Dwellings

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Abstract

What does a house tell us about peoples' social and cultural life? We know that different societies typically have very different types of houses or dwellings. Dwellings are one of the main cultural remains unearthed by archaeologists. This is one of the main reasons cross-cultural researchers have tried to predict and explain dwelling size and shape. And research has uncovered many predictors from the shape, size, and building materials.

Contents

Dwellings

What does a house tell us about peoples' social and cultural life? We know that different societies typically have very different types of houses or dwellings. They might be very small (less than 5 square meters) or very large (more than 1000 square meters). Some are round; others, oval, or rectangular. Materials vary considerably—houses can be made from hides, bark, grass, ice, mud, earth, wood, or stone. Some are highly decorated on the outside; others only have decoration in the inside. Some take lots of work to construct; others can be put together in a few hours.

Figure 1: Four gers (Mongolian yurts) in Mongolia's Sukhabaatar Province, with several more gers in the distance on the left. On warm days, the insulating felt of the ger may be rolled up to create greater air circulation, as shown in the photo above. Credit: Jake Kalodner, permission granted.

Dwellings are one of the main cultural remains unearthed by archaeologists. If we can understand what features of dwellings predict variation in social and cultural life in the ethnographic record, we should have a better way of inferring the past before written records. This is one of the main reasons cross-cultural researchers have tried to predict and explain dwelling size and shape.

What We Have Learned

- Rectangular houses are typical of more complex societies (e.g., those with agriculture, larger communities, and permanent settlements); less

complex societies are more likely to have curvilinear houses. This is true even if we limit our comparison to hunter-gatherers—rectangular houses are associated with hunter-gatherers with more permanent settlements (Whiting and Ayres 1968, 123–24; Robbins 1966, 11–15, 148–49).

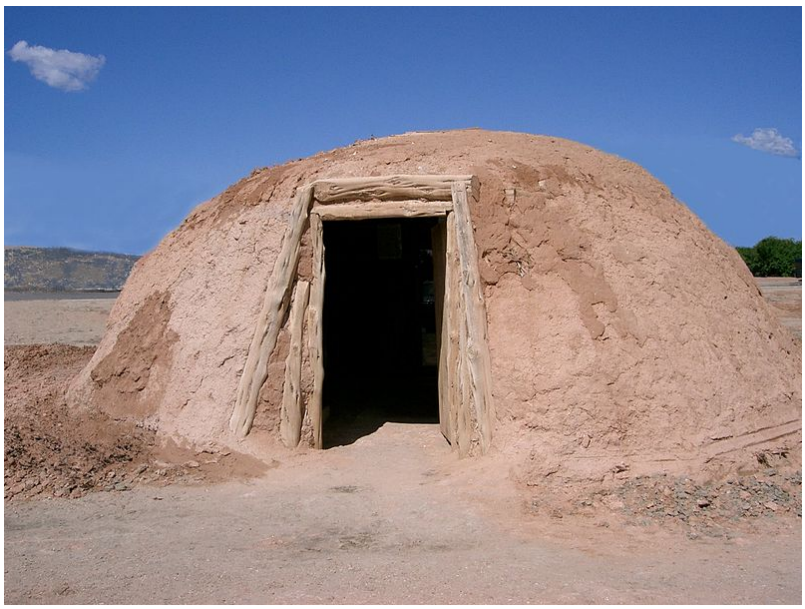

Figure 2: Reconstruction of a Navajo Hogan. Credit: PRA, CC BY-SA 3.0.

Why? Perhaps this is because circular houses usually use lightweight flexible materials and are easier to build and take apart and transport (e.g., tents). Nonagricultural societies are usually more nomadic because they move camp to exploit seasonal wild resources (foragers) and varying pasture and water (pastoralists). When houses are permanent they tend to be made with more lasting materials such as stone or timbers (Whiting and Ayres 1968, 123–24; Binford 1990, 119–30; Diehl 1992, 8–11).

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- Societies with polygyny are likely to have curvilinear rather than rectangular houses (Whiting and Ayres 1968, 129–31).

Why? In polygynous societies, fathers are relatively absent from a young child's life, often sleeping in another house from the mother and her children. In such

circumstances, there may be an early unconscious identification with mothers. If curved lines symbolically represent the female figure, the preference for curvilinear houses may reflect this unconscious identification. This finding parallels the relationship found between polygyny and curved lines in art (Whiting and Ayres 1968, 129–31; Fischer 1961, 86–87).

- Dwellings in matrilocal societies are typically much larger than dwellings in patrilocal societies. The average matrilocal living floor area is 175 square meters and the average patrilocal living floor area is 28.6 square meters (Ember 1973, 177–80; Divale 1977, 110–11). However, this relationship only appears to hold in societies with agriculture (Porčić 2010, 413–14).

Why might matrilocal houses be bigger? The suggestion is that married sisters, who live near each other with matrilocal residence, would find it easier to live together compared to in-marrying unrelated women in patrilocal societies (Ember 1973, 177–80). The idea for this inference comes from a comparison of societies with different types of polygyny. When sisters are co-wives, they tend to live in the same house; when they are unrelated they tend to live in separate houses (Murdock 1949, 30–31) . It seems that sisters who have been brought up together (sharing the same father and mother) can more easily share the same husband as compared with women who are unrelated. Extending this idea further, it would be even easier for sisters not sharing the same husband to share the same house. More people in a house would require a larger house (see later section on floor area and population). The relationship between floor area and residence probably does not hold amongst mobile foragers and pastoralists because they need to build houses quickly and they will tend to be small (Porčić 2010, 415–16).

- If multi-roomed houses are found, the society almost always has either extended families or significant class or wealth distinctions.

The converse is not true—single-room houses do not predict the absence of extended families nor the absence of significant wealth or class distinctions. Extended family households may consist of a number of dwellings within a compound each of which is occupied by a constituent household. Similarly a cluster of single-room houses can reflect a more privileged household (Whiting and Ayres 1968, 123).

- The population of a settlement in nonindustrial societies can be predicted from the total floor area of residential dwellings (Naroll 1962, 588; Brown 1987, 31–32). On average, 6 square meters is the space used by one person (Brown 1987). So, a total floor area of 600 square meters predicts a community of 100 people. However, societies with predominately mobile communities have an average of 3.25 people per square meter (Porčić 2012, 80).

Although a 10 square meter formula per person was originally suggested by Naroll (1962), a more careful study by Brown (1987) established the number as 6 square meters per person. Brown counted the residential floor area under a roof that is typical of a household in a society. The studied societies were nonindustrial,

Figure 3: Reconstruction of an Iroquois Longhouse, Huron-Wendat. Credit: Musee Huron Wendat, CC BY-SA 4.0.

Figure 4: Vegetable garden and haystacks in a household compound in Orasac, Serbia, 1984. Credit: Joel Halpern, permission granted.

used local materials for building, and lacked architectural specialists. Public or specialized buildings were excluded except if they were residential men's houses or adolescent dormitories. Separate roofed cooking areas and porches and verandahs were included, but not specialized animal shelters or crop storage buildings. If there was seasonal variation, the more permanent dwelling was coded. Brown (1987) reported that he was 95 confident that the number of square meters per person was between 4.7 to 7.5 in non-industrial societies. Brown (1987) found that variation in climate, pacification, and marital residence had no effect on the predicted floor area per person. Porčić (2011) modified the floor area per person for mobile societies in subsequent research.

- In peasant societies, external decoration of houses is more likely when community integration is low and where communities have an external orientation, such as in long-distance trade (Blanton 1994, 125, 127, 135, 144–45).

Why? The suggestion is that in strongly integrated communities people know what resources different households have and there is no need to display higher status to others in external decoration. Such displays are more likely where there is greater autonomy of households or points of cleavage in the community. Similarly, those outside the society do not have the knowledge to evaluate the status of a household; external decoration may serve this purpose (Blanton 1994, 125, 127, 135, 144–45).

What We Do Not Know

- Does separation of parts of the house into male and female spaces reflect more gender inequality?
- Why are animals in some societies kept inside the dwelling? Why is storage of crops sometimes inside the house and other times outside the house?
- Why do extended families live in the same dwelling, in multi-roomed structures, and in other societies live in separate dwellings in the same compound?
- How common is it to switch from a curvilinear house to a rectangular house when foragers or hunter-gatherers settle down?
- What explains separate residential dwellings for men (i.e., men's houses)? Separate residences for adolescents?
- Are the findings regarding external decoration of houses in peasant societies more generalizable? That is, is outside decoration of houses more likely with low community integration and more involvement of households with the outside?

Exercises Using eHRAF World Cultures

Explore some texts and do some comparisons using the eHRAF World Cultures database. These exercises can be done individually or as part of classroom assignments. See the Teaching eHRAF Exercise 1.23 for suggestions.

Credits

Special thanks to Jackie Duhl, Kate Cummings, Megan Farrer, and Amelia Piazza for their assistance in preparing this module.

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Glossary

Ethnographic record What we know from descriptions written by observers, usually anthropologists, who have lived with and worked with people in the present and recent past

Matrilocal A pattern of marital residence where couples typically live with or near the wife's parents

Patrilocal A pattern of marital residence where couples typically live with or near the husband's parents

Polygyny Two or more women are married to one man at the same time; it is called sororal polygyny when the two women are sisters

References

Binford, Lewis R. 1990. "Mobility, Housing, and Environment: A Comparative Study." *Journal of Anthropological Research* 46 (2): 119–52. https://doi.org/10.1086/jar.46.2.3630069.

Blanton, Richard E. 1994. *Houses and household: a Comparative Study*. New York, Ny.: Plenum Press.

Brown, Barton M. 1987. "Population Estimation From Floor Area: a Restudy of 'Naroll's Constant.'" *Behavior Science Research* 21 (1-4): 1–49. https://doi.org/10.1177/106939718702100101.

Diehl, Michael W. 1992. "Architecture as a Material Correlate of Mobility Strategies: Some Implications for Archeological Interpretation." *Behavior Science Research* 26 (1-4): 1–35. https://doi.org/10.1177/106939719202600101.

Divale, William T. 1977. "Living Floor Area and Marital Residence: A Replication." *Behavior Science Research* 26 (2): 109–15. https://doi.org/10.1177/106939717701200202.

Ember, Melvin. 1973. "An Archaeological Indicator of Matrilocal versus Patrilocal Residence." *American Antiquity* 38 (2): 177–82. https://doi.org/10.2307/279363.

Fischer, J. L. 1961. "Art Styles as Cultural Cognitive Maps." *American Anthropologist* 63 (1): 79–93. https://doi.org/10.1525/aa.1961.63.1.02a00050.

Murdock, George P. 1949. *Social Structure*. New York, NY: Macmillan Co.

Naroll, Raoul. 1962. "Floor Area and Settlement Population." *American Antiquity* 27 (4): 587–89. https://doi.org/10.2307/277689.

Porčić, Marko. 2010. "House Floor Area as a Correlate of Marital Residence Pattern: A Logistic Regression Approach." *Cross-Cultural Research* 44 (4): 405–24. https://doi.org/10.1177/1069397110378839.

———. 2012. "Effects of Residential Mobility on the Ratio of Average House Floor Area to Average Household Size: Implications for Demographic Reconstructions in Archaeology." *Cross-Cultural Research* 46 (1): 72–86. https://doi.org/10.1177/1069397111423889.

Robbins, Michael C. 1966. "House Types and Settlement Patterns: an application of ethnology to archaeological interpretation." *Minnesota Archaeologist* 28 (1): 3–35.

Whiting, John W., and Barbara Ayres. 1968. "Inferences from the Shape of Dwellings." In *Settlement Archaeology*, edited by Kwang-chih Chang. Palo Alto, CA: National Press Books.