HISTORY OF ARCHITECTURE 1.
THE BEGINNINGS AND
VERNACULAR ARCHITECTURE

Vernacular Architecture in
Europe and Hungary

Rabb Péter PhD 2012-2017
The European vernacular architecture was determined by agriculture and animal husbandry (with stable).

The nomadic grazing animal keeping stopped 1,000 years ago. Fishing didn’t make an impression on architecture. The hunting, gathering and pastoral life was productive only of temporary buildings.

Lot of climate zones
Variety of topographical conditions
Lot of nations
Lot of languages

*Same religion*

*Similar culture*
IZBA (ИЗБА) – EASTERN SLAVONIC REGION: UKRAINE, RUSSIA

SINGLE-ROOM LOG HOUSE

FARMHOUSE WITH COURTYARD (Voronezh, Russia)
There is a courtyard on the centre surrounded by stable, sty, barn and storages. There is a **one-celled IZBA** in the hearth of farmhouse.

THE DEVELOPMENT OF IZBA

1. WITH ENLARGING:
   Double-room-house: living area, pantry + porch
   Triple-room-house: there are two rooms in both side of communal entrance
2. WITH DIVIDING:
The main area is dividing into three spaces: kitchen, living room and bedroom
Typical: triple-celled plan (living room, entrance, storage)

Common: The stable and the triple-celled house are built under same roof.

Living room: real IZBA with huge oven heated from the room. There is no chimney, the smoke is streaming through the windows or roof.

Living house with white-room. There are two rooms in both size of entrance. The IZBA on left, and the white-room on right. There is no oven in white-room, it is used for living only in summer.

Roof-covering: thatch, straw or board (with 2 or 3 layers)
RURAL HOUSES IN BALTIC STATES (ESTONIA AND LATVIA)

THE SMOKY-HOUSE IS REMAIND IN THE CENTRE OF HOUSE

A. Typical *Estonian* house

There is an *INNER HOUSE* in the centre of house with oven. It was built of logs or stone. The inner house is surrounded by other rooms: there are two living rooms on the right end, and on the left a huge barn. The living rooms are opened to the inner-house. This house shows the intention of *isolation to very cold weather of winter*.

B. Typical *Latvian* house

There is a *BLACK KITCHEN* in the centre of house made of stone. It is a big oven and heating system, which heats all rooms directly. The biggest room is IZBA.
A. Very old house (1668) from Southern-Norway
It looks like an IZBA (1), with entrance (2) and storage. The additional rooms are covered with floor. The roof is opened into The space of living room. There is a vent-hole on the roof.

B. The development of norwegian Rural house
1. Living room, 2. entrance, 3. bedroom, 4. long storage
The open firepit moved into the corner and it become into real fireplace. The old storage become into bedroom or kitchen. There is a white-room (1) in the opposite of IZBA without heating for summer living.
STORAGES IN NORWAY – STABBURS

It was used for storing food.

Below left: Stabbur in Numedal, right: Stabbur in Setesdal, 1890.
The BLACK-HOUSE is known in Western-Norway, Iceland, the Hebrides and it used to be common in Scottish Highland. It preserved the memory of germanic long house. It was generally built with double wall dry-stone walls packed with earth and wooden rafters. Covered with a turf roof, although reed thatch was occasionally used as roofing material. The floor was generally flagstones or packed earth and there was a central hearth for the fire. There was no chimney for the smoke to escape though. Instead the smoke made its way through the roof. It was used to accomodate livestock as well as people. People lived at one end and the animals lived at the other with a partition between them. The old smoky houses were called black-house. The new houses were called WHITE-HOUSE in the Late 1800’s. These were designed to separate humans from their livestock and animals.

A. Typical Northern-Atlantic black-house from the Hebrides
B. Black-house with added stables
THE SCOTTISH BLACK-HOUSE ISLAND OF LEWIS, THE HEBRIDES (NW SCOTLAND)
The FACHHALLENHAUS (hall house structured into bays), also Hallenhaus, is a timber-framed farmhouse, which combines living quarters, byre/stable and a harvest storeroom under one roof. Until its decline in the 19th century, this rural, agricultural house style was widely distributed through the North German Plain, all the way from the Lower Rhine to Mecklenburg.

Fachhallenhäuser still typify the appearance of many north German villages.

Above: Hall house from Vestfalia
1. barn, 2. stable for cattle, 3. stable for horses, 4. living area with fireplace, 5. room, 6. bedrooms

Below: Hall house from Baden
1. barn, 2. kitchen, 3. room, 4. storage, 5. stable, 6. attic for hay
La Recorne, Jura Canton

(the oldest parts of this house date back to the year 1617)
1. kitchen, 2. barn and stable, on the upper floor: attic for hay, 3. rooms

An arched doorway opens into a hallway that provides access to the living quarters and the stalls. The sous-grange serves simultaneously as a cart shed, storage area and workplace. In its interior, the farmhouse is an all-wood post-and-beam structure. A forest of beams supports the shingled roof. Access to the barn is via the ramp at the rear of the house. The large attic space contains two box-like rooms. A granary is used for keeping grain for flour, animal feed and seed. A small room provides accommodation for servants and harvest workers. A long dark corridor leads into the living quarters. A large part of rural daily life took place in the kitchen. This one has a large wood chimney that is responsible for removing smoke from the hearth fireplace, the heating stove and the baking oven.
The area of human living, animal husbandry and storages are separated from each other. These functions were satisfied in separated buildings.
THE TRULLIS

A trullo (plural, trulli) is a traditional Apulian stone dwelling with a **conical roof**. They may be found in the towns of Alberobello, Locorotondo, Fasano, Cisternino, Martina Franca and Ceglie Messapica. Trulli were generally constructed as **dwellings or storehouses**. Traditionally they were built without any cement or mortar. This style of construction is also prevalent in the surrounding countryside where most of the fields are separated by dry-stone walls.

The roofs are constructed in two layers: an inner layer of limestone boulders, capped by a keystone, and an outer layer of limestone slabs ensuring that the structure is watertight. Originally, the conical structure would have been built directly on the ground, but most of the surviving structures are based on perimeter walls.

1. terrace, 2. livingroom, 3. bedroom, 4. kitchen, 5. cultic room, 6. storage, 7. sty
REGIONS OF RURAL ARCHITECTURE IN HUNGARY DURING THE 18-19th CENTURY

I: North-western Transdanubia / II: Central and south-western Transdanubia / III: Southern Transdanubia / IV: Great Hungarian Plain / V: Upper Hungary / VI: Western Transylvania - Szamos / VII: Central Transylvania - Székely
COMMON TYPES OF HOUSE

A: Central- and Western Transdanubia / B: Balaton-highland / C: Upper Hungary / D: Great Hungarian Plain - Sárrét / E: Great Hungarian Plain / F: Western Trassylvania / G: Central Transssylvania
LIVING CONDITIONS IN CARPATHIAN BASIN IN THE EARLY MEDIEVAL AGES (10-13th century)

Central hungarian area (today Great Hungarian Plain): **marshland** with permanent or temporary (two times a year) marshes, forests on the river banks, pastures on higher areas → lot of small villages (on hills) → no cultivation of plants → animal husbandry
Frederick I. (Barbarossa) Holy Roman Emperor marched through Hungary with his army at 1189 / Liber ad honorem Augusti sive de rebus Siculis, Ebulo-i Petrus, Palermo, 1196 / they had to open the road for army through forests here
THE FIRST COUNTIES IN HUNGARY (11-12th century)

Central Hungary: population was very low, lot of very small villages, no cities
The biggest part of population lived in Transdanubia, Upper Hungary and Transylvania
MAIN CITIES AND MONASTERIES IN THE 13th CENTURY

Central Hungary: no cities
THE EARLY SETTLEMENTS

Reconstruction of pit house / sunked level of living area → no walls / remains of pit houses can be find by archeologists.
PIT HOUSES

Old real pit house (built by poor people)

Replicas of pit houses
JURTS / COMMON SHELTERS IN EARLY MEDIEVAL AGES

Most of people lived in „tents” (until the end of 12th century) reported by travellers
There wasn’t any remains after the jurt was demolished → poor archeologists
Ottoman rule covered mostly the central and southern territories. The territory of occupation became depopulated, people migrated into bigger "fortified settlements". These fortified settlements extended its territory (land) to depopulated villages. The Ottoman Empire supported this fortified settlements for getting more taxes.
ANIMAL HUSBANDRY / TRADE IN CATTLE

min. 200-300 thousand cattle per year / cattles are movable into safer area → saving the invested money

3 types of medieval cattles in Hungary
1. It's dimention was similar to bigger dogs / 2. similar to common modern cattles (700-800 kg) / 3. Aurochs (large wild cattle, last recorded aurochs died in 1627) (1000 kg)
TERRITORIES OF MAIN „FORTIFIED SETTLEMENTS” (CITIES) IN CENTRAL HUNGARY

Kecskemét

DEBRECEN: cca. 50 former villages

KECSKEMÉT: 39 former villages

NAGYKŐRÖS: 13 former villages

CEGLÉD: -

BUDAPEST: territory: now: 52500 hectares

DEBRECEN: territory: 13th century: 1700 hectares, 16th century: 87 + 82 = 100000 hectares, 1930: 100000 hectares

KECSKEMÉT: territory: 16th century: cca. 280000 hectares

NAGYKŐRÖS: territory: 16th century: cca. 120000 hectares
TYPICAL PLAN OF FORTIFIED CITIES IN CENTRAL HUNGARY UNTIL 17th CENTURY

Animal husbandry on huge area of external pasture / people has two sites in the city → „two sited“ city
Economy turned into cultivation of plants (wheat and corn) / rivers were regulated and pastures were broken for cultivation of plants.
DEVELOPMENT OF „FORTIFIED CITIES” / HAJDÚBŐSZÖRMÉNY

1782, 1842, 1910
Plan: longitudinal, rectangular, 3 rooms / rammed walls / pitched roof / covering: reed (later: tiles) / portico on longer elevation is common / oven / tent for smoke above the oven
RAMMED WALL

the soil is rammed by rammers into two planks / planks can be lifted / $\rightarrow$ 60-80 cm thick wall
OVEN WITH TENT FOR SMOKE
596—602. KONYHA ÉS SZOBATÜZELŐK ALAPRAJZAI. P = píta, k = konyha, sz = szoba, k = kóra, h = a hőményalja határa, p = minden nap születő pátka, g = inneni tüzelőpátka, l = ütöttlan, h = főszéken, k = kemenek, j = kem. szálja, t = terek, s = süt, a = kem. patkája, z = szerhet, c = elinyérté pátka, ó = olaszpatka, ó = asztalkék. (Nagyasszás és közvetlen környező.)

619—620. SZEGÉNYES HÁZ nyugatbelül, nézett fedéllel, his sarkon keresztsül. Főtete az alaprajza. A konyhában elszapadt a szobában báhs kemenek. (Námárvár, Hajdú M.)
CENTRAL HUNGARY

Hajdúbagos (1835)
HOUSE WITH STABLE

Karcag, Bereki határ
REGIONS OF RURAL ARCHITECTURE IN HUNGARY DURING THE 18-19th CENTURY

I: North-western Transdanubia / II: Central and south-western Transdanubia / III: Southern Transdanubia / IV: Great Hungarian Plain / V: Upper Hungary / VI: Western Transylvania - Szamos / VII: Central Transylvania - Székely
Fertőszéplak
NORTH-WESTERN TRANSDANUBIA / THE LITTLE HUNGARIAN PLAIN

Fertőszéplak, Szalay Horváth János’s house
Fertőszéplak / Fertőszentmiklós
REGIONS OF RURAL ARCHITECTURE IN HUNGARY DURING THE 18-19th CENTURY

I: North-western Transdanubia / II: Central and south-western Transdanubia / III: Southern Transdanubia / IV: Great Hungarian Plain / V: Upper Hungary / VI: Western Transylvania - Szamos / VII: Central Transylvania - Székely
TYPE OF CHIMNEYS IN VERNACULAR ARCHITECTURE IN HUNGARY

A. Hole on the top of roof / B. hole at ridge / C. pithouse with smoke tube / D. smoke hole above the door / E. hole on wooden slab with small oven-shaped chimney / F. hole on wooden slab with small beehive-shaped cylinder / G. blind chimney (smoke goes into the roof) / H. plastered smoke-tent / I. open chimney / J. closed chimney
BLACK KITCHEN (FÜSTÖS KONYHA / SMOKY KITCHEN)

Kadarkút / Szenna / Köveskál / smoke went into the roof (loft) through upper half of door and hole of wooden slab above the door.
Balatonakali / roof supported by walls made of stone
WOODEN WALS / LOG WALLS

Most common structures / dominant in medieval ages / XVII-XVIII. szd.: forests were vanished

Log walls made of mostly pines (straight trunks) → Western-Transdanubia, Transylvania / Hard wood (oak): mostly for barns (curved trunks or branches → good ventilation) and for base beams in wooden framework
Kondorfa, living house (Kovács György, 1816 / school, since 1860) / plastered log walls / covering is straw / smoke tent(!)
Szentgyörgyvölgy, house of lower nobility / Iklódbördönce, barn with throat (possibility of bigger gate for coach with load)
Szentgyörgyvölgy, curved house
A: Kondorfa (1826)
Plastered log walls, transversal main beam, wooden slab, roof supported by purlins, covering is straw
E: Fenced house (four part of building surround small rectangular courtyard on the middle)
REGIONS OF RURAL ARCHITECTURE IN HUNGARY DURING THE 18-19th CENTURY

I: North-western Transdanubia / II: Central and south-western Transdanubia / III: Southern Transdanubia / IV: Great Hungarian Plain / V: Upper Hungary / VI: Western Transylvania - Szamos / VII: Central Transylvania - Székely
HEATING SYSTEMS / OPENED: FIREPLACE / CLOSED: OVEN, STOVE / INTERNAL HEATED OVEN vs. EXTERNAL HEATED OVEN

Opened: A. open fire / B 1-11. firepits / C. fireplaces from Transylvania

Closed:
CENTRAL TRANSSYLVANIA
CENTRAL TRANSYLVANIA / SZÉKELY

A. Gyimes / B. Csíkméneság / C. Énlaka / D. Nagypatak / E. Bikfalva / F. Bogdánfalva
Covering / Wooden Tiles

Shingle / zsindely / dránica (boards)
4. Spread of wooden tiled covering
REGIONS OF RURAL ARCHITECTURE IN HUNGARY DURING THE 18-19th CENTURY

I: North-western Transdanubia / II: Central and south-western Transdanubia / III: Southern Transdanubia / IV: Great Hungarian Plain / V: Upper Hungary / VI: Western Transylvania - Szamos / VII: Central Transylvania - Székely
MIXED WALLS

Ancient structure / mostly in temporarily marshy areas / wooden framework = rigid structure is resistant to water
Wooden framework + plastered walls / 1. main posts are dug into soil / 2. wooden framework with base beams (posts are stanced into base beams)
A: Tarpa / wooden framework, plastered walls, roof with rafters, covering is trod straw, former fireplaces
B: Vámosoroszi / central hungarian style, portico, fireplaces, central room is real kitchen
C: Visk / 
D: Visk / influences from Székely-style houses
Kispálád, poor (beginning of 19th century) / wooden framework / plastered walls / roof with rafters / gable is opened / half hipped roof / trod straw / fireplace in rooms / blind chimney in kitchen / no real chimney, smoke goes into the roof through hole on blind chimney
Kispalád
Botpalád, more rich (Császár Gáspár, 1880) / more demanding work / smoke tent from Central Hungary / conical shaped oven for bread baking / wooden framework / walls made of sun baked mud brick / they lived in kitchen and storage / the first room was „clean room”, they didn’t live here
REGIONS OF RURAL ARCHITECTURE IN HUNGARY DURING THE 18-19th CENTURY

I: North-western Transdanubia / II: Central and south-western Transdanubia / III: Southern Transdanubia / IV: Great Hungarian Plain / V: Upper Hungary / VI: Western Transylvania - Szamos / VII: Central Transylvania - Székely
UPPER HUNGARY

Palóc house
THE DEVELOPMENT OF **IZBA** IN UPPER HUNGARY
OLD FASHIONED HOUSE IN UPPER HUNGARY

Filkeháza / BAZ / the stable was originally opened from central room / the room is izba-style: living area + kitchen in one place
Komlóska / BAZ / wooden framework / plastered walls
Parád / palóc house
CHIMNEYS IN UPPER HUNGARY

Vertical tube / older version
CHIMNEYS IN UPPER HUNGARY

Horizontal tube / there is a smoke tent above the next room and the smoke went through the horizontal tube into next room.
SEE YOU!