

Village Ethnoarchaeology

Rural Iran in Archaeological Perspective

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Kramer's Project in 1975

- As part of Royal Ontario Museum's Godin Tepe excavation project, the archaeologists lived in an Iranian village. Over several years on this project and after visiting a number of villages, Kramer decided to study a local village, with encouragement from Patty Jo Watson.
- Study carried out over four months during the summer of 1975. Name of village and of people in it are pseudonyms to protect their identities.
- Her focus is on material correlates of sociocultural behavior: "detailed consideration of spatial organization and architectural variability, attention to broader regional patterns, and discussion of archaeological sampling strategies."

Ethnoarchaeology

- “Ethnoarchaeologists attempt to define relationships between behavior and material culture not often explored in ethnographic work, and to ascertain how observable behavior might be reflected in remains which archaeologists can find.”
- “Selected features of spatial organization, material variability, and economic rank within one settlement are described from the perspective of an archaeologist investigating a single site.”
- “Also reviews relationships between land use, settlement area, and population.”

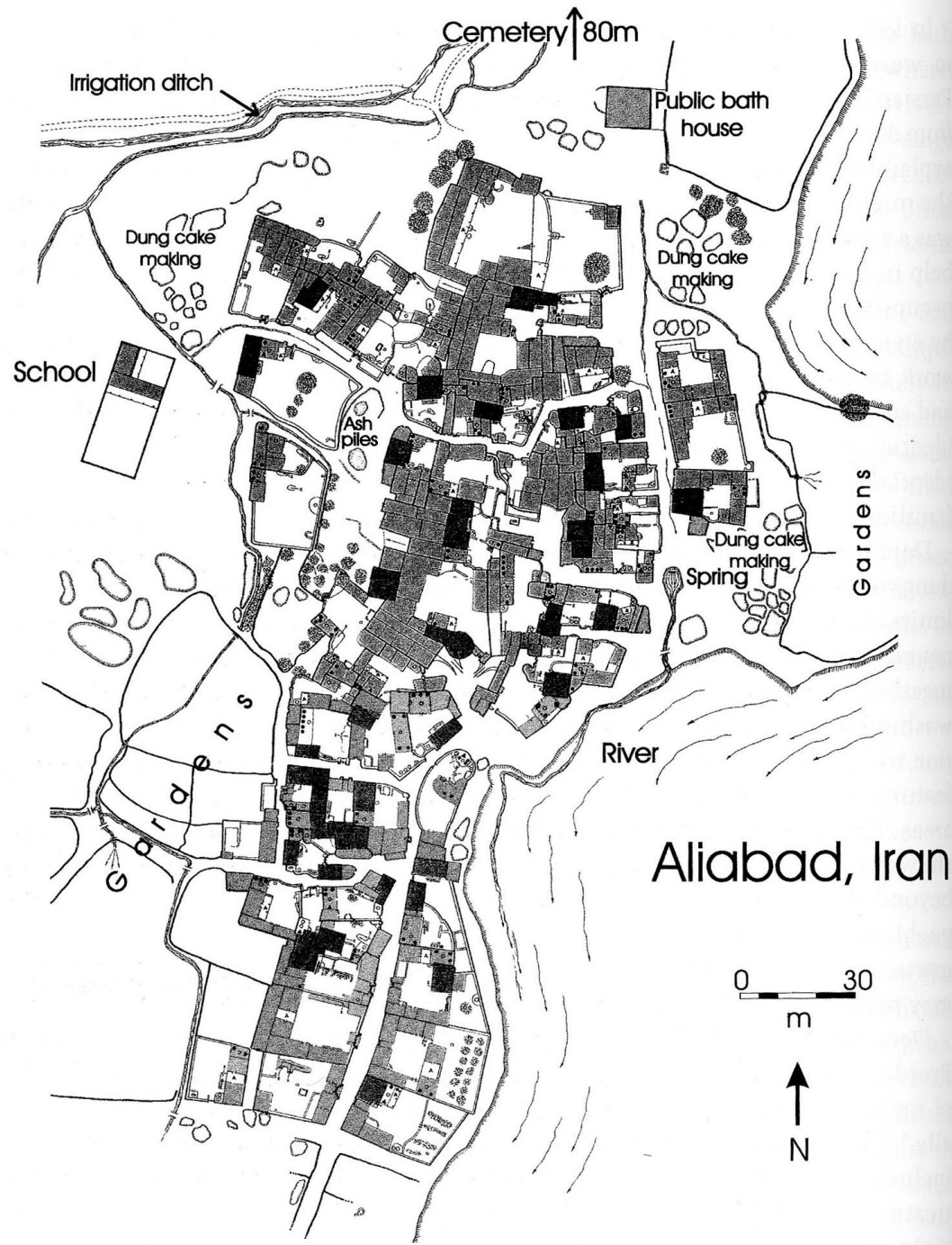
Methods Used

- Learned Persian, but had Kurdi/Farsi translator.
- Developed interview schedule (English/Farsi), with help on questions used by Carole Vance and Daniel Bates in their ethnographic fieldwork (not explicitly ethnoarchaeological).
- Made sketch maps of houses visited; village plan done by surveyor Claus Breede.
- Owing to deaths of several villagers, not able to visit or photograph some houses and cemetery.
- Regional data – census, land holdings – provided by government
- Compared all published accounts to assess generality of findings.

ALIABAD VILLAGE

- Selected because was “traditional”, seemed typical of the region, and friendly
- Relatively isolated; tracks impassable in winter or when irrigation cuts them. Nearest paved road is 10km.
- 400 Kurdish-speaking inhabitants
- Relatively self-sufficient, agro-pastoralists with little market interaction
- Village covers about 3ha on edge of semi-permanent tributary of Gamas-Ab.
- Perhaps as old as 100 years, but local knowledge lacking.
- A mound nearby is said to have been earlier village



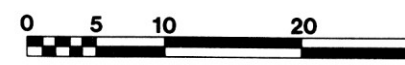


Overview of the village



Detailed view section of villa

HAMADĀN PROVINCE
IRAN



KEY TO SYMBOLS

- A AYVĀN (foyer)
- Ash
- Bin
- Bridge
- Compound entrance
- Collapsed wall
- Direction of flow
- Door
- Down
- Dung cake manufacturing area
- Loom
- m MOUSTARĀ (toilet)

PROJECT DIRECTOR: Carol Kramer
 INSTRUMENT & DRAFTING: Claus Brede
 August 1975

Residential Architecture

- 67 houses arranged in block of contiguous compounds separated from one another by alleys.
- Houses surrounded by walls, but village is not.
- Residential pattern is extended virilocal family.
- Some gardens in compounds but most outside the village.
- Pitted areas where garbage is dumped and dung and other fuels processed, are scattered in open spaces a edges of site.
- Village covers about 3ha
- Fields, gardens and cemetery would not be visible archaeologically.



Non-architectural areas

- Cemetery covers ca. 1ha. To find archaeologically must look outside mounded areas.
- Threshing floors, usually some distance apart from village; these cover about 2ha
- Within village, there are also open areas
- The spring is where women gather
- Alleys 2-3m wide, with irregular surfaces, with ditches *jubs* along an edge, which accumulate trash as well as drain water.
- Alley surfaces have embedded bone, glass, fragments of cloth, shoes, etc.
- Poop from dogs and people in alleys and gardens.

Other activity areas

- Each household cleans own ash which accumulates until spread on fields.
- No communal midden.
- Dung piles are made into dung cakes. Family uses 5-6/day.
- Gardens, outside the village are surrounded by walls. Have trees/shade and also used as latrines. Grow fruit, vegetables, etc.
- Bee hives built into walls.
- Canals for irrigation.



Vernacular Architecture

- *Chineh* construction or molded mud bricks.
- First thing built is compound wall, set into foundation trench, as are house walls.
- Roofs are vaults (beneath second story) or flat, poles, twigs, mud
- Foyer of many has whitewash or plaster.
- Owners build own houses during dry months. May take more than one year.
- First to be built is kitchen, which may double as living room.
- Sometimes latrine is early feature.
- Minimum is one living and one storeroom.



Figure 4.4. Wall construction (packed mud and mud plaster), Aliabad.

Attributes of Kitchens

- All have an oven, a large unbaked clay feature sunk into the center of the room fueled by dung, with tunnel-like airshaft opening in courtyard
- Oven is clay, sunk into floors about 1.5m. Rims are flush with floor
- Always on ground floor
- Some have summer ovens in courtyard, though air circulation is a problem.
- One or more bins, on short feet, or stones, of mud. On ground floor because of weight.
- Bins may be cylindrical or rectangular. Up to 2m high.
- Top of bins open but covered with board, or plastered shut.
- Open at bottom with plugged hole to retrieve food.
- Stores flour, unground wheat, lentils.
- Can last upwards of 20 years.

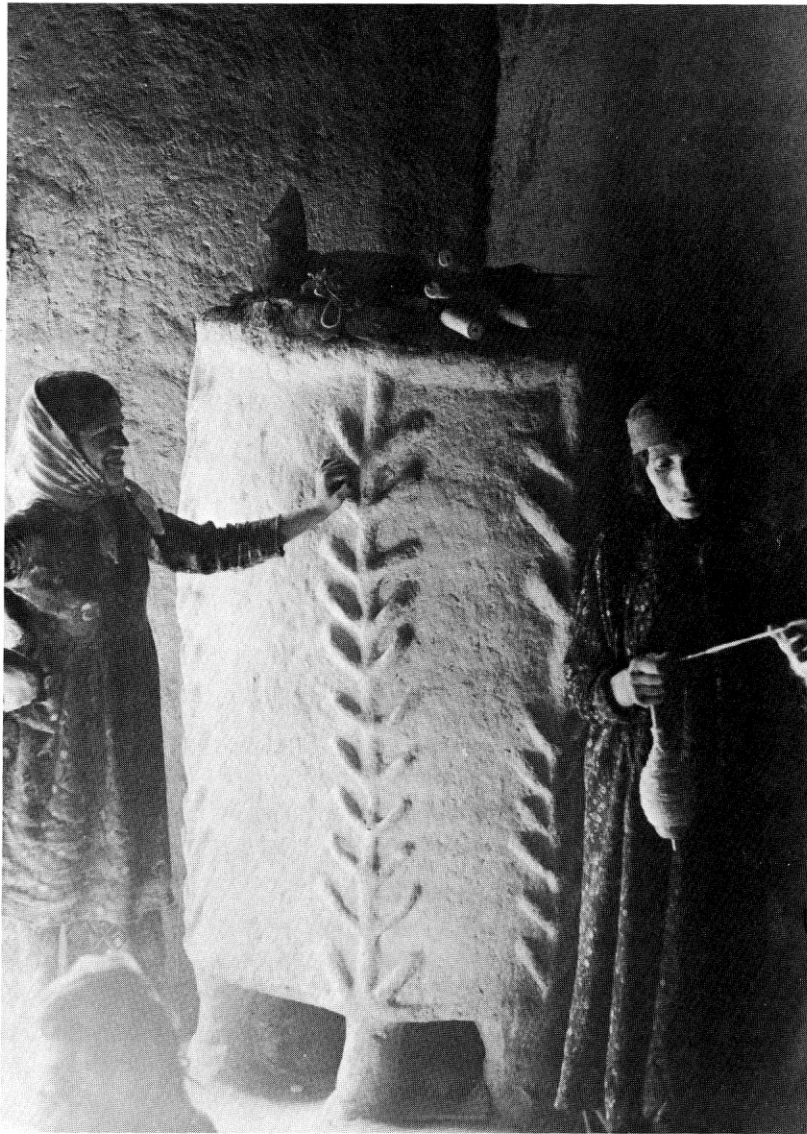


Figure 4.11. Grain bin decorated with appliqué “tree of life” motif. When photographed, this bin was approximately 20 years old.

Grain bin

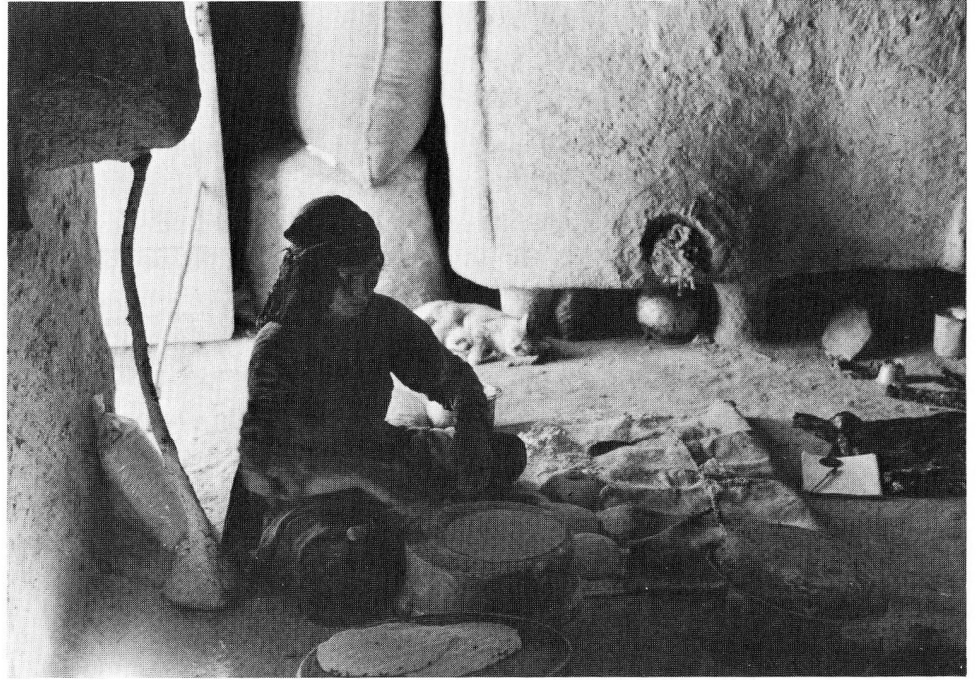


Figure 2.7. Bread preparation in an Aliabad kitchen (bin to right, beehive set in window to left).

Preparing bread with
grain bin in background



Figure 4.10. Aliabad kitchen, with storage bins, imported ceramic jars, beehive (in window to right), and plugged niche (behind bins).

Kitchens

- Kitchens have looms to weave pile carpets. Supported by two poles sunk into round holes.
- Kitchen floors may be whitewashed and are plastered smooth.
- Walls tend to have gray smoke haze.
- Usually have some niches for lanterns, etc.



Figure 2.4. Spinning wool with wooden spindles and whorls.

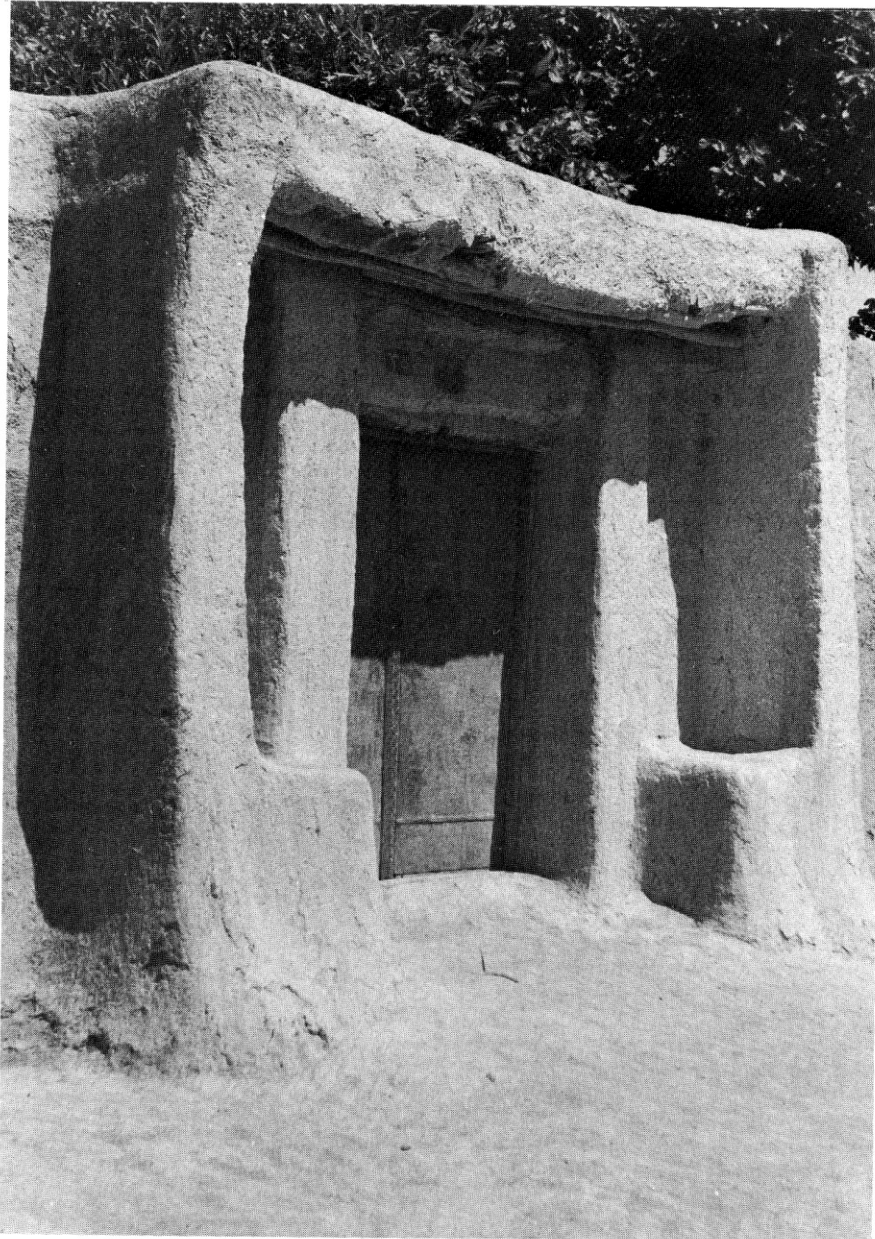


Vertical loom
supported by
two poles set in
ground

Figure 2.5. Vertical loom.

Living Rooms

- Mens' domain. The public room, with photos, mementoes, windows, bedding
- Carefully whitewashed, sometimes with painted decoration on walls.
- Blue paint to ward off evil eye.
- Floor may have mat and/or carpets.
- Ceilings more carefully done, with mats under poles.
- Are 2-2.5m high, and flat.
- Have hearths, a plastered circular depression about 25cm deep in the middle.
- *Kursi*, a low wooden frame set over hearth and covered with blankets while people sleep radially, feet to fire.



Most houses have an entry, which may be used for sitting, spinning, eating, etc in good weather

Figure 4.16. Entrance to house 12, Aliabad. With its recessing and benches, this is one of the most elaborate compound entrances in the village. Note surface of adjoining thoroughfare, referred to as an “avenue” rather than an “alley.”

Storerooms

- At least one in each compound
- May be functionally differentiated: dung, straw, dry good, utensils
- Sometimes a large pit for barley storage. 1m diameter and 1-1.5m deep. Not plastered or treated – just raw earth. Barley put in and top sealed with mud plaster. Can last for 3 years.
- Doors may be well above ground level.
- Doorways may be bricked up.
- May not be contiguous with compound – ie, away from house.

Stables

- Can be in courtyard, or subterranean. No special wall or floor surfacing.
- Dung periodically swept out.
- Chief diagnostic is the trough.
- Have no windows or niches.
- May be recycled kitchens or living rooms.
- Ceilings vaulted if second story is above.
- Entered through ramp in courtyard.
- Only sheep and goats underground; cattle and donkeys above ground.

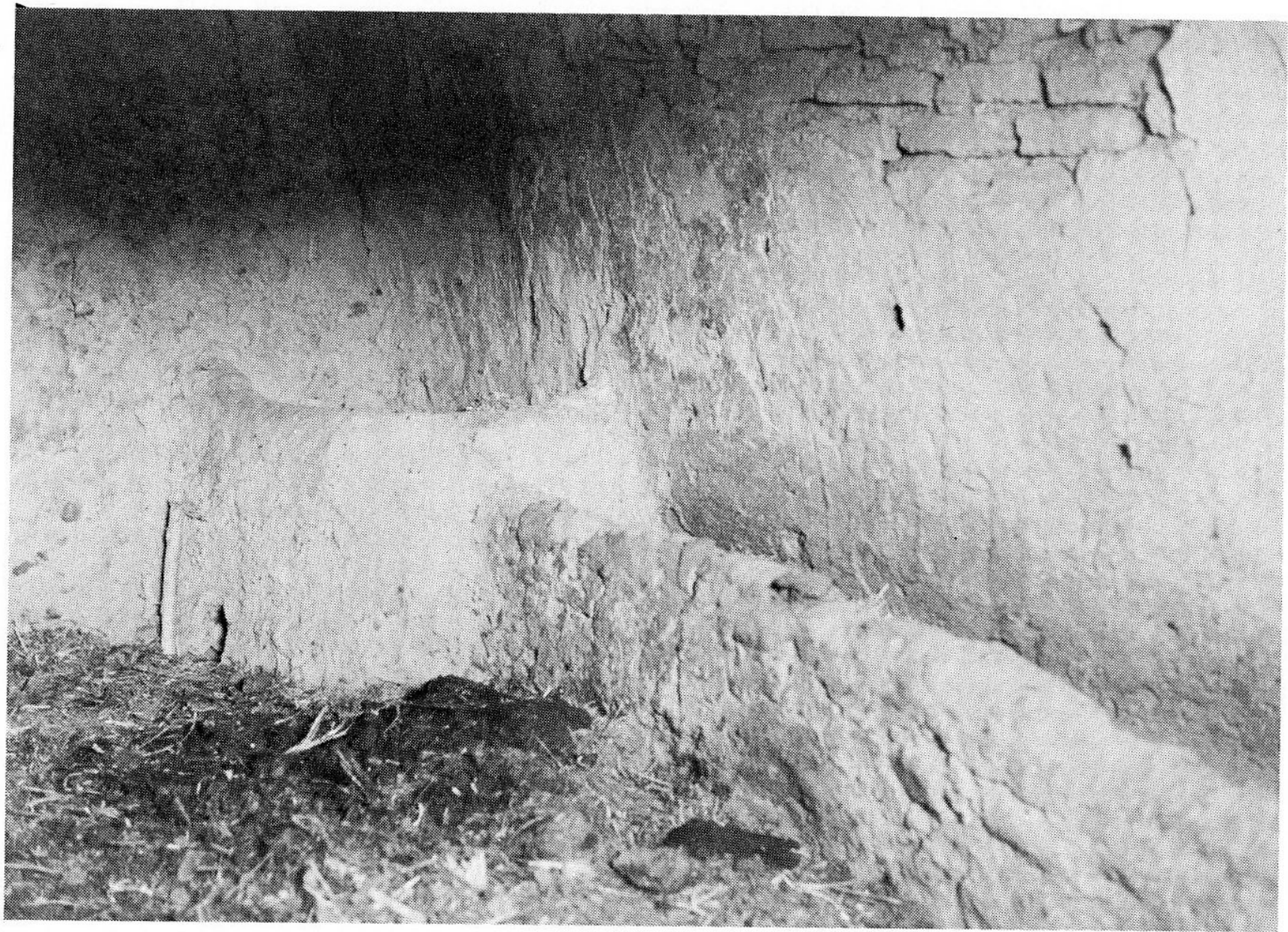
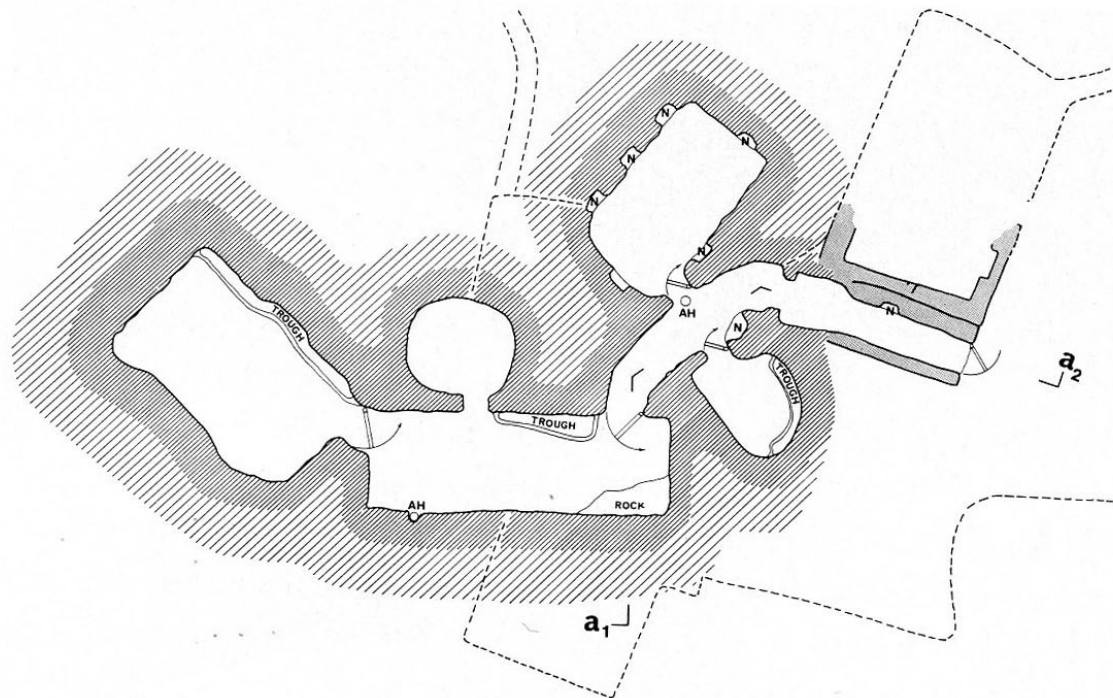
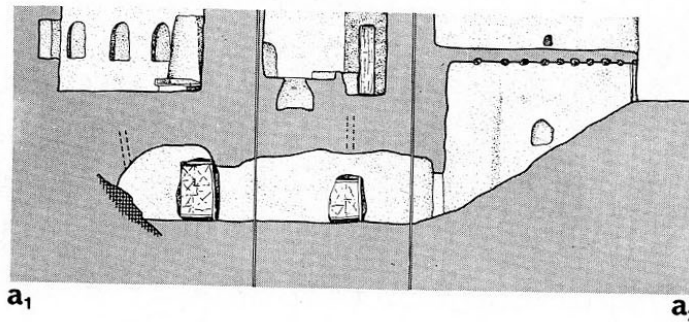
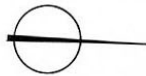


Figure 4.13. Troughs and floor in an Aliabad stable.



Underground
stable



HOUSEHOLDS (31) & (32)
ZIR-E ZAMIN PLAN & SECTION



Figure 4.14. House 31/32, subterranean stable (*zir-e zamin*). AH: air hole.

Courtyard

- Troughs in the courtyard
- Chicken “coops” of mud.
- Well
- Sleeping platform
- Surface is hardened earth; some with gravel or cobbles
- Generally swept clean daily.
- Used for temporary storage

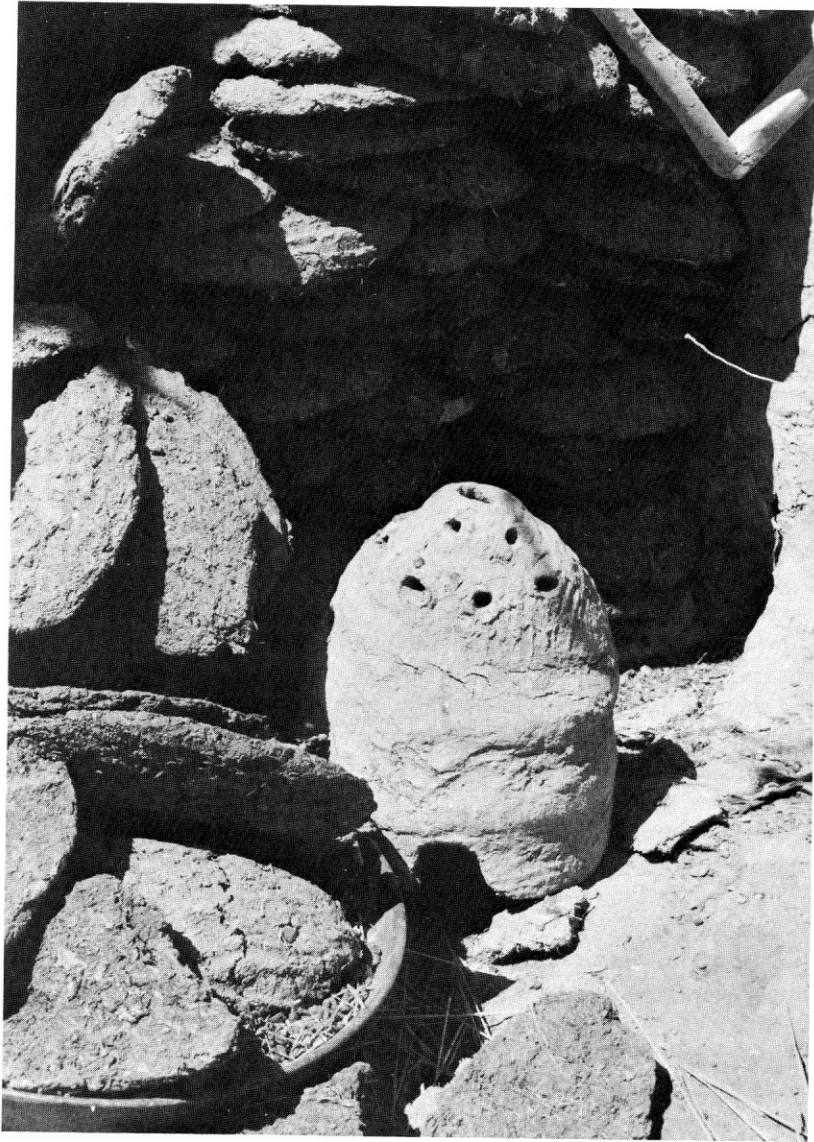


Figure 4.15. Poultry coop in a dung cake storage area, Aliabad.

Bee hive and dung cakes

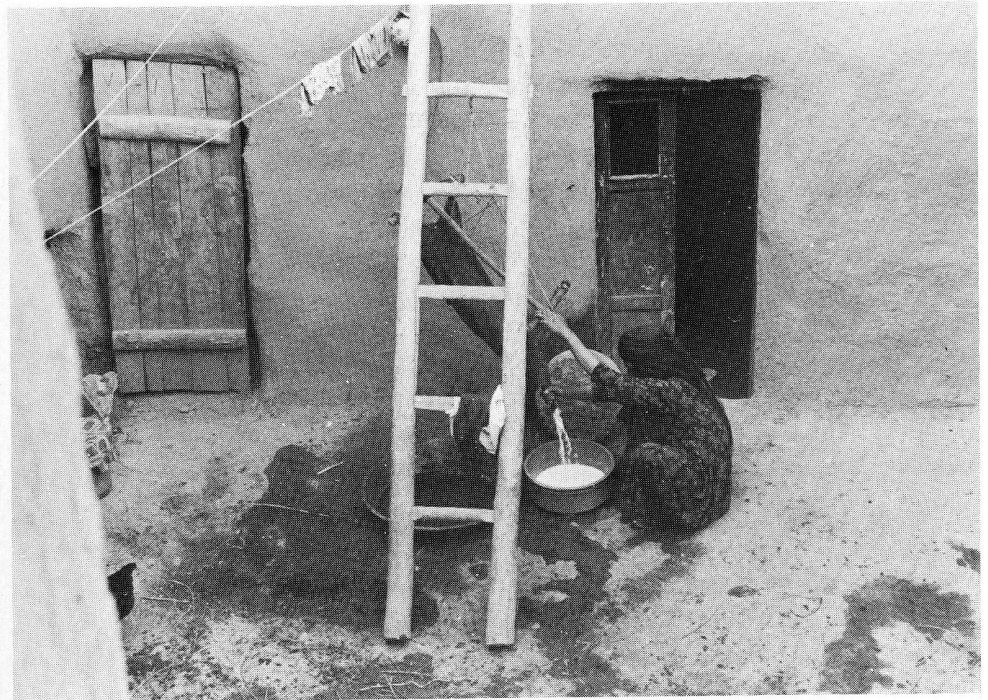


Figure 2.3. Processing milk in goatskin, courtyard of house 1. Kitchen door is at right; ladder leads to roof (see Figure 4.7).

Processing milk

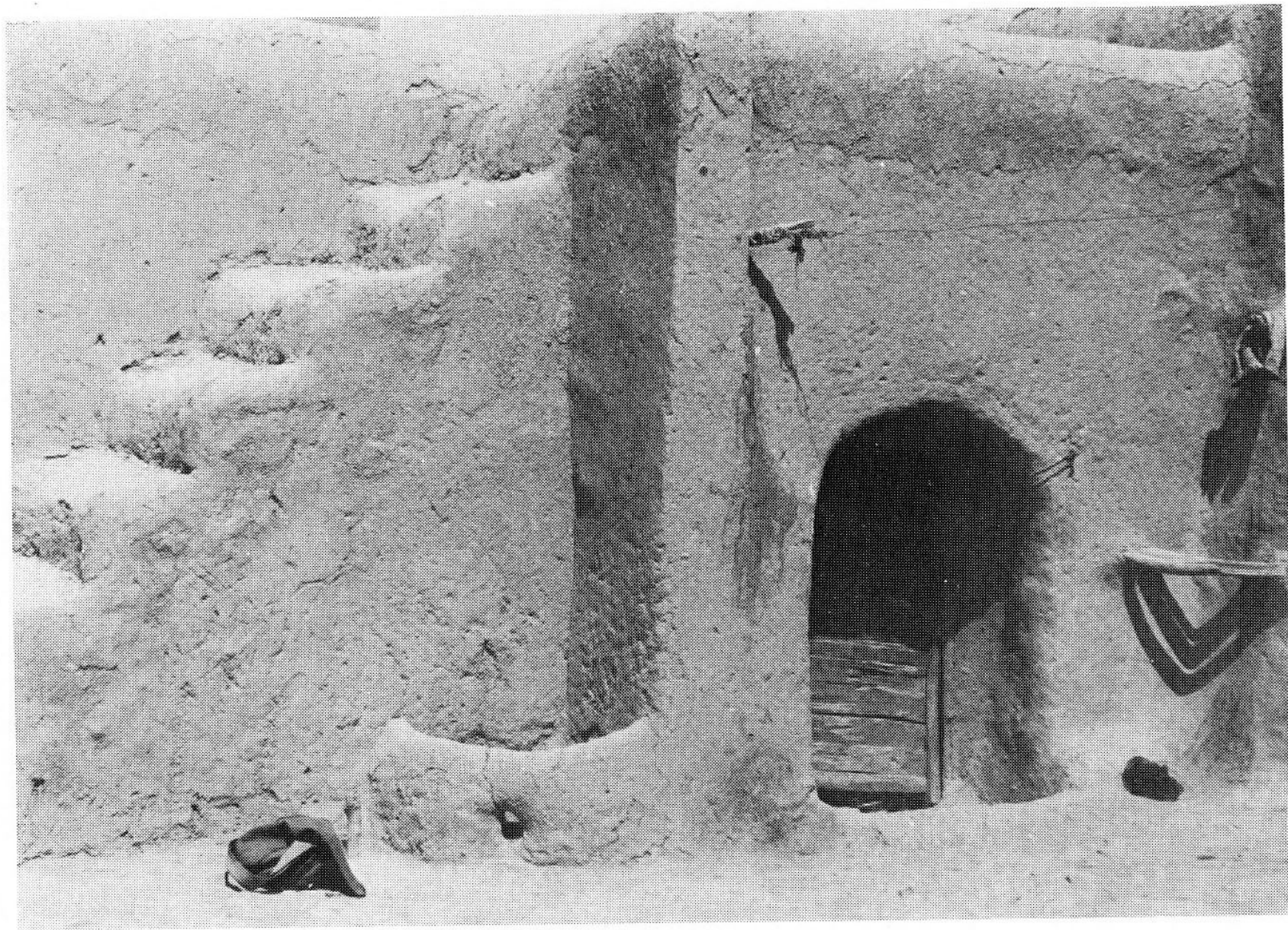


Figure 4.17. Stairway in courtyard of house 82 (storeroom door to right).

Latrines

- Not all have them and may be shared by more than one family.
- Nearby orchards and gardens are used too.
- Generally unroofed, doorless *chineh* structure in a distant corner of courtyard.
- A cylindrical shaft 20-25cm in diameter, dug several m into the earth. (how is this possible?)

Roofs

- May be used to dry food, for storage, sleeping, etc.
- Stuff not in use currently
- Reached by staircase or ladder
- Used as walkways through the village from one compound to another.

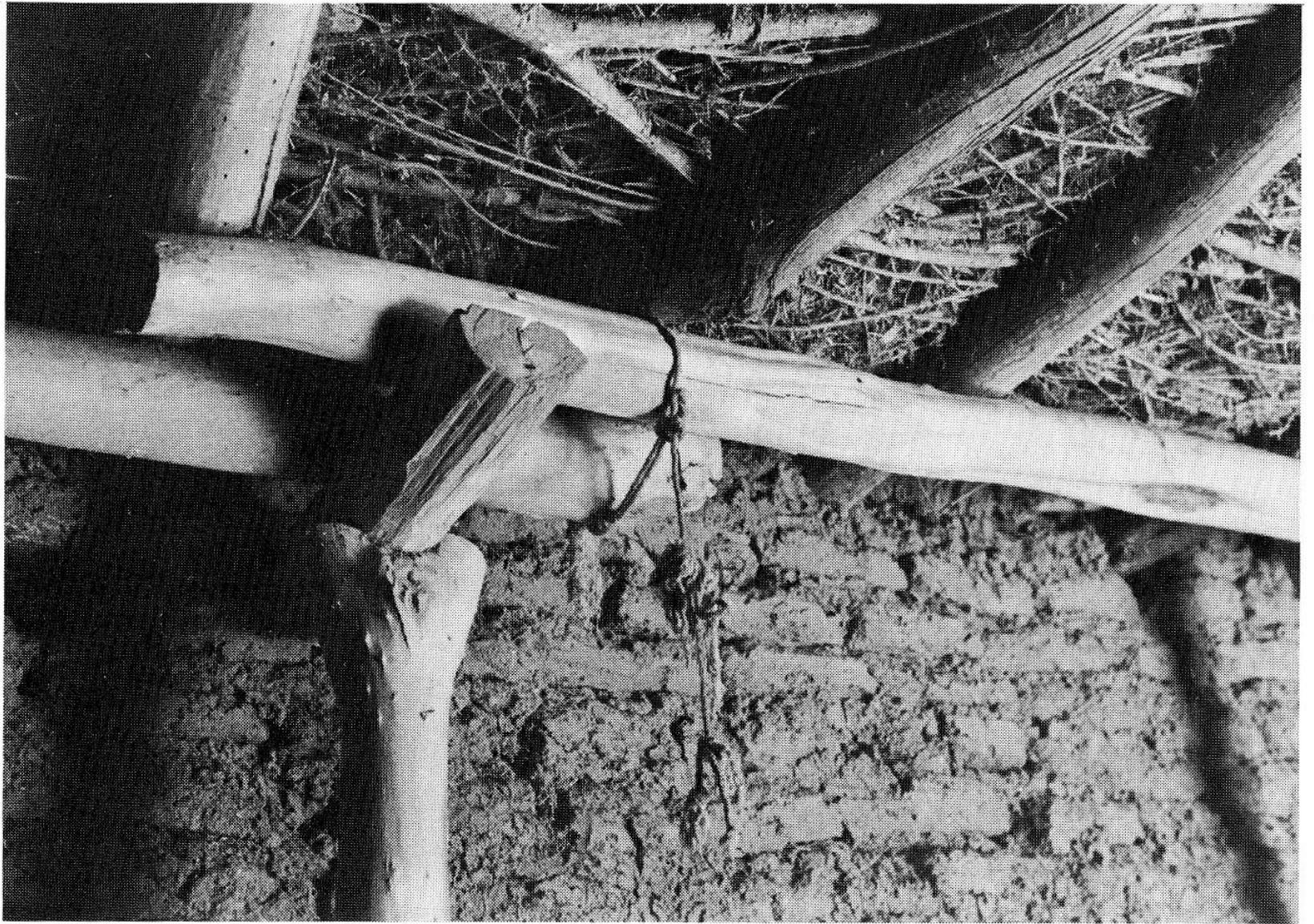


Figure 4.5. Detail of roof construction in an Aliabad storeroom.

Statistics

- In Aliabad, married sons live in father's house, but in separate living room.
- In some cases, a kitchen doubles as a living room for at least one person/family
- The number of hearths is best guide to families in a compound, but Some houses have "extra" living rooms, used for children, storage, guests
- Dwelling rooms can house 2-9 persons.
- Number of ovens not a good guide because usually only one used at a time by all the women
- Size of storage rooms *may* be related to needs,
- Flour/grain bins @160kg/family of 5-6 = 1m³, so if two families, two bins
- Even if living spaces were 10m²/person (as Naroll and others), it would still be hard for archaeologists to determine how many such rooms existed contemporaneously. And, Naroll's figure is an average with considerable range.

Settlement and Room Sizes

TABLE 6.5
Roofed and Unroofed Areas in Four Contemporary Villages^a

Settlement	Area (ha)	Entire settlement		Individual houses		References
		Architectural (%)	Open (%)	Unroofed (%)	Range in area (m ²)	
Aliabad	3.0	60	40	47	42-1358 (N = 67)	Figure 2.1
Hasanabad	1.4	68	32	56	120-445 (N = 10)	Watson 1979
Alisar	4.3	46	54	22 (N = 1)	37-321 (N = 7)	Morrison 1939
Asvan (west)	5.6	44	56	58	113-928 (N = 6)	Hall <i>et al.</i> 1973

^a Measurements were made with a planimeter; settlement areas were defined by drawing perimeter lines just beyond villages' outermost structures.

Economic Status

- On average courtyards take up about 1/3 of the total area
- Richer folks tend to have larger compounds, but not always.
- Sizes and number of rooms is related to economic status
- No solid, universal relationships in Aliabad

Archaeological Realities

- Unroofed areas are readily distinguishable
- Features of roofed structures should be visible –hearths, niches, ovens, etc
- Dung traces, straw, etc may be discoverable.
- Troughs, bins, mangers indicate stables
- Building phases may be hard to detect – remodeling, re-uses, abandonment, etc.
- Any room can go through several phases of use, depending on needs.
- Archaeologically, look for wall surfacing, bonding details, depth and width of foundation trenches (2-story structures need walls about 1m thick at ground level). One-story walls may be much narrower.

How does Aliabad Compare?

- There may not be a typical village; there is great variation across a region.
- Can't assume that things have not changed in 10,000 years
- Or that environmental constraints were the same
- Or that technology and other changes have not affected picture
- Population estimates, based on site size of site depend on estimates of density.
- Density may depend on many factors: age of village, livestock, gardens, residential practices (e.g., virilocal, extended vs. single)
- Ranges are from <100 to >150 persons/ha
- Size does not necessarily indicate functional differences (administrative-economic)

Household Sizes

TABLE 5.7

Household Sizes and Number of Houses, Selected Zagros Towns, 1966^a

Settlement	Population	Number of households	Size of household, \bar{X}	Number of houses	House population, \bar{X}
Kermanshah	187,930	36,597	5.1	18,394	10.2
Hamadan	124,167	24,967	5.0	13,504	9.2
Malayer	28,434	5,508	5.2	3,890	7.3
Tuyserkan	11,954	2,448	4.9	1,413	8.5
Bahar	11,842	2,160	5.5	1,696	7.0
Harsin	10,657	2,038	5.2	1,148	9.3
Kangavar	9,414	1,806	5.2	1,211	7.8
Lalajin	7,043	1,350	5.2	1,031	6.8
Asadabad	6,714	1,203	5.6	735	9.1
Kabudrahang	6,494	1,298	5.0	1,111	5.8
Sahneh	5,986	1,157	5.2	877	6.8
Serkan	5,115	1,086	4.7	453	11.3

^a Data for Malayer were obtained from Momeni (1976); data for other centers were obtained from various publications of the 1966 census conducted by the government of Iran. Figures for Kermanshah, Malayer, and Kabudrahang are not included in the 8250 km² area discussed above.

Sustaining Area

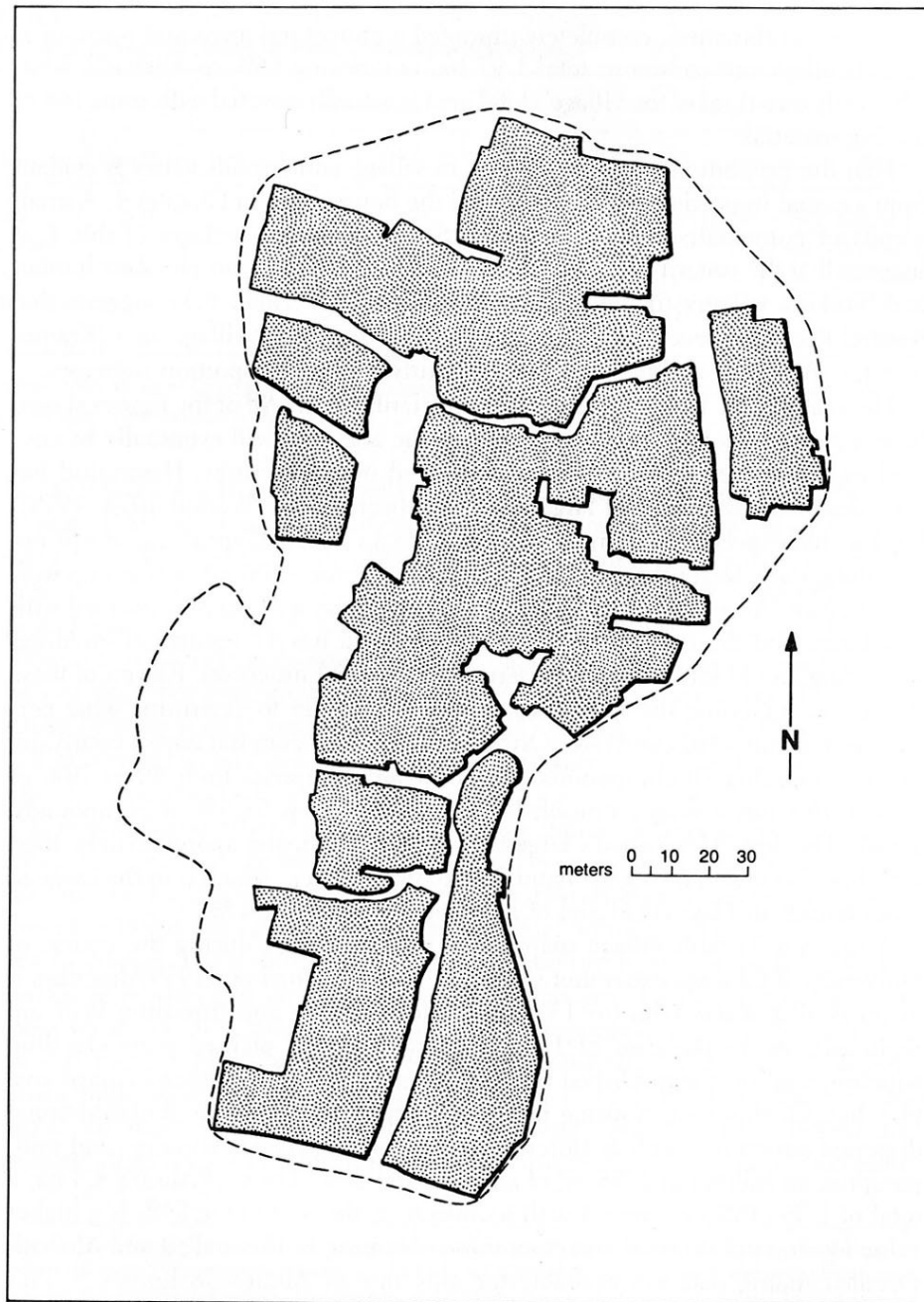
- This is best calculated in area/yield of wheat.
- In 40 villages around Aliabad, mean hectarage/person is 1.4ha(median=1.20); per household 8.3 (median 6.15).
- “Assuming household sizes of about six and an alternate-year fallowing cycle, ignoring the planting of some hectarage to fodder and/or cash crops, and disregarding seed grain, lean years, and loss of grains through processing and to vermin and mildew, these figures suggest that about .5ha of land in this area will sustain one individual” 184
- Does not account for animal products or gardens.
- Other figures from regions of the Near East indicate as much as 1.5ha/person.

Conclusions

- As settlements age/grow, centers may become more dense; new parts may be richer; larger sites may have functionally distinct sections
- Must examine site/sites on regional scale to see variability
- Sees essential features of modern life existed from the fourth millennium.

Aliabad as Archaeological Site

- See Fig. 6.1
- 40% of village is non-architectural
- 1.7ha is covered with some kind of architecture
- 1.3ha is open and alleys, dung processing, etc.
- Of the 60% that is architectural, 47% is unroofed – courtyards, pens, and storage
- Some of roofed area is flimsy covers over pens, ovens, latrines



Aliabad as
Archaeological Site –
assumes little spread
of architecture, leaving
coherent blocks.
Mound edge is current
edge.

Figure 6.1. Aliabad as an archaeological site (house blocks are shaded, predicted mound edge is a dashed line). See Figure 2.1.

Sampling a Site

- Using one of the random, stratified and systematic sampling methods with 1, 5 and 10% coverage, might get sense of open, architecture, and site area if sampling units were 10x10m.
- If you want to know houses and spatial relationships, the sampling above does little good. The smallest Aliabad house is 42m²; if a 5x5m trench were put in at sample locations, it would not expose even a small house.
- Excavating one or two houses in a site reinforces tendency to view a house as “typical”.
- All the variability mapped by Kramer would not be revealed – compound sizes, house rooms and structures, etc.

Conclusions about Sampling

- “Excavation strategy utilizing only small and widely dispersed trenches will not necessarily permit an accurate assessment of stratigraphic and chronological relationships among houses”
- In short, it’s difficult to get anything like a full/realistic picture from a “telephone booth”. Even “full” excavation does not account for changes, unused buildings, etc.

More Conclusions

- “In excavation, transects from site centers to peripheries might be one means of monitoring differences in structures’ densities and, perhaps, of identifying both economic and chronological variability within settlements.”
- Villages may be spaced as much for social reasons as environmental – interactions, marriages, ease of travel, shared *qanats*, etc That is, in some cases they are clustered when they “could” be more spread out.
- By 5000 years ago, villages and spacing were similar to today, although overall populations were much smaller. By then plow agriculture was established.

Problems and Prospects

- Need more scale maps of settlements, with details of houses.
- Need studies of small towns in regard to density, functional variability, etc
- Do we need different sampling strategies on “town” sites than on villages?
- Don’t put in small, dispersed trenches, which will not adequately reveal houses and variation.
- Refuse disposal is understudied.
- Features in structures, such as troughs, may not tell what current usage was.
- Need various ways to assess economic/social statuses. In rural villages there may be variability as at Aliabad, but leveling mechanisms as well. No flaunting of wealth.