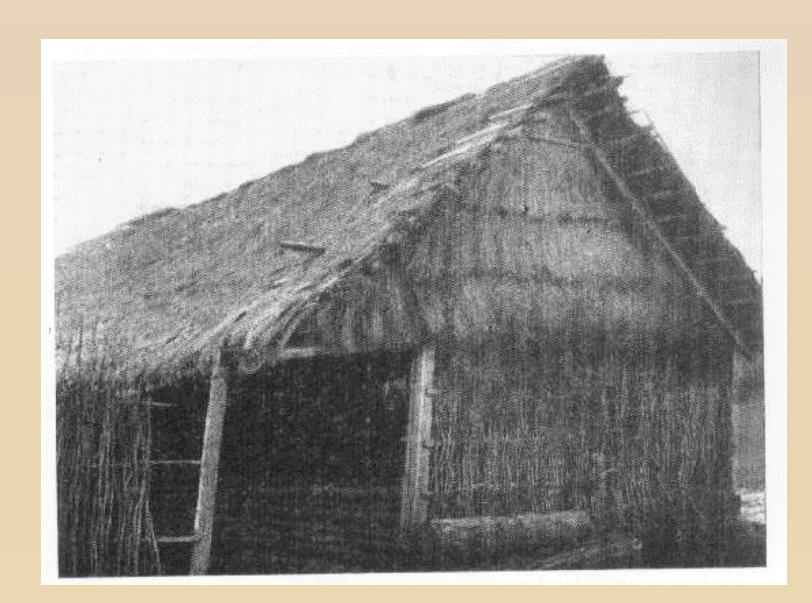
# History of semi-natural grassland management in Latvia

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**Fig. 1**. Building constructed from branches and grass (photo from year 1926)

#### Introduction:

It is clear that the grasslands with their characteristic structure and diversity of living organisms have formed in the place of the cut forests, as a result of long-term management - mowing or grazing. However, the question remains unanswered: what exactly has contributed the emergence of this great biodiversity. What were the grassland management methods and their reasons?

This research aims to collect information about the formation of grasslands and the history of management methods, as well as try to understand how these management methods affected the development of grassland species composition.

In order to achieve the goal, studies on ethnographic essays, scientific publications about the history of livestock breeding as well as regional studies and published memory stories have been carried out.

### Pre-history

Human began to use the resources of grasslands as soon as he settled in the territory of modern Latvia for a permanent residence. It happened about 9000 years ago. Before the man tamed a livestock, grassland resources were used for construction (grass and reed used for roofing of primitive dwellings) (Fig.1), as well as for food and medical products. Significant human impact on grasslands started, when the usage of iron tools began.

#### Places

Land owners wanted to increase their income from farming and forestry; all areas suitable for plowing were transformed into crop fields, but those further from inhabited centers — into forests. Only areas, which could not be used as arable fields — very poor in nutrients, too dry or too wet, on steep slopes - were utilized for forage production. Every patch of grass was mown because there was always lack in forage — banks of rivers and lakes, grassy wetlands. Only areas not suitable for mowing were used for pastures (Fig.2).

# Management

Farmers tried to get as much benefit as possible from grassland without investing anything in it; pastures were grazed down to bare soil, and grass in meadows was mowed as close to the ground as possible. The only management in meadows was to even out mole-hills, ant-hills and large grass tussocks. There was no management in pastures.

### **Practices**

The haymaking usually started on the end of June. The goal was to mow, to dry, to collect and to bring home hay as fast as possible. Men mowed grass in early morning; women moved mowed grass with rakes all the day (Fig 3; 4) and gathered it together from entire grassland patch in evening (Fig 5; 6; 7; 8; 9). The process continued in next 2-3 days until the grass was dry and ready for transporting and storage. The process of hay producing maximized the spread of seeds over vast areas.

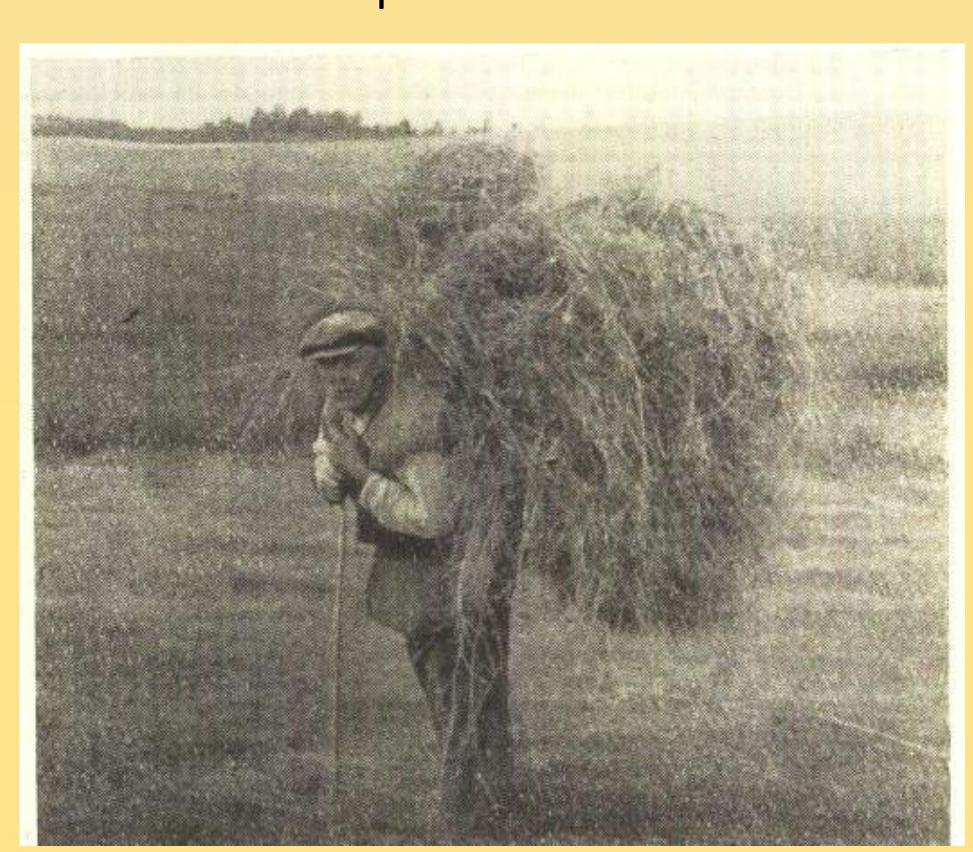


Fig. 5. Transporting hay localy on back (photo from 1960-ties)

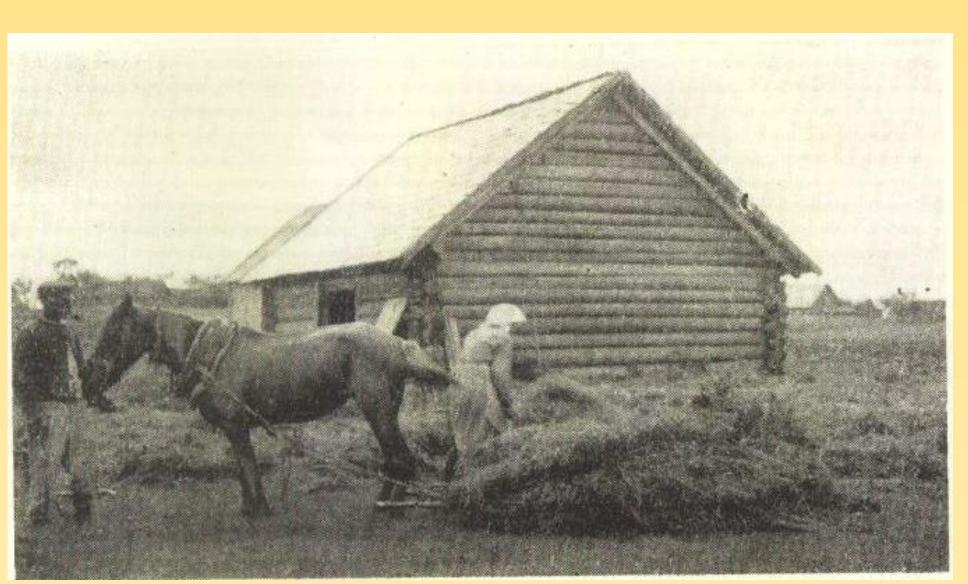
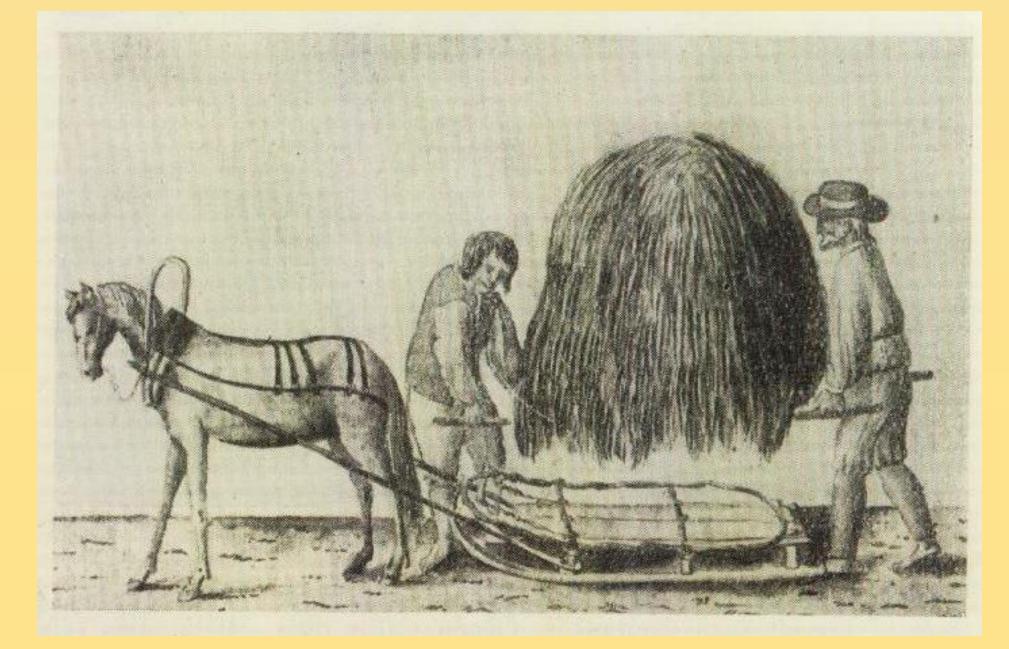


Fig. 7. Transporting hay localy on twigs (photo from year 1928)



**Fig. 6**. Transporting hay localy on sledge\_(drawing from the XVIII century)

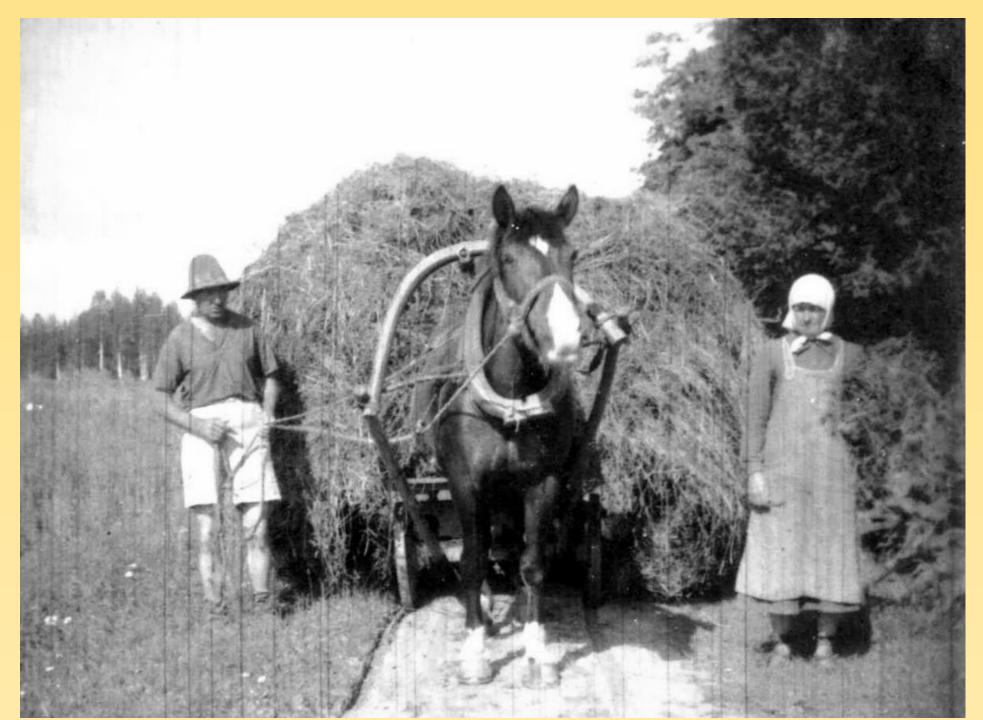


Fig. 8. Transporting hay to village (photo from 1950-ties)



Fig. 2. Stony pasture (Photo from 1920-ties)



Fig. 3. The hay drying process (drawing from XVIII century)



Fig. 4. The hay drying process (photo from year 1930)



Fig. 9. Transporting hay to village (photo from 1950-ties)

#### **Picture sources:**

Fig. 3; 4; 5; 6; 7 - Dumpe, L. 1964. Ražas novākšanas veidu attīstība Latvijā. No senākiem laikiem līdz XX gs. sākumam: etnogrāfisks apcerējums. *Latvijas PSR Vēstures muzeja raksti*: Etnogrāfija 7-207.

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Fig. 2; 8; 9; - Rūsiņa S. (Ed.) 2017. Protected habitat conservation guidelines for Latvia. Volume 3. Semi-natural grasslands. Nature Conservation Agency, Sigulda.