NOMAD DWELLINGS OF NORTHERN EURASIA
AND THEIR GEOGRAPHICAL DISTRIBUTION

by Jerzy Zaborski

Faculty of Arts
Department of Geography

Ottawa 1959
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NOMAD DWELLINGS OF NORTHERN EURASIA
AND THEIR GEOGRAPHICAL DISTRIBUTION

Thesis presented to the Faculty of Arts of the University of Ottawa through the Department of Geography as partial fulfillment of the requirements for the degree of Master of Arts

by Jerzy Zaborski

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NOMAD DWELLINGS IN NORTHERN EURASIA
AND THEIR GEOGRAPHICAL DISTRIBUTION
CHAPTER I

INTRODUCTION

Existing literature.—Need
for a synthetic study.

Although the literature pertaining to the subject of human habitation, building, and settlement in northern Eurasia is particularly vast, there is a general lack of a synthesis. The writers—being primarily interested in singled out topics of lesser importance—have collected many minor, though factual pieces of information, and have analysed those isolated individual phenomena in detail. Individual explorers and researchers had their main interests concentrated on other subjects; while describing native dwellings exactly and well, they did not produce a complete picture of human habitations.

The ethnographers have provided us with interesting contributions towards understanding of dwellings among our
It was already in the XVIIIth century, however, much before these contributions appeared, that preliminary studies were conducted only to be followed by those of the XIXth century investigators. The land was of passing interest also to the historians. It was the scientists of the XXth century, however, who permitted further insight into the

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Jochelson, W., Peoples of Asiatic Russia, American Museum of Natural History, New York, 1928.

2 Pallas, P. S., Reise durch verschiedene Provinzen des Russischen Reiches, 3 vol., St. Petersburg, 1771-1776.

Huc, M., Travels in Tartary, Thibet and China, translated by W. Hazlett, 1844-1860.

Levshin, A. I., Description des hordes et des steppes des Kirghiz-Kazaks, Paris, 1840.

Radloff, A., Aus Siberien, Leipzig, 1884.

Sieroszewski, W., Yakuty, St. Petersburg, 1896.

3 Parker, E. H., A Thousand Years of the Tartars, London, 1924.

problem in their monographs and enabled the ethnologists to generalise such informations and to coin hypotheses and theories explaining how these dwellings originated. The architects have studied the subject from a structural point of view and analysed its planning.

1 Baddley, J. F., Russia, Mongolia, China, 2 vol., London, 1913.
3 Carruthers, D., Unknown Mongolia, 2 vol., London, 1911.
5 Hudson, A. E., Kazak Social Structure, Yale University Papers in Anthropology, No. 20, 1938.
8 Lattimore, O., The Mongols of Manchuria, 1931.
10 Shirekogeroff, S. N., Social Organization of the Northern Tungus, Shanghai, 1929.
11 Sieroszewski, W., Przeciecia lat w kraju yakutów, Warszaw, 1901.

5 Poniataowski, S., 4 nowych postępów etnologii, "Czas. ismo Geograficzne", 1924-1925.
6 Schmidt, W., and W. Koppers, Volker und Kulturen, J. Gabbel, Regensburg, 1924.
aspects. The archaeologists have given us data as to the houses of past ages. Finally, on the basis of comparative studies the geographers made valuable contributions in correlating the above information with their own observations on the natural and human phenomena of the Earth's surface, and the travellers, both of the XIXth century as well as of the XXth have popularized this knowledge.

1 Piascik, F., Krotka charakterystyka tradycyjnych form architektury ludowej, Ze studiow nad budownictwem wiejskim, Warsaw, 1957.
9 Lattimore, O., The Desert Road to Turkestan, London, 1926.
Despite such vast literature there exists a blank spot, however, in the knowledge of habitations of northern Eurasia and their classification and distribution.

Most research has been done by the Russians, particularly under the Soviet regime; it is reasonable, since the Russians are a dominant nationality in that part of the world. Particularly valuable is the series describing ethnology of the whole world, containing also chapters on dwellings of mankind. ¹

The amount of contributions to the topic, though not being small, at the same time does not have a synthetic approach, in most of the works. Perhaps the best are monographs describing

¹ Tolstov, S. P., Editor, Narody Zira, AN SSSR, Moscow.
certain regional units\textsuperscript{1} and/or chosen problems,\textsuperscript{2} as well as some collections\textsuperscript{3} and handbooks\textsuperscript{4} - all of them being results of scientific investigations by the Academy of Sciences of the Union of Soviet Socialist Republics.

There are only a few contributions, however, attempting to present a developmental sequence.\textsuperscript{5} Therefore the need for such a synthetic approach is being felt in order to fill the gap in our knowledge of more than a fifth of land's surface, and nearly a fourth, excluding the lands with permanent ice caps.

\begin{itemize}
\item \textsuperscript{1}Okladnikov, A. P., \textit{Yakutiya do prirazhdeniya k russkomu gosudarstvu}, Istoriya Yakutskoy ASSR, Vol. 1, Moscow-Leningrad, 1955.
\item \textsuperscript{2}Tolstov, S. P., Editor, \textit{Vostochnoslavianskiy etnograficheskiy sbornik}, Vol. I, AN SSSR, Moscow, 1956.
\item \textsuperscript{3}Tolstov, S. P., Editor, \textit{Sbornik Museya Antropologii i Etnografii}, Vol. XVII, AN SSSR, Moscow-Leningrad, 1957.
\end{itemize}

According to the Soviet approach geography is divided into the physical and economic chapters. Human geography does not belong to geographical sciences under the Soviet setup. For this simple reason we shall not find contributions to the study of human dwellings in the Soviet geographical literature to any great extent. This topic, however, has been discussed by Soviet ethnographers.\(^1\) And although their approach differs substantially

\(^1\) Studeneckaya, E. N., *Sozrenee Novoe Kabardinskoye Zhilishche*, "Sovetskaya Etnografija", No. 4, 1948, pp. 105-123.


from a geographical one, it is very precise. They are not emphasizing the importance of the distribution of the types and the correlations of the human habitations with the environment, and even with the human factors like historical development, social, ethnic and the linguistic aspects. It is best evident in shorter contributions.¹

All those numerous works, while undoubtedly being valuable and rich in data on our subject, have to be scrupulously studied and consulted though none covers the whole field of this study.


Not only do we not possess a synthetic work presenting a classification of house types but also there is a lack of distribution studies and of correlations of these types with natural conditions or cultural and national groups of the Eurasian northlands.

"...researches of all the authors, mentioned till now, acquaint us with the appearance of kinds of situation and shapes of villages on the earth's surface. We receive from them only general knowledge of relationships, which occur between villages and the physico-geographical factors, but not about their distribution on the globe, and its causes. What is more important, they do not show a method for studying of these phenomena." ¹

What Professor Bogdan Zaborski said about rural settlements ² is also valid in respect to types of dwellings.

¹ Zaborski, Bogdan, O kształtach wsi w Polsce i ich rozmieszczeniu, Prace Komisji Etnograficznej, No. 1, Polska Akademia Umiejętności, Kraków, 1930, (the quotation translated by Jorzy Zaborski).
² Zaborski, Bogdan, Sur la forme des villages en Pologne et leur répartition, in Zaborski, Bogdan, O kształtach wsi..., pp. 97-103.

Zaborski, Bogdan, Über Dorfformen in Polen und ihre Verbreitung, Osteuropa-Institut, Wrocław, 1930.
Therefore, it is deemed essential to fill in such an extensive gap in our knowledge. This desiderata seems to be very well timed especially in the light of contemporary interest in the study of northern Eurasia, to make that unknown part of the world compare favourably with the results from other continents.\footnote{de Aparicio, F., \textit{Habitation naturelle dans la province de La Lioja}, "La revue de geographie humaine et d'ethnologie", No. 1, Vol. 1, 1948, pp. 30-34.}

\footnote{de Dainville, J., \textit{Habitations et types de peuplement sur la rive occidentale du Lac Tchad}, "La revue de geographie humaine et d'ethnologie", No. 2, Vol. 1, 1948, pp. 50-60.}

CHAPTER II
NEED OF SHELTER

Needs and responses.
Lack of determinism.

It was already Professor Krasm Majewski who has suggested - in the beginning of this century - the biological conditioning of culture.¹ Some five decades later, Professor Carl Count, a physical anthropologist, suggested a biological basis for social behaviour.² It was only the founder of the functionalist school of ethnology, however, Professor Bronisław Malinowski, a student of the famous Frazer,³ and a teacher of many brilliant

²A lecture delivered at the University of Toronto, 1955.

scholars (among whom a prominent place goes to the late Professor Gordon Brown - an alert, acute thinker, the last of the real scholars among the Angle-Canadian anthropologists - whose work, though being theoretical, at the same time is in a direct relationship to field material\(^1\)), who has defined basic needs of man as a biological entity and their cultural responses.\(^2\)

According to Doctor Malinowski, there are the following seven basic needs: metabolism, reproduction, bodily comforts, safety, movement, and health.\(^3\)

"The brief statement bodily comforts refers to the range of temperature, percentage of humidity, and absence of noxious matters in contact with the body which allow such physiological processes as circulation, digestion, internal secretions, and metabolism to continue in the purely

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3 Ibid., p. 91.
physical sense. Probably the range of temperature is the most significant element, since exposure to wind and weather, to rain, snow, or continuous dampness acts to a large extent through elements of temperature upon an organism.¹

As a cultural response to this basic need the author gives shelter.² In other words, man - biologically motivated - responds in a way prescribed by the cultural behaviour he has learned. Thanks to his culture, man does not look for a shelter when the immediate need arises, but prepares it well in advance. He does not have to re-learn the fact that he needs a shelter every time climatic conditions become unfavourable, because he draws freely from the rich experience and inventions of our multi-generation old cultural heritage.

We do not attempt to be deterministic, in either direction, but merely suggest that biological conditioning of mankind's living organism is channeled into the culture-prescribed behaviour.

¹Ibid., p. 92.

²Ibid., pp. 91, 103-106.
According to Teofil Chodsido, a well-known ethnographer of Yakutia, a protection of the body from climatic hardships directed man towards the invention and use of clothing, and what follows - habitations, since the latter is kind of clothing in a broader sense of the concept.¹

According to that scientist, clothing and habitation belong to the most important aspects of the cultural achievement of mankind.²

²Ibid.
CHAPTER III

ENVIRONMENT

Climatic factors.- Soils and relief.- Vegetation zones: tundra, taiga, steppe, desert; deciduous and mixed forest.

Climate, soil, fauna and flora, and relief - all have contributed towards the shape human habitations obtained. In face of lack of natural rock shelters or caves man had to devise for himself a sufficient protection from heat and cold, precipitation, wind, insects and other animals. It could have been done out of the locally available material: earth, rock, sod, timber and other organic matter. Once invented, man passed the dwelling on to his descendants who modified and improved it through the ages.

We have in northern Eurasia - the area of our study - three principal natural regions. They are a result of many of the above-mentioned factors which do overlap and mutually influence each other. Through climate we have certain kind of soil and type of vegetation coverage, and topography, which partly affected by
both of the latter factors is most dependent on the erosion and
deposition, which in turn are a result of other physical forces
including climate. Climate itself is controlled mainly by the
geographical latitude as well as the distance from nearest large
body of water, and altitude.¹

The natural zones form belts running in the east-west
direction, more or less longitudinally (as contrasted with the
predominant north-south direction in the New World), across the
eurasiatic continent. The first of these, the tundra, is least
 hospitable and uninviting; it is, in addition, very little
productive. The tundra offers limited possibilities, lichens
being the sole fodder, to man and his domestic animals. There are
hardly any trees found in this zone, the vegetation being limited
to small flowers, lichens and feeble brush. The tundra borders
on the Arctic Ocean almost all along its extent in the northern-
most Eurasia.

The zone of the lichen forest forms a transition from
the tundra towards the boreal coniferous forest. It is a zone
frequently used by migrations in the past, permitting a given group

¹Smoleniski, J., Ziemia jako podłoże dziejów ludzkości, in
Dąbrowski, J., O. Malecki, M. Kukiel, and S. Lam, Editors,
Wielka Historia Powszechna, Vol. I, Trzaska, Evert i Michalski,
Warsaw, 1935, pp. 25-47.
to utilize both zones with advantage. In broader classification this zone may be grouped with the taiga.

The next zone, situated south of the tundra, is the zone of the northern coniferous forest. In southern Siberia the evergreens meet the steppe without a belt of mixed and deciduous forests, dominant in Europe's central core, south of the Scandinavian coniferous region. Deciduous and mixed forests gave way largely to farmlands in Central Europe, while the taiga, being a more primeval type of forest, is penetrated by open, cultivated land only gradually in northern and north-eastern Europe and in Asia. Trees offer timber and wood, provide natural wind shelter, bark, the underbrush is rich in mushrooms and berries, and the zone is rich in fodder, and fauna is plentiful. The taiga alone occupies perhaps what is the largest stretch of land in northern Eurasia.

Between the forest and the steppe is a mixed region of trees growing in groves, while the conditions appear very prairie-like. It is parkland; it can be included either with the taiga or with the steppe. Irrespective of any classification adopted for this transitional zone, the parkland, similarly to the lichen

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woodland, is a favorite route of migrations, giving the nomads and wanderers access to both the taiga and the steppe. The Russian, Ukrainian and Kozak colonial expansion, conquest and settlement in Siberia proceeded along the parkland.

"Whatever region is inhabited by the tribe, the population tries to find within it the best possible conditions for life - close to game, fish, and water and sheltered as much as possible from wind. Valleys of rivers and streams, foothills of mountains and plateaus, and limits of natural zones attract migrating population". 1

Further to the south we have a zone of steppes. It is important to differentiate in this place between the two of its subdivisions. Short grass steppe being located further to the south has very little to offer, particularly during the summers. The grass there is burnt out by the intensive heat and prolonged exposure to the sun. The long grass steppe, on the other hand, is green all year round - except for the months with snow cover, this being a cold steppe, therefore it does occur - is an

1Ibid.
enormous natural pasture. This zone stretches from the Imanonian Plain, the Ukraine, Kazakhstan, North Caucasus, Greater Turkestan, Greater Mongolia, Manchuria, from Central Europe across Asia to the Pacific Ocean. In its western, European parts, the steppe has been largely converted to cultivated land. It is a very well pronounced zone, and is approaching the size - and certainly has played a greater role in history - of the taiga.¹

South of the steppic zone there are extensive deserts and semi-deserts, blending gradually with the short grass prairie. Except for the lakes' banks and river valleys the desert is a bad zone for human habitation. Nevertheless, men of the steppes come crossing the desert or visiting oases, and than, utilize the limited vegetation - in time of need - the desert is able to offer them and their beasts.

Both the steppes and the deserts are long stretches of land. Contrary to the forests, the open land affords free movement for those who want to take advantage, for trade, war or colonization.

¹Haviland, M. D., Forest, Steppe and Tundra. Cambridge, 1926.
This ideal symmetry of the arrangement of natural zones in Eurasia is upset by the existence of high mountain ranges. These ranges are situated in Turkestan, Mongolia, and eastern Siberia. The mountains of Europe are of lesser importance for our study. On the southern periphery of our region, however, we discover extremely high altitudes, particularly in the Caucasus, and the Iranian and Tibetan Plateaus. The conventional limit separating Europe from Siberia follows the Ural Mountains, from north to south.

In the mountains we can find many of the above-mentioned vegetation zones in vertical situation. The pastures and meadows above the forest zone in the mountains provide fodder during the summer, while valleys are usually usable for the same purpose in winter months. This ideal balance permitted growth of nomadic states in antiquity and the Middle Ages, and when the conditions worsened, they exploded with numerous migrations. ¹

¹ Ahrens, E., Wirtschaftsformen und Landschaft, Hamburg, 1927.
⁵ Forde, C. W., Values in Human Geography, "Geography", Vol. 15, Geographical Association, Manchester, 1911.
The Angara Shield to the west and orogenic forces to the east have sheltered the heart of Yakutia - the Lena Basin - from harsh climatic conditions, thus creating a situation favourable to a cold northern steppe.¹

CHAPTER IV

GEOGRAPHICAL REGIONS

Regional approach.
Regionalization.

A geographer, when undertaking a research project, first thing will attempt to approach the problem regionally. In the chapter on environment most aspects pertaining to vegetation zones were discussed; now will come only a brief addition of the physiographic aspects of regions.

In Northern and Eastern Europe there are two ancient shields, known as Fennoscandian and East European, respectively. Between the two there is a belt of lowlands with Quaternary evidence of glaciation. The Urals separate two lowland areas, one that of Eastern Europe, the other the Ob Basin, a rather marshy country of Western Siberia. Further to the east there is Angara
Shield in Central Siberia. In between the Angara Shield and East Siberian highlands there is the Lena Basin and Valley. To the east lies the East Siberian Archipelago and Kamchatka Peninsula, the former composed of Sakhalin, Yezo and the Kuriles; to the east of the peninsula there are Komandorske Islands. Finally in the Arctic Ocean there are the islands of the Arctic Archipelago, and the cold, uninhabited Taymyr Peninsula.

In the Turkestan Basin are deserts and steppes, separated from the Gobi Basin further to the east by Central Asian mountain ranges, blending into the Mongolian mountains and Trans-Baykalia. The Caucasus, Iranian and Tibetan Plateaus and the north Chinese mountains form the southern limits of our regional interest. Korean Peninsula and the Manchurian Basin are south-eastern extensions of the East Siberian ranges and the Amur lowland. All in all it is the desert country in the basins of Central Asia that mark the conventional, and geographical limit between southern and northern Eurasia.
CHAPTER V

WILDLIFE

Reindeer breeders.

Forest folk.- Pastoralists.- Farmers.

The subarctic tundra and northernmost taiga are inhabited by a people whose occupation is nomadic herding, and breeding of the semi-domesticated reindeer. This animal is a blessing to native population of these un hospitable northern regions. The natives throughout this zone of Eurasia use reindeer as a pulling force for their sledges, as burden animals for their goods, including tents, as animals used to rides on rather lengthy trips, and, what is more important, the animal serves to satisfy other economic needs of the population. It gives milk, meat, its hair

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is woven, and hides are employed both as clothing, for lining tents and for leatherwork. The Tungus, in addition, ride their animals, while other northern nationalities refrain from this, except for children. ¹

Depending on the season, the peoples of the subarctic migrate. During the summer they move with all their property northwards, to the tundra, which during that season being rich in fodder for their steack, makes the life reasonable. In winter they go with their reindeer to seek a refuge in the taiga, where the animals are able to find some food under the snow, and where the trees form a formidable shelter against breath taking winds of the northern open spaces.

The reindeer survive very well in their wild state and are not fully domesticated when captured. The wild ones at times join the domestic herd, while some of the domestic animals escape frequently to join the wild animals, which are passing near by. ²

¹Forde, op. cit., p. 356.
This way of life predominates among the Lapps of Fennoscandia, save for those who adopted a settled economy (Fig. 2), the Samoyeds in northern Ural Mountains and in the Ob valley, among the northern groups of the Tungus and Yakut nations of Central Siberia, finally among the Yukagirs, Chukchis and Koryaks of Eastern part of the land.¹

Deep in the forest zone dwell the Finns, between the Baltic, White Sea and the European Great Lakes region, including eastern Fennoscandia, Estonia and Idel-Ural or the Middle Volgaland, and the steppe to the south, the Ural range to the east. Other forest people are the southern Samoyeds, the Kets on the Yenisey, the Ugric people of the western marshlands of Siberia, the southern Tungus, Yakut and some of the Paleasians, of the eastern Maritime Siberia.

The Idel-Ural peoples, except for the Komi, live in a zone with considerable admixture of deciduous trees, today are civilized tillers of the soil, formerly were preoccupied with

various peculiarly forest occupations together with the taiga dwellers. The forest people are predominantly hunters and trappers since remote antiquity. They were nomads or semi-nomadic moving from area to area following the game. Other forest occupations, requiring less nomadism, are tending wild bees, inland fishing, gathering of food. Collectivization and Russian exploitation of native economy—tsarist at first, Communist now—changed the organization of work and technique, but affected but little local economies and habitations in the northern-most areas of the Old World.

The inhabitants of north-eastern Siberia, the Es'eo, the Chukches, the Aleuts, the Koryaks and the Itelmens are largely fishermen and land-and-sea hunters. The other Palaeasians, including the Ainons of the Japanese-held island of Hokkiado, are fishers.

The peoples of the steppe, the Turkic and Mongol nations are nomadic pastoralists—exclusive of the settled, urban populations in their autonomous republics. They practice

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1 Hokkaido, Its Face and Heart, n.d.
Transhumance in the mountain valleys, migrate elsewhere from pasture to pasture. They inhabit the Turkestan and Mongolian steppes, and the steppic way of life is characteristic also of northern Iranian Plateau, south-eastern Caucasus, the Kalmuk land in North Caucasus, and - the Lena Basin of Yakutia.

Despite that large part of the steppic way of life penetrated also into the intervening mountains, particularly to north Mongolian, central Turkestan, and south-North Turkic lands of the USSR, it rarely crossed the boundary of the forest zone. This way of life seems peculiarly fit for dry regions.

Finally, the Slavs, the Balts and the Scandinavians lead farming economy today. Their Indoeuropean ancestors were simple gatherers at the shores of the Baltic and North Sea during the Neolithic Age ¹ alongside the ancestors of other Indoeuropeans who still lived together in their northern cradle.


After the onset of the farming and herding ideas from the Banubian regions to the south, and after the dispersal of the Indo-Europeans across Europe, only the Northern group remained, that is the ancestors of the Balts, Slavs and the Teutons, in their former settlements.\(^1\) The latter dwelled in Scandinavia, while the Balto-Slavs lived on the southern and eastern shores of the Baltic, right down to the southern mountains.\(^2\) Both groups became farmers, but the Teutons — coming from a less favourable environment — resorted often to wanderings.\(^3\)

Intensive study of former settlement shows gradual replacement of forest by till open spaces.\(^4\) The studies of former settlement, farming and open spaces (Fig. 3) are done for the western part of our area of study only.\(^5\) From the results...

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we can see that while Scandinavia remained semi-sedentary and periodically sending away waves of migrants to the richer, more southerly regions, the mountainous region of Central Europe was preoccupied with entirely sedentary farming economy and domestic breeding of livestock.¹

On the basis of detailed fieldwork it is possible to differentiate between the primeval forest and a long-settled region.² Such paleogeographic studies for the remaining sections of northern Eurasia are urgently needed.

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¹ Schluter, O., Die Siedlungsstruktur Mitteleuropas in 
frühgeschichtlicher Zeit, Part I, Atlantik-Verlag Paul List, 

² Zaborski, B., O kształtach wsi w Polsce i ich rozmiarzeniu, 
sp. cit., pp. 8-11.

Potkanski, K., Studio osadnicze; Łuczesa Rodeńska, Łužecze 
Karpiowska i Podbale, in Pisma posmiertne K. Potkanskiego, 
Vol. 1, Kraków, 1922, pp. 119-130.

Gradmann, R., Das ländliche Siedlungswesen des Königreiches 
Württemberg, in Forschungen z. deutschen Landes- u. Volkskunde, 
Vol. XXI, p. 78.

Pujak, F., O najdawniejszym osadnictwie ziem polskich, 
"Sprawozdanie z czynności i posiedzen Akademii Umiejetności," 
16 October 1916, p. 12.
CHAPTER VI

SOCIAL ORGANIZATION

Families and bands in tundra and taiga.- Tribes on the steppes.-
Matriarchate.- Patriarchate.-
Clan system.- Complex organization.

The hunters and reindeer breeders of the northlands
have to depend on limited resources of the region and therefore,
are obliged to lead a nomadic life.¹ Their family - often extended
- being the smallest unit of social organization. Seasonally,
for celebrations of religious nature, or to celebrate some
prominent event in the life cycle, several family units would
meet, thus showing their band - a broader unit - affiliation.
Though they may speak the same language and have some intercourse
with neighbouring bands, yet hardly ever - on account of harsh
natural, and what follows, economic conditions - there would be
any larger association than the band.

¹Nyres, J. L., Nomadism, Royal Anthropological Institute of
Somewhat similar situation occurs on the steppe. The animals have to be scattered over wide areas for pasture, forbidding accumulations of too many families and their grazing cattle, camels and yaks in one area. The steppic pastoralism, however rich in drawbacks, permits movement over large regions, and a broad intercourse with the neighbours, sometimes quite distant ones, and creates foundations for strong tribal political units. This was the origin of mediaeval strong states of the Huns, Avars, the Old Bulgars, the Huns, Hungarians, Haisoungs, Kipchaks, Tatars, Mongols and Turks.¹

The fishers of the eastern portions of Siberia - and here we include also Hokkaido because of the Ainu population attached culturally, ethnically, racially and linguistically to other nations of eastern Siberia - are more or less sedentary. They dwell in small villages, and are organized in small associations of a number of families fishing in one neighbourhood or tribal area.

The farmers of the west, on the other hand, have created strong and large states as a result of union between several tribes. Farming has provided the tillers of the soil with plenty of leisure which they could afford to devote to arts, religion, and political pursuits of a complex nature. Thus arose many Central and Northern European states of today. Formerly clan units, federated in tribes, and these for economic and political reasons under an elder, then a duke, sought broader union with a respectable monarch as a leader. All that development has taken place in the Mesolithic, Neolithic, Bronze and Iron ages, permitting growth of large civilizations in that part of the world.

The first farmers and herders in Central Europe, affiliated with the Danubian Culture, archaeologically speaking, had a matriarchal setup. The extended family was ruled by a woman, and the clans were counted on the mother's side. This was reversed when herding became more prominent, and the Indo-European custom of the father being an elder began to predominate. Patriarchate is also found among the steppic people. The clan system, whether matriarchal or patriarchal, became the foundation for later complex civilizations.¹

¹Rajewski, op. cit.,
CHAPTER VII

DENSITY OF POPULATION

Sparsely populated north.
Sparse population in the arid south.
Densely populated farmlands.

The entire northlands of the continent are rather sparsely populated. The average is less than one person per square kilometer. This density is not true for the river valleys, where it may be up to ten persons per square kilometer. One such area with a prominent density is the Lena valley in the Yakutian Republic; some 300,000 people dwell there.

Northernmost parts of Taimyr peninsula and the northern island archipelagoes are not inhabited at all. These are true barren lands without vegetation and therefore without possibilities of reindeer herding, and consequently, are devoid of population.

The steppes are more populated than the regions to the south and north and south. This accounts up to twenty-five
or for similar number of persons per kilometer. Of course, this is largely due to European settlement.

In Europe the density is amazing, rising over one hundred persons per square kilometer except in mountainous and peripheral areas of Northern and Eastern Europe. ¹

¹*Geograficheskiy atlas*, Glabnoe upravlenie geodezii i kartografii MVD SSSR, Moscow, 1954., p. 15.
CH. VIII

Typology as a method and its application. - The static vs. the dynamic; the formalistic, structural and generic approaches. - Typological criteria. - Historical reconstruction: direct historical and inductive techniques. - Seriation.

It is difficult, but - of course - possible, to establish a house type out of the multitude of dwellings we do encounter in our part of the world. Being possible - though, as we noted, not easy - as matter of fact not easy at all - does not necessarily mean it will be done; it will, nevertheless, be attempted, and that - right here.

Typology is a very difficult discipline to use, still harder to master. It requires a rather subtle approach to the matter of study, to the objects being studied themselves.

There are certain schools of thought which prefer to
compare the objects under study on the grounds of appearance alone, and to group them in classes seemingly alike. This superficial approach to typology is fallacious as it is assuming that the phenomena under study are static. It is erroneous methodology, since changes go on continuously. Building up their hypothesis founded on this methodologically incorrect axiom, the results are completely misleading: an exaggeration of a wrong approach.

Demangeon, for example, when studying dispersal of settlements in Europe, applied this method. He relied on a distance, e.g., of 100 meters, that separated the homesteads. If the distance between them was smaller – he classified the settlement as an agglomerated one, while if it was more than mere 100 meters – the settlement received a name of a scattered one. The method ignored all physical and human aspects of settlements.

Students, applying this superficial thinking in typology to human dwellings assume all rectangular houses, for example, to belong to one class typologically speaking, one type, ignoring

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Demangeon, Alfred, Dispersion des villages, in Compte-Rendu du Congres International de Geographie a Varsovie, Warsaw, 1934.
ignoring structural - and what is of utmost importance - generic aspects of the type. By consideration of form alone they commit great oversimplification, meaningless - if not misrepresenting - depiction of the real picture.

In northern Eurasia a classical example of such a typeological distortion is a confusion of the - seemingly alike - yet dissimilar oft-celebrated houses: a log yurta (Figure 12, p. 94) and a balagan (Figure 9, p. 83).

The other school of typology, unlike the formist approach, while evaluating the form at its face value considers primarily the structure and the genesis of a typed subject. The latter aspect, especially, permits historical reconstruction: how did a type grow and evolved. It is a dynamic approach, deep-reaching for the correct answer. This dynamic approach has been followed in our search for establishment of types of nomadic dwellings - and their distribution in the northlands of the Old World.

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1 Zaboriski, O kształtach wai w Polsce i ich rozmieszczeniu, op. cit. Geometric forms play a minor role in this study; it is the physico- and human geographic correlations that are prominent; structural and generic approach is adopted.
In every typological study there are certain criteria on the basis of which a typological survey is worked out. There are two general groups of these: descriptive and analytical. The former is composed of the formal and structural, while the latter considers the generic aspect. For our purposes these criteria will look in the following manner:

I. Descriptive.

1. Formal.
   a. Shape;
   b. Colour, if significant;
   c. General appearance.

2. Structural.
   a. The way of building;
   b. Elements;
   c. Material used.

II. Analytical.

1. Generic.
   a. Origin and adaptation to physico-geographical situation.
      A. Native to the environment and group;
      B. Borrowed from the autochtons;
      C. Brought from the old habitat;
      D. Adopted from the invaders;
      E. Otherwise diffused.
   b. Presence or absence of elements or traits.
      A. Traits added or lost;
      B. Underposed and superimposed traits;
      C. Archaic traits and survivals;
      D. Evolved from a prototype.
In this study we are employing these criteria in our examination of the present day series of dwellings of the north Eurasianic nomadic nations.

In order to obtain in our survey also the temporal dimension — in addition to that of spatial distribution — so important for our genetic study, and essential for chronology, we can follow two ways of obtaining it. The techniques are complementary, and both can be used simultaneously for greatest precision. Direct historical approach, used successfully by the archaeologists, found its application in the study of ceramics and other plastic arts. MacNeish of the National Museum of Canada promised a similar study on pipes and projectile points; we hope it will materialize, since his former volume — showing its popular appeal — was paraphrased and published by a group of amateurs.

2. Carpenter, Edmund, Review of MacNeish's Iroquois Lottery Types, "Pennsylvania Archaeologist".
6. Ibid., p.2.
The direct historical technique tries to compare the contemporary forms with the forms as described by the early explorers and the information that is unearthed in archaeological investigations. It tries to arrange this information in a sequence correct chronologically and typologically. It is a complementary way to the typological investigation itself, and a worthy cross-check on the results.

The inductive technique for historical reconstruction of the sequence of types of dwellings, their development and geographical distribution follows very closely the criteria as defined for the typological survey. It may be worth while to explain the terms, particularly in the part essential for any reconstruction, i.e., the analytical-genetic category.

A trait, as used here, means a characteristic element or a part of an element which can be distinguished, culturally speaking. E.g., the way a nomad's tent is oriented - in what direction; if it is not significant, the trait is negative. A number of traits form a complex, e.g., a hut is a complex. When a trait is superimposed? It takes place, when another trait takes place of the former, yet the old can be noticed, e.g., a log yurta is the superimposed trait on the felt yurta; underposed trait is its corollary, the felt yurta in relation to the log yurta, the latter being chronologically later.
The archaic traits exist when they are not as up to date as they could be, yet they serve certain practical purposes, while a survival is a trait which has no functional use at all, but remains as a relic of a former setup.

Summing up, the inferences on which the inductive method operated are based on plentiful material and detailed researches. It does - on the bases of progressive reconstruction - present a good picture of former habitations and their paleo-geographical environment. Unlike the deductions arrived at from typological studies, the inductive method's chief two axioms

1. Technique and crudeness of workmanship;
and 2. The degree of elaboration

may have a pitfall: degeneration, chronologically later than the period of fine workmanship or simple functional design may confuse the issue; it is a chance the inductive technique takes, that reconstruction from a detail of the complete object may not always be successful.

Now, a brief explanation on the basis of the typological
method, seriation. Any typological undertaking is conducted through the examinations of serially arranged objects of study. A series is a certain given number of those objects having one or more of those characteristics in common: location in one geographical region, belonging to a given ethnic group, contemporaneity, development from earlier to later forms, origin, form; or, when none of those characteristics is satisfied, then it is an accidental series. When the specimens are taken by the sampling method, it is a random series. A statistical series occurs when given ratios of types are grouped together in a given context, e.g., a series of house types among the Puebloans will show predominance of the timber structure (Fig. 19, p. 116), and the rest composed by the palafitos (Fig. 20, p. 119) and pit houses (Fig. 18, p. 110).

Thus a typological series is a device which helps in the analysis, classification and reconstruction of former distribution of delineated types. Thus, in addition to the above-mentioned, we may have a regional, ethnic, contemporaneous, developmental, genetic and formal.

A series, when submitted for study is rough and unclassified. When classified, and grouped in one of the above
groups - it becomes an arranged series.
CHAPTER IX

ETHNOLINGUISTICS

Arctic and Paleozician, Italian and Uralian Families.- Tibetco-Chinese Family.- Indo-European and Asiatic Families.

The Eurasian northland does not present as complicated a picture as many other parts of the globe. Here, on the present day distribution of ethnic groups, and for that matter, of coinciding with them almost completely linguistic families, we can reconstruct their migrations and find out locations of their original abodes, and discover who dwelled in their present habitat before their arrival. We are aided in this historical retrospection, of course, by synthetic information obtained from other scientific disciplines: ethnology, archaeology, physical anthropology and history. In this study, however, and in this chapter, we are going only to characterize briefly each of the ethnolinguistic families to the needed extent of our study.
Following the sun in our eastern-most part of the Old World northlands, in Eastern Siberia, we find the Paleoasian linguistic family. It is not known to what extent there exist interrelationships between two groups of this family, yet all evidence points to the fact that they are forming one very broad unit of linguistic classification.\(^1\) The Paleoasians are believed to have lived many millennia before on a considerably larger territory of northern Eurasia, than that of today. The scientists believe that they lived originally from the Yenisey to the Pacific Ocean,\(^2\) and that later migrations from their Siberian center spread them even further to the west.

Today in their refuge areas the Paleoasians are divided into two groups: northern and southern. The former is composed of the Luoravetlans, Nyymylans, and Itelmens, the latter of the Nivhs and the Aimus. The Luoravetlans are a dynamic people, at the time of the Conquest not as numerous, expanding at the cost of the Oduls, whom they assimilate, and the Eskimos, whom they pushed to the peripheries. The Luoravetlans occupy most of the northern part of the peninsular projection of Eastern Siberia, with access to

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East Siberian Sea, Chukche Sea, Bering Strait, Anadyr Bay and Bering Sea. The Luoravetlans are known also under the name of Chukches.

The next are the Nymylans, also known as Koryaks. They inhabit northern Kamchatka Peninsula and territories south of the Luoravetlans, from the Shelehov Bay to the Bering Sea. The Itelmens dwell further to the south in Kamchatka. Once they were called from the name of the peninsula Famchadals. Many of them adopted the Russian language, though preserving their national Itelmen feelings. Northernmost Kurile Islands were also populated by those people.

Nivhs dwell at the lower Amur River and on northern and central Sakhalin Island. They were known formerly under the term of Gilyaks. Their relatives, the Ainus, inhabit the Kuriles, Sakhalin and Yezo Islands. Despite the defeat of Japan, the Ainus of Yezo - the island is called by the Japanese Hokkaido - are still left under the rule of the Japanese. The fate of the islands occupied by the Soviet Union after 1945, and its Ainu population, is even less enjoyable, numerous Russians being settled on their land. At one time the Nivhs and Ainus inhabited much larger areas to the west and south. Today, they are simple fishermen with arctic culture of great antiquity. And although their southernmost area politically belongs to Japan, geographically and ethnically it is a part of Eastern Siberia.
The Arctic linguistic family inhabits edges of the land area even further to the east from the Paleoasiates. It is subdivided into the Eskimo, Aleut and an extinct Boothuk branches. West of the members of this family live in Alaska, Canada, and Greenland. Nevertheless we have even west of the International Date Line some of the representatives of the living branches of this family. The more northerly Eskimos occupy Wrangel Island, eastern shore of the Chukche Peninsula, particularly the part facing westernmost part of mainland Alaska, and Saint Lawrence Island, and western coast of the Anadyr Bay. The Aleuts, further to the south, dwell in the Komandorskie Islands, which are part of the Aleutian chain of islands. It is believed that this family had a better foothold on the mainland some time ago, only gradually to be pushed out by the Paleoasiats, principally the Luoravetlans.

The next linguistic family is the Altaian. It is subdivided into three main branches: the Manchurian, Mongolian, and Turkic. To the first belong the highly civilized Manchurs, and the nomadic Evenki, Eweny, Nemidalcy, Nanaycy, Ulchi, Oroki, Udegeacy, Orochi, known collectively as Tunguz. The second branch includes the Mongols, the Buryats, and the Kalmyks. Finally, the third includes the Turks, the Azerbeydjani, the Tatars, Kazaks,

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Kirgiz, Kara-Kalpak, Uzbek, Turkmen, Bashkir, Chuvash, Altaians, Tuvinians, Tofalars, Naks, Shorcy, Yakuts, and the Dolgans. The latter two form the eastern group of the Turkic peoples, the five nations before them - the Central Turkic group, the two preceding nations on the middle Volga and in the Urals are known as the Idel-Ural group, the five before are Turkestanis, while the rest are West Turkic group. The Tatars are situated in the Idel-Ural and western Siberia. The Crimean Turks or Tatars, the Turks of Asia Minor, the Caucasus and Tukestan are civilized, except for the pastoralist classes of their nations. The Idel-Ural nations are settled as well. And in the other countries to the east, only cities and towns have a settled population, otherwise majority of the people are roaming herders and breeders. Some scientists include among the Altaians also the highly civilized Korean nation, inhabiting in addition to the peninsula also southern parts of Manchuria and the vicinity of Vladivostok.

The Manchurian branch of the Altaian Family appears to be most widely spread in the world, the Tunguz living from beyond the Yenisey in the west to the Pacific Ocean. The Mongolians inhabit Mongolian Republic, Buryat Republic, the former Kalmuk Republic north of Caucasus, and the Mongolian autonomous regions of Manchuria and China up to the Liaotung Bay on the Yellow Sea, and the northern edges of the Tibetan Plateau. Thus, the Altaians dwell from the Mediterranean to the Pacific - the longest unbroken
distribution from east to west, except the Indo-Europeans.

The Uralian family is represented in the east by the Uduls, known also as Yukagirs and Chuvanoy, who are of Paleosiberian origins, but were Uralized before 2000 B.C.¹ The Uduls are not very numerous, loosing to the Yakut and Luoravetlans, as well as Tunguz influences. They inhabit the shores of the Arctic Ocean on the lower Yana, Incygirka and Yalseya rivers, and in the basins of Kolyma and Omolon rivers. This process of shrinking of the Udul territory begun already in the Colonial period.² Moncy, Aganasany, and Selkups are known under a general term of Samoyeds. They dwell in the arctic western Siberia from Taymyr Peninsula to Kanin Peninsula west of the Urals. Some Samoyeds are found even in Kola Peninsula and in the Novaya Zemlya archipelago. In general they predominate in the Ob basin, from Yenisey River to the Urals Mountains.

The Ugrions, Hants and Mansy, live on the middle Ob and in the Urals and their kinsmen, the Hungarians, departed some ten centuries ago to their present habitat. The other Uralians, almost entirely live in Europe. The Finnic nations are the following - although all are civilized and settled:– Sámi of Finnland, Karelians of the Karelian

¹ Kostrzewski, Jozef, Prawiejo Polski, Pasażarnia Akademicka, Poznan, 1949, p. 45-46.
² Milewski, op. cit., p. 200.

Zaborski, Bogdan, Geographical Aspects of Migrations..., op. cit., pp. 555-556.
Republic, Estonians, Udmurt and Mari and Mordovians of Middle Volga and the Komi north of them. There are also a number of much smaller nations belonging to this family, but are entirely unimportant from the point of view of this study. Finally there are the Lapps living in the north of the Fennoscandian Shield. Formerly they spoke one of the Samoyedic languages, today they adopted a Finnic one, called Lapp.

Tibeto-Chinese family in Siberia is represented by the Kets dwelling on the middle and upper Yenisey.

Finally, the Indo-European settlement since the Colonial Period takes place throughout the territory, but mainly on the black soils of Southern Siberia, right to the Pacific. The settlers are Slavs of Russian, Ukrainian, Kosak, Polish, Byeloruthenian and Novgorodian ancestry. They are all settled people, mainly farmers or urban population. Other Indo-Europeans, dwell in their cradle west of the described populations, in Central Europe, and in the Republic of Tadjikistan in the Pamirs. Here, part of the people are nomads.

House types are frequently connected with certain ethno-linguistic groups, whose distribution undoubtedly affects that of the dwellings. Therefore it was worth while to get a brief knowledge of the ethno-linguistics of northern parts of the Old World.
CHAPTER X

THE PROTOHOUSE

Upper Paleolithic sites.—
Meaning of protohouses.

There are two Magdalenian settlements known in this part of the world containing remains of ancient dwellings. One of them is in Buret on the Angara River, the other's name is Malta.

There were four houses discovered on the Angara. From each a corridor-entranceway faced the river. A shallow pit was found, rectangularish in shape, lined with flat slabs of limestone and mammoth bone used as posts, about a dozen of them, on which rested the roof and leaned the walls. The roof remained practically intact after its collapse to the interior of the dwelling. It formed a network of crossed reindeer antlers resting on a conic skeleton of gently bent poles. When the antlers were fastened to the poles and the poles were joined at the apex, the whole structure was covered with leaves, branches, sod and earth for protection against colds. There was no central supporting post, yet mammoth
tusks and leg bones served as supports, additional to the limestone slabs at the base. Those bones were set each between two large slabs of limestone for strength. The poles, in addition, rested on the slabs, the latter being placed in holes in the pit floor and were leaning against the walls of the pit. They were a little bit higher than the earth surface, thus facilitated attachment of the roof poles to themselves.

The house was spacious. It probably had a smoke hole at the crest. The pit itself resembled a rectangle with rounded corners with an entrance way projected on one of the narrower sides of the dwelling area, facing the river. Traces of a hearth were discovered inside the hut. Similar sites with dwellings were discovered at the well known Afonova Gora and other localities. They were quite numerous towards the end of the Upper Paleolithic, that is some 10,000 B.C.

It is most interesting to know that this protohouse of Siberia is ancestral both to the tents as well as to the subterranean dwellings. The tents evolved on the ground from the roof structure alone of this protohouse while a pit-house preserved also the excavation.

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CHAPTER XI

THE MESOLITHIC CHUM

Swiderian shalases.- The
Iaponoid reindeer hunters.-
Comb Culture tents.-
Climatic changes.

Since the Mesolithic we can find archaeological remains of the reindeer hunters, approaching Europe from Asia's plains. This culture of the nomads, known in archaeology as the Swiderian Culture, had a circular in cross-section, conical tent. It is more probable that it was a shalas rather than yurta. In this zone as the dominant type of dwelling the former predominates. The shalas is a tent which rests on a skeleton of poles, all meeting at the very crest, with skin sewed, or furs, or other protection from rain and cold. But this time, the age of the reindeer hunters, it was more likely to be some sort of hide rather than bark. This type of a shalas is known under the name of a chum. The Mesolithic chum is ancestral to all other forms of shalases, as it is the first known from the archaeological record, as well as structurally fills the requirements.
Anthropologically, the people with Swiderian Culture were laponoids, which connects them with the present day's population of predominantly laponoid race among the Lapps and the Sanyeds, both of the Uralic linguistic family. Increased activity of this group is seen also in Siberia, where these reindeer hunters introduce the chum throughout the taiga. These conical tents were not as warm as the formerly known subterranean house, and were far better adapted to the changing climatic conditions, soon approaching the optimum. Only on eastern peripheries of the land the former pit-house dwellings remained among the Paleoasiates, while the rest of the land became a domain of the chum of the laponoids of Swiderian affiliations.

But, even with the onset of the Neolithic, and the emergence of another Uralic group, the Ugro-Finns, the shalas remained to be the sole principal type of habitation. This ethnic group can be distinguished by the archaeologists under the name of the Comb Culture. It was named after a characteristic design on their ceramic wares. This group spread westward to the Laba River, though in a scattered manner, pushing the former wave of inhabitants to the north-western peripheries, mainly Lapland, where they live till today, and the region north of the Urals, in both the Asiatic as well as European parts.
The Ugre-Finnic people introduced with them their conical shalases, as indicated by the archaeological evidence in the form of circular outlines on the ground. They moved also to the east, to reach the Bering Strait by approximately 2150 B.C.\(^1\) On their way they assimilated the Oduls, a formerly Paleoasian nation, introducing numerous Uralic characteristics to the Odul speech. It is also interesting that the Lapps, who preserved their cultural and physical distinctness, adopted also an Ugre-Finnic tongue. Their former speech was probably akin to the Samoyedic.

Before we will come to describe other types of shalases, it is worth while to describe the presented evidence of their Mesolithic and Neolithic predecessors. The habitations of the above mentioned type were discovered near the town of Komin in central Poland after the World War II, on the dunes. In the village of Janichawice to the east of the former find, a burial was unearthed, the first known of this culture, indicating laponoid race of the body interred. The Swiderian hunter buried there was dated to be about 8000 years old.\(^2\)

According to Szafer\(^3\) the formerly cold Baltic Sea became

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\(^1\)Kostrzewski, *Predzisie Polski*, op. cit., p. 46.

\(^2\)Chmielewska, Maria, *Grafia kultury tardenieckiej w Janichawicach*

an interland lake in approximately 6800 B.C. The climate was warming up, and the large Pleistocene fauna died out. The change from the salt Baltic Sea Yoldia, to the fresh water lake Ancylus, which lasted till approximately till 5000 B.C., and then to Litorina - another salt water sea lasting until 20000 B.C., corresponds more or less to the Mesolithic Period which the archaeologists have differentiated in northern Eurasia. Here, the Mesolithic begun some 10000 years B.C. and lasted for six thousand years, ending in 4000 B.C. After the warming up and the disappearance of the continental glacier and death of the mammals so typical for the ice age, man had to change his way of life. He had to hunt lesser animals now, which meant the food was less plentiful and that more nomadic life was to be followed. In search of food, following the reindeer herds came the Swiderians from Asia. The subterranean house was no more of value, and the shalas became a dominant type of habitation.

In the Ancylus period climate was dry with warmer summer than that of today in that part of the world. Mountains and foothills were covered with pine and hazel, while on the plains of Northern Europe there was rich parkland. During the Litorina climatic period it was the optimum. Climate became humid, the oak forest grew in the plains along with linden and hornbeams. The forest limit was much higher in the mountains than today. In the lowlands there were many marshes and lakes surrounded with hazel bush. The peoples of that time liked to camp on sunny dunes and
other dry spots. When during Yoldia reindeer begins to migrate northwards, gathering became an important industry. The final disappearance of the reindeer caused the remnants of the Skirdians to follow it to Fennoscandia, the lower Ob and Yenisey basins, while the rest were assimilated by the Neolithic inhabitants of Northern and Central Europe.

The *Grozi*!innib Comb Culture left some 250 archaeological sites with traces of shalases in camps scattered throughout Poland alone.¹ Their westward expansion from Siberia begun in the third millennium B.C., to reach northern Central Europe by the second half of that millennium. Although nomads, they had to stay in their camps for some time, otherwise it would not pay to make ceramics, mostly as containers, adopted from the Danubians of the south European affiliations. This culture has displaced in certain parts of the eastern Baltic shores the former Indoeuropean settlement, peopling those shores with the Uralians of the Finnic stock, in north Central Europe this population merged with the representatives of the Danubian and Indoeuropean cultures.

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CHAPTER XII

CHUM

Description.-
Varieties.-
Distribution.

The chum is a prototype of the shalas type of dwelling as contrasted with the yurta type. Throughout the Neolithic this house spread widely across northlands of Eurasia. Today it is found from Lapland to Chukche Peninsula - a very broad distribution. It is a conical tent of skeleton made out of poles, crossed at the apex of the cone. The skeleton then is covered with bark, leather, fur, sod or even felt among the mountain folk of Central Asia. There is no central support post, there may be found occasionally a cross beam for cooking or a kind of a binding hoop; the hoop, though, would not eliminate crossing of the poles at the apex.

Various devices are used to beautify the chum from the interior, to warm it up and to protect the insides from bits of
debris falling from the poles and the roof covering. A fire place is usually located in the middle, and a smoke hole above it, in place where the poles cross themselves.

A chum is directly descended from the Upper Paleolithic prototype. It is probably one of the oldest, dating back to the Mesolithic, type of human habitations in northern Eurasia. It has several regional varieties, none of them being any different structurally, except that of the Lapps. It is of circular circumference at the ground level, made of hide — and often of sod — which is stretched on the poles. It serves as a summer tent. It is portable. And perhaps this ease to carry it and erect it formed its peculiar appearance, like a pyramid. The number of the poles is limited, therefore, when the hide stretches on them, it looks not like a cone but like a distorted pyramid. From this regional variety, as it is not sufficiently different to become a type, the pyramidal group of shalases arose in the extreme north, and, eventually, the balagan house evolved. The Lapps live in this type of tent, and their neighbours to the east, transferred it into the balagan complex.

Among the Samoyeds the chum preserved also the corridor which could be traced in Buret, and is visible in some of our pithouses on the shores of the eastern seas. The corridor protects the dwelling from snow and wind.
Distribution of the chum is so general that it is not really worth naming all the nationalities that use it as their home. The populations of the tundra and taiga are the leading groups but even in the mountains of Central Asia the chum may be found where it mixes with the yurtas. The same is true of the northern parts of Greater Mongolia.

Since in the taiga timber is plentiful, often the skeletons are not taken away with the roving party, but are left behind; they will be used again at some other time when the party comes again. Such skeleton structures standing alone are known as utensils.

Modes of transportation of chum vary. Among the Oduls for example, in Eastern Siberia, the skeleton is packed on dog sleds; timber being rare in tundra, it is carried along all the time. Among others the poles are tied to the saddle sides of reindeer and are moved with the caravan. The hides and furnishings are always accompanying the moving party to their new places.

The Lapps pack their tents on pulkas. They are canoe-like one-sled winter mode of transport pulled by reindeer. While thaw sets in, small dug outs and canoes are used for the muskeg country.
Most nations, like the Oduls, dwell all year round in their chums. Some have other types of dwellings besides the chum. The nations of Eastern Turkiland, Mongolia and Manchuria use both the steppic yurtas and the taiga's chum. The chum is originally a taiga habitation. It originated most likely, judging after the present day distribution and that of antiquity, among the Uralian ethnolinguistic group of peoples. From them it spread. Whether it was the pyramidal-like chum of the Lapps that the lapponoids brought to Europe or the standard model it is not possible to say since the outlines in the ground remain the same. But most certainly the following Neolithic wave of Finnic peoples brought this type of the standard chum to Europe. It probably spread also the chum to the Oduls in the east, and made its use popular throughout the rest of the taiga and beyond.

The chum is relatively undivided into types, because it is ancestral to many of the shalas type. Once a regional variety was too conspicuous it had to be classified as a distinct typological unit.
CHAPTER XIII

URASA

Description. - Distribution. - Origin.

Urasa is a conical tent of large size and fine workmanship. Its chief characteristic is - besides its permanent location - the building material consisting of long poles gently bending towards the crest of the roof.

It is immaterial whether timber is left on the outside uncovered, as it is often during the summer, or protected with a thick layer of sod for the winter months. An interesting element in an urasa, as well as in a distantly related balagan, is a fireplace with a log chimney. This chimney can be also fashioned out of poles joined together for the purpose.

A typical Yakut urasa - often but not always - depending on its size has the numerous structural poles joined together with ropes, somewhere half way up, between the floor and the crest of
the roof. And again, about three fourths from the floor to the crest there is a kind of a heap of poles built in with the aid of ropes. Then the whole structure is covered on the outside with birch bark. The natural environment of most of the Yakut country being more within the taiga zone - except for the basin itself - than elsewhere is rich both in poles and bark for construction of this type of houses.

Modern influences introduced small windows and a door. Formerly the light was coming through the smoke hole, however the situation has changed since the introduction of the chimney. The latter originated perhaps too, during the Colonial Period. The door of olden days consisted of several bark, fur and cloth mats hanging down, which could be pushed aside for coming in, ventilation and lighting. In the older urasas there was a central fireplace, while the newer ones had it closer to the wall. The fire burned on top of a spacious wooden box of planks, filled with sand.

All around the walls, save for the space around the entranceway, sleeping benches were placed made of horizontal boards, covered on top with skins and pillows. Each of the benches, which numbered up to ten in an urasa, was separated from the next by a post, and the posts were joined close to the roof with horizontal beams. The beams were ornamented, displaying regularly cut out holes in their lower portions. The space left to the right of the
entranceway is reserved for fire wood. Beside the benches there may have been found an odd item of furniture like a low table or a stand but these would show, again, a colonial influence.

The bark on the wall is wove by numerous poles, covering it almost completely from the outside. When the natives' drawings of a tent show a sloping wall, bent gently towards the crest - it is safe to assume the drawing represents an urasa.

Above the benches there may be again, in a spacious urasa, ropes tying the wall poles for additional strength. The posts supporting cross planks are also ornamented. And above one of the benches usually one will discover plate and bowl holders, cutlery holders and an assortment of pales standing on the bench itself. The box with the harth is standing on a platform at the floor level, free of any floor matting, which may be found in other parts of the floor of an urasa.

Urasa is a peak of a conical tent development. It excels other types in workmanship, size and strength. The Yakuts could very well afford to erect similar structures since they are on a verge of becoming sedentary people, and the permanence of locality makes it worth while to afford greater investment in one's home.
Although the present day distribution of the urasa coincides with that of the Dolgans and the Yakuts, the conical tent is not originally Turkic. The Yakuts adopted it from their predecessors, for the heart of Yakutia was before that a Tungus country, and undoubtedly improved it considerably. Evidence for a Tungus origin of urasa can be seen in two facts besides the former Tungus character of Yakutia, namely old Tungus etchings and the origin of the Dolgans, who are of Tungus origin, yet adopted Yakut nationality.

The Yakut urasa, with its elaborations, ... to be credited not only to the originators, but to the later users of the type as well. Their contributions to this type as a whole are undoubtedly large, and it is today one of the several typical houses of Yakutia, and areas of Yakut expansion in other parts of Siberia.
It is most likely a prototype of the urasa. Evolved from a skin or bark conical tent, this type of a shalas although still preserving somewhat the structure of a chum, displays some of the characteristics of an urasa. It is built of a skeleton of poles, not bending towards the crest like an urasa, covered with bark on the outside. The bark is being kept in place by small logs or poles, spaced widely from each other.

The urasa-like chum is definitively a transitional type, evolutionally older than the urasa and younger than chum. The urasa evolved from the urasa-like chum, as it evolved from the chum. Yet, today, all are contemporary shalases. It can not be classed with either of the two, but as a distinct entity; structurally and upon superficial examination it could be classed with the chum; yet the external appearance, with the outside planking bringing it to
the range of an urasa, precluding any such classification. The phenomenon reappears systematically, as a distinct intermediate type, and has to be conceived as such.

There are two varieties of the type. The first is less complex, when the logs are thick, and do not cross each other at the crest; the second has thinner poles, reaching the apex of the cone. In the latter case, the poles being thinner, give less protection against any eolic calamities. But there the bark is selected and laid out carefully. In the former, protected by thicker logs or planks, bark has often come from coarser trees than the birch. Neither variety constitute an especially interesting architectonic item.

The first regional variety of the urasa-like chum occurs among the Evenki, which means it is very widely spread in Siberia. The other is known to the Evenki too, but principally the southern Tunguz, namely the Oroki nation of Sakhalin Island and the mouth of the Amur use them most extensively. In any case, the urasa-like chum is known to the Siberian Manchurian nations. Perhaps it evolved from the chum under their guidance.
CHAPTER XV

YARANGA

Distribution.- Regional varieties.

Distribution of this tent reaches the reindeer herders among the Nymylans, predominates among the Luoravetlans and constitutes a winter house for the Siberian Eskimos. The latter differs considerably from the Luoravetlan-Nymylan standard. It is bigger in size, apparently harder to construct and not as portable. Since the Eskimos, however, are not reindeer herders, they are not obliged to follow this land animal. Therefore their habitations may be pitched almost permanently for the season. The roof in this Eskimo yaranga is slightly cupolar, otherwise it resembles the standard version. Doors are often fashioned out of boards and lean on hinges attached to a door frame, but formerly they were of several layers of furs and skins tightly protecting the warmth of the interior. It has to be considered a regional variety, occurring among the Siberian Eskimos, of the yaranga because all structural and genetic axioms
Another regional variety is the yaranga used among the Hants and the Mansi of northern Ural and lower Ob basin. It is constructed of skins and bark. An additional support system may be added. The Mansi usually do without it, though. If the system exists though, among the Hants usually, additional posts are driven in the ground outside the walls. The posts are of irregular height, joined with similar though horizontal posts and a few laid down on the roof, from the frame to the apex. Occasional rope may be used, more on the Mansi houses which generally are neater than those of the Hants', to prevent the bark from sliding off. This variety is generally of poorer appearance, stability and is smaller, the standard version of the yaranga being more pleasing. A sheet of bark hanging from a frame of bent pole forms a doorway. When people want some light, they simply attach the bark to the pole above. This arrangement in more recent tents has been replaced by a hinged door of boards.

This regional variety of a yaranga, although very different from the eastern type, has to be considered as its regional variety, further removed from the standard than the Eskimo variety, yet the same structural and genetic functions and foundations unite them all into one typological unit, especially if we consider the roof on some of the eastern yarangas where the roof is also conical and not bending. This type's variety is closer to the original form.
of a yaranga. Since both the Hants and the Mansi have it, and we know that they as the Ugrian branch of the Uralians came from the south, close to the original place of the shalas, we assume that the eastern type of the yaranga is a modification of the Paleoasians who adopted it together with the art of reindeer herding. Especially that the shalas is not native to Eastern Siberia, as can be noticed by the study of the other, more ancient dwelling types. The Hungarians, who belonged to the Ob basin before their migration to Pannonia, must have lived in this Ugric modification of a shalas. To the Paleoasians only one people could have carried the yaranga, that is the Uralians, perhaps at the time of their great expansion at the beginning of the third millennium B.C.

The most characteristic, however, among the varieties of this type of dwelling is the yaranga of the Luoravetlans and the Nymylans. There are here two kinds, yet both appear among the same families, both - as far as the typological criteria are applied - constitute the same regional variety of the type. One is somewhat resembling the Ugric yaranga with a strictly conical roof, the other - which recalls more the Eskimo variety - has a slightly cupular roof. The latter is a more progressive kind, since it attempts by additional supports to provide more vertical room within the walls.

The frame of joint poles where the roof meets the circular wall rests on poles fixed in the ground on an angle, usually
two of each posts meeting the frame where a roof pole is attached to it, thus lending support to the frame and the roof poles at the critical place. The roof poles meet crossing each other at the apex. The yaranga is a chimney less dwelling, its smoke has to escape through the openings in the roof. The smoke hole is located at the apex of the roof. Often, in contemporary tents of this type a stove with a pipe is found, the pipe extending through the old smoke hole.

The roof and the walls are well covered with hides, and with an occasional rope keeping them in place. The rope, particularly on Luoravetlan yarangas, is fastened on one side and tied on the other in three or more places, rarely on the side of the entrance. The rope may divide just before the smoke hole and join again soon after it on the other side, thus keeping in place the hides around the very top. In Luoravetlan tents the seem where the sawn-together hide covering meets may be visible usually above the doorway. This being so characteristic for a Luoravetlan shalas that it is even clearly portrayed on their ivory engravings.

Old Luoravetlan yarangas had a covering fashioned out of stretched hides on a framework to cover the smoke hole when fire died down and for the uncertain weather. Older shalases also tended to have the entranceway a bit lower — perhaps a remnant of the protohouse tradition — on one side, to make the cold air less penetrating inside. The contemporary dwellings, however, have a tendency to arrive at more symmetric forms.
The yaranga is closest to a yurta among all shalases. The common feature of the yurta and yaranga is possession of the wall. But the resemblance of shape is only superficial. Crossing of the poles at the crest of the roof without being attached to the hoop, places it definitively with the conical tents than with the yurtas.

Always, the snowshoes, skis and sleds especially lean against the walls of the yarangas when not in use, giving the house a characteristic palisaded appearance. Since a large number of families live in those houses, the sleds and other transportation gear accumulates in large numbers and through its presence there strengthening the walls from wind, being close at hand and always at a known place at the same time, reachable when needed. The Luoravetlan yarangas have usually slightly cupolar look, the cupola-like roof extending from beyond the piled up sleds.
PLATE 5. YAMANSA

After Levin and Potapov,
pp. 906, 912
CHAPTER XVI

YARANGA-LIKE CHUM

Characteristics.- Kinds.

This dwelling is characteristic for the Fanguz over large parts of Siberia. And it is also found as a regional kind among the Eskimos who use it as a summer home.

The Eskimos make their home less carefully, chiefly on account of scarcity of timber. Therefore they use odd pieces of driftwood, planks and poles, cover them with hides and rope the structure carefully to keep it and the hides in place against the winds in their settlements along the oceans shores. The higher part of the tent has no wall, but the poles stretch right down from the roof to the ground. This is the doorway side, which resembles somewhat the trait found in older yarangas as well, where the doorway was in the lower part of the wall. The other side of the shalas has a wall, with several roof poles resting on the wall-posts and the connecting them horizontal poles.
The yaranga-like chum of the Tunguz Iveny is more regular. Almost a yaranga, it has one side without a wall to differentiate it from that type. The wall posts, one or more often two per a roof pole, are joined with horizontal poles. The roof poles meet at the apex. They meet at the crest of the cone together with the poles which extend right down to the ground. The roof is always that of a very gentle cone.

Distribution of this type throughout central and eastern Siberia shows its importance in the nomad life. It is fairly easy to construct, yet offers more room than an ordinary chum could do, thanks to the partial wall.

A relic of this type can be found also among the Ugric Mansi of Western Siberia. It is a yaranga of the Ugric type, with one side, approximately a third, left without wall or roof, just with one pole, bent, reaching from the crest to the ground in front. It could have passed to the Tungus from the Uralians, the Tunguz improved on it, and perhaps passed it on to the Eskimos as well. The yaranga-like chum is chronologically older than the yaranga and younger than chum. There is a very good parallel between this type of human dwelling and that of the urasa-like chum. Both are transitional types, of about the same age.
Dwelling of the northlands known as a k o t a grew out of the regional variety of a chum, the pyramidal chum as found among the Lapps. It has a square base and is pyramid-shaped. The walls are of boards and planks among the Lapps, of small logs among the others: Ugrians, Nivhs, Yakuts. The Lapps do not cross their supporting poles at the crest, but frequently have fashioned out a smoke-hole cover to be placed instead of them. This cover forms the apex of the pyramid, since the dwelling itself is lacking the apex. It is made of boards, put on the hole whenever colds set in or during bad weather. For cooking, however, the smoke hole is found necessary. Nowadays, however, a stove with an iron pipe took place of the old hearth and the pipe projects frequently through the opening, permitting its more permanent covering. Since a kota is a winter dwelling, the people who live in it find it necessary to winterize it with...
thick layer of sod. Sometimes the sod is placed on a structure of legs placed side by side.

Among the Yakuts and their relatives, the Dolgans, a kota has an interesting structure. One of the supporting poles has a flat surface at the very top, with numerous perforations. The other one is ended with a projecting point to fit one of the perforations. On these two poles the remaining two lean, supporting the heavy pyramid. The walls end before reaching the crest, and are lined at the top with horizontal planks attached to the four corner poles. The vertical legs form four walls; in one of the walls there is a doorway, having a door-step and a lintel of timber. Unlike hinged doors of the Lapps, the other nations are using some elder devices.

The Nivhs of Eastern Siberia made an additional skeleton inside. It consists of four posts with interconnecting beams at the top and below the top. This structure, however, does not interfere with the execution of the rest of this shalas, built like other ketas. The Nivhs have a larger keta, however, than the other varieties. Benches are on two sides of the dwelling, and a harth is placed on an elevated platform in the middle. Some earth from the walking area around benches and the harth was removed, producing the effect of elevation for the benches and the harth platform.
The elevated fireplace in a 'ih kota brings us closer to the urasa, again, where a similar phenomenon is found. And in general, urasa and kota resemble each other, one being a conical shala, the other a pyramidal one.

Kota is most likely a native Uralian type of dwelling. Its distribution today among the Lapps, the Ugrians, Yakuts and Nivhs makes it a widely spread type of house, however the nations using it are not particularly numerous. The only exception are the Yakuts, but they are well equipped with several house-types. The Nivhs, being Paleoasians, are most likely to have adopted the kota from some other nationality, maybe the Tunguz. For the Solgurs, who possess this type are Yakutized Tunguz. Perhaps it was brought by the Uralians to the east by the Oduls. But even the Tunguz must have borrowed it from the Uralian inhabitants of the taiga, they themselves originating in the steppes. Kota, therefore, must be a house original to the northern Uralians, who during the summer use summer, and evolved this type of dwelling in areas where timber is more plentiful, in taiga, and the habitation warmer.
ster - 0. e--ejus, l. 420
CHAPTER XVIII

HOLOMO

Description.
Distribution.

Holomo is a variety of a kota. It differs from it to such an extent, however, that it was necessary to differentiate it into another distinct type. It has a similar structure of the four fitted corner poles, supporting a pyramidal roof-walls. But this time the pyramid is cut at the top, somewhere half way up from the ground to the apex. A roof of logs is placed on top. A small hole remains in the roof for smoke to escape.

A Yakut holomo has the usual Yakut improvement, a log chimney. In that case there is no smoke hole, and the chimney goes out through the roof where the wall meets the roof, below the crest of the crossed poles.

Again, a holomo may be winterized with sod covering
the logs. In non-Yakut holomos the fireplace is on the floor level, lined with four small logs, and a cross pole above, for hanging cooking pots above fire.

The holome evolved directly from the kota. Improvement of this type of a house over its predecessor is in the fact that the roof protects waste of heat. The holome is later chronologically than the kota, though both types appear as contemporary today.

Its distribution is limited to the Bolgans and Yakuts. Formerly it may have been used also by the Tungus.
Balagan is the final stage of development of the pyramidal variety of chaum. It evolved directly from holomo. There are four supporting posts in the corners, with cross-beams and a beam on the top of the structure, laid horizontally from one side to the other. The roof poles crossing at the crest were no more necessary and are not found here. The walls are gently sloped of vertical logs, on four sides. Balagan is a roofed structure with mild slope. The roof logs are attached to the beams, meeting the other side at the center. It has a log chimney today, but an ordinary harth on a raised platform had to suffice previously. A smoke-hole was needed then, while the roof is covering the whole area of the home today, the chimney is touching the logs without any openings. The former fire-place was in the middle of the house, today, in accord
the Yakut usage, it is located to the right of the entrance, as in a holomo or urasa.

Some spacious balagans have even additional supporting posts in the middle of each side. In addition, each wall may have a tiny window - a necessary development since the smoke-hole is no more present. All around the walls there are benches, used both for beds and tables.

There is a general resemblance of the structure itself to that of the kota of the Nivhs. The beams and posts are very much like those in the balagan. Of course, the regional variety of the kota that is found among the Nivhs is related with the balagan anyway, since balagan developed from a kota.

Although today the balagan appears among the Yakuts, it is also found among the Dolgans. Because the Dolgans are believed to be descendants of the Tungus, though they adopted Turkic language, there is a good ground to believe that some of the Siberian Manchurians also knew the type.

Some students of the Yakut dwellings suggest the balagan
originated from two or more wind shelters of the elbelen type placed side by side. This hypothesis seems improbable in the light of the above discussion. The balagan belongs to the shalas type of dwelling and achieved its present form through gradual evolution and improvements. We can trace its development through the holomo, kota and right to the chum.

Unlike the urasa which is almost an extinct type of house in contemporary Yakutia, balagans are found quite frequently. Some, insulated for the winter with sod or dried manure, may resemble on the outside the log yurta, however, upon examination of the interior, one will exactly identify this type of dwelling of Yakutia.

1Chodzidło, op. cit., p. 119.
CHAPTER XX

KALYMAN

Varieties.—Their interrelationships and occurrences.

There is no one type known as kalyman. It is a characteristic of a group of types, all sharing the material of building and the permanence of the house in common. The house is permanent, although it may be inhabited only during the winter season. Contrary to our general practice, we are going to describe this characteristic as kalyman, because it is too difficult to discuss particular case of a winterized dwelling with each of the above types.

Thus, a kalyman is a shalas which has been covered with a layer of sod, earth or manure to protect it from bitter colds of northern latitudes. The Yakuts may even use clay, since at the same
time they use the clay to paste their chimneys from inside to make the logs fireproof. But the standard equipment is sod, cut in small pieces for placing it on the walls of the dwellings.

Now, proceeding from east to west we will encounter a chum covered by large slabs of sod. It is known among the Yakuts as a gulema, and it may be readily adopted for this house. Gulema is roughly conical in shape. Genetically, thanks to its sod covering it is a cross between a shalas and a subterranean dwelling. Structurally it has a shalas-like appearance of the chum variety, possessing a skeleton of upright poles leaned against each other at the apex of the cone which it resembles. On these, large sections of neatly cut sod are placed, one above the other, grass on the outside, leaving only an opening at the top for illumination and as a smoke-hole, and space for a doorway. In order to prevent particles of earth falling down from the sod to enter food or fall on the beds, skins or furs are placed below the poles.

Gulema - or a trace of it - is found in a relic form among the Oduls, who use the snow to protect their chums from the colds. The snow is piled up high against the lower parts of their tents.

The Yakuts are known sometimes as the "underground Yakuts", at least to their Tunguzic neighbours, as observed by
Wacław Sieroszewski during his stay among them. This name was probably given them because more than just a chum was covered with sod for winter, making their habitations appear as if they were subterranean. Urasa and holome, kota and a log yurta are all dodged for winter. All of them are kalyman habitations.

Kalyman varies as to size and details of execution from nation to nation. Its distribution coincides with the Eurasian tundra and the zone of lichen woodland. It usually serves as a winter dwelling for the people who do not move for great distances in that season. It is not a portable home, save for the furnishings.

Another characteristic area of the kalyman houses is in the western part of the region, in European northern-most country, Lapland. Here numerous varieties of a winterised home developed. They almost require separate classification. Their shapes differ. But it is due more to the material employed, often peat as in south central Lappland, rather than conscious effort of the Lapps to build another variety of a house.

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A Lapp kalyman ideally has a semblance of four walls, pyramidally shaped, since it is actually a kota with a thick layer of sod. The sod, unlike in a Yakut gulema, is placed thickly with grass side facing the sky, one on top of the other, the sod covering being thus of unusually thick kind. Perhaps under the influenced from highly civilized Baltic countries a kalyman in Lappand may have a window for light. A former smoke hole was transformed into a small opening for an iron stove's pipe. Formerly, as in a summer kota, this hole was covered with a pyramidal covering of boards, carefully fashioned, and pushed aside on the sod when not wanted, but always handy at the same time.

In addition to sod, birch branches may be added to the walls, leaning on the sod to prevent its sliding down. This additional feature remind one of an urasa, yet perhaps it is only a superficial resemblance, quite incidental to the motives which created the urasa tent. Homes thus built are fairly spacious, but they often vary in shape. Especially the turf or peat brick cover of structure changes their shapes to lose that expected symmetry. Often these peat kalymans - the peat being used only as a substitute for sod in south central Lapland (under Swedish rule) - have to be protected with stones, flat slabs, placed on the walls, in order not to be deprived of their covering by the winds of the European northlands.
Those peat kalymans may have even a semblance of vertical walls developed, yet the window, framed on an angle, will indicate former genesis of the house.

A classical Lapp kalyman will have a lintel held with indigenous native carved planks; the door will be of boards, with a frame in the sod, so it would not block the movement. Interior is often lined with twigs. If a mass of poles completes the walls of the interior rather than boards, we may assume some relationship to the urasa, noted so many times.

Thus, a kalyman, though not a house type in itself, is a useful concept, simplifying considerably discussion of a very important feature in the Eurasianic northlands, namely protection of one's dwelling from bitter gords in the winter season.
CHAPTER XXI

BARK YURTA

Meaning.— Distribution.

This type of a house is known in central Asia close to the place where the shalas has originated and where the protohouse was found. It does descend straight from the protohouse; witness the walls which developed from it and a cupolar roof, so characteristic for the bark yurta. It is named yurta to differentiate it from the shalases, that is conical tents and related houses. The people who are the bearers of yurtas are the Altaians. Their ancient cradle in the mountains and intermontaigne valleys of Central Asia was plentiful in bark, and necessary structural poles to build their houses. At the same time those houses had to be lighter than the taiga's chum. Thus evolved a yurta, of which the first was bark yurta.

The bark yurta appears among the eastern Turks today.
It did not spread away from its place of origin, because it is a relatively crude dwelling. It is difficult to appraise its relationship with the yaranga, but it must be obvious that they existed side by side at one time. This type as well as yaranga both are characterized by possession of walls, the former has a cupola above them, the latter a cone.

The bark yurta is constructed of odd pieces of wood that can be found in Eastern Turkiland. Most numerous are large sheets of rough bark placed upright as walls. The bark then is joined with ropes and/or plyble poles and pegs. Today a door in a frame is visible, but previously some native device instead of modern door was in use. The roof of a bark yurta is similarly made of large rough sheets of roped together bark. The roping may be a shared trait with the yaranga.

The bark yurta has a limited distribution in the land of the former republic of Tuva where the Tuvins dwell, among the Hakas, Tofalar, Shorey and Nanayan nations in southern parts of mountaineous Siberia. It is also found among the Kachins, a Siberian Tatar nationality.
CHAPTER XXII

LOG YURTA

Origin.- Description.-
Distribution.

The log yurta evolved directly from the bark type of yurta. Its first appearance took place in the same general area of the Altaian lands, namely the country of the East Turkiland and northern Mongolia. It is unknown further to the east, among the Manchurian branch of the Altaians, and therefore it is unlikely that the Tunguz migration brought it to the north with them. It is not possible, at the present level of knowledge, to find out whether it was originally a Turkic or a Mongolian type of house or whether both those branches of the same ethnolinguistic family may claim it as their own. The log yurta is a typically taiga adaptation of the yurta. Instead of only bark, it freely employs timber for building. Nevertheless, the type as such, although typical of today's Yakutia, Duryat Mongolia, and Eastern Turkiland, is composed of several borrowed materials and elements.
The idea of log building itself came to the Altaians from the Uralians, to be more specific, from the Finns. It occurred most likely considerably before the Colonial Period set in, and therefore the Russian conquest of Siberia cannot be credited for introducing the principle of log building. The principle was long before the Russians in practice among the Altaians of those regions and of Yakutia. That is true, on the other hand, that the Finns themselves adopted the principle and technique of log building from the Indo-europeans, probably from the Baltslavs. They did not adopt it as it was, but modified it with the sleng technique of roof building adopted from the Paleasians. It meant that the roof was placed on several horizontal logs, parallel to the crest of the roof of the cabin. These histories have to be mentioned, although they are not part of the nomad culture per se, in order to understand well the origin of the log yurta.

The displacement of the Turkic Yakuts from the vicinity of Lake Baikal by the Buryat Mongols, caused the former to take the log yurta with them to their new environment in the Lena Basin. Was it then that the Mongols became acquainted with this type of dwelling, adapting it for own use as we find it today among them or had they knowledge of it before the displacement of the Yakuts cannot be readily determined.
The shape of the log yurta varies; it may be from four to eight-sided. The usual among the Yakuts is six walls; the same prevails among the other Altaians. The Ugric Hants, however, have a four wall yurta. This far north-western distribution may be a result of gradual northern and western drift of the Uralians from their cradle more towards Central Asia, where it would be neighbour to that of the Altaians. It is also in this general vicinity that the Finns adopted the sleg technique of roof building, a technique found on many a Ugric house of the haltan complex.

Like many other of their house types, the Yakuts unified the interior. The log yurta received benches, log chimney, windows, and even may be covered with sod or clay for winter. Thus, no matter what type, a Yakut home always look alike.

There is one more thing among the foreign elements in the log yurta, namely the roof itself. It is a roof vaguely reminiscent of a sholas, a wooden cone or pyramid. Some log yurtas have slogs, others have crossed poles at the top. The roof, however important, is of lesser significance as far as our typology is concerned, and since it may bring more ties with the European settled nations, it is not necessary to be dealt here.

Thus, the log yurta is found to be a direct development from a bark yurta, and that development has taken place somewhere
along the borderland between the taiga and the mountains of southern Siberia.

Today log yurtas are known among the Ugrians in Western Siberia, in Yakutia, in the Buryat Republic, and in the Eastern Turkiland.
CHAPTER XXIII

CHAPARA

Origin.
Distribution.

This predecessor tent of the heavy-felt yurta evolved directly from the bark tent of the Central Asiatic mountains. The bark yurta was not as well done, however, its appearance being not attractive by any standards. The chapara on the other hand is a tent of the yurta type executed with skill and a high degree of beauty. It evolved - through the intermediary of the bark yurta - from the protohouse of Buret, with all its attributes needed for a life on steppe, disregarding its ice age aspects. Here, in a chapara, there is a line of posts, covered on the outside with reed mats, if in the south-west, bark and heavy felt further north, forming a circular wall. The posts are driven into the ground vertically. An opening for a doorway is left in the wall, where a curtain is hanged. On the posts lean poles, crossed at the center with a hoop.
The hoop is lashed to them. The hoop is a sign of a yurta. It differentiates this type of dwelling from a shalas, which does not employ any such device permitting the poles to project freely through a smoke hole. The roof of felt is built on the poles. It is flat or a little steep, but it never has an apex, the hoop preventing it from having it. The roof and walls receive lashings of rope, particularly the roof, if felt is used, to keep it in place.

The chapara is not found north of the steppe. Its distribution does not coincide with that of the bark yurta, but is a more southerly trait. It does overlap with the bark yurta, and most probably the area of overlapping could be regarded as a cradle of this type. Today, chapara is found in Turkestan, edges of the Iranian Plateau and the mountainous areas of Central Asia. In this latter place it probably started its existence. Ethnically the chapara is limited to Turkic peoples, coming in contact with the Mongolians in the north-eastern edge of its region, and the Aryans (Indo-Iranians) in the south. The nations there are most fond of this tent are the Altaians, Uzbeks and others; the former have rather tall chaparas, the latter - flattish; the difference may be explained by differences in precipitation. Certain chaparas resemble a kumsekepe yurta by possession of a three ropes crossing another set of three ropes on the roof over the doorway. On borderlands of Iran, the Hazareytians and Dzhemshids also dwell in chaparas.
Interior of a chapara is very much like that of a felt yurt, arranged with oriental comfort, and limited furniture. It is also worth noting that the reed mats around the outside of the wall is apparently of south-west Asiatic origin; it is in the countries of Mesopotamia that reed houses are used up to this day, and apparently some of the south-western influence has swept over the Iranian plateau even to Turkestan.
CHAPTER XXIV

FELT YURTA

Description. —
Regional varieties. — Distribution.

This type of dwelling is a typically steppic habitation. It is portable, fairly light and easy to pitch during frequent stopovers of nomadic pastoralist life. It is a typically Altaian type of dwelling, and except for the Tadzhiks, is not used by others. It evolved directly from the chapara. It improved chapara's structural side of dwelling. It also has a skeleton, but a much more elastic, easier to carry and to erect. In addition, it is lighter than chapara, although there are more parts to it.

The outline of a yurta is circular. It has vertical walls all around, save for the door opening. The walls are made of willow or similar wickers, crossed and intercrossed with the other
ones, the basis touching the ground, the tops coming up and holding a frame with attached to it bent roof poles. All this wicker-work is set on an angle, thus base of each wicker is not directly below its top, but further on, along the wall. The roof poles meet in a hoop at the very top of the structure. All the poles, when necessary, have small sockets and projections to fit them, thus making the building stronger and easier to assemble and dismantle. Otherwise small leather thongs are tied around crossed reds, which serve the same purpose.

A large yurta measures about 8 meters across. In the gap left in the wall stronger poles are placed vertically and a door frame is placed there. The hoop at the top of the cupolar roof leaning on the rods which bend gently inwards at the middle, and then again to the hoop, measures somewhere about 40 to 90 centimeters. The roof rods are about 2 1/2 meters long, to 3 meters. They are placed meeting the wall in about 20 centimeter intervals.

Lashings of horsehair pass spirally down, strengthening the frame additionally. On top of this several large sheets of heavy felt are placed and are roped in position. The opening in the roof lies directly above the fire place, usually located in a shallow pit. Since yurta was a chimney-less (kurny) hut, this opening served as a smoke hole. During the night and/or poor weather the smoke hole was covered with a piece of heavy-felt. The door is made out of the vy-felt curtain, pushed aside when entering or leaving the premises, or rolled up for convenience
and ventilation. Felt is spread on the floor and walls on the inside, the latter can be also hanged with reed mats, decorated with woollen ornaments. Wool rugs are placed just below the heavy-felt roofing, with the hair down, to display the designs. Numerous carpets and pillows, many of them large, are piled on top of the other, and are used in lieu of furniture and as bedding. The floor is also covered with rugs. In recent times iron stoves were introduced, with a pipe replacing the old smoke hole. In addition, modern doors replaced the oldfashioned ones. Frequently, even tents, replace the old yurta.

The yurta is a house much more developed technologically than other tents of the Eurasian northland. Being derived as a steppic tent, from its predecessors, it is better suited to this particular mode of life than any one of them. It does function very well as a house of the steppe's nomadic shepherds among the Altaians and the Indoeuropean Tadzhiks alike.

Today distribution of the felt yurta is very wide. It predominates among the inhabitants of Greater Mongolia, Eastern Turkiland, Turkestan, Chinese Turkestan and is used, although in a smaller edition, among the Manchurian Tungus, east of the lake Baikal.

In Europe, it arrived with the Samuks, where it was
found until 1945 until the Soviet destroyed that nation, between the lower Volga River and North Caucasus.

There are certain varieties in this type of habitation. They do not constitute separate types, however, for they are found among the same families, made by the same tribes. More individual variety, then conscious effort to build some other type motivated the builders of these felt yurtas, therefore we will not separate them into different types, but merely mention their existence. Some yurtas, depending on the shape of rods and a hoop, have an almost perfectly cupolar appearance; others have a very pronounced bump on the cupola; still other yurtas are almost conical. All these characteristic shapes were taken by some as guides to establish typological classes for this type of habitation. Such a classification would be merely a superficial descriptive study of variations occurring within the type.
CHAPTER XXV

KARAKECHA

Origin.- Distribution.

This type of yurta evolved from the same ancestry as the felt yurta; it has the same skeleton; it uses felt sheets for the roof; it ropes them down like it is done on a felt yurta. The only visible difference - almost a regional variation of it - is abundant use of reed matting for walls. The reeds are sawn together in an ornamental fashion, leaning on the framework. The roof is of black heavy-felt with attached ropes, that held it down. It is of cupolar shape or a bit flattened on top. The reed is a south-west Asian trait.

Karakecha is found among the Uzbeks on the eastern side of the Caspian Sea and among the Azerbaydzhanian tribe of Qadar located at the confluence of Kura and Araks rivers, on the western side of the Sea.
It would be most interesting to reconstruct the way along which karakecha penetrated to the west. Although there is the felt yurta distributed without any discontinuity right throughout Kazakstan to the lower Volga, and beyond in Kalmukistan, there are high Caucasian mountains in the way that forbid any further penetration, and a different highlander population of the North Caucasus, which would not have any need to accept this type of dwelling.

On the other hand there is definite connection between the Turkestan and Aserbaydzhan dwellings and languages. The same group of yurtas is found there, including the areas south of the Caspian Sea: Karakecha, kapa and kumez-kepe. All these names have at least part of their name in common, "kapa", "kecha" and "kepe" denoting this type of dwelling, and "kara" meaning "black" in respect to the roof tops. Undoubtedly, therefore, we may assume that the yurta in south-eastern Caucasus arrived there via the southern shores of the Caspian.
This type presents some unexpected problems. Although it is somewhat similar to the yurta, there may be a suspicion that its tall round structure with reed roof, and dry clay on the reed walls is of south-west Asian, or even Afroasian origin. Skeleton, however, of contemporary buildings is that of a felt yurta. It employs also the rope for the roof. As a matter of fact, there are two ropes on each side of the roof, crossing with the other two ropes above the doors. The same is true of the interior. The ropes are very broad, ribbon-like.

Here, in southern Turkestan where this type predominates, it is nevertheless regarded even by the native peoples as a relic. As a matter of fact they erect yurta of this kind in their yards, as a summer dwelling besides their more permanent adobe buildings. Turkmen, Karakalpaks, Uzbeks, Tadzhiks and even iigiz have this dwelling, but more southerly Turkmenistan has the majority. The roof there may be of felt on the standard pattern.
Since kumex-kepe are built by the well-to-do people as an additional dwelling in their farmstead, they are well prepared inside in an oriental style, with pillows, some chests, rugs.
This type of dwelling is used as a summer house by the groups on peripheries of Turkestan and Iran, also south of the Caspian Sea, and in the mountains of Afganistan. Especially the latter type can be regarded as a directly foreign type which blends in with the yurta thanks to certain techniques of building and material employed in its construction. It is a structure used by the nomads of Iran, with reed or wicker-work walls, and wicker-work roofs, covered with ends and odds, including felt. Otherwise if not for this material its relationship to the yurta would be quite distant.

The true kapa however is a kind of felt yurta or any of the two previously discussed of its varieties. It has reed walls, and felt roof. Its roof is roped down to protect its throwing away.
by the wind. The roof is of black heavy-felt (voylok). The distinguishing feature of this dwelling is its archy doorway. The arch is brought to a point at the top, at the height of the highest point in the roof itself. It has also a cover of felt for the smoke hole, a cover fashioned out in the form of a small pyramid. Some of the kapas may have less regular features, particularly the roof.
After A. I. Sel'yanov and Yerem'ev, p. 33
Only among the nations of Eastern Siberia the subterranean dwelling survived until the twentieth century. It was known among the Eskimos and Aleuts, the Luoravetlans, Nymylans and Itelmens, the Nivhs and in a relic form partly among the Oduls and other northern peoples. The north-east Siberian Valkar, as the pit-house is known here, is almost an exact replica of the Upper Paleolithic prototype to most of the subsequent north Asiatic nomad dwellings. It was preserved among the fishers and sea-mammal hunters on the Arctic and Pacific shores, among the peoples with a very simple culture.

A Valkar has a smoke hole which is at the same time an entrance. Inhabitants descend the interior with the help
of a notched log serving as a ladder. In later years after the
Conquest the notched log gave way to an ordinary ladder. The smoke
hole-entrance way is in the center of the domed, gently sloped
roof. The valkars were used as winter quarters only; they were too
warm for the summers, the natives returning to the other types
during those months, and wintering in this relic of the predominant
type of a house in the ice age in that part of Asia.

During the XVIIIth-XIXth centuries there prevailed a
squarish type of a pit-house among the Eskimos and some Luoravet­
lans. They had a corridor for an entrance way, always facing the
sea or a river. Like in the houses of Buret, among building mate­
rrial baleen in lieu of ivory, and stone played a prominent role.
Particularly the Luoravetlan roof tops were made of whale bone.
Again, like in the prototype they used reindeer antler strengthened
and fastened with leather thongs.

The valkars were usually circular; they were, technically
speaking, semi-subterranean, yet were covered entirely with earth;
they were visible from the surface only as low mounds of 2 or 2½
meters high, and with an area of about 25 meters squared. The
tundra and lichen woodlands of the Upper Paleolithic in southern
Siberia, and its todays distribution in the northern part of the
country, provide for an identical almost mode of life to modern
Paleasians and their neighbours, what it provided for their
Magdalenian ancestors. While there was a shortage of timber, stone and antler were not lacking.

Interiors of the pit dwellings are spacious; timber lines the walls, when timber is available, and posts hold the timber in place, and help to keep the roof from caving in. Only among the Aleuts of the Komandorskie Islands the roof is made to resemble an altana. There even may be some ground to think that there is some mixture of the two manifested in the Aleut home. The Nymylan pit dwelling in addition to its subterranean part has boarding leaning on four posts on the outside. The boarding forms a structure resembling the hour glass, except that it is on an angle rather than curved. In the upper part of the structure there is the smoke hole. It seems to be a superstructure for prevention of colds and snow blowing through the smoke hole and from water erosion and soil creep of the roof of the dwelling. The Xivhs' underground dwelling has some characteristics also of the balagan complex, as it has posts-beams arrangement to keep the roof of vertical timbers in place.

The entire zone of tundra and taiga or northern coniferous forest, of Eurasia, was inhabited originally by pit-house dwellers, hunters of the Paleolithic etc. Their type of dwelling survived on peripheries of northern Eurasia, to be supplanted elsewhere by other ones that have evolved since the Neolithic.
Haltan or altana complex involve numerous types of dwellings resulting of combinations of a simple wind break and their further evolution. The wind break suggests for a very distant origin further to the south, where similar breaks are known, in a more southerly latitude with aridity. The Australian wind shelter may have common ancestry with the Yakut and Manchurian and Ugric type known as elbelen; its synonym haltan or altana was adopted to denote the whole complex.

The elbelen is a type of a most primitive habitation, being merely a wind protection, and a one-sided rain protection. The other three sides are exposed to wind and rain, therefore it
is erected in a fashion where the roof is facing the prevailing direction of winds.

A classical elbelen rests on two posts, each with a fork on top, and a pole laid on the forks. A Yakut elbelen is then built of vertical poles placed side by side on the ground and leaned to rest on the horizontal supporting pole. The cross-pole may get an occasional side support, either to reinforce one of the posts or elsewhere.

An Ugric elbelen is finer. It has a similar skeleton, but the roof-wall is made of less than a dozen vertical poles on which sheets of bark were laid. A hearth was just outside of the roof at the middle of the length of the house, so as to permit the smoke to go up without smoking in the tent.

There were two ways in which evolution proceeded. A short wall was added at the end of the side of the tent, thus the former side became a roof. The roofing poles were either extended and bent, being at the same time wall posts and roof poles, or a new set of wall posts were placed in the ground below the roof poles.

During the next stage two side walls were added to this structure, and still later, a front wall. Now, the bark on the roof is protected by long horizontal poles - these being proto-
types of the sleg construction known from the Finnic cottages - the preto-slegs being held in place by poles driven into the ground along the side walls. Theirs is a double function for they also keep the wall bark in place. The front bark was stretched between several poles. Tops of the posts crossed the vertical roof poles. The door was fitted from this side, showing that the traditional entrance was free of wall in the ancestral type.

Another type - found besides the Ugrians also among the Tungus - took shape when two elbelens were placed side by side, yet with roofs apart, which permitted the smoke to leave the premises at will. A smoke hole in the altanas evolved from that opening. The two elbelens shared a common hearth in between. One set of forked posts is known also for a similar structure, but then the opening as such was not necessary, smoke found its way through small holes in the roof and in the sides. The Tungus covered one of the sides with some cloth, which served also as a door.

Another type resulted from placing two walled on three sides elbelens alongside. The roofs were joined, and a smoke hole of small size appeared. The door was found on the narrow side, reminding of the formerly open space between the two before their growing-together took place. Sparogs or the crossing of the roof poles at the crest appeared whenever two shelters were
joined. House of this type is found throughout the Paleoasian territory on the Amur and in the Paleoasian Archipelago (the Kuriles, Sakhalin and Yezo or Hokkaido). We know that the paleoasian race stretches far beyond the Paleoasian speech, we suppose that they lived in most of what is now Siberia before the Uralic expansion in this part of Eurasia; the earliest Paleoasian skeletons were of paleoasian race. This evidence is supported by the Ugric and Tunguz dwellings, particularly by the described above Ugric houses on the Ob. The elbelen and its derivatives appears to be residual form of former culture of the Paleoasian Siberans. Although the west-Siberian, and again, east-Siberian manifestations of this complex seem to be very distantly occurring phenomena, it is easy to deduce interrelationships between them, and their common genesis.

It is safe to reconstruct this much. The Yakuts adopted the elbelen from the Tunguz, who in turn received the type from some former inhabitants, Paleoasians or the Uralian conquerors. The Ugrians on the other hand adopted the complex from the former population, the Paleoasians themselves. They forgot about their own Uralic chum. From the Ugrians the Finns adopted the slegs. Perhaps even such a typically Slavic feature of folk architecture as the sparrow may be of Paleoasian origin with the Ugro-Finns as intermediaries. But these considerations lead out of the province of nomad populations of Northern Eurasia.
A house of the Ulche, a Tunguz nation on the lower Amur, has a forked post on both short sides of the walls, under the main horizontal pole and each sleg. This time, though, the slegs are resting below the roof covering of birch bark, on which there are poles laid perpendicular ly to the roof pole; the poles cross each other in form of numerous sparogs. The door is on the shorter side beside the forked support post. The smoke hole is on one side of the longer extent of the roof, not in its crest. It reflects further on the composite origin of the house; to the fire place just outside of the elbelen. It is a much larger house than that of the Ufrians. It is taller, too, and generally shows some influence of the semi-permanent fishermen who live there.

A similar, but more primitive structure is found among the Tunguz of the Hegidaley nation of the lower Amur, where the forked posts are extending beyond the walls and there lend support to the main beam and slegs.

Another type of house evolved from the two walled elbelens placed side by side, with the hole in between them, sharing the same harth. When the structure became joined with bent poles, leaving smoke hole only, no sparogs are possible but a gently curving roof. Either this or any of the formerly described homes of the elbelen complex must have been shared also by the Hungarians before their departure for the Pannonian steppe in Central Europe.
more than ten centuries ago.
CHAPTER XXX

THE PILE DWELLINGS

East Asian palafites.
Swiss lake dwellings.
Clay model of Professor Erazm Majewski from Popadnia.

Perhaps most typical among the pile dwellings in Northern Eurasia are those of the Paleosaians. They survived in Eastern Siberia until the beginning of the XX century, to be replaced by the more modern log cabins adopted from the Siberian Slavs.

The Itelmens of southern Kamchatka Peninsula built platforms on up to nine piles driven into the ground with a ladder leading to the platform on one side, opposite the entrance to the house. On that platform a tall conical tent, sometimes of skins, sometimes of grass, was erected. There was also a walkboard around the tent on the platform.

The Koryak fishermen built also pile houses. Their plat-
forms stood on poles assembled in tripods, several to a platform. In addition, the walkboards were fenced with airy barriers built of horizontal poles. These walkboards were like little elevated yards. Fishing nets often dried on the barriers, extending down to the ground. On the platforms stood elongated or pyramidal structures of vertical planks, appearing very irregular, yet presenting a fairly homogeneous picture when compared with the other ones.

Some of the other Kamchatka pile dwellings stood on platforms totally occupied by the main house of rectangular shape. Thatched roof on both sides of the longer side of the rectangle was held by horizontally laid uncut poles, some extending beyond the roof's end, the others being shorter than the roof. The two other sides of the rectangle were occupied by walls. The piles were driven on each end and in the middle of the house. The posts supporting the roof in the middle were the longest, others held the roof from the side to prevent its sliding. Thus, unlike the two former kinds of pile dwellings, the piles were incorporated right into the main living structure, as its supporting posts. The doorway was in one of the narrower side of the rectangle. And the whole houses were rather tall, perhaps as a precaution from floods and/or wild animals. Some horizontal posts joining the piles can be seen as an added strengthening to the existing structure. There is an interesting hypothesis put forward as an explanation of one of the origins of a cottage or cabin in connection with those horizontal beams. It
was presented by Professor Poniowski who explained that covering of the piles with side planks or poles below the house, originally for protection of the hearth from winds was instrumental in making of a modern house.

The palafites as we know them in Eastern Siberia are undoubtedly remnants of a widely spread way of home building in Siberia. Relic forms of such buildings can be found in the form of a m b a r s - Siberian granaries of today, and in cold storage boxes on stilts. They seem to be of South Asian origin. In Siberia they probably came along the eastern maritime country. It is too early to say whether they were brought by some migrating tribe or were simply borrowed without the notion of permanent shifting.

There are also pile dwellings known in the western part of Northern Eurasia, in Switzerland, Poland and the Ukraine. The latter are known only from clay models, in particular, the best known in the outside, house on stilts described by Professor Kajewski who financed the expedition to Pupudaia. Professor Childe in the opinion that the piles are only legs of the clay toy or model and are not significant. The other palafites from Europe, as well as those from the models are those of the settled population.

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CHAPTER XXXI

DWELLINGS ON WHEELS

Clay models from antiquity.—
Gypsy wagons.—Sporadic occurrences in Asia and Europe.

According to Childe\(^1\) already the Aryans, that is the Indo-Iranian branch of the Indo-European family, while still roaming the Ukrainian, Kozak and Kazak steppes used the wheel dwellings in the form of a chuck wagon. Often it was ornately decorated with buttons and showed high degree of workmanship. The covers were either textiles or hides. Whole family must have lived and travelled in those covered wagons. They were probably used also for warfare. The Scythians are known to have continued the tradition of their forefathers, since we know some models of Scythian origin of the covered wagon.

Also the Gypsies, being related to the Scythians, carry

\(^1\)Childe, V. G., The Growth of Culture in Prehistoric Europe, op. cit.
the old Aryan tradition. They did not stop using the covered wagon as a house. They cover it with light coloured fabric. They roam seldom in northern latitudes, preferring steppic lands of Eurasia and the countries of the Mediterranean. They were nearly all exterminated by the Germans during the World War II. Some still survived from the German genocide, they abandoned however their old wandering way of life. With the new duty to regenerate, they changed to sedentary life, abandoning their houses on wheels. The Gypsy wagons resembled very much the American pioneer covered carts, with which they are genetically related.

In Asia's center sporadically we find houses on wheels. They are usually something extraordinary, reserved for the royalty. One example is that of the powerful Mongol rulers of the Empire days who erected an ornamented, rich felt yurta on a round platform with a fenced board walk in front. It had a double purpose, to permit the driver to stand and to let the occupant of the tent to stay there as well. There four wheels, two on each side, and twenty oxen to pull the monstrosity. The pulling force was arranged in two rows, ten in each. Additional drivers walked along when the ruler moved.

In Asia Minor certain peddlers may also have a house on wheels, including their workshop. The artisans individual invention
should be credited for this, however, more than a local custom. Therefore it can not be regarded as general.

A hundred years ago, in vicinity of Poznan in western Poland the first prototype of a modern trailer was built. It was erected on a farm, by a farmer named Drzymaja. The reason for building the trailer, hence known as "Drzymaja's wagon" was political one. The Germans who occupied that part of the country after the defeat of Napoleon and his ally, the Siles, forbade Siles to build houses on the ground. A wagon in German law was not technically a house, and the house on wheels won a victory, becoming a symbol of liberty. It is merely an interesting episode in the history of houses on wheels, but it can not be regarded as a habitation of a nomad population, therefore has to be mentioned only casually in this book.

Today only the Gypsies - and that in a relic form, since they have permanent quarters by now, putting their wagons which, if survived from destruction by the Germans, in their back yards, preserve houses on wheels in northern Eurasia. These houses definitively go back directly to the model of their Aryan ancestors as shown by the excavated evidence.
DEWELLINGS ON SLEDS

Origin.— Distribution.

It is known to the Siberian Slavs and the native Siberian population under the name of h a l o k. It is a very simple, box like house, built of boards, elongated. It is pulled by reindeer. The sled house is a very useful type of a dwelling for the northern latitudes. It is not necessary to pitch it every time the camp is built, and yet it is in its entirety portable, being at the same time a shield for the young ones and property from atmospheric conditions.

Its origin is probably modern. It is ascribed to the Slavs of Siberia as originators. Of course it is not restricted today to that group of inhabitants of Siberia, but is used by the natives as well.

It is found among the northern Yakut people, the Dolgans and in the neighbouring region. The Taymyr peninsula is richest in this type of dwelling when compared with other parts of Siberia.
The skeleton is a frame with many connecting planks, built of planks which in America would be called "two-by-fours". Then it is covered with hides from the outside. The roof is gently convex. The balok has two rampas, curved in front so as not to catch in a hole or obstacle on the path. The door is located in one of the longer sides of the house. It has also one small window facing the front, to provide for the looking after the herd while at stops or along the way. Furniture in baloks is simple, but definitively of modern affiliation. Simple bed facing the wall, a table, a stool are the essential items. Apparently it has to do something with the natives and Russians in administrative or otherwise above-average positions in the nomadic northland.
CHAPTER XXXIII

THE BOAT DWELLINGS

The ilimkas of the Kets.—
Other peripheral houses
on boats.—Junks.

An interesting house is found among the Ket nation in the
Yenisey valley. It is "longhouse" erected on a boat. The boat
itself, measuring up to 15 meters in length, is known to the
local Russians as an ilimka. The longhouse is built of
poles, attached with their ends to the sides of the boat, yet
permitting a free passage alongside to the inhabitants. The poles
are connected with unbent ones laid on top of the others, and the
whole skeleton is covered with birch bark sheets.

The living quarters was situated in one half of the
sheltered area, separated with a partition from a magazine or a
stock area. The door led to the living section, which was
considered - naturally - to be the first in importance, and the
storage room being the second. A tall mast stood in the middle of the boat, to support a bread, squarish sail, fastened on additional supports and ropes. The sail was put in place during winds only, being stored away in time of calm and/or "parking" - along the bank of the river - side by side with other ilimkas.

The boats used the river only along the banks, the people - in company of their dogs - resorted to ores only in harder situations encountered on their course. Certain iron parts were used for the upper part of the mast, where it met the other cross-beams.

Although the boats used a river, yet they had not a flat bottom, the river being one of Siberia's largest, and the boat being of fair size, the Iets had to get used to navigation. Although they are a small nation, yet ilimkas are not used by them all. Its geographical distribution was limited to the southern half of their nation, although both in the main valley of the river and on its tributary, the odkanornaya Tungushka.

When anchoring at the bank, some dozen or more ilimkas for a moving "settlement", each boat projected a post with which it was attached to a shorter one on the bank. For longer trips
the heavy ilimkas became pretty and light, swiftly travelling with all the goods and animals from a settlement to a settlement. Although the ilimkas are grouped rather with the larger boats, they remind one of Chinese sampans.¹

Further to the south and upstream from the Set domain of today, in a mixed territory ethnically speaking, but definitively with the Russians being the most numerous, and dominant, nationality, on the Yenisey river near the town of Krasnoyarsk similar boat dwellings were encountered. This time, however, they were the dwellings of the Russians themselves.²

In the same area - possibly the one further to the north was meant - it was said that the natives dwell in boats.³

It is interesting, that the ethnic makeup of the vicinity of Krasnoyarsk has changed - it was formerly a Set area - but the dwelling type survived among the new masters of the land.

²Personal communication with Professor Bogdan Zaborski.
³Ibid.
Some sporadically-appearing dwelling boats could be located also on the Amur river in eastern Siberia. But it is China that has its houses on boats, the junks, by the thousand on both major rivers.

It is interesting to direct attention to the fact, that both the Jets and the Chinese belong to the same linguistic family, separated early from their kinsmen.\(^1\) It is known that the Jets lived farther south than their present habitat, and that the Chinese, similarly, lived further towards the Gobi desert. The similarity between the junk and the ilinka may be superficial, yet it is, at the same time intriguing, that the only difference between them is that junks are occupied all year round, while the ilinka is a strictly summer residence.

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\(^1\)Milo zhe, op. cit.
CHAPTER XXXIV

RESULTS

General considerations.- Summing up.

We found out from the foregoing that it is possible and useful to establish house types on genetic basis in northern Eurasia, and on the basis of their distribution and present-day association with ethnolinguistic groups to theorize about their former associations and ways of expansion.

Although, in general, we found relationships between natural zones of tundra and taiga with the shalas, and yurta with the steppes and desert, we found also that these results are not absolute, and that with migrations of peoples new ways were introduced in the building customs of the region. Or, that the old way was modified to suit tastes of the newcomers, not disappearing altogether; often old and new types existing side by side.
Since the remote antiquity of the ice age, during the peri-glacial period of southern Siberia's history, in the Upper Paleolithic times lived a population dwelling in semi-subterranean prototype houses to most of the later nomadic habitations.

Now, in Mesolithic times, out of that prototype evolved two types of tents: yurta in the steppe and shalas in taiga. This shalas - a conical tent - came west for the first time with the people known to archaeologists under the name of their material culture Tardaisian-Swiderian, belonging to the laponoid race. A second wave of the shalas carriers arrived during the Neolithic, characterized by the Comb Culture; they pushed the former people to the north; they were predominantly paleasianic, racially. While they belonged to two different races, they were all members of the Uralian linguistic family. The first wave of immigrants to Europe, the shalas dwellers, were probably of Samoyedic affiliation, having reindeer along, although it could not have been fully domesticated yet. They most likely proceeded straight from the Sayan mountains, apparently the Uralic cradle, and native habitat of the reindeer. They may have wandered westward south of the Ural mountains. The ice retreated northward, and the landscape was early post-periglacial.

The second wave were Ugre-Finns, who assimilated many among the former people, pushed the others northwards. The rem-
nants of the Mesolithic population retreated to northern Fennoscandia and are known as Lapps. A part of them, however, contrary to the Lapps who adopted one of Finnic languages, moved east along the borderlands of the two zones, taiga and tundra, and colonized the north of Siberia, reached the Oduls, whom they assimilated. The formerly Paleoasian Oduls adopted from them also the chum. In addition to spreading this type of habitation in Siberia, the Uralians introduced the reindeer in the same general zone.

The Uralians lived always in chums, except the *ins1 who very early adopted the IndoEuropean log cottage, changing the reef construction upon contact with the sleg technique of their neighbours to the east. Chum is almost identical with the way of house building among the Lapps, Samoyeds, Oduls and others. But it also became the prevailing type – evolving into regional types – among the contemporary Paleoasians and Eskimos, undoubtedly with the Uralianized Oduls as intermediaries.

It is evident that the Paleoasians before the advent of the Uralians used to build their habitations in quite another way. There the palafitic structures present in their former lands

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1 de La Blache, Vidal, in Faborski, B., and A. wrzosek, Antropogeografia, op. cit., p. 201.
and the altana complex witness this statement. The latter became adopted by the Ugrian part of the Finno-Ugrians. From the Ugrians the Finns adopted the sleg technique of building, or—who knows—perhaps from the formerly living there Paleoasi ans themselves. The house types of the altana complex are definitively not of any western origin; there are certain indications that they are similar to those of the south-east Asia and the archipelagoes between the two continents of Asia and Australia. Reed matting is only one thing in common, among many other traits, found among the Paleoasian humans and peoples further to the south. The bunks, central communal fire place, central hall and nuclear family compartments indicate so.

The Altaian family, that is the Turkic, Mongolic and Manchuric nations, from aboriginal times use all kinds of yurtas. Although it has a common origin with the chum, it is a definitively of steppic origin. With the Altaian expansions the yurtas went to many new lands. The Manchurian Tunguz moved north, without taking their cousins' civilization. When they colonized Central and Eastern Siberia, but principally the Lena Basin, they readily adopted what was on the market. In terms of housing it was the conical shalas, chum, either of bark, logs in the taiga, hide in the north, and skins in the south, and its varieties, which they may have evolved, like the urasa-like chum and the urasa. They had no chance to borrow the pit-house from the fishermen on the
shore, climate being already warmer and the forest life being most adaptable to the tent. They did not border on the Paleocasians who still dwelt in pit-houses, who by that time were pushed further to the east. They did not borrow the yurta from the Yakuts, for the Yakuts were still fostering the Baikal lakeland as their home. Through getting in touch with the Uralians, the Tungus obtained reindeer and the shalas, thus becoming perfectly adapted citizens of the northern coniferous forest.

The second Altaian wave in the north brought with the Yakuts their type of habitation, but it changed appearance: it was not any more a portable home of the steppe, but a semi-permanent log yurta, the idea of logs was probably borrowed from the Dimma. The Yakuts adopted readily other types of taiga habitations as well as keeping their own. The standardization of the interior of their homes dates back to the times already after their arrival to their new homeland. There homes without the improvements of a log chimney as evidence of pre-Yakut dwellings.

Yurtas expanded with the Turks and Kalmucks to the west as well, wherever these nomads went. The black felt roofs of some Turkestanian and Azerbaydzhani yurtas are related to the black tents of the Tibetan nomads. Some south-west Asian traits, like reed walls and adobe were adopted in the Central Asian yurta architecture as well.
The study of house types and their geographical distribution solved many a mystery pertaining to the history of one aspect of the material culture of the Old World northlands. Relative chronologies were possible to be reconstructed for individual complexes of types; the time has not come yet for an absolute tying of all the evolutionary evidence into an absolute chronology for the dwellings and their occupants of northern Eurasia.
PLATE 24  A MAP OF THE DISTRIBUTION OF HOUSE TYPES
of rural Europe: the log cabin, sleg technique and sparage were found to be of interest to the nomads as well as to the sedentary peoples of Europe.

Finally, there are definite indications\(^1\) that the American natives' dwellings, the longhouse and hogan, the iglu and kiva, wigwam and a tipi, are all the New World projections of the Siberian nomadic habitations.

All that is a challenge; all should be further investigated. And this time it will be possible to base the findings on actual field-work rather than scientific contributions, since much of the research will have to be conducted within the frontiers of the free world.

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APPENDIX

EXPLANATION OF ABBREVIATIONS

AN SSSR = Academy of Sciences of the Union of Soviet Socialist Republics;

RSFSR = Russian Soviet Federal Socialist Republic;

MVD SSSR = Ministry of the Interior of the Union of Soviet Socialist Republics;

ASSR = Autonomous Soviet Socialist Republic;

USSR = Ukrainian Soviet Socialist Republic;

SSSR = Union of Soviet Socialist Republics;

PAU, PAN = Polish Academy of Sciences;

PUNO = Polish University Abroad.
ABSTRACT

There are two principal broad groups of house types in Northern Eurasia: the shalas, with its most characteristic conical tent having the supporting poles crossed at the apex; and the yurta, a walled, heaped cupolar dwelling. Both have evolved from a semi-subterranean Upper Paleolithic prototype in a periglacial environment of southern Siberia. The semi-subterranean dwelling survived in the north-eastern periphery among the fishermen.

The shalas, being principally of timber and bark construction, is a typical dwelling of hunters of the taiga - the boreal coniferous forest; while the yurta is its easily portable counterpart of the wide open spaces, the steppe. The former is of a decidedly Uralian origin, and it spread alongside its Uralian users during their meso- and neolithic expansions. The latter was originally associated exclusively with the Altayan people, and until today is their favourite home; even though
they may be away from their former steppic habitat, like the Yakuts of northern geographical latitudes.

A third broad group of houses of another origin is the altana complex. It originated from a simple wind shelter and its various combinations. It is a trait characteristic for the Paleosiberian people. They are also associated with pile dwellings. Most of Siberia manifests this type of architecture, principally in a residual form of non-habitable farm dwellings. Reed thatching as well as structural elements indicate that the dwellings were introduced from warmer habitats further south, which may be generally classified as Austroasian.

Certain Afroasian elements also can be detected in the south-western part of northern Eurasia. Perhaps the round huts of tropical Africa, and the characteristically Mesopotamian reed tents exerted influence on certain structural elements of the Central Asian yurts.

Finally, the Indo-European log cabin, via its Sinnic modification, appears to be one of the most recent additions to the house type inventory of the forest zone of Northern Eurasia.