

Ajar in Sar-o-Tar

Parthian Storage Facilities in Ancient Sistan

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Virtual conference in honor of Professor Elizabeth Carter

Sept. 25-26, 2020

Long before I met Liz Carter, somewhere back in prehistoric 1970s, I was engaged in a field project in Southwest Afghanistan, a decade-long survey and excavation project in the the Sistan region. I was a freshly scrubbed first year grad student at the University of Michigan and spent 6 months in the Afghan deserts helping the project identify almost 200 archaeological sites from the Bronze Age to the present.

I got home to drop out of Michigan, find a job in publishing and a few years later, went back part-time to the UCLA archaeology program to get a Ph.D. with Liz. Forty years after my last visit to Afghanistan, when I retired from being a scholarly publisher in 2015, I went back to the PI of the project, Bill Trousdale, and asked to help him finish writing up the otherwise unpublished project. *** The last half year of confinement at home has helped me make great progress on this volume. But like some of you, I also took this time to begin weeding through the papers in those filing cabinets in the garage that had been sitting untouched for decades. That's when I found my notes from Liz's ancient storage seminar. She orchestrated this class sometime in the mid 1980s, inviting her grad students to think how, where, and why people stored things in the past. I had already taken many of her classes and seminars. But storage? Not something I had thought much about until we had drilled through the cases she assigned. The request for an abstract for this celebration for Liz came at the perfect juncture: I had just flipped through my notes from the storage class and had just written up the description of the storage jars sites that I'll discuss in a moment.

My knowledge of storage methods from Liz's seminar were instantly useful in 1986 when I started on my dissertation project on the Assyrian

administration of the southern Levant in the 8th-7th century BCE. I didn't find much evidence around ancient Ashkelon relevant to that topic, but did find a huge wine production and storage industry dating to the 4th-6th centuries CE, 1000 years later. I became an expert on Gaza jars, the container of choice for fermenting, storing, and transporting wine from the Holy Land throughout the Late Roman empire, and that were produced by the thousands in kilns in my little survey area. I still dream of Gaza jars today. But the PhD got stalled between the usual grad student sloth and the fact that I had a day job as a book publisher.

After 10 years of excuses, Liz got frustrated at the lack of progress and sent me what may have been the most professionally useful email that I have ever received. I took a leave from my job and wrote my dissertation draft in 9 weeks, not 10. Leave it to Liz to solve the problem. *** Here I am back being an archaeologist again long after completing the dissertation, after a 40 year publishing career, and eons after the storage seminar.

Once again I am confronted with storage: the Jars of Sistan.

The Sistan region is the southwest corner of Afghanistan and adjacent parts of Iran and Pakistan. It has been documented historically since the 6th 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 jointly between the Smithsonian Institution and **Institute of Archaeology of Afghanistan**, it was directed by Smithsonian anthropologist William B. Trousdale.

Though some work had been done previously by French, German, English, and American scholars, ours was the first long-term systematic archaeological survey and excavation project in the region, encompassing some 40,000 square. Our survey identified 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.

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. wide

To the east of the river sits the Sar-o-Tar plain, roughly translated as “emptiness and desolation,” a waterless area of over 1000 sq km. now largely covered with sand dunes and wracked by strong northern winds that deflate the landscape and everything in it.

Occupied sporadically from about the 12th century BCE and finally abandoned in the 15th century CE, habitation was only possible there through the construction and maintenance of large canal systems. But when they were in place, such as in the Parthian and Sasanian periods of the first centuries CE, the population was dense and the farming intense.

Of the 150 sites we identified in Sar-o-Tar, a dozen of them were noted from a single visible feature: a cluster of large storage jars embedded in the ground. The jars were clearly indicators of some kind of agricultural feature on the landscape. Because of their quantity, usually between 2 and 10 together, our assumption is that they were designed for storage of something. While no other structures were located nearby, our best guess is that these were storage facilities for farm houses adjacent to them made of perishable materials that had been fully eroded away.

The jars sites were generally located in areas containing smaller canals and were fairly densely covered with pottery, further indication that we were near the houses of some agricultural farmsteads. With our antennae now attuned, we started finding jars sites everywhere we looked.

The jars themselves were universally of a hard fired moderately coarse red ware with bulbous bodies and hole mouth rims. They varied in width, height, and volume. This particular one, from Jars 249, was the only one we fully excavated. It stands slightly over one meter in preserved height, has deep sump at the base, and had its broken ceramic lid inside.

The other ceramics surrounding these sites tended to be consistent and part of a corpus of domestic pottery including ring burnished small bowls, pedestaled cups, and small jars that spans the Parthian and Sasanian periods from the 1st century BCE to the 5th century CE, further evidence that these jars were part of some kind of domestic agricultural setting.

But there was more. Not all jars were located by themselves, several were accompanied by ceramic kilns

Which had dense scatters of pottery dating to the Parthian and Sasanian periods.

In some cases there were worked stone or baked brick objects on the surface, “pulleys” we called them. We still don’t know what these were for.

Several of the sherds, both in situ and on the ground nearby were decorated with identifying marks, likely designating ownership.

In addition to the collections of jars sitting in an otherwise unoccupied plain, some of the jars sites seemed to be adjacent to larger archaeological sites that we documented in Sar-o-Tar. Jars 238, for example, was less than a km away from a large mound, Qala 231, that was occupied in both Parthian and Sasanian times, and possible as early as the 10th century BCE.

At House 139, for which I was responsible for a 3 week excavation, we found half a dozen jars just outside the northeast corner of the building, dated through ceramics and carbon 14 to the first century BCE, but likely used at least into the 3rd century CE, maybe later.

A subsequent excavation not in Sar-o-Tar but along the Helmand River at Sehyak

turned up a badly damaged Greek-style temple, occupation compound, and other structures, including a storage area, Area B,

that had two or three strata worth of storage jars, many of them of the same style as the ones we found in the jars area. Like Sehyak, this site was dated by ceramics, C14, and an inscription from the Sehyak well to the 1st century BCE through the 3rd century CE.

One of the jars reused one of the baked brick column drums from the temple’s peristyle as a lid.

While the dates of these two sites would argue for the dating of these jar sites in the Parthian period, and we do, it is likely they continued in use in the later Sasanian period, based upon the number of them in proximity with square fortified houses, that we called qalas, in Sar-o-Tar built to standard template, like here at Qala 344. We found over 30 of these qalas in Sar-o-Tar. Some of the jars seem to be decorated differently, with stamping on the ledge rims.

In addition to those buried outside the qala, jars are sometimes found inside the walls of these qala sites, such as at Qala 359, where they are implanted in a room at the northwest corner of the site.

In our time in Sar-o-Tar, which lasted 36 weeks, these jars were everywhere. We got so tired of them that I even found in a notation in Trousdale's 1973 field notebook "Jars are becoming so common and such a dominant feature of Parthian period sites that we stopped specifically recording their occurrences and locating them for mapping. They are everywhere in the Sar-o-Tar area."

Jars, jars everywhere? Which left me thinking: What would Liz do with this? Well, I've already discussed possible dates and distribution for these features based upon the sites in which they were found. But are we correct that these were associated with now-invisible farm houses?

For that, we need to look at ethnographic parallels. And, fortunately, the Afghan government archaeologist assigned to our project in the 1970s, Ghulam Rahman Amiri, conducted a detailed ethnographic study of the contemporary Baluch villages we worked in or near. Amiri's work was translated into English and is now in production at Berghahn Books, due out in another month.

Based upon Amiri's work with contemporary villages, we might have some idea of how the farm houses of that time were built: tamarisk branches are bound together to create a frame and are covered with woven mats. In winter, the walls and roof are covered over with a mud coating for heat.

From Amiri's discussion with villagers, these houses can be built in a day and torn down even more quickly, leaving only a scatter of trash as the occupants move to a different part of the area as directed by the village khans who control their lives.

Did they have the same tamarisk trees that farmers use today? This particular tree is growing just outside a Ghaznavid house in now-waterless Sar-o-Tar, making it possibly 1000 years old. You can see how the ground surface around it has been eroded away by the winds over that period of time. We found numerous other live tamarisks around Sar-o-Tar, though the region has been waterless and unoccupied since the 15th century.

The village khans themselves live in far more substantial houses, built for them by the local farmers, like the residence of Hajji Nafaz Khan, with whom we resided in 1975. These might be reflected in some of the fortified qalas and large houses I showed earlier. Amiri points to the feudal nature of this system, where local farmers are permanently beholden to their village khans and are required to hand over most of their crops to the khan as well as perform corvee labor such as building and repairing the khan's home and keeping the canals cleaned and in good repair.

At harvest time, local farmers are required to bring their crops to a central location for distribution under the watchful eye of the khan.

Portions of the farmer's share go to the local craftsmen, religious and political leaders, the mill (usually owned by the khan), and a large proportion goes to the khan. The farmer is left with a paltry 50 *man* of unthreshed wheat or barley for the family, about 225 kg. Using one of those wonderful conversion programs on the web, that comes out to about 300 liters of wheat, slightly more in barley. The jars we measured contained between 80 and 340 litres each.

Thus 1-4 jars would hold a contemporary harvest, designed to feed a whole family for the entire year. And we would expect that the area, seemingly more productive than today, would produce a larger harvest. It seems that the jars we found, usually between 2 and 10, would fit the size of an annual grain harvest. **** And these large lidded jars would serve better for harvest than the pits in the ground that Baluch farmers use today, which produce poor farmers and fat mice.

Of course, that does not eliminate the possibility that they were used for water storage. We have traced canals near these jar sites and moats around some of the qalas shown earlier so we know they had nearby water. Still, there would be ample reason for a farm family to store some water at their home. And the base of the one jar we excavated did have a sump. Perhaps these jars were used for both. Or possibly some other product.

If this were two decades ago, I would have sent this draft off to Liz and ask her what she thought. She'd suggest looking at a half dozen site reports that I had never heard of. And she'd ask some questions that were so obvious that would leave me squirming. Every former student of Liz's I'm

certain has that voice in their head, and that sinking feeling in their stomach of things that Liz would see that they wouldn't. And just when they would decide that they should consider insurance as a career (or publishing) rather than archaeology, she would end with a confirmation that you'd done good enough work that you shouldn't be kicked out of the club and that this was a worthwhile contribution to the field. Then she/d suggest a couple of places you should publish it, once you've done a major rethinking and rewriting.

And here we are, a quarter century after finishing my dissertation wondering once again what Liz thinks of my paper and hoping she'll decide this is a contribution to the field. I'm sure she'll let me know, after she gives me a bunch of good suggestions and references from her encyclopedic knowledge.

So Liz, thanks again for all the support, the knowledge, the understanding over so many years. And, one more time, I await in trepidation for your comments on my paper.

Acknowledgements.

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Parthian Storage Facilities in Ancient Sistan

Mitch Allen

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A graduate student of Liz, 1984-1997, while pursuing other interests



A storage-filled dissertation project around Ashkelon



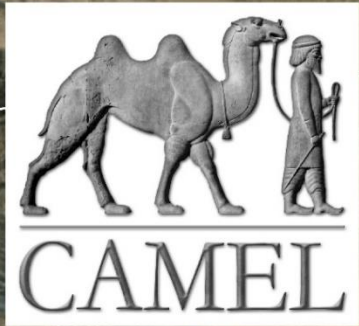
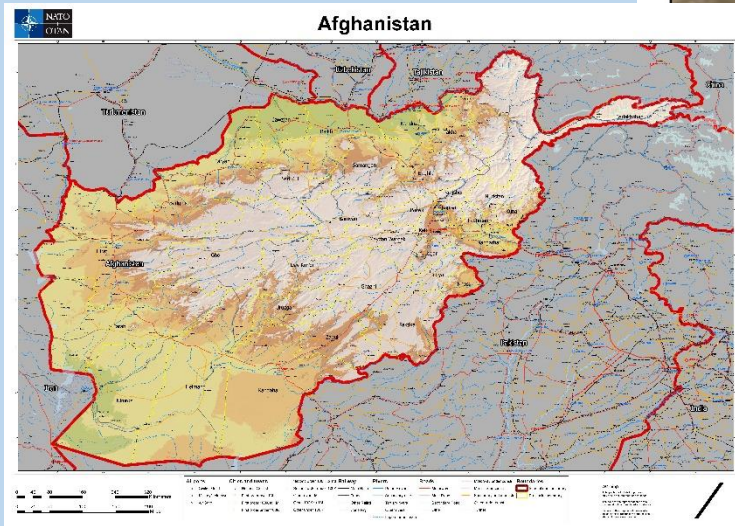
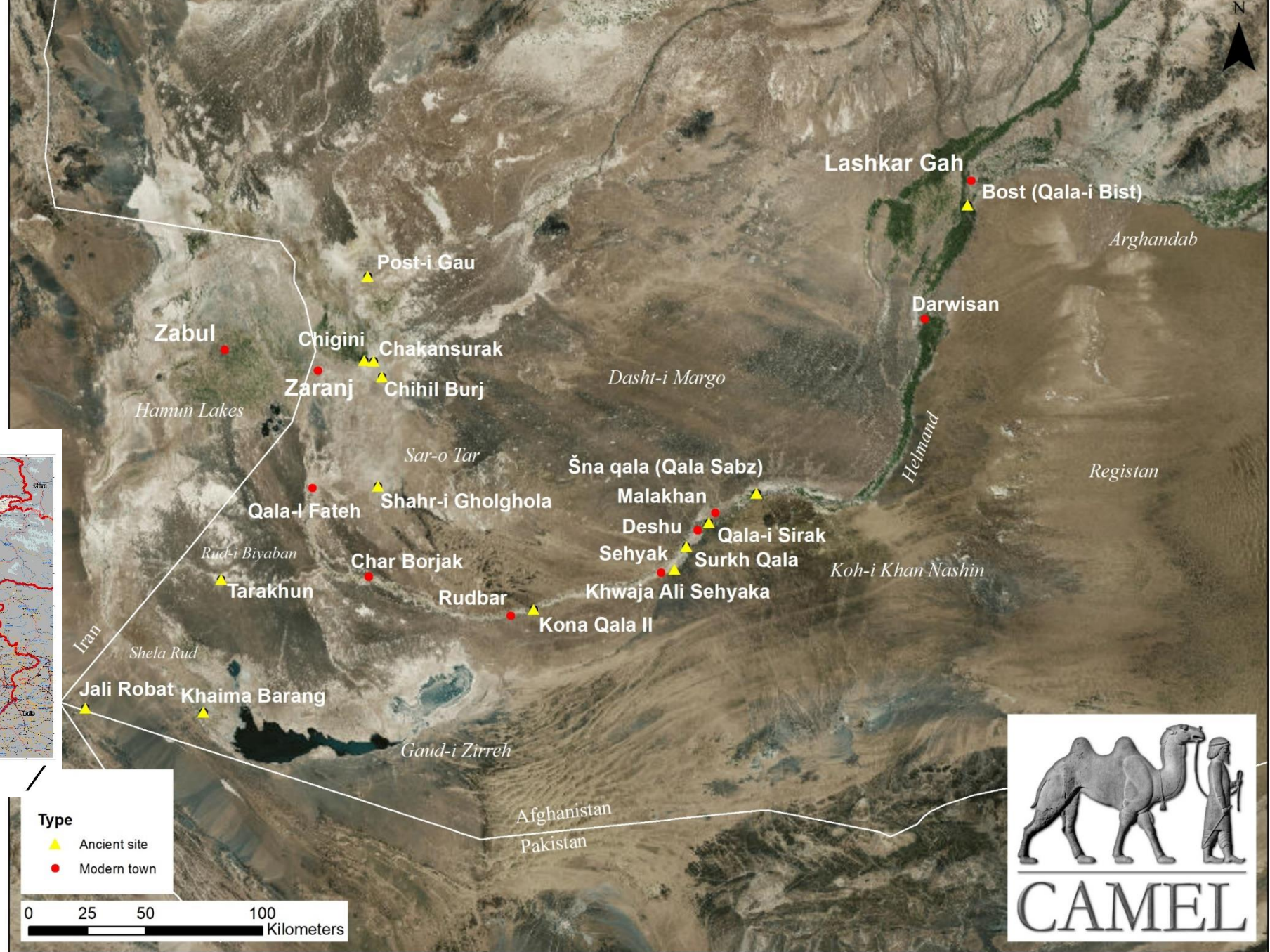
“As you know, the only thing that stands between you and a dissertation is ten weeks.”

email from E. Carter, 22 Jan 1994

The Jars of Sistan



Sistan-- The southwest corner of Afghanistan



The Helmand-Sistan Project, 1971-79



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



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



The Helmand Valley in Sistan



Sar-o-Tar Plain

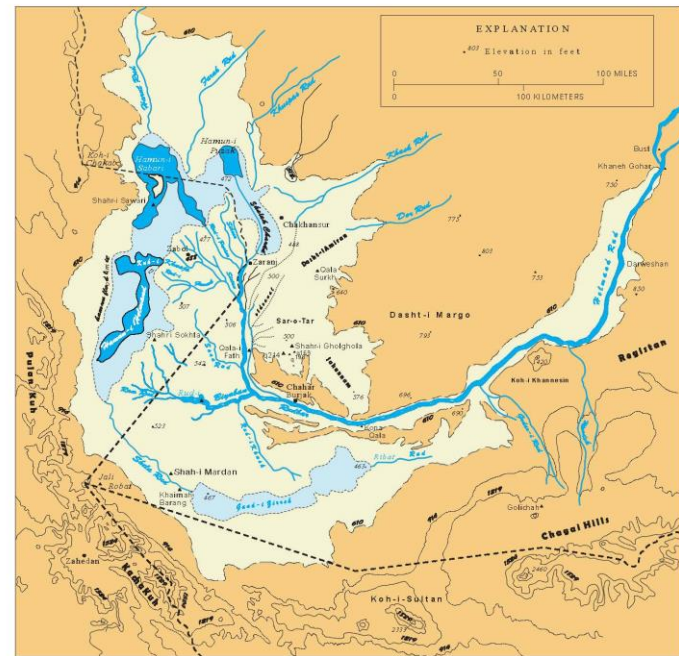
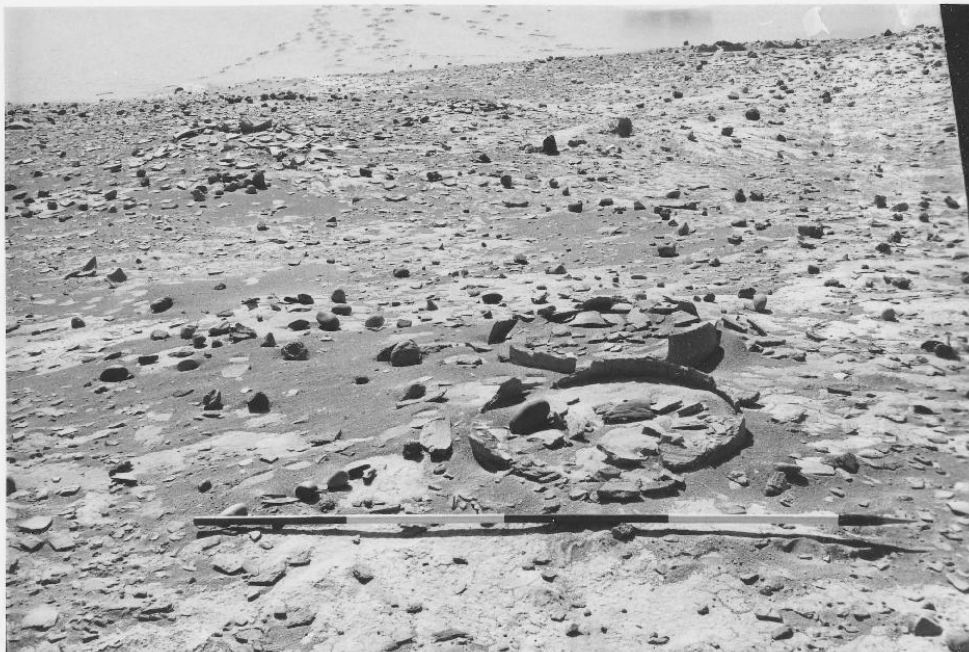


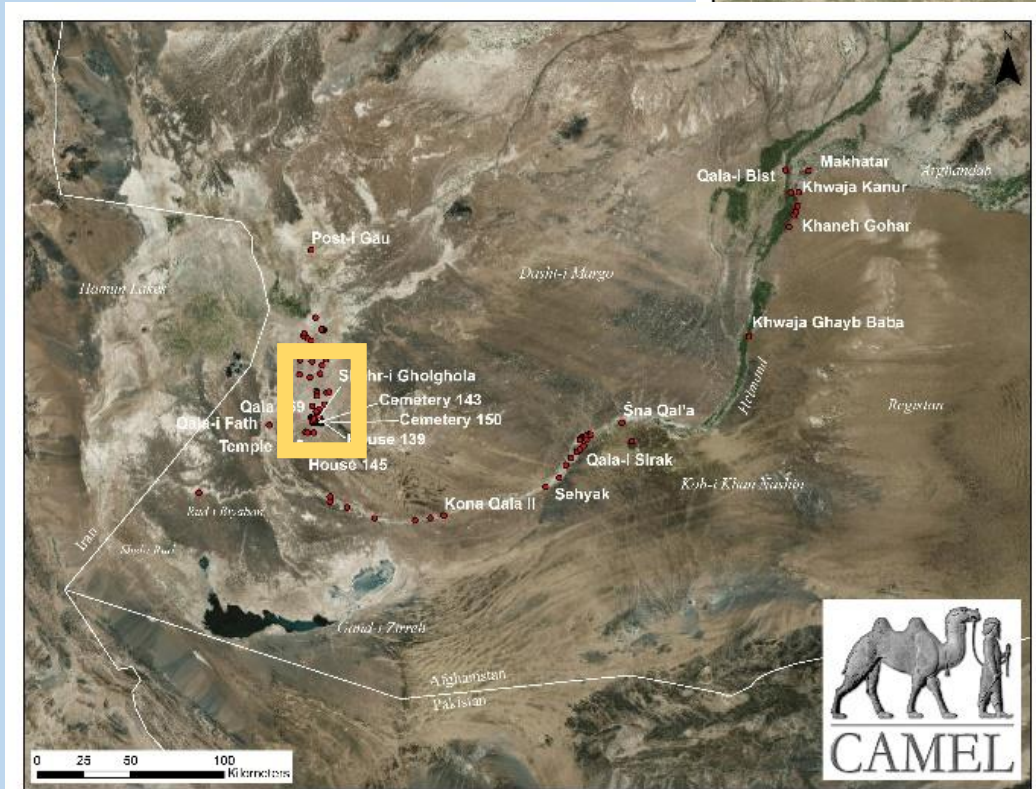
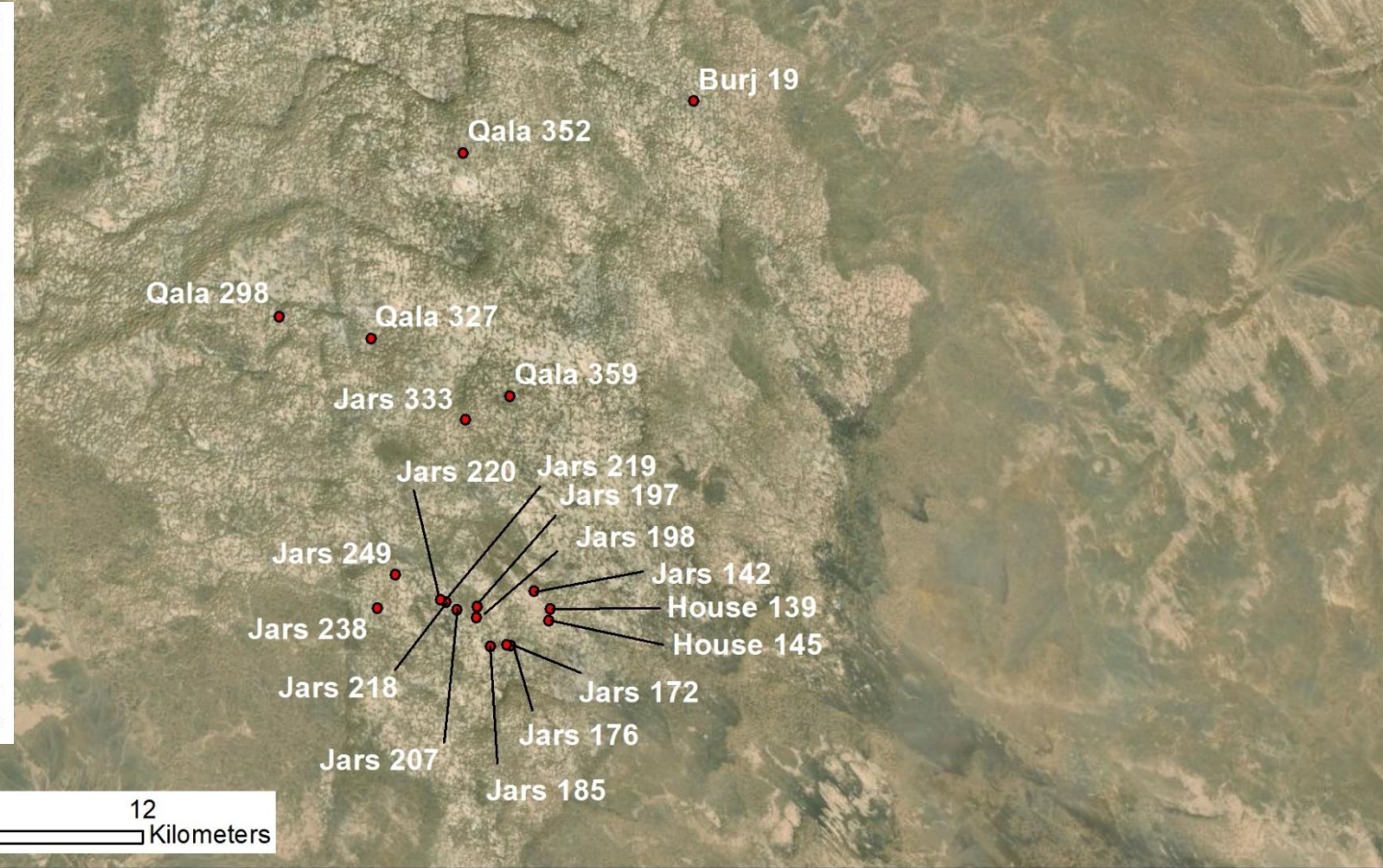
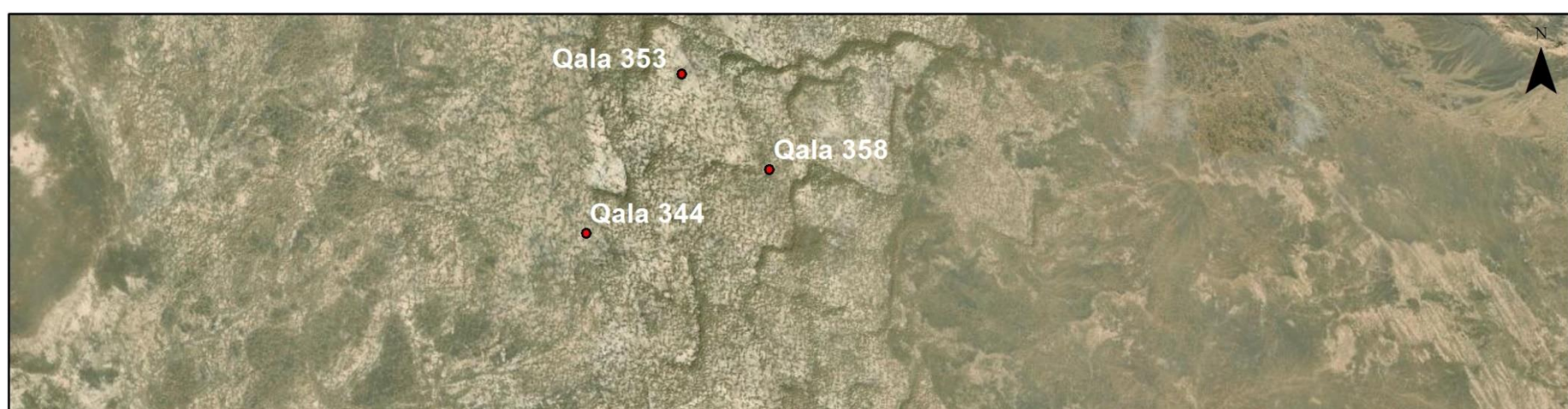
Figure 2. Geography of the lower Helmand Basin showing the location of physical features and streams.



Jars sites in Sar-o-Tar



Jars sites in Sar-o-Tar

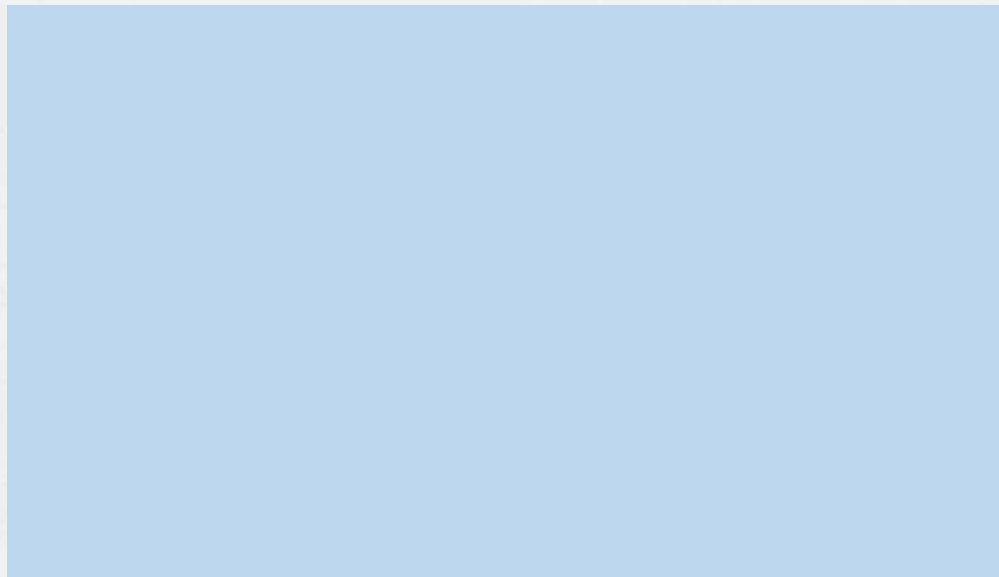


Our one excavated jar and lid



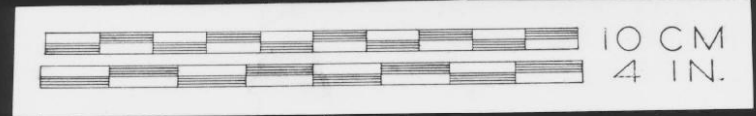
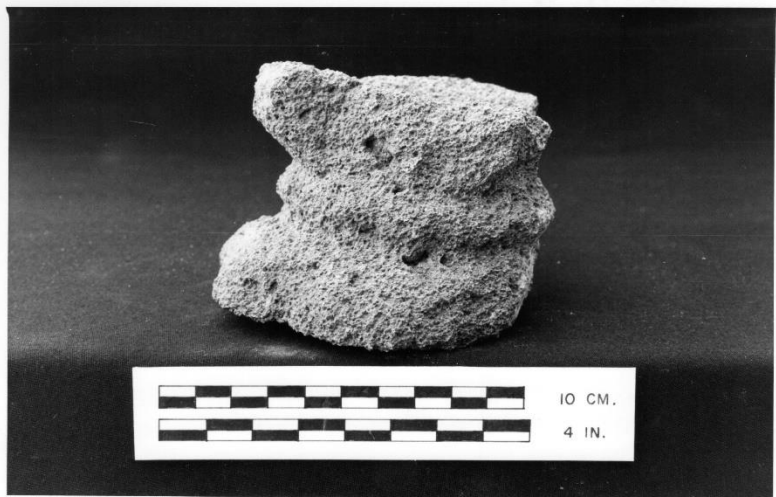


Often found adjacent
to ceramic kilns

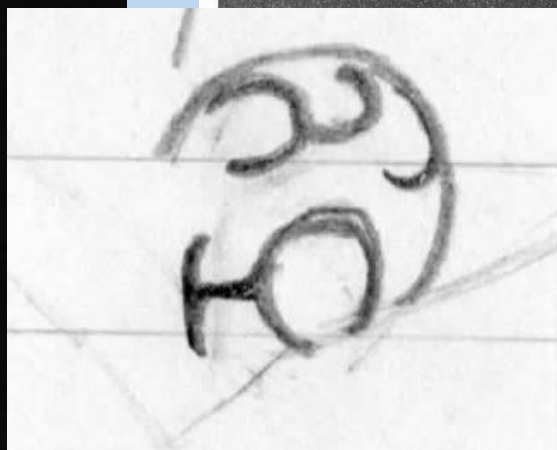
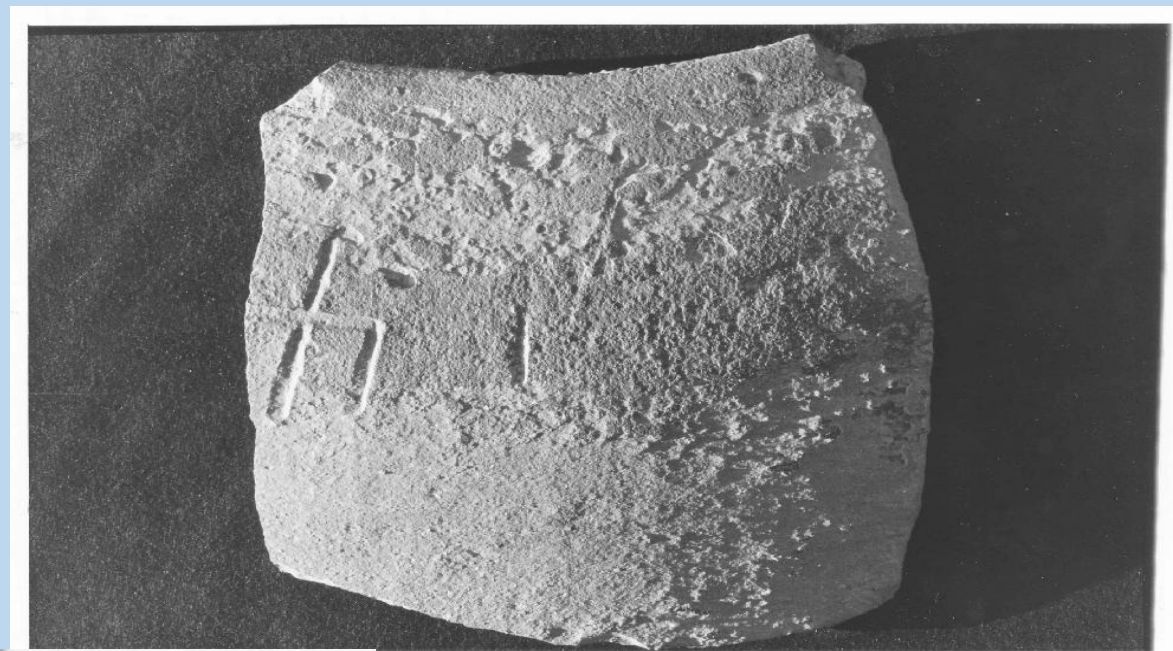
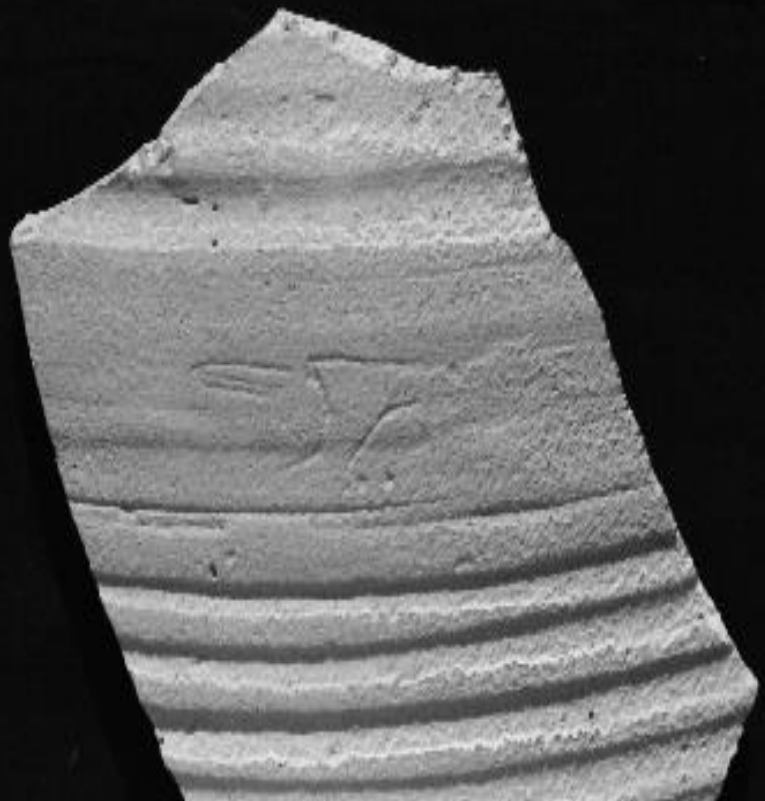




And “pulley”



Occasionally jars have identifying marks



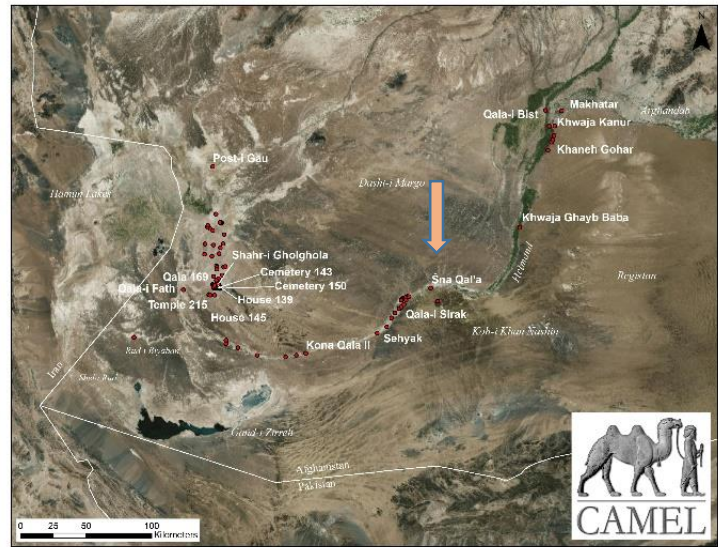
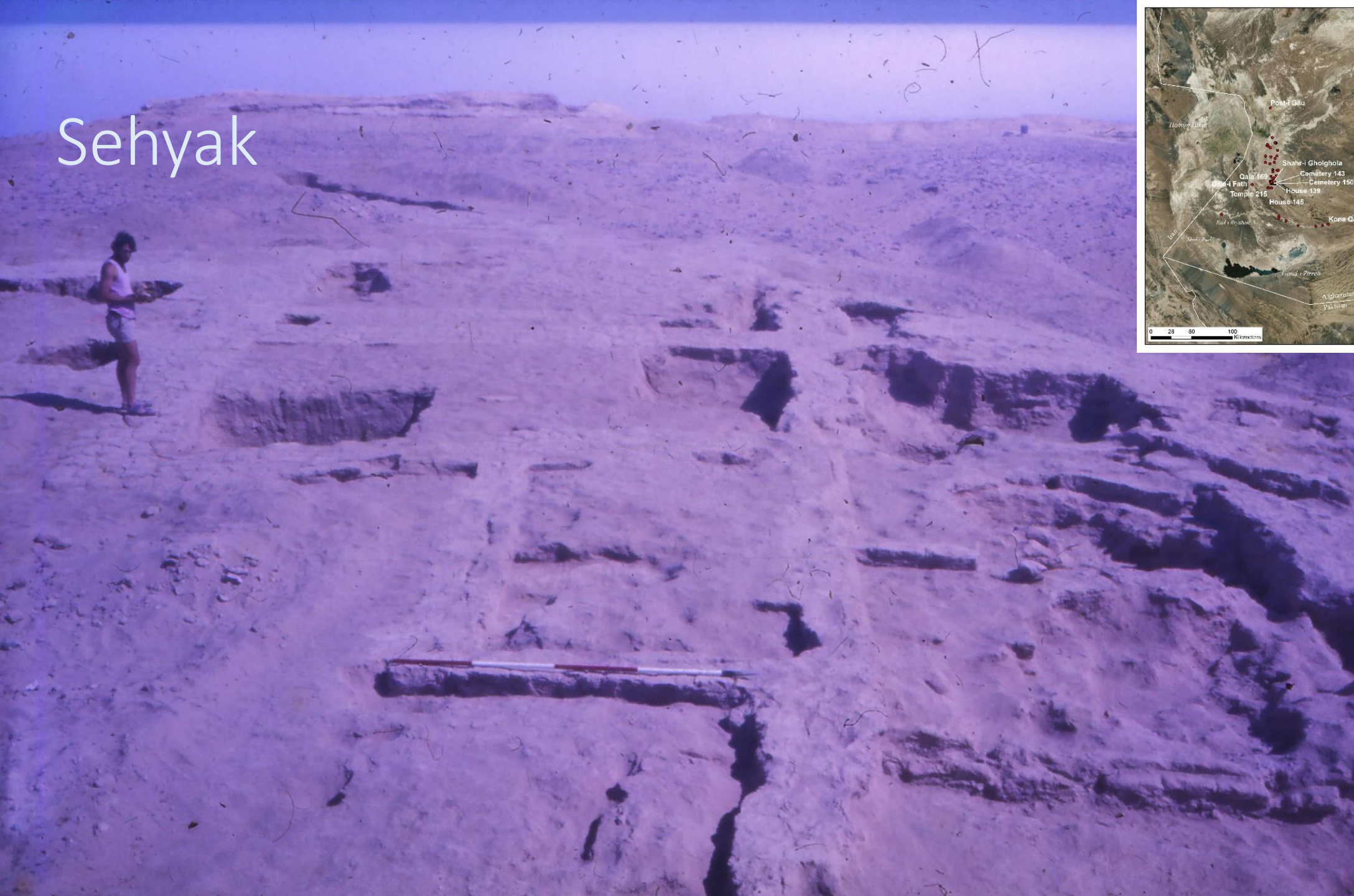
Some were found in conjunction with larger sites:
Jars 238, with Qala 231 in background



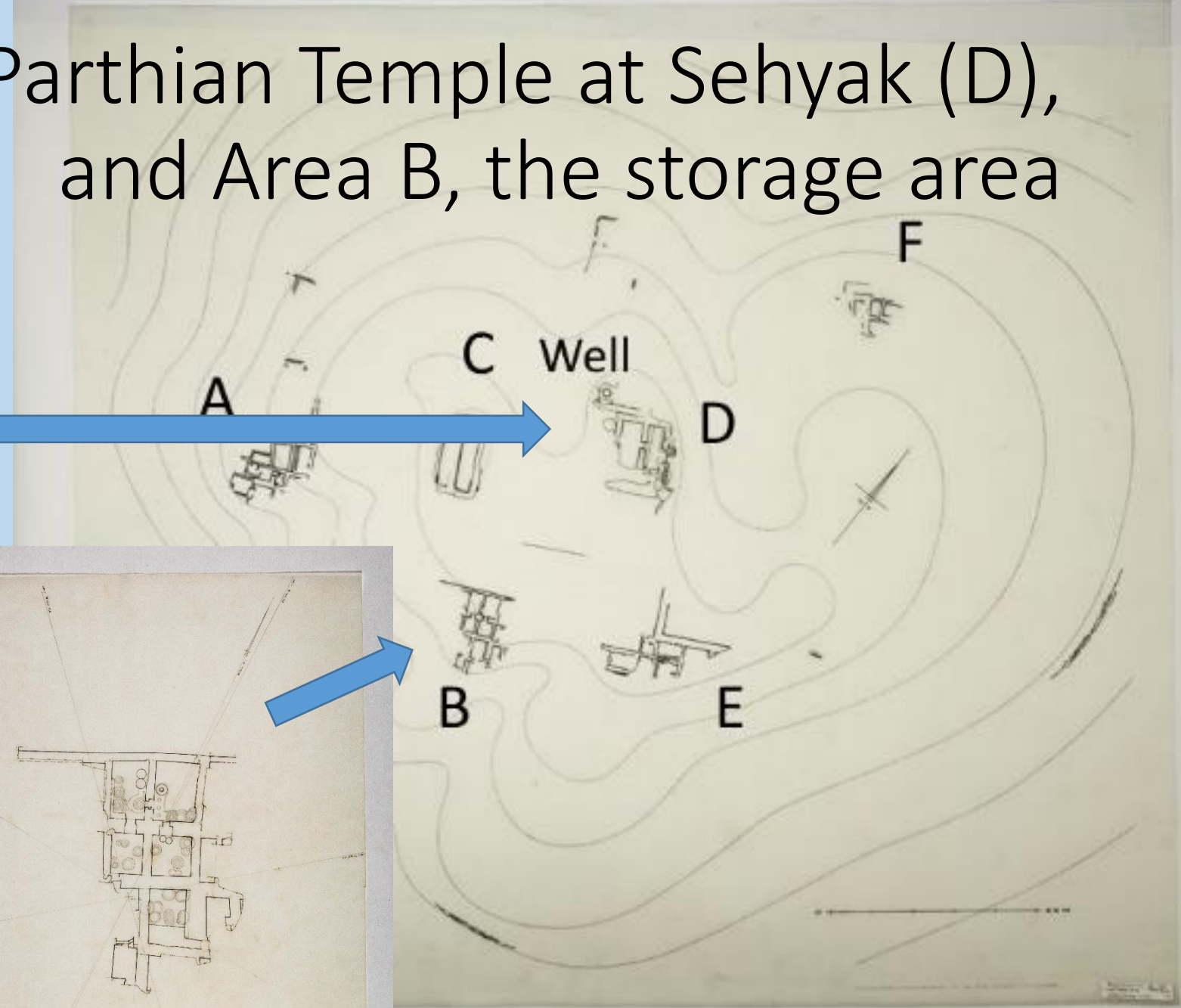
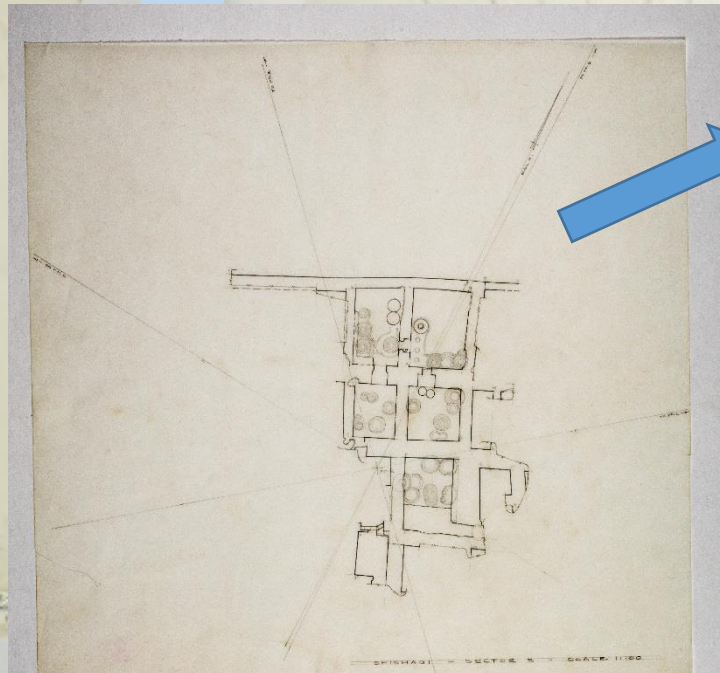
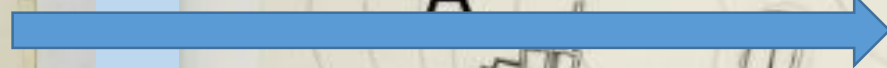
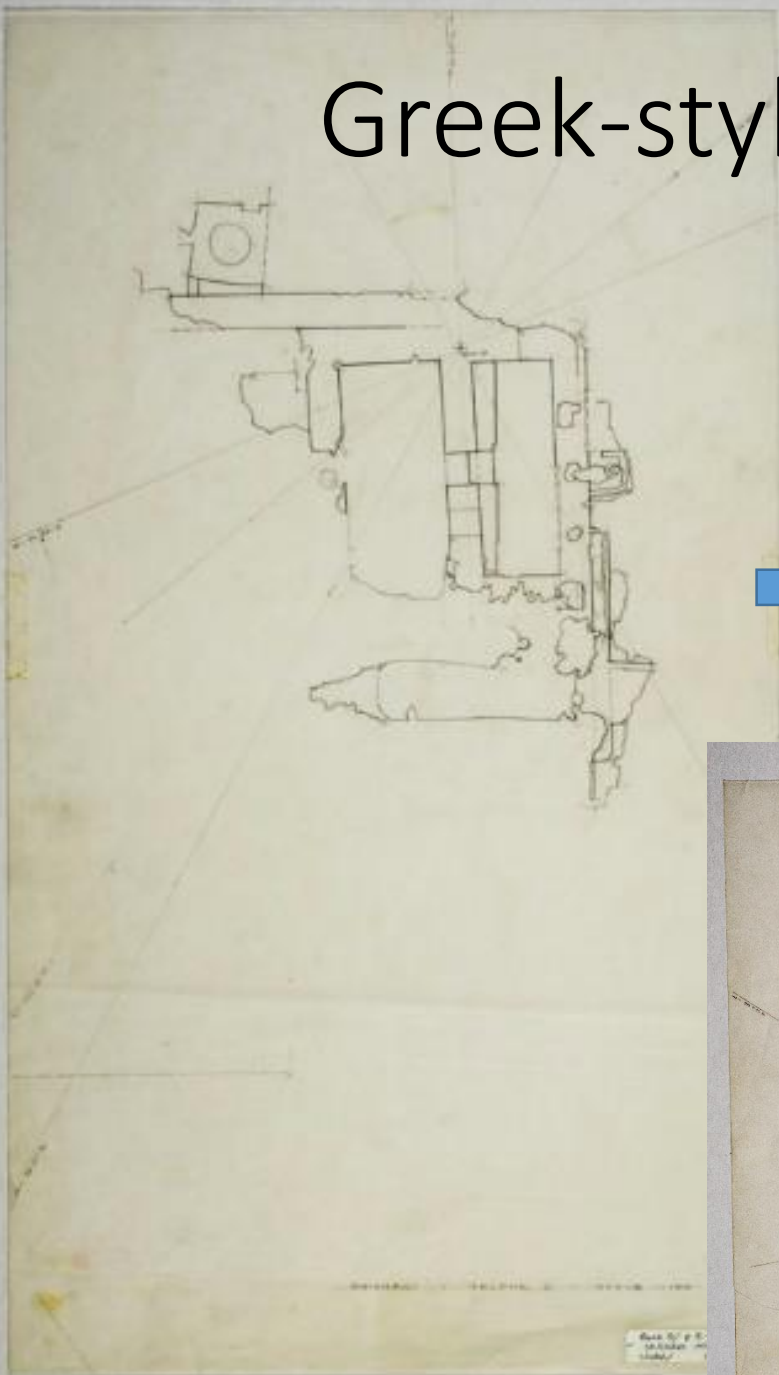
Excavations at Parthian House 139.
Jars found just outside northeast corner



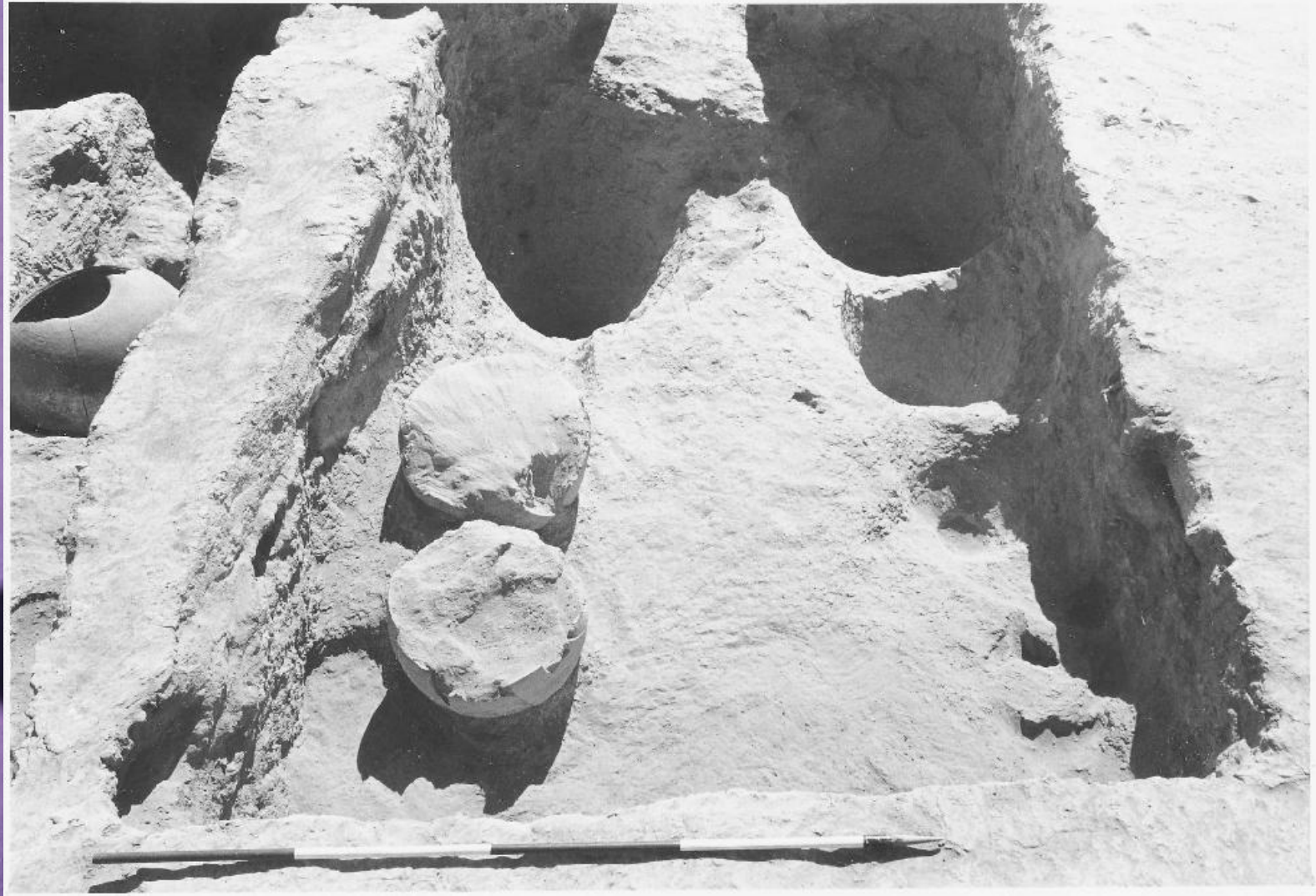
Sehyak



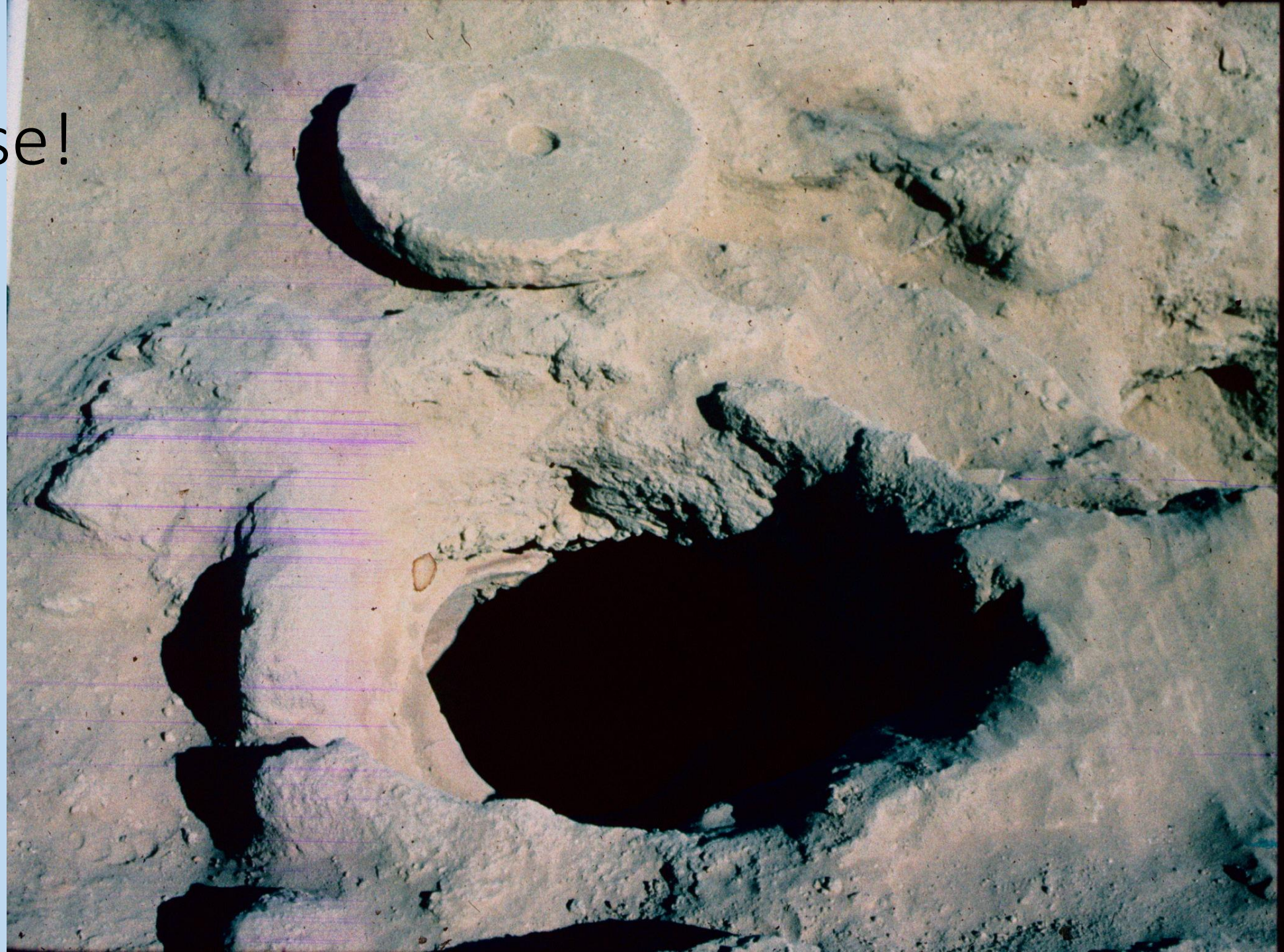
Greek-style Parthian Temple at Sehyak (D), and Area B, the storage area



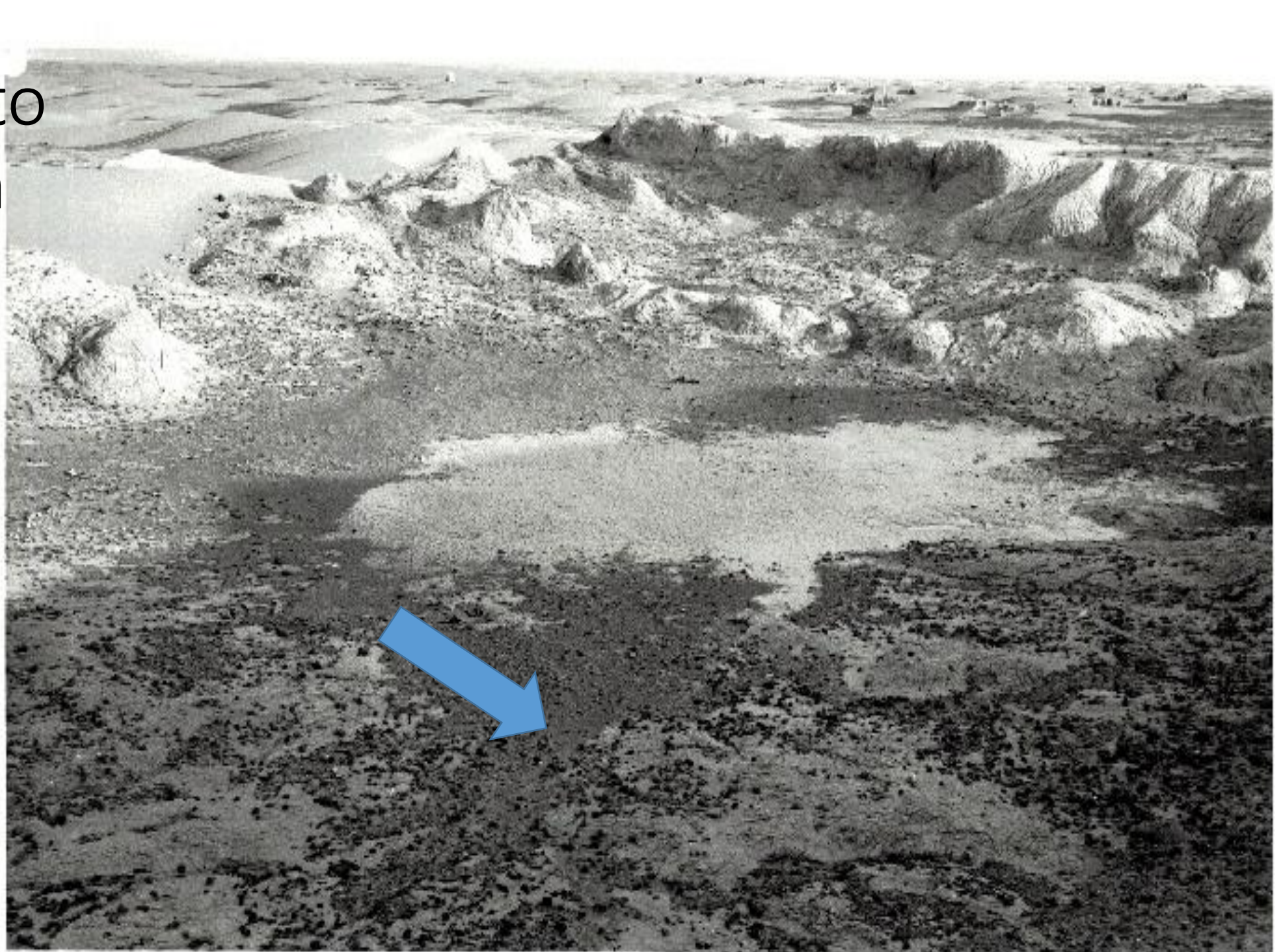
Sehyak, Area B



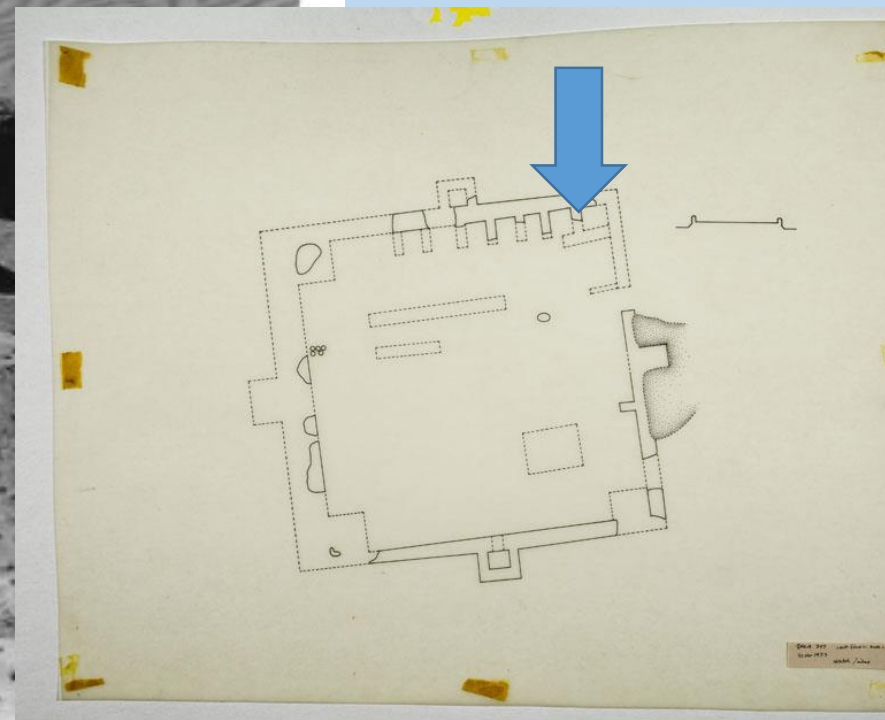
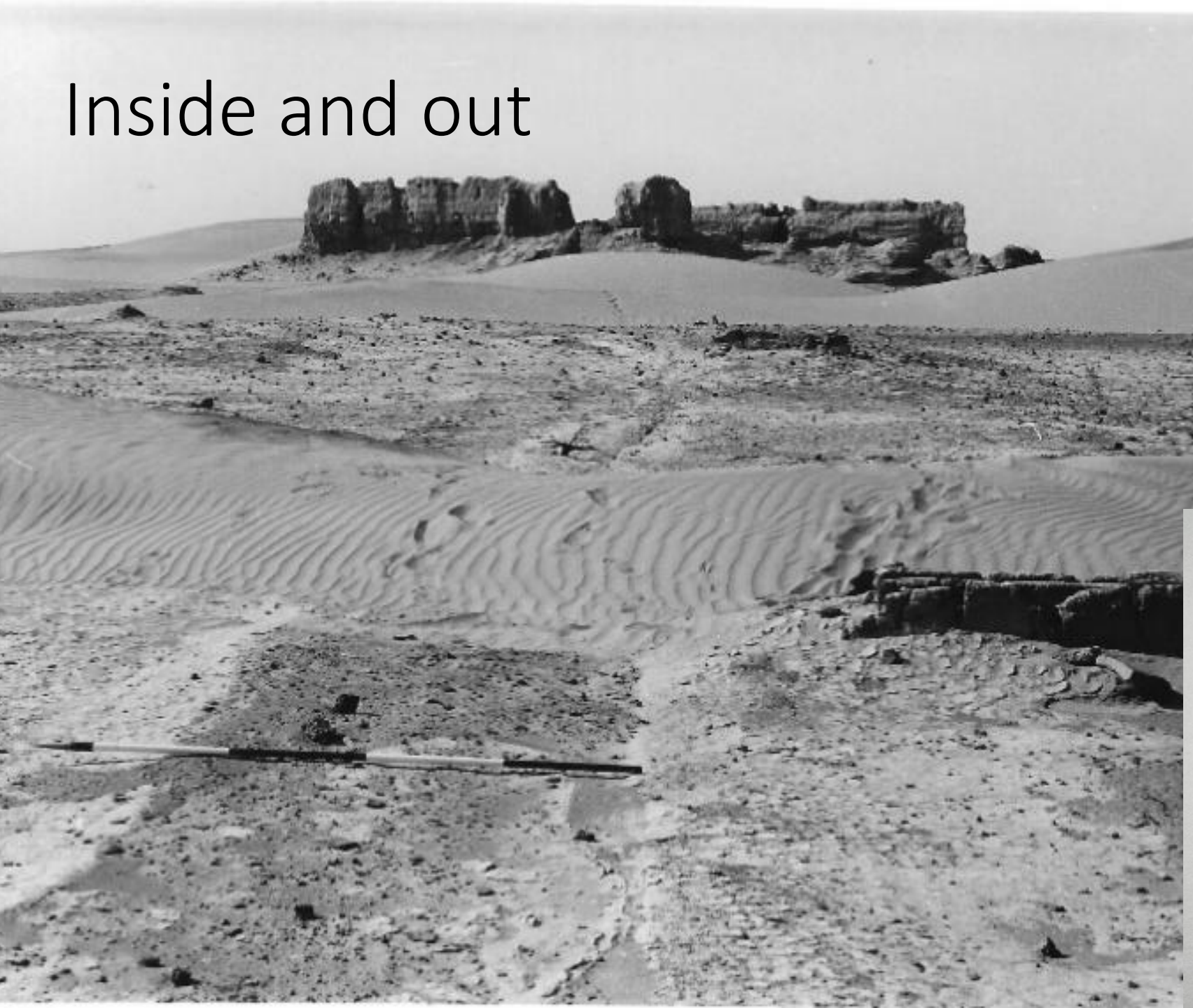
Holy reuse!



Continues into
the Sasanian
period



Inside and out



From W. Trousdale's 1973 field notebook:

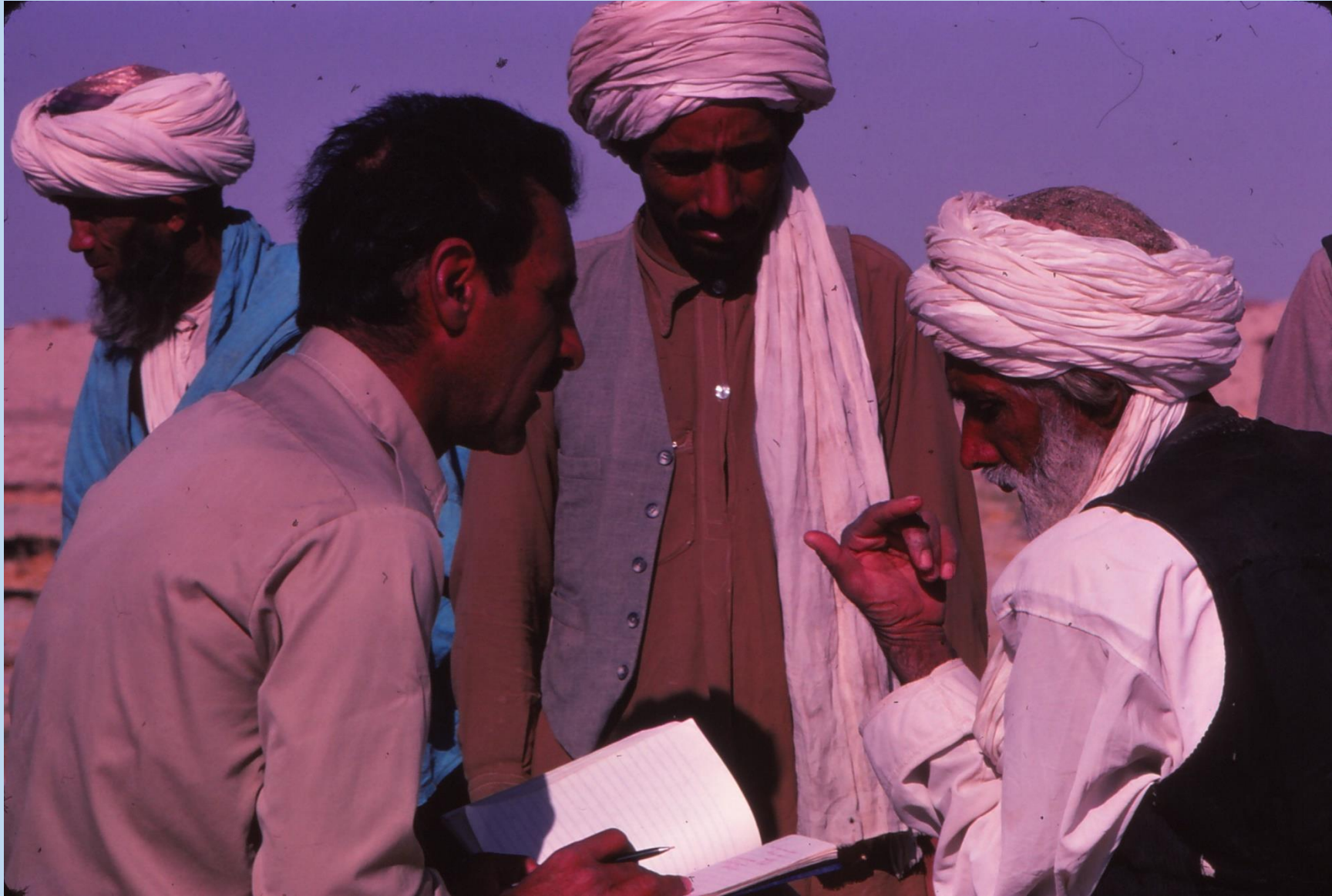
- “Jars are becoming so common and such a dominant feature of Parthian period sites that we stopped specifically recording their occurrences and locating them for mapping. They are everywhere in the Sar-o-Tar area.”

Function?
Distribution?
Date?
Relationship to sites?

WHAT WOULD LIZ DO?

Ethnographic evidence

G. R. Amiri's *The Helmand Baluch* (Berghahn 2020)



Where are the “jars” houses?



Highly mobile housing



And plenty of tamarisk trees



Versus solid brick homes of the ruling class,
present and past



Did these jars hold the annual harvest of grain?



Table 3.3: Distribution of the annual harvest of pagao lands (assuming 1200 man)

Receiving party	Amount of Share	Amount of Harvest Remaining
1. <u>Mushrif</u> (religious figure)	20 <u>man</u>	$1200-20=1180$ <u>man</u>
2. Magistrate	20 <u>man</u>	$1180-20=1160$ <u>man</u>
3. Blacksmith	20 <u>man</u>	$1160-20=1140$ <u>man</u>
4. Carpenter	20 <u>man</u>	$1140-20=1120$ <u>man</u>
5. Barber	10 <u>man</u>	$1120-10=1110$ <u>man</u>
6. <u>Mirab</u> (controller of water)	20 <u>man</u>	$1110-20=1090$ <u>man</u>
7. Land tax	300 <u>man</u> (1/4 harvest)	$1090-300=790$ <u>man</u>
8. Plow-animal hire	120 <u>man</u> (3 <u>man</u> /day)	$790-120=670$ <u>man</u>
9. Landowner	335 <u>man</u> (1/2 remainder)	$670-335=335$ <u>man</u>
10. Each of six farmers taking equal shares	$335/6 = 55.9$ <u>man</u> each	
11. Each farmer gives one <u>man</u> in every ten to the clergy	5 <u>man</u>	$55.9-5=50.9$ <u>man</u>



Or for water storage?



Until the next chapter



ACKNOWLEDGEMENTS

- Members of the Helmand Sistan Project, 1971-1979
- Cotsen Institute and the organizers for the offer to present today
- Institute of Archaeology, Government of Afghanistan
- Smithsonian Institution, Department of Anthropology & Museum Support Center
- UC Berkeley Archaeological Research Facility (ARF)
- Publication support, White-Levy Program for Archaeological Publications
- Photographs, maps, plans, sherd drawings, calculations: Robert K Vincent Jr, James Knudstad, Ariadne Prater, Ghulam Rahman Amiri, Anthony Lauricella, University of Chicago CAMEL Project, Elena Allen