

LEARNING FROM TRADITIONAL VERNACULAR ARCHITECTURE

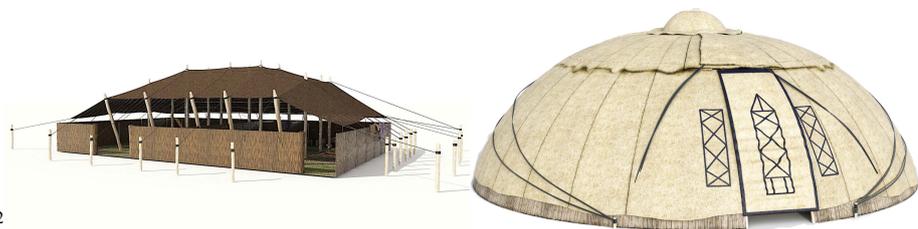
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INTRODUCTION

The peaked Kurdish black hair tent and the domed Turkish felt tent of Iran's frontierspeople are a symbol of a demanding lifestyle.¹ Every year, tribesmen with chattels and mobile architecture migrate along with their livestock from summer quarters to winter quarters, and vice versa. The present study aims to analyse the differences between two nomadic dwellings and attempts to examine the reasons of suitability of this type of architecture over the centuries.

COMPARING- DIFFERENCES BETWEEN KURDISH BLACK TENT AND TURKISH FELT TENT



Picture 1: black tent & felt tent²

TYPE OF ARCHITECTURE	KURDISH BLACK TENT	TURKISH FELT TENT
1. Geometric shape or form	Black tent has a rectangular shaped	Felt tent has a dome shaped
2. Size and dimension of tent	-Length between 6 - 13 m -Width between 25 - 35 cm -Number of stripes Between 15 – 25	-24 poles: Floor diameters ~ 600-650 cm -26 poles: Floor diameters ~ 750 cm
3. Material	-Tent cloth: goat hair -Poles: poplar -Reed matting walls: apple tree branches are woven with goat hair -Ropes: goat hair - Equipment inside	Poles: firs tree -Covering structure: sheep wool -Short walls – reed mats are woven with goat hair, but nowadays industrial cotton string or industrial thin ropes is used -Cordage: sheep wool or industrial ropes
4. Structure	Tensile structure	Compression structure
5. Poles' forming	Straight or X	Curve
6. Connection between roof and wall	The roof (tent cloth) is separated from the wall (reed mats)	The wooden structure is covered with felts □
7. Flexibility & changeable	Flexible structure	Rigid structure
8. Organisation inside the tent	Divided spaces	Single room
9. Connection between interior and outside	No clear separation of inside from outside	Clear separation of inside from outside
10. Setting up time	Black tent in less than 20 minutes	The felt tent in less than 40 min
11. Life expectancy	-Roof/tent cloth: six to ten years -Short walls: 6-8 years	-Structure – twenty years -Covering: five to ten years -Short walls: 8 years

SUSTAINABILITY

- Adaptation of features of West Azerbaijani nomads' black tents & East Azerbaijani/Ardabil nomads' felt tent in accordance with the nomadic lifestyle and related requirements:

DESIGN REQUIREMENT	KURDISH BLACK TENT	TURKISH FELT TENT
1. A shelter to provide the basic needs of nomads		Provides shade from the sun Protects from cold, wind, sand and dust Provides privacy for the occupants

2. Lightness and portability/ portable architecture	Can be carried easily by pack animals (traditional method) or trucks (modern method)- felt tent traditional transportation with camel, black tent with donkey	
3. Simple to construct (easy assemble architecture)	Convenient setting up and packing up – nomad can set up their black tent in less than 20 minutes and felt tent in less than 40 min	
4. Accessible, local and inexpensive material	-Tent cloth: goat hair ✓ -Poles: poplar ✓ -Reed matting walls: apple tree branches are woven with goat hair ✓ -Ropes: goat hair or industrial ropes on the market ✓	Poles: firs tree- nomads bought the frame from the craftsmen ✗ -Covering structure: sheep wool ✓ -Short walls – reed mats are woven with goat hair, but nowadays industrial cotton string or industrial thin ropes is used ✓ -Cordage: sheep wool or industrial ropes on the market ✓
5. Simple to repair	The nomads have acquired appropriate skills in repairing their tents as necessary and do not require any specialist support to do so	
6. Practical (multifunctional architecture) □	Every tent is a complete living space, incorporating specific areas for sleeping, eating, entertaining guests and cooking. There is even a space for new-born livestock in black tent– very small in measurement and dimensions, but very efficient in use of space	
7. Flexible black tent and relatively flexible felt tent	-Can be extended or curtailed by adding or removing strips and poles -Interior tent spaces can be divided up and separated using reed mats	-Fix wooden structure– the main structure cannot be extended or curtailed -Felt tent is a single room and in the felt tent rarely has a physical partition
8. Life expectancy	-Roof/tent cloth: six to ten years -Short walls: 6-8 years	-Structure – twenty years □ -Covering: five to ten years -Short walls: 8 years
9. Cost effective architecture	The felt tent is more expensive than black tent, in my observation (summer 2015): ~ 4 milion. Toman= ~ 1000 euro: for 26 poles frame (usual size)	
<ul style="list-style-type: none"> Adaptation of features of West Azerbaijani nomads' black tents & East Azerbaijani/Ardabil nomads' felt tent in accordance with settlements' climatic conditions: 		
1. Connection between interior and outside	No clear separation of inside from outside	Clear separation of inside from outside
2. Harmony with surrounding landscape	A Kurdish black tent, featuring peaks on its roof, creates wavy forms like a mountain in a mountain range	The hemisphere shape of felt tents in the mountains like a hilly landscape
3. Renewable and non-polluting energy	Natural ventilation Natural light	
4. Environmentally friendly material	-Tent cloth: goat hair -Poles: poplar -Reed matting walls: apple tree branches are woven with goat hair -Ropes: goat hair or industrial ropes on the market	Poles: firs tree- nomads bought the frame from the craftsmen -Covering structure: sheep wool -Short walls – reed mats are woven with goat hair, but nowadays industrial cotton string or industrial thin ropes is used -Cordage: sheep wool or industrial ropes on the market
5. Practical orientation	Depends on the climate, direction of wind and amount of sunlight needed in the summer	

CONCLUSION

The study conducted on the Kurdish black tent and Turkish felt leads to a set of comprehensive results regarding the reason of sustainability and survival. In fact, whatever kind of livelihood and environmental factors is imposed on them, it has made the reality of nomadic architecture continuous from the distant past to the present day. The results of the study indicate a complete harmony of nomadic housing within a movable lifestyle and regional climatic conditions that might be able to lead our architecture towards a reconciliation with nature.

NOTES AND REFERENCES

[1] The Peaked Kurdish black tent is nomadic architecture in the West Azerbaijan province and the domed Turkish felt tent is nomadic architecture in the East Azerbaijan and Ardabil provinces of Iran.

[2] Source of picture 1: modelling and rendering by author