tar do not date to this century but to the reign of the local Saffarid king Izzul Haq wadin, 1362-1382, before Tamerlane's invasion. The medieval history Tariq I Sistan claims that a ruling Saffarid king Nasir al-din (1261-1318) dug canals from the Helmand and restored the fortress of Taq as early as 1276. So the Timurid Century might in fact have lasted a couple of centuries. Given the complex stratigraphy for our one excavated site, the varying architectural styles, the range of coin dates, and other data, the history of Sar-o-Tar in the 13<sup>th</sup>-16<sup>th</sup> centuries might be far longer and more complex than we've presented here. §Additional study of the ceramics and other finds, still currently in process, will be required to get a better fix on the beginning and ending dates of the final occupation of Sar-o-Tar. §

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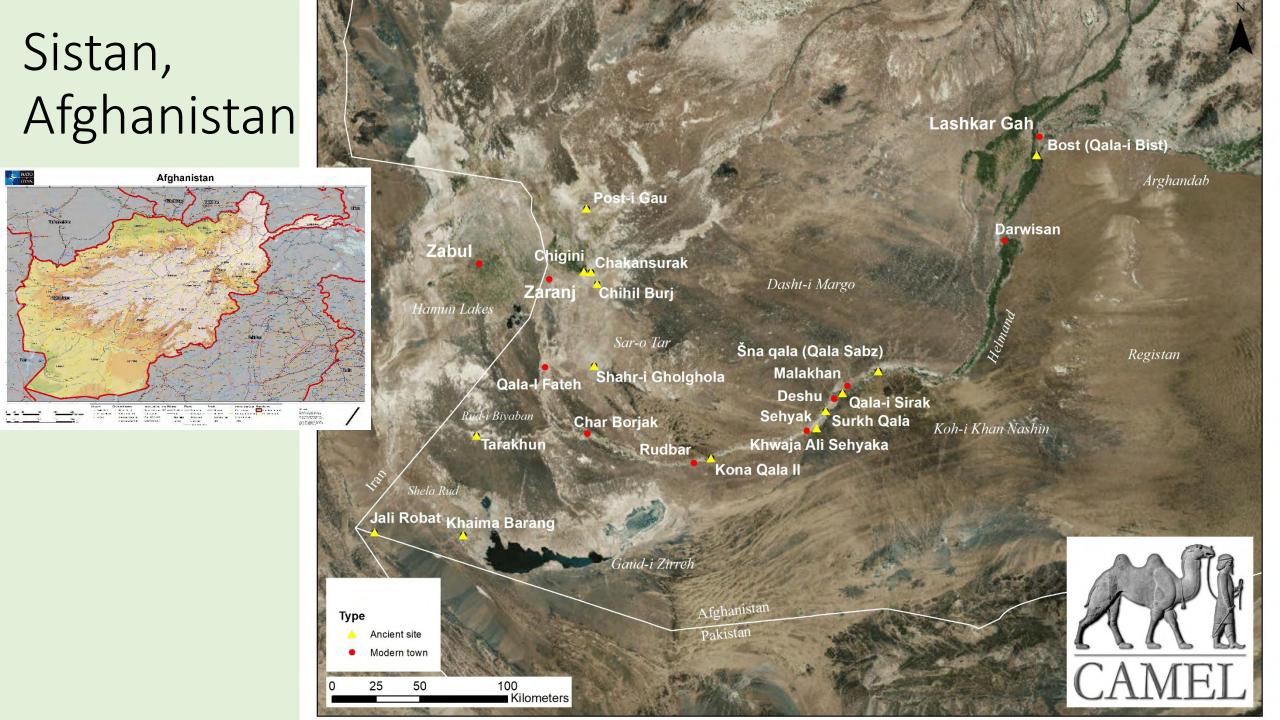
Research Associate --- Curator Emeritus
Department of Anthropology
Smithsonian Institution

Society for American Archaeology Annual Conference, Albuquerque, April 14, 2019

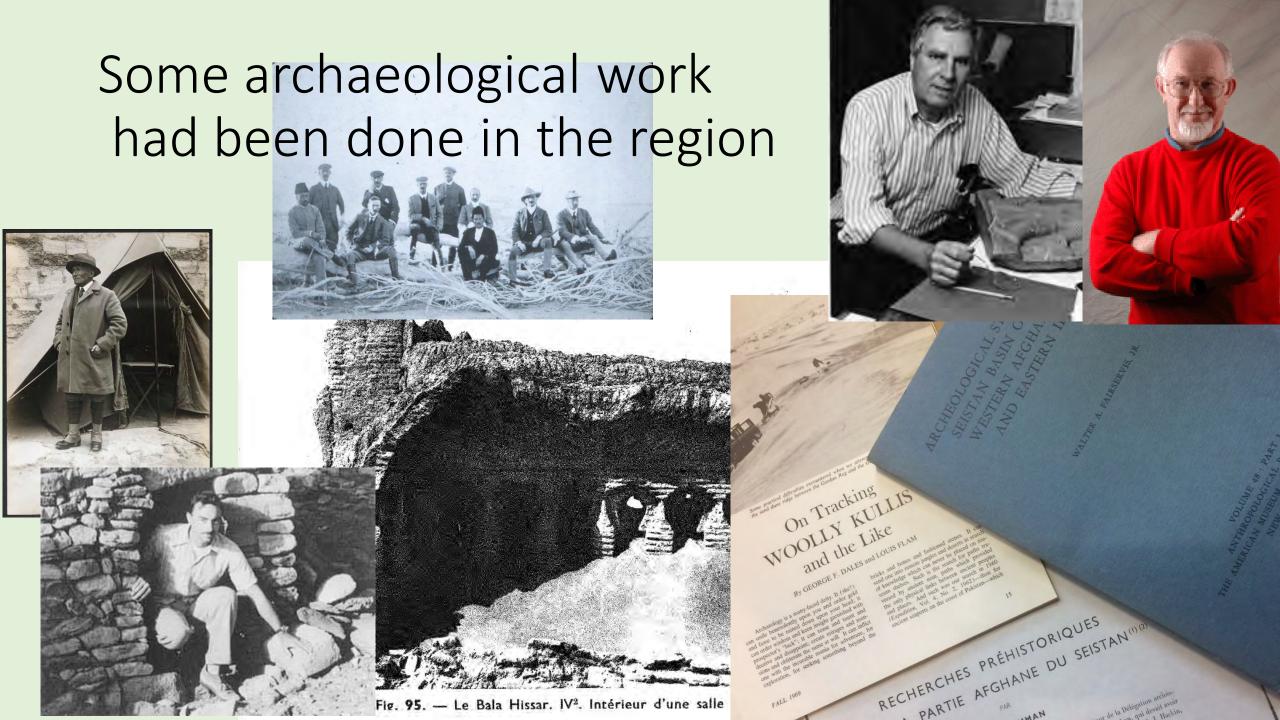


#### ACKNOWLEDGEMENTS

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- Photographs, plans, and sections by Robert K Vincent Jr, James Knudstad, Carol Ellick, Ariadne Prater, Sorayya Carr







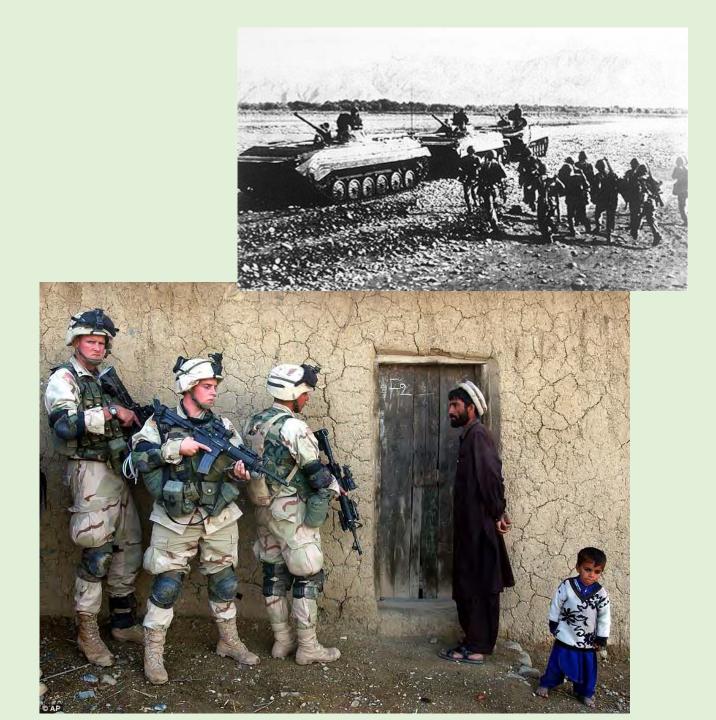
But ours was the first long-term, region-wide survey and excavation project



## Further fieldwork was impossible after 1979

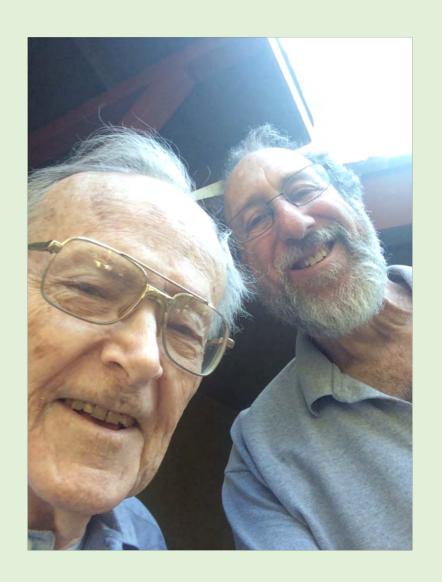
Afghan-Soviet War 1979-1989 Afghan Civil War 1989-1991 Taliban Control 1991-2001 Afghan- US War 2001-2019



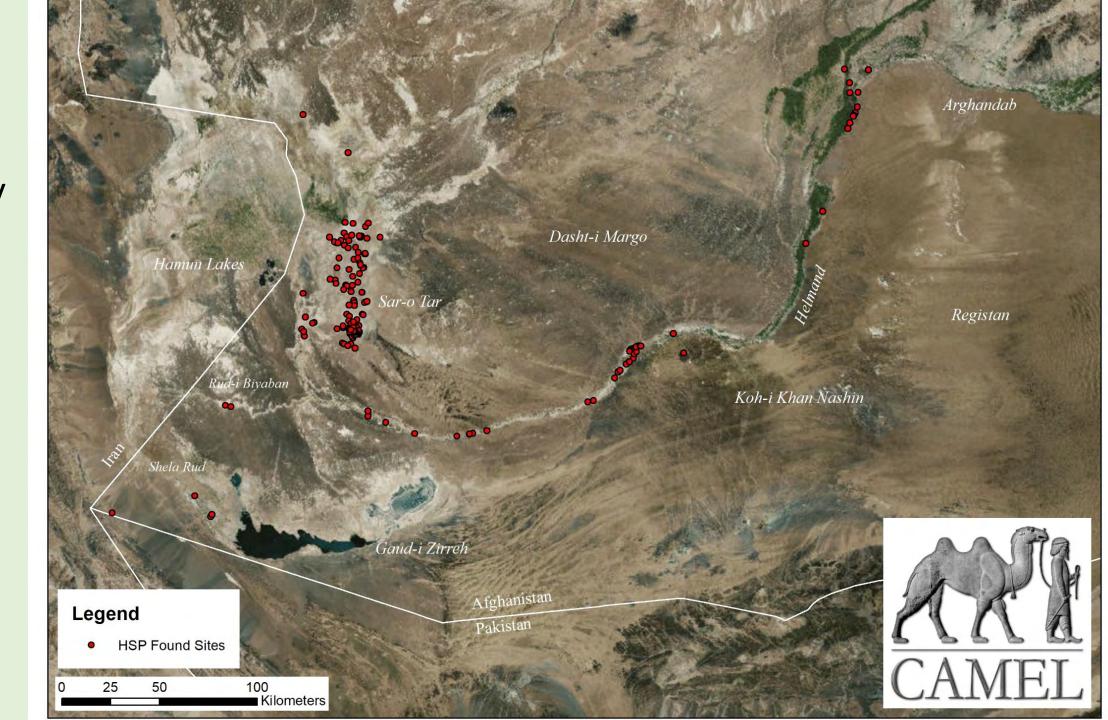


### A site report 45 years on hold





HSP Survey Sites



#### Afghan Sistan archaeological chronology

• Bronze Age 3<sup>rd</sup> - early 2<sup>nd</sup> millennium BCE

• Iron Age 12<sup>th</sup>-8<sup>th</sup> C BCE

Median 8<sup>th</sup>-6<sup>th</sup> C BCE

• Achaemenid 6<sup>th</sup>-4<sup>th</sup> C BCE

• Hellenistic 3<sup>rd</sup> -2<sup>nd</sup> C BCE

• Saka/Parthian 2<sup>nd</sup> C BCE- 2<sup>nd</sup> C CE

• Sassanian 3<sup>rd</sup> C CE- 7<sup>th</sup> C CE

• Saffarid 9<sup>th</sup> -10<sup>th</sup> C CE

• Ghaznavid 11<sup>th</sup> – 12<sup>th</sup> C CE

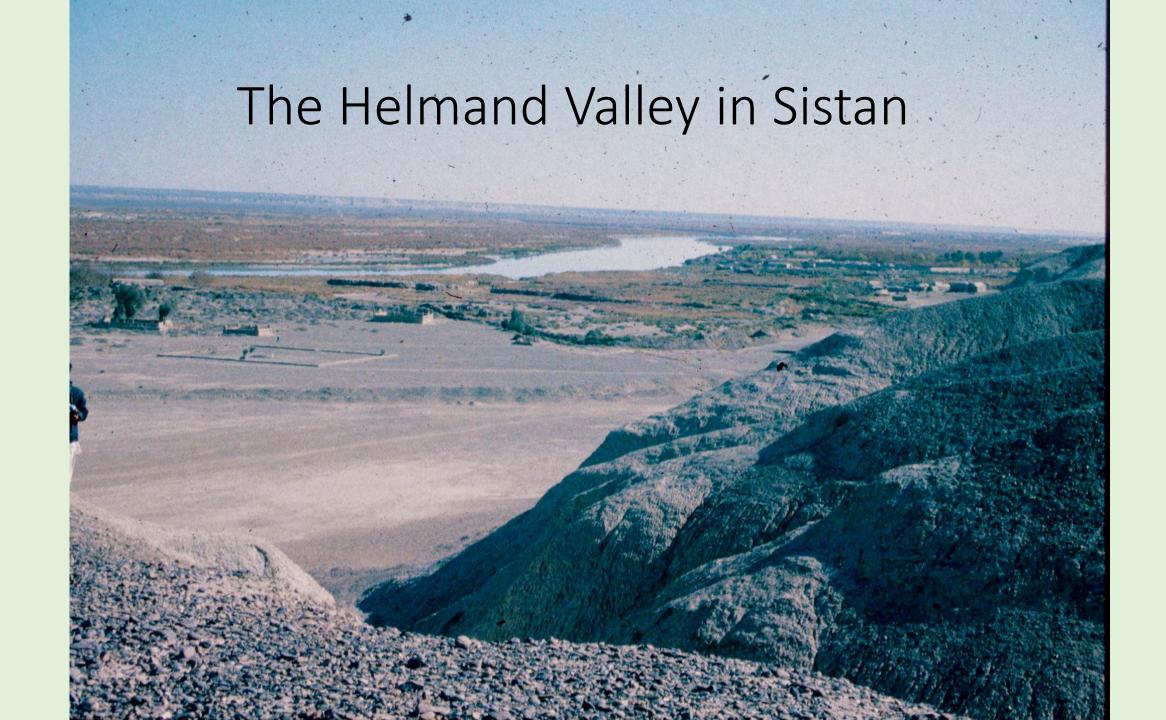
• Ghorid 13<sup>th</sup> C CE

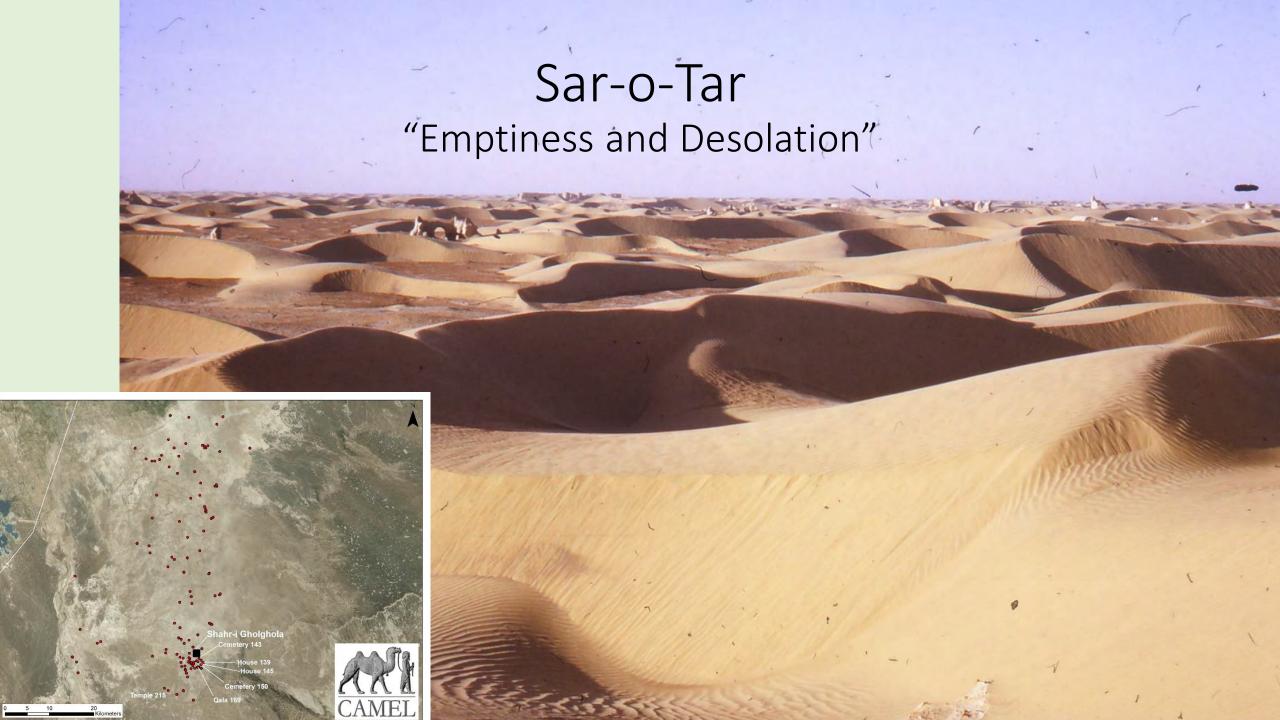
• Timurid 15<sup>th</sup> C CE

# The Helmand River, born in the Hindu Kush, empties into the Hamun Lakes

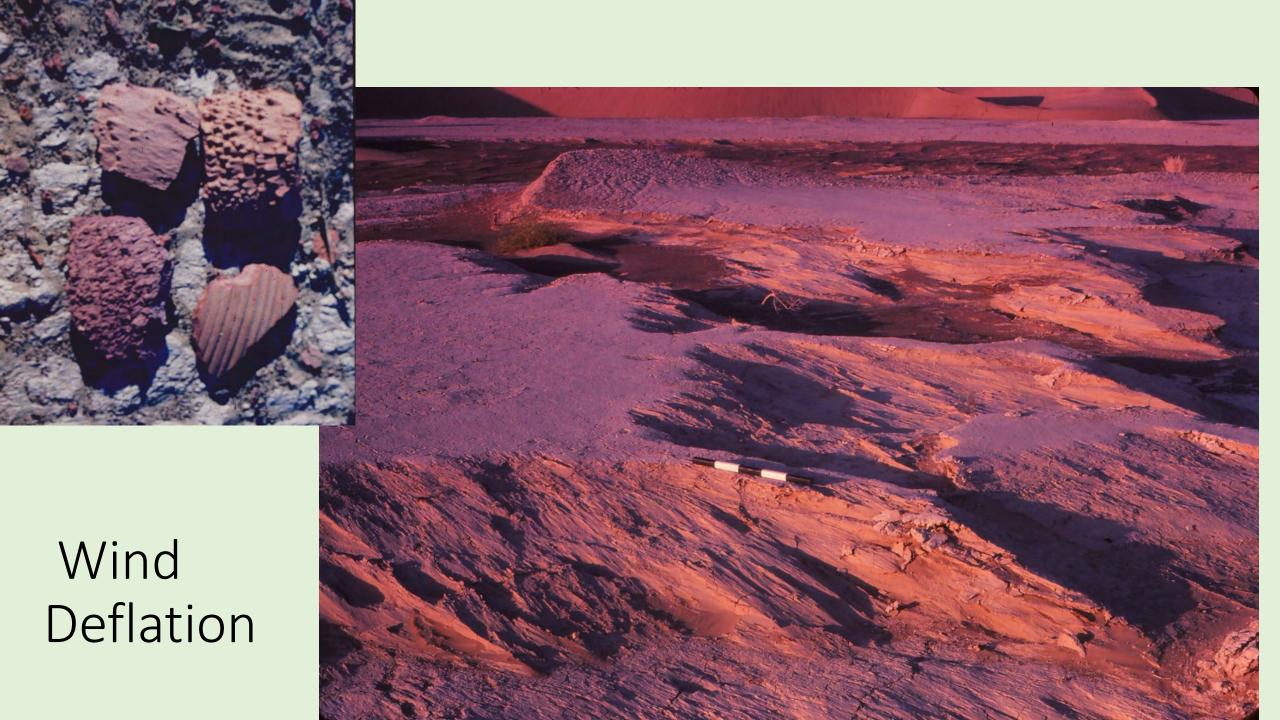












Dams on the Helmand



Three large canals leading from Rudbar area in the Helmand Valley into Sar-o-Tar

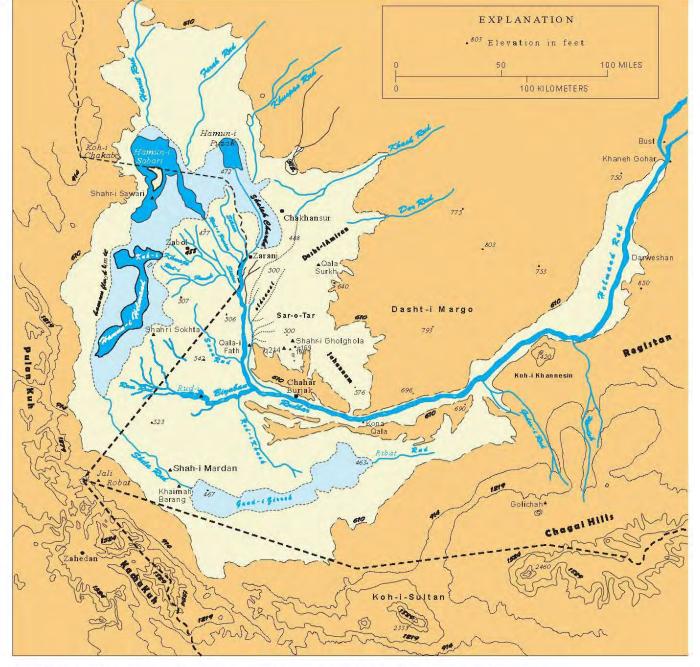


Figure 2. Geography of the lower Helmand Basin showing the location of physical features and streams.



There were well-known large Timurid period sites along the Helmand: Qala Sirak, Qala-i Fath, Chil

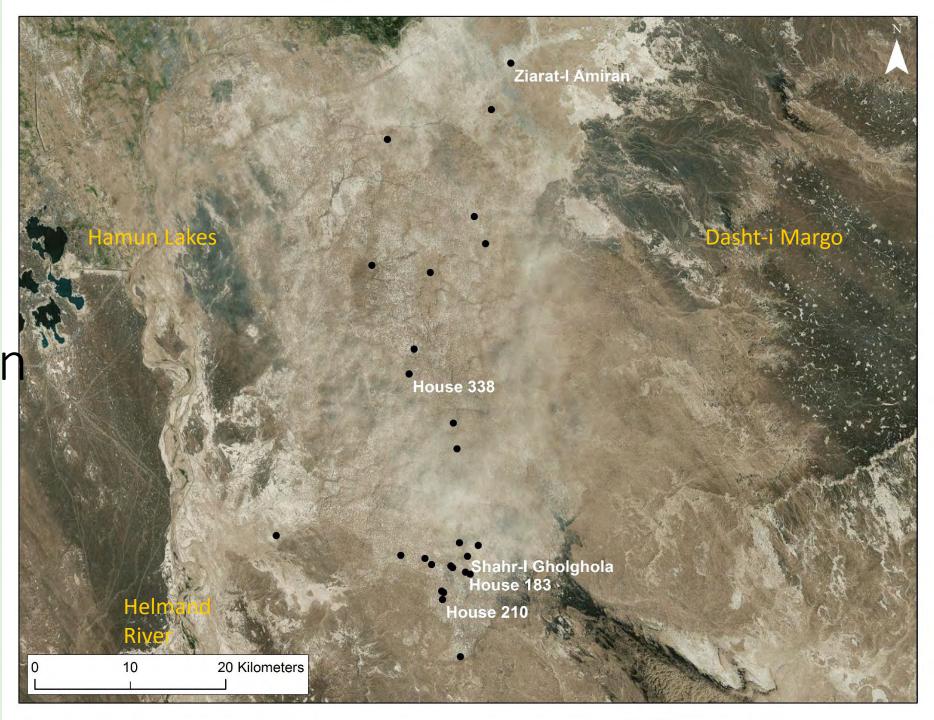


### Historical context

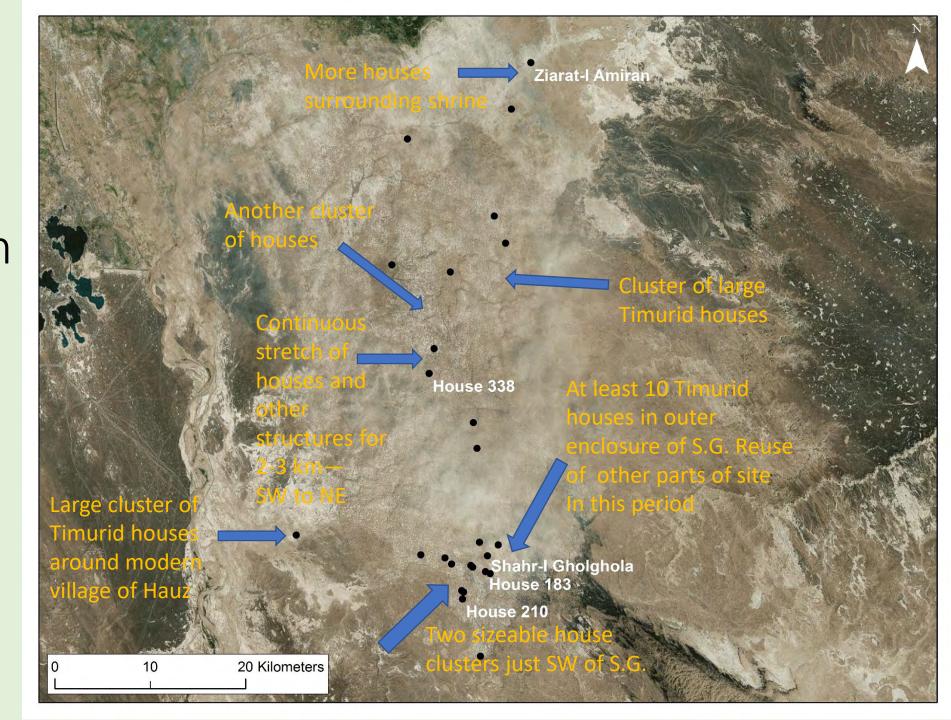




Timurid sites in Sar-o-Tar recorded Helmand Sistan Project



A more accurate representation

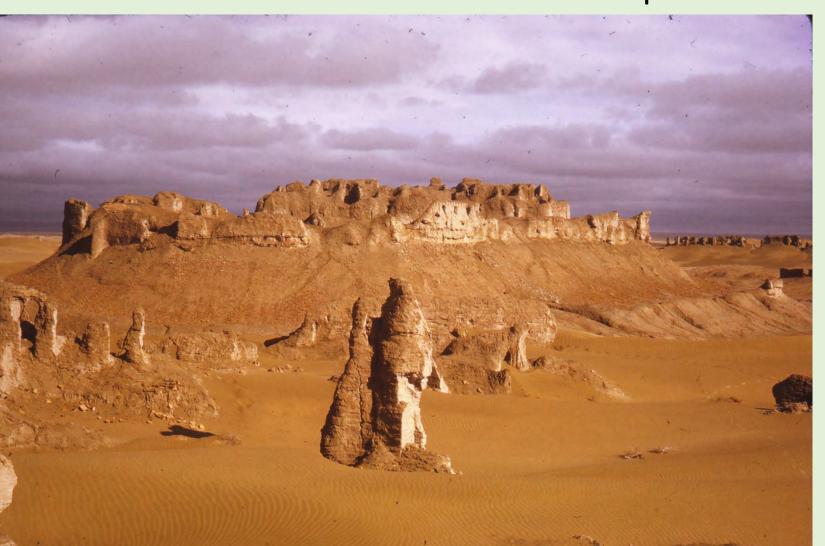


# An entire 15<sup>th</sup> century landscape almost untouched

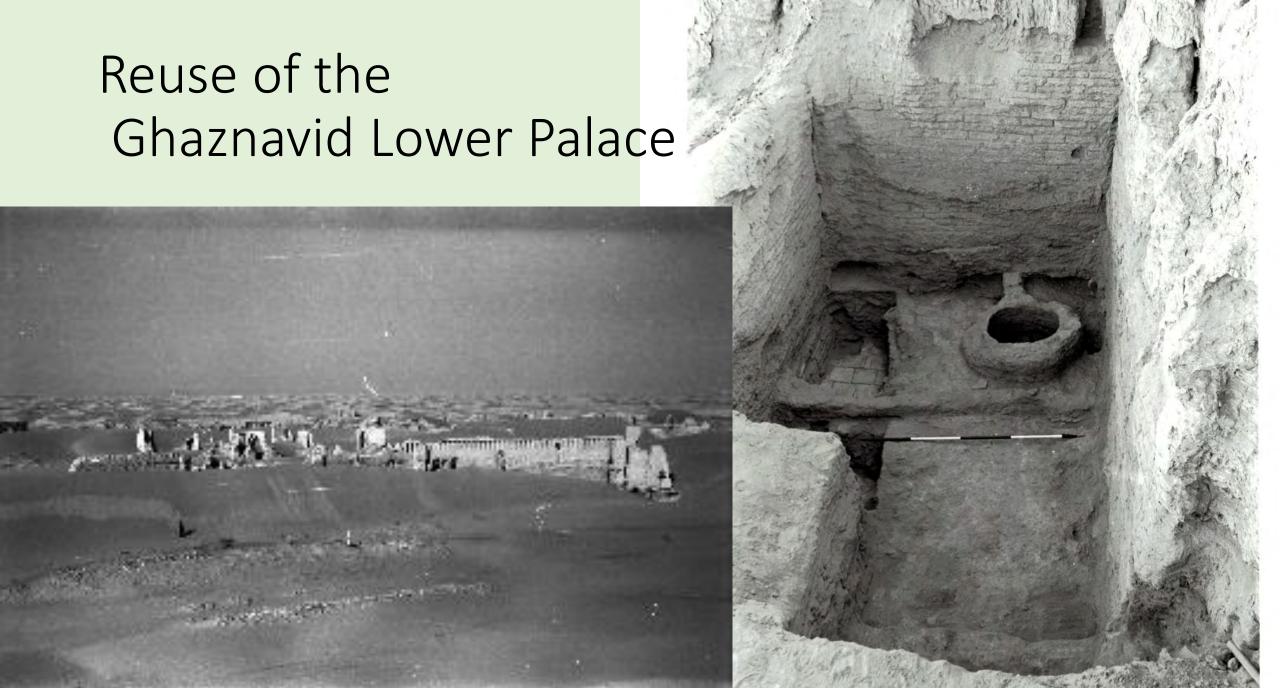




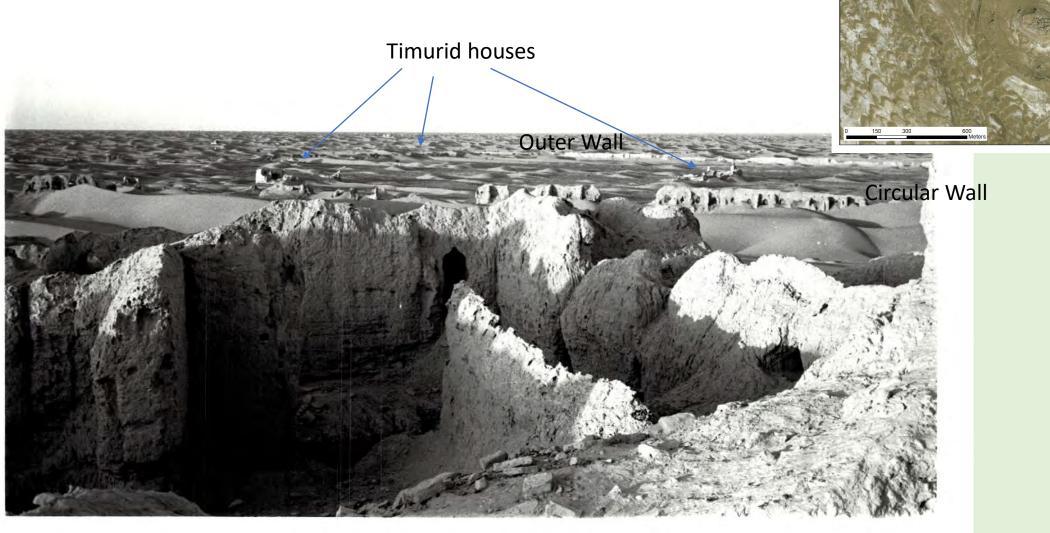
### The last occupation of Shahr-i Gholgholah: A Timurid military garrison on the Citadel and the Ghaznavid bath house reoccupied





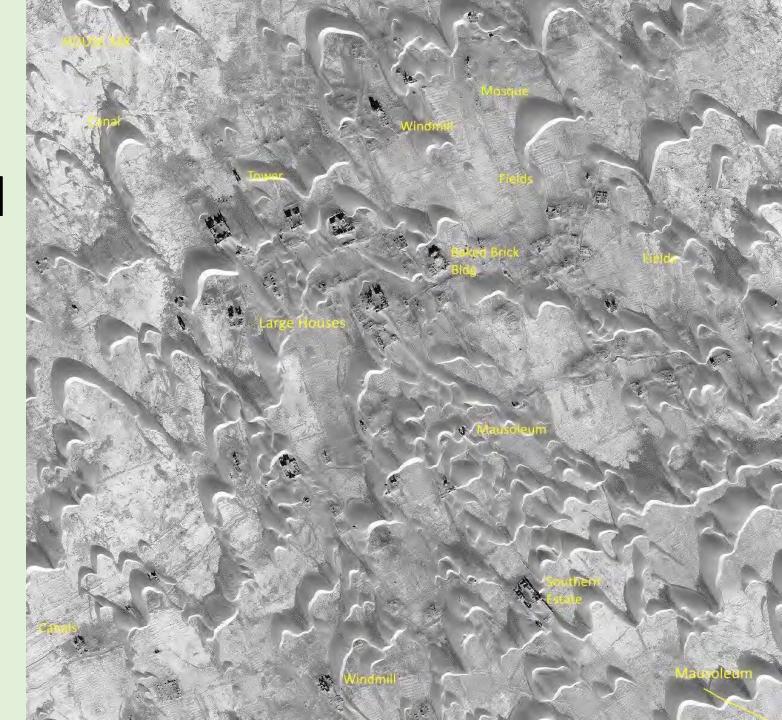


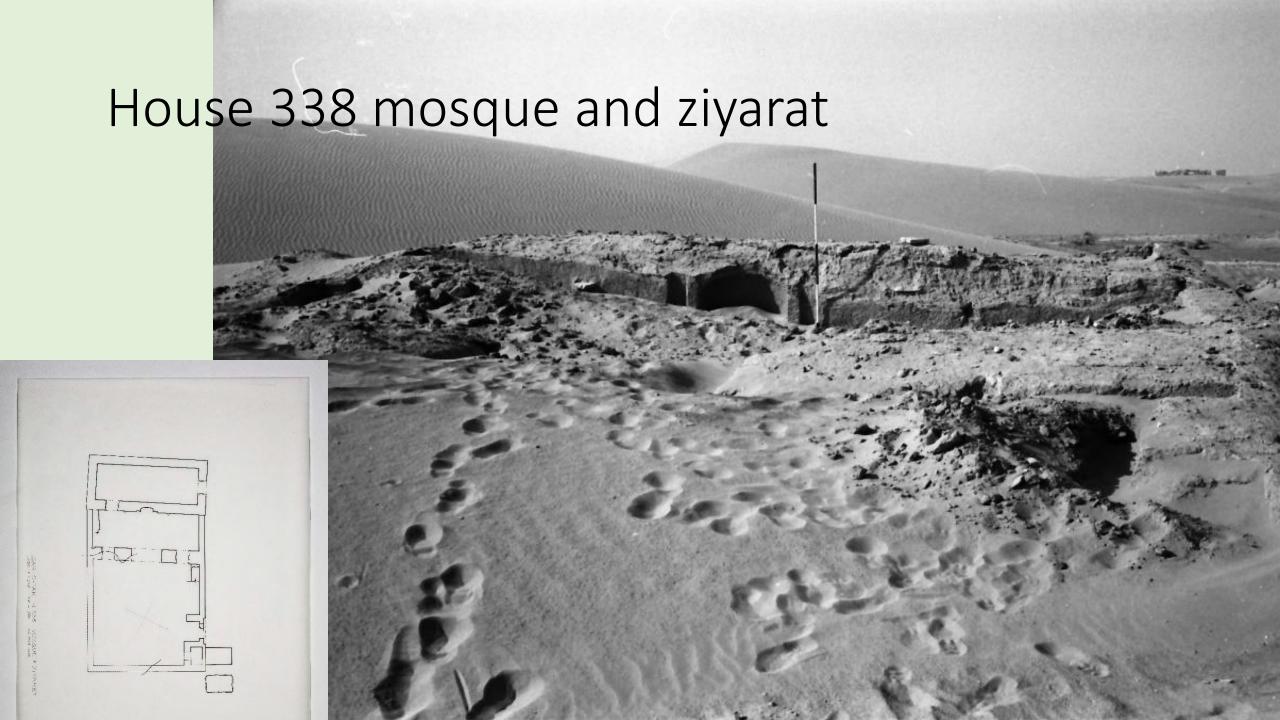
# Timurid rural estates in the outer enclosure



The largest Timurid village in Sar-o-Tar

House(s) 338







### The House 338 house cluster





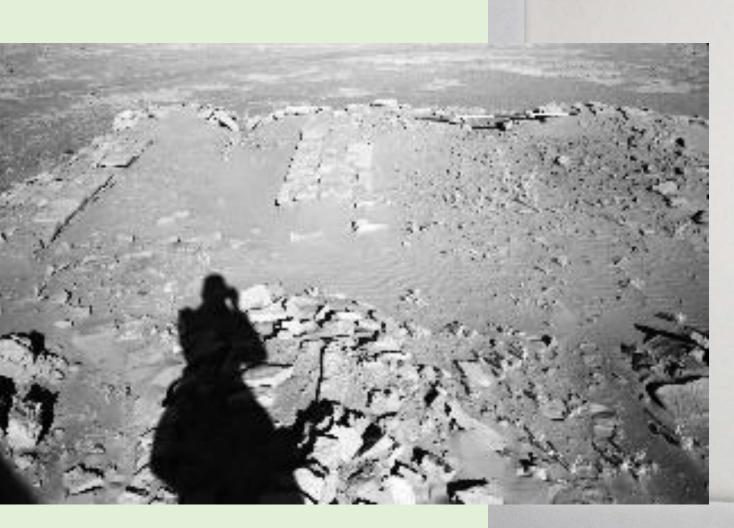


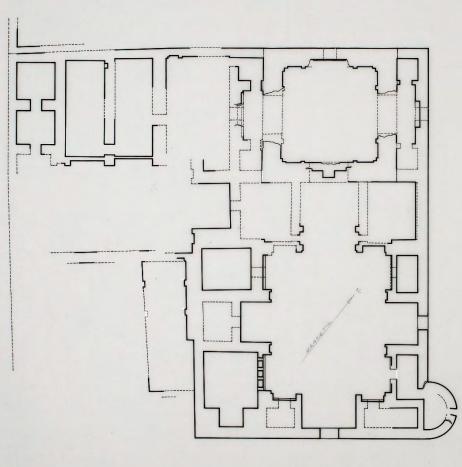


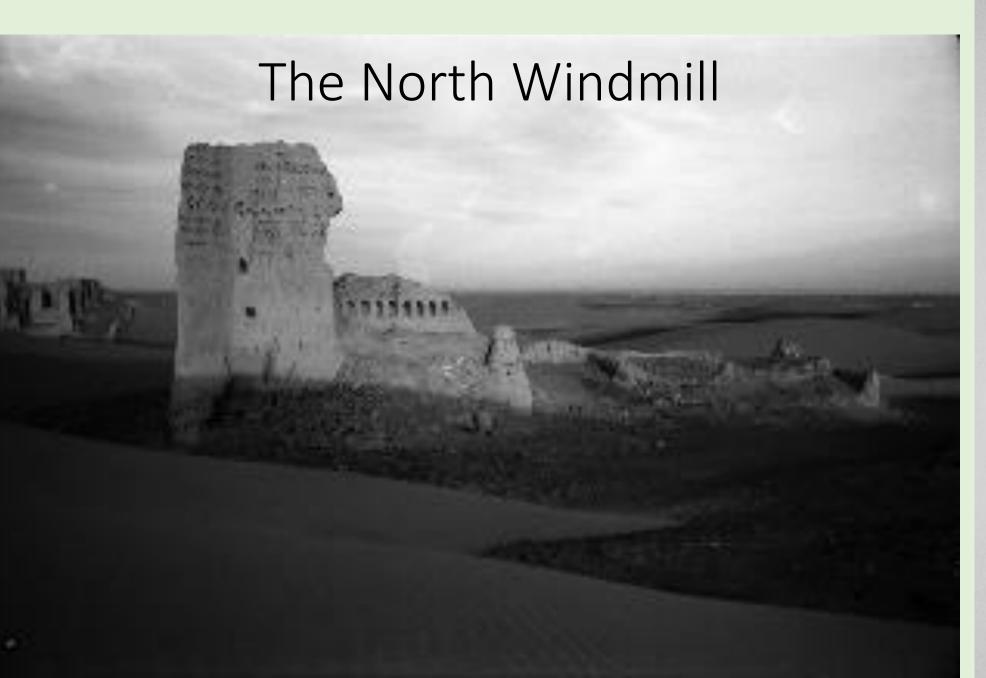
#### A watch tower?

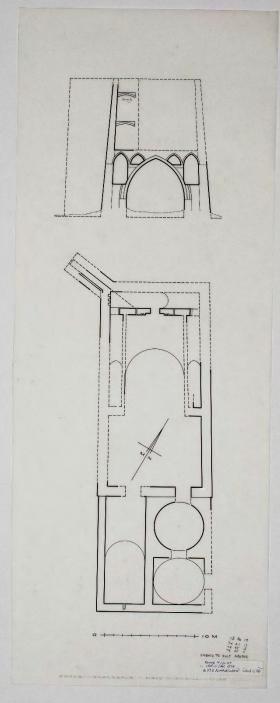


#### The Baked Brick Building

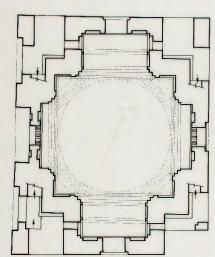








# Mausoleum 338





#### Different traditions?

House B vs House E





# false door courtyard tower entrance garden House 183A

### The standard Timurid House



House 338G

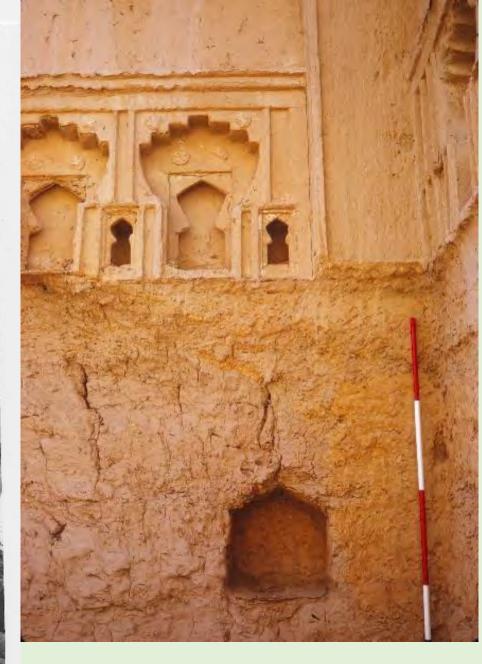
Iwan "air conditioning"



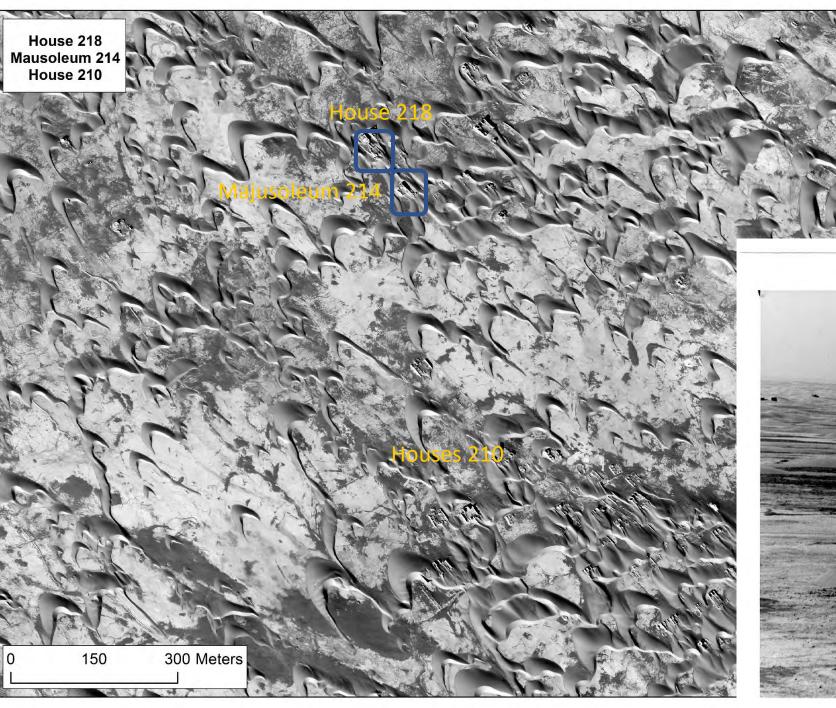


#### Architectural decorative motifs





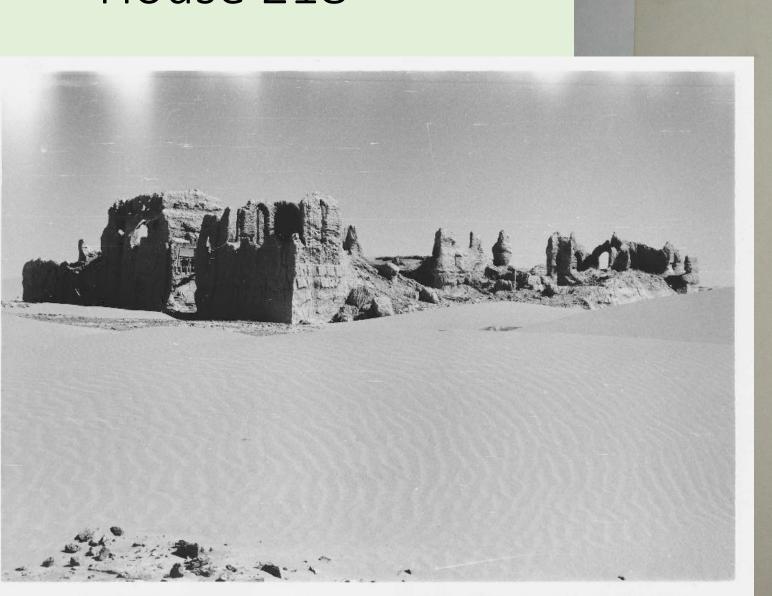
House 218

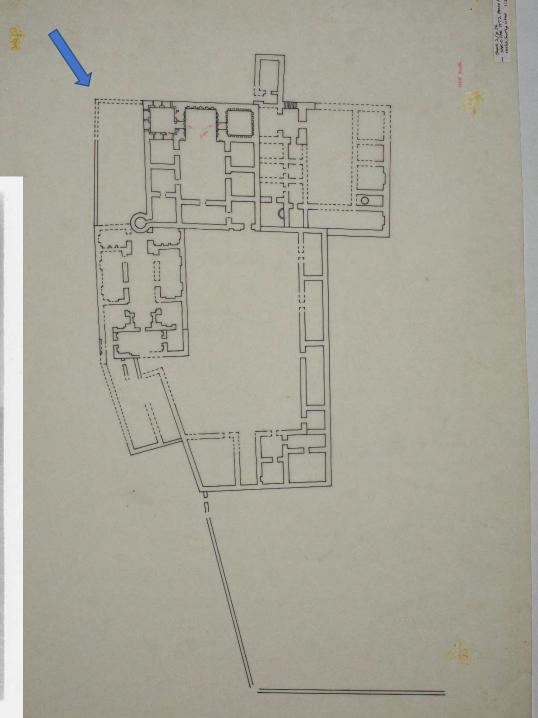


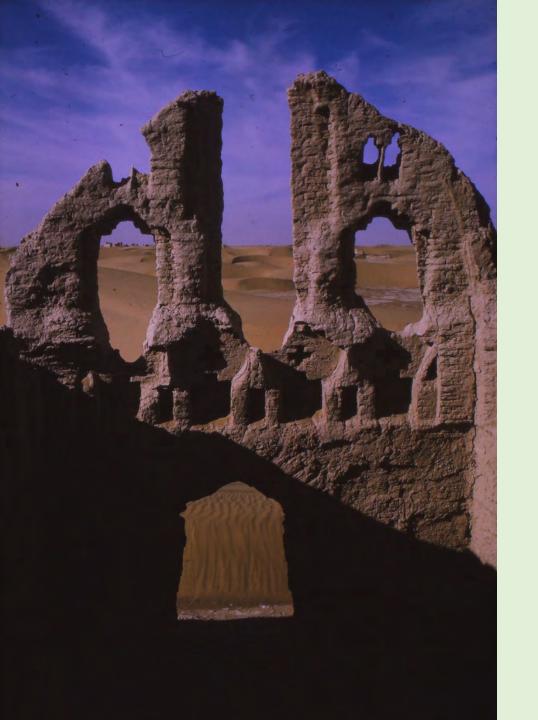
# House(s) 210 and 218

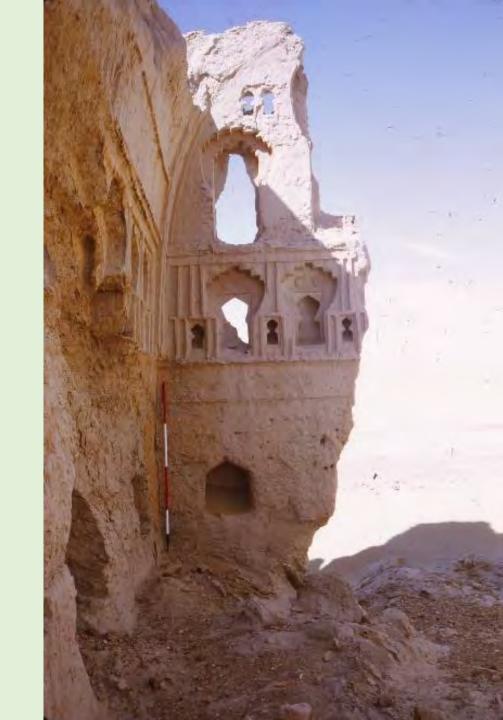


#### House 218

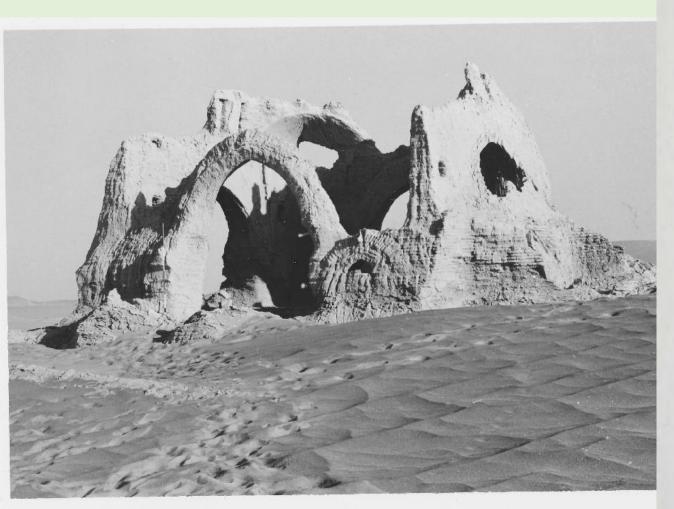


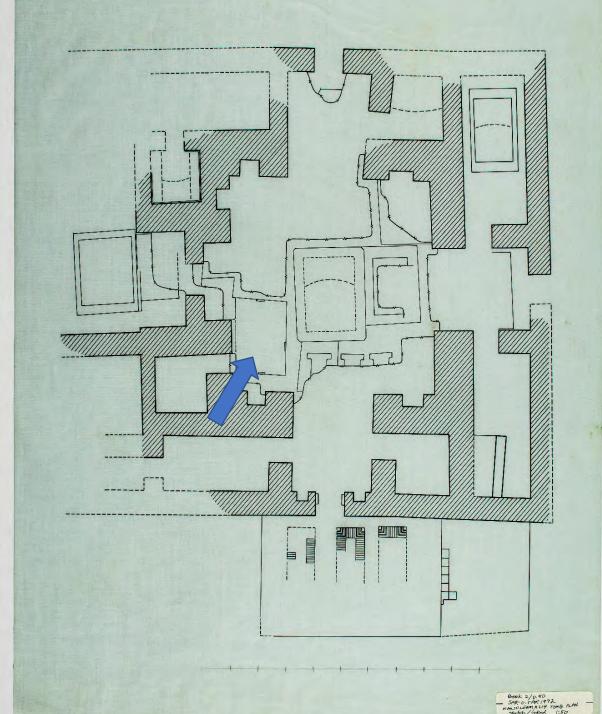


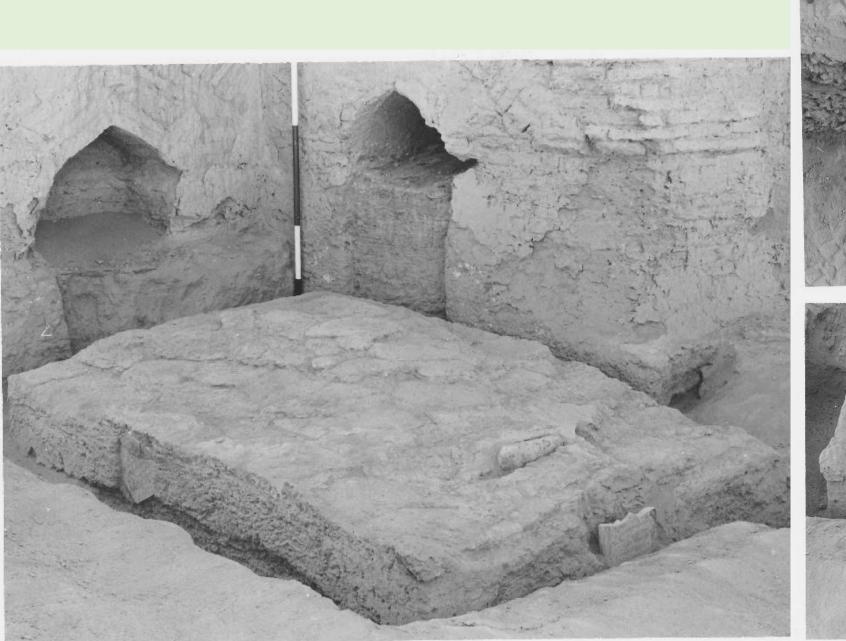




#### Mausoleum 214

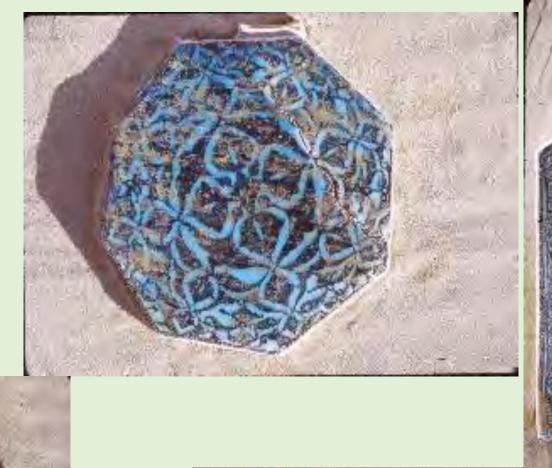








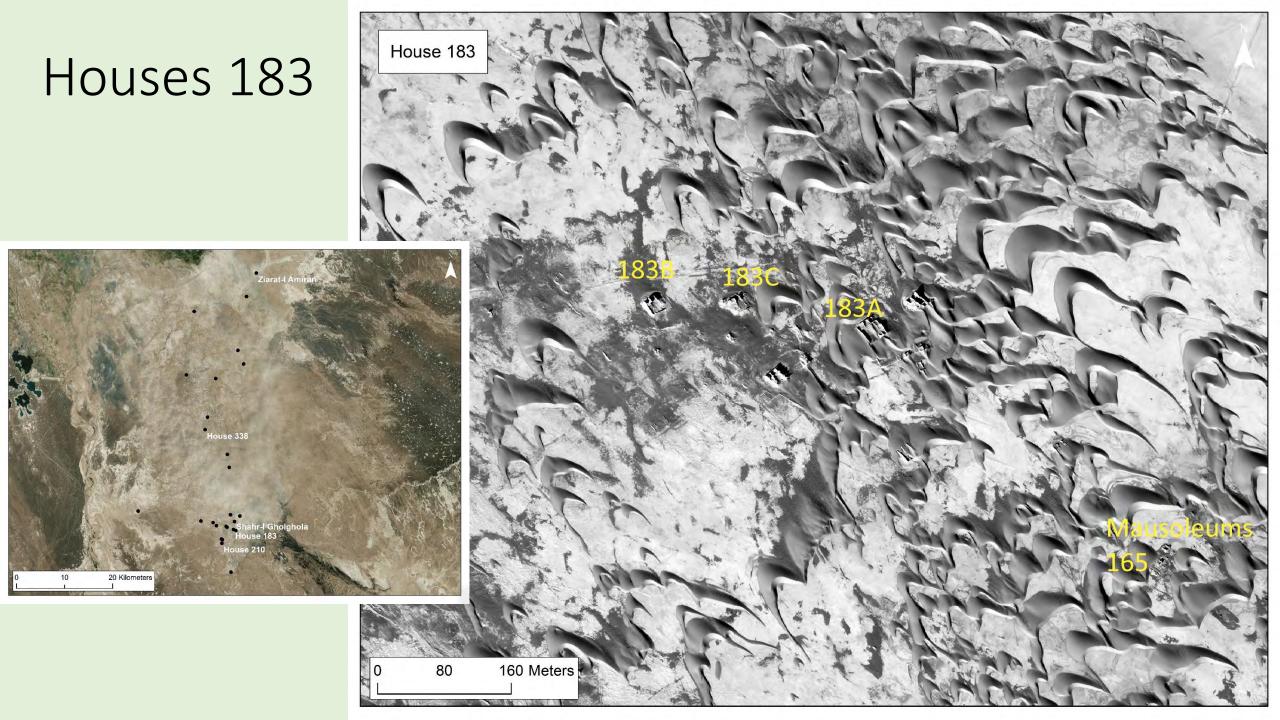






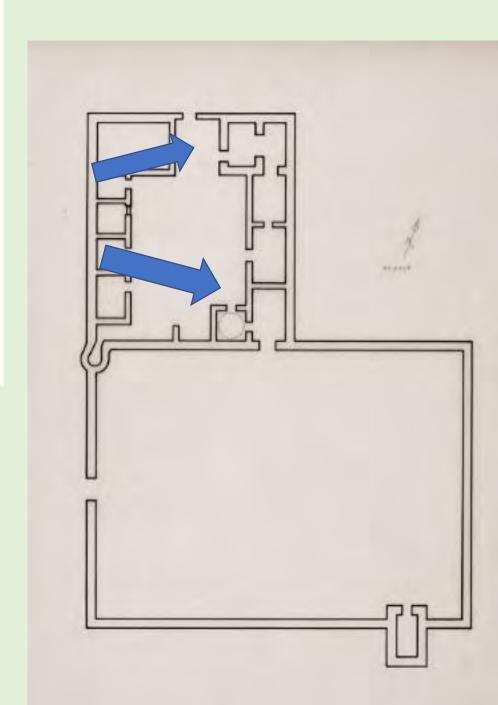


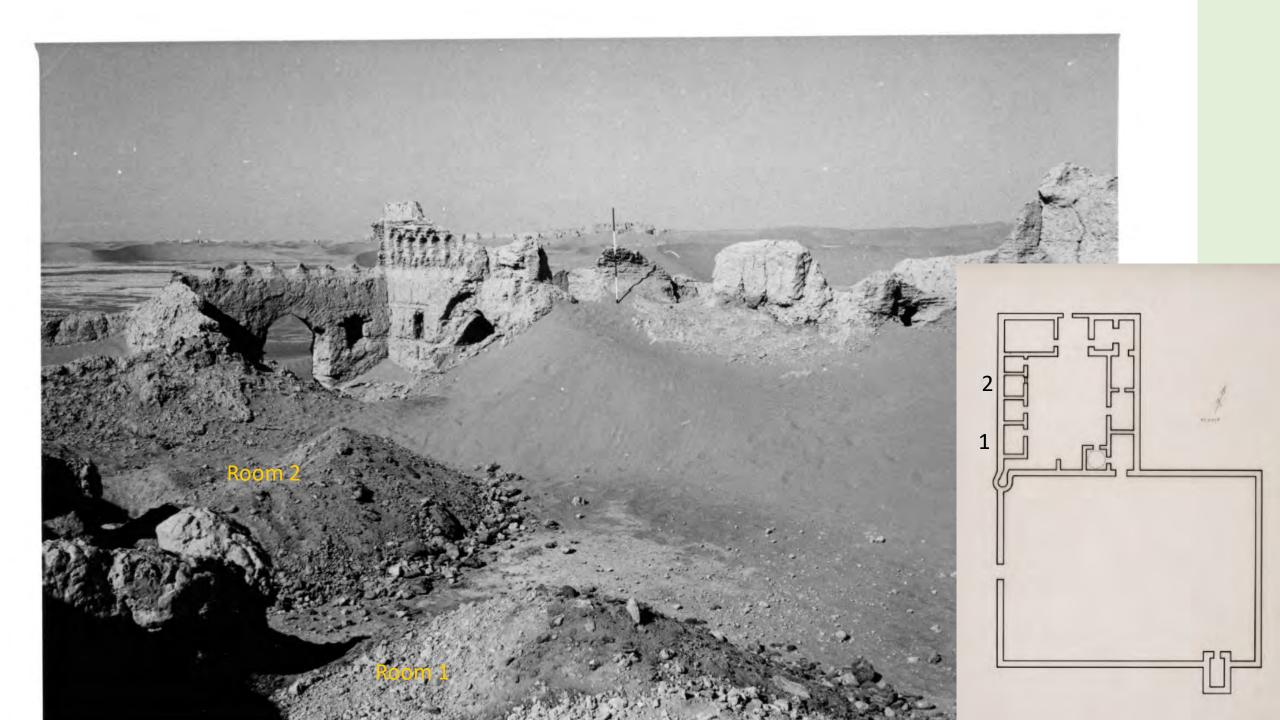






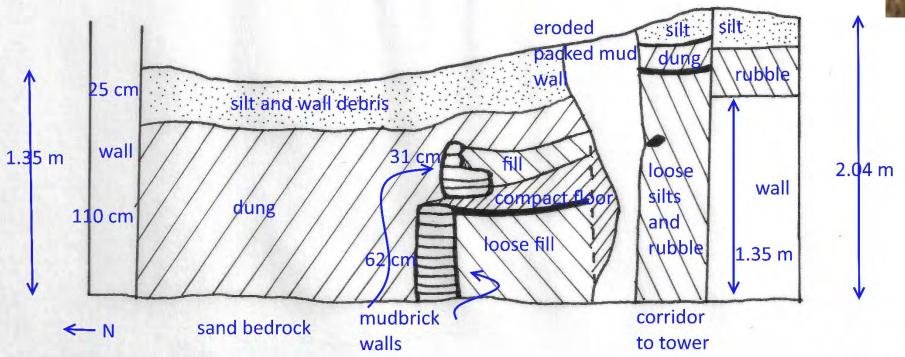
# House 183A



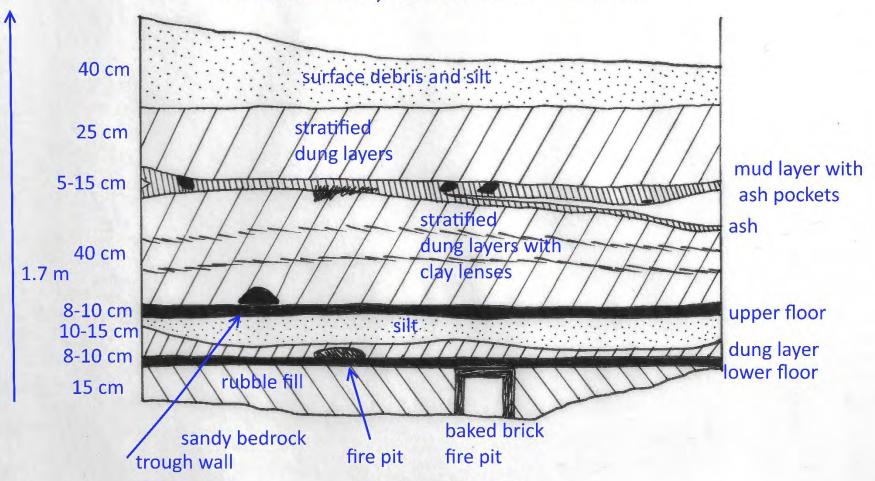


#### What we found?

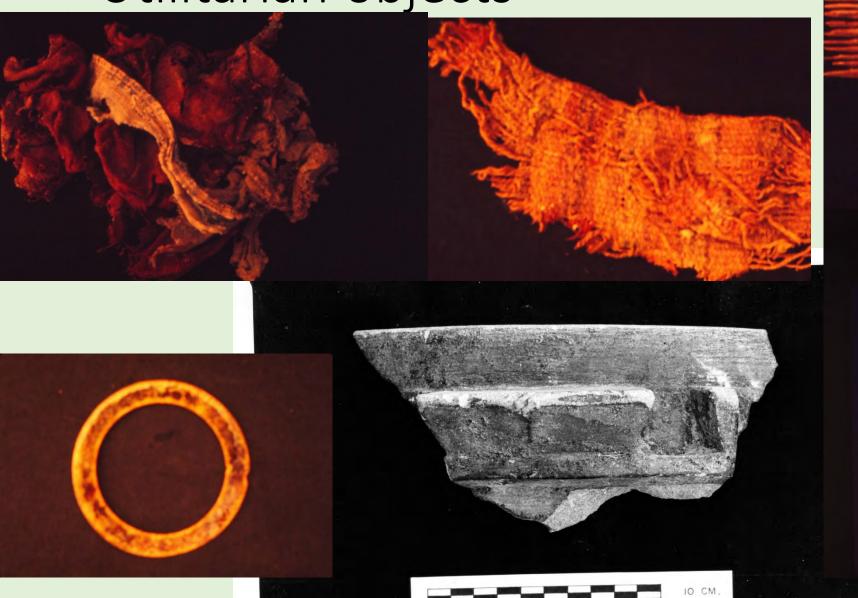
#### **HOUSE 183A ROOM 1 N-S SECTION**



#### HOUSE 183A, ROOM 2 E-W SECTION

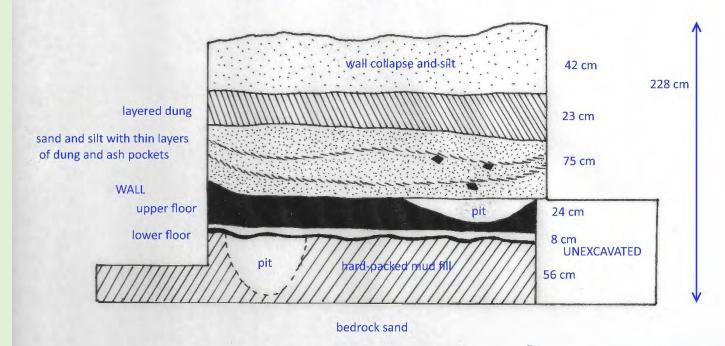


Utilitarian objects

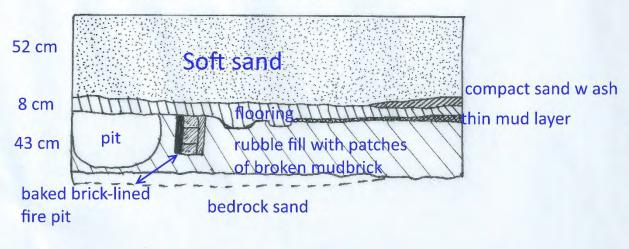




#### **HOUSE 183B N-S SECTION**



#### House 183C E-W section





# Timurid bowls from Mashhad and Nishapur









