

# The significance of leather in ancient times

## Značaj kože u drevnim vremenima

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### Abstract

Leather is one of the human most incredible discoveries. It has a long history from ancient times till present. It has its stamp in the making of different tools, clothes, footwear, dwellings as well as writing. This paper will highlight some of the most significant leather man made creations including those in the vernacular architecture as well as the parchment.

**Keywords:** leather, dwelling, vernacular architecture, parchment, writing

### Sažetak

Koža je jedno od najvjerojatnijih ljudskih otkrića. Ima dugu povijest od drevnih vremena do danas. Svoj pečat ima u izradi raznih alata, odjeće, obuće, nastambi kao i u pisanju. Ovaj će rad istaknuti neke od najznačajnijih ljudskih kreacija od kože, uključujući one u pučkoj arhitekturi, kao i pergament.

**Ključne riječi:** koža, nastamba, pučka arhitektura, pergament, pisanje

## 1. Uvod

The skin is the largest human organ that covers our body, with the primary role of providing basic protection from external factors such as:

- mechanical, physical or thermal injuries;
- bacteria and other dangerous substances;
- UV radiation;
- high temperature, etc. [1].

This paper will highlight the role of the skin in regulating our body temperature as particularly significant factor. It is this factor that will grow into the greatest need, and thus an inspiration for human beings, throughout their relatively short history of 200.000 years to try to improve and upgrade it as they knew how and could.

The first migrations of the human race begin with the expansion in parts of the world where the four seasons prevail with periods of extreme cold, humidity, long-lasting rain and snow, cold winds, etc. In such conditions, the human bodies are unable to survive. Therefore, using their "intellect", our ancestors observed the nature and its living creatures that developed different types of "skin", capable to adapt to different environmental conditions. Those of the large mammals were particularly useful, as well as those of reptiles and large running birds which appeared as quite tempting. Based on the forth-mentioned the following development scale can be made:

- the possibilities of the human body are limited, the human skin is not efficient enough;
- crafting a "new skin", inventing the "new skin" crafting tools, the end product – clothing, armor and special costumes;
- the nomadic way of life will force the need for the construction of dwellings that will be assembly-disassembly, easily portable, and at the same time provide protection from the atmospheric influences and regulate the temperature inside;
- the need to materialize a thought, to pass it on to future generations and the emergence of writing, will result in the creation of scrolls and books made of parchment (a leather product).

## 2. The dwelling "skin"

This paper will further highlight the significance of the second two stages since the author is an architect.

In addition to the term facade, in architecture and civil engineering there is also the term building's "skin", which by definition is the boundary between the inside and outside of a building. It is also the surface that interacts with the outside world and protects "what is inside" from external influences such

as: the sun, wind, rain, snow and in modern times noise, pollution, etc. [2]. Undoubtedly, the inspiration for this concept of building's "skin" is the very biological.

Knowing the possibilities and limits of their body and skin, people were inventing tools and clothes simultaneously – one to make the other, and thus there were different ways and processing technologies. The nomadic way of life with its challenges will contribute to the design of effective dwellings [3].



a)



b)

**Figure 1.** Representation of: a) construction of a dwelling made of ivory [4] and b) ivory construction covered with leather [5]

What can help a little in the representation of the earliest beginnings in the time of the Middle Paleolithic? E.g. the scarce archaeological findings in the Eurasian plains of assembly-disassembly dwellings whose construction is made of ivory [3], Figure 1a [4]. Figure 1b shows the ivory construction of a dwelling covered with animal hide (leather) [5].

More specifically, the constructions of the dwellings were made of the skeletal remains of the prehistoric giant mammals such as mammoths - animals that inhabited the plains of Eurasia and North America and were

hunted by human ancestors. The usage of the animal catch was quite wide, it included the usage of the meat for food, the hide (or fur) for clothing, and the bones for the load-bearing structure of the dwellings [3]. Finally, the first facade in the history of architecture was created and from hide (leather). To satisfy the need to create a barrier, in order to reduce the loss of thermal energy (today professionally named as "increase thermal insulation"), and at the same time to have a waterproof cover, use of the animal skin was in that period the only solution and possibility. The animal hide (leather) was easier to be carried, unlike the heavy bones, so it is assumed that the construction was left in place, in a known location, while the hide cover was carried by the group. Thus, during each migration of the people clan, the construction will be located and if necessary there will be a rearrangement and repair before placing the hide covering in order to finalize the dwelling. Life will take place inside the dwelling with a fire, warmth and food, while outside was raining, snowing or wind blowing [3].

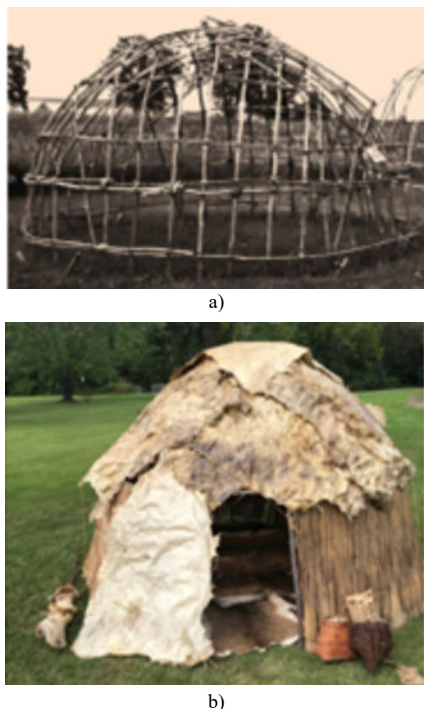


Figure 2. Representation of: a, b) wigwam [6, 7]

In contrast to the theory about how our ancestors Homo Neanderthals and Homo Sapiens lived, a more familiar and recent example is the nomadic dwelling of the indigenous people of North America, namely the so called wigwam and tipi [8].

A wigwam is a semi-permanent dwelling, with a domed construction made of flexible branches and trees, and a roof made of tall grass, reeds and of course, hide (leather), Figure 2a, b [6 - 8]. As such it is quite similar to the prehistoric ivory dwelling, and today it is built and used for ceremonial events. Tipi is perhaps the most famous dwelling for the prairie indigenous people of the North American continent, which needs no special introduction when it comes to the conical tent with crossed thin wooden poles on top and covered with canvas, decorated with tribal marks, patterns and drawings in various colors, Figure 3a, b [8- 10]. But long before the canvas, the blanket was predominantly made from the hides of prairie animals.

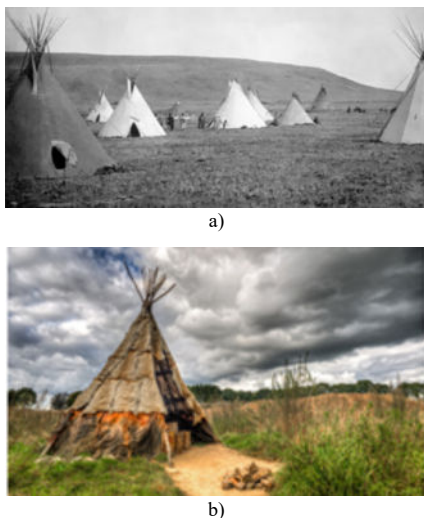


Figure 3. Representation of: a, b) tipis [9, 10]

Up to this point, it can be concluded that the knowledge was transmitted orally and practically from generation to generation, therefore the last stage in the context of the story of the leather will be related with the previous ones precisely through the notion of knowledge transfer.

### 3. The writing parchment

With the emergence of writing as a need to materialize a human thought and transfer it to the future generations further through time, the need of the written word transfer has also arisen.

Just like with the dwelling - the cave is fixed, the cave drawings are still standing on the wall even after 30.000 years, then there are the mobile dwellings and of course the written word on a light material that can be easily carried. The forth-mentioned does not refer to clay pots, papyrus or paper, but parchment rolls and of course the book as a perfected model [11].

It is known that the parchment as a writing surface has its beginnings 5.000 years ago, but of course it will be most actively used in the Middle Ages. The parchment is a writing pad made of leather. The best quality parchment is a fine product called vellum, which is the pinnacle of craftsmanship. The oldest and most valuable samples of Old Church Slavonic language (the Glagolitic and Cyrillic script) were written on the vellum, Figure 4a, b and Figure 5a, b. That is the first attempt of the Slavic people to transfer their knowledge to each other in their own, recognizable language [12].

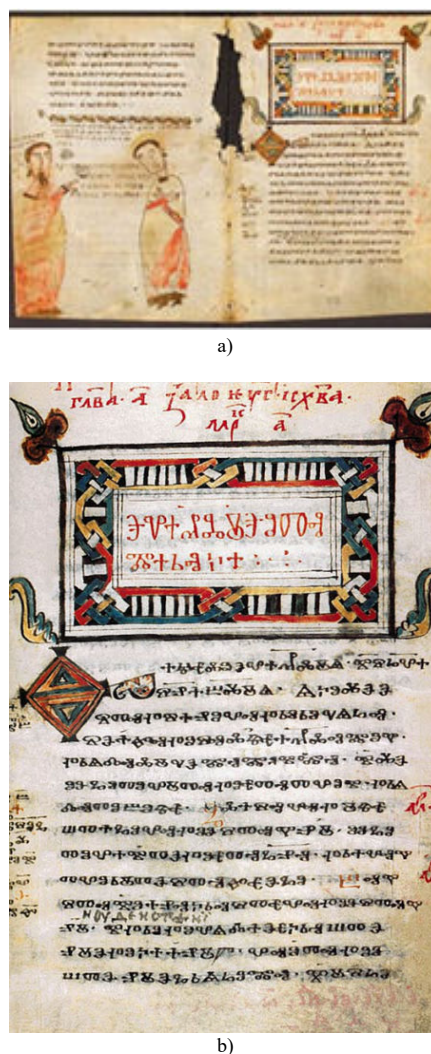


Figure 4. Representation of: a) Dobromir's Gospel (Glagolitic script), 12th century [13] and b) Codex Zographensis (Glagolitic script), 10th to 11th century [14]

But what is the cost of making the vellum? The forth-mentioned does not refer to the cost per man-hour to make it, since the vellum is made from the skin of young, newly born lambs and goats or calves.

This process is explained in a disturbing scene from the novel The Witch [15], by Macedonian author Venko Andonovski. Within this context, in an another excerpt from the novel it was written: From a tree's point of view, cutting down trees is a crime, but from the paper's point of view, cutting down trees is an act of creation [15].



**Figure 5.** Representation of: a) Euchologium Sinaïticum (Glagolitic script), 11th century [16] and b) Sava's book (Cyrillic script), 11th century [17]

Finally, it can be deduced that the human race throughout history uses animals and their skin to survive and writes its story on their skin as well. But that story is not a happy one by any chance, instead it is full of retold sufferings, losses, ups and downs, but also experiences, inventions, drawings and knowledge. That story, written down, is meant to be passed on to younger generations, to understand the sacrifice and the price that was paid, so that one can create something new and better, like i.e. new technologies and new materials.

#### 4. Conclusion

Leather with no doubt has a significant place in the human history, specifically ancient times, through vernacular architecture as well as humans first writings. Dwellings made of ivory, as well as trees or branches like the wigwam and tipi constructions were all covered with animal hides (leather), while the oldest writings in Slavic language were written on the vellum parchment. Both present an indelible mark that will always stay and remind new generations for its value, long way back as well as today.

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