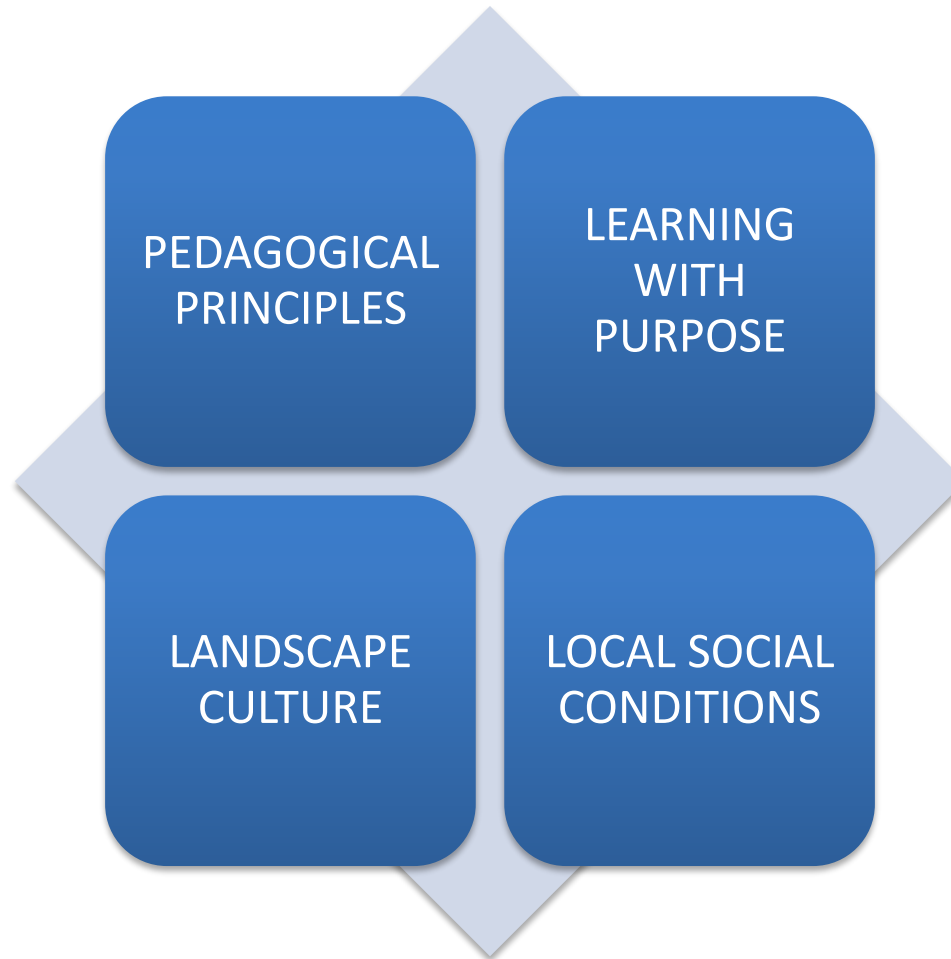


MEDIEVAL SETTLEMENT STRAŽEVNIK

PŠ GORNJI HUMAC

HERITAGE AS THE TEACHING CONTENT



TEACHING APPROACH

CONNECTING TEACHING
CONTENTS WITH LIFE

THEORY OF MULTIPLE
INTELLIGENCES

INTEGRATED
TEACHING

STRATIFICATION OF TEACHING
CONTENT

SIMULTANEOUS
INFORMATION PROCESSING
AND APPLICATION OF
KNOWLEDGE

PLANNED LEARNING OUTCOMES

NATURE & SOCIAL SCIENCE

- Orientation in nature
- Using maps
- Creating area plans
- Noticing and explaining the appearance of homeland
- Understanding and explaining the conditions of life in the homeland in the past (daily life of people, economic activity, nutrition, communication, defense)

MATHEMATICS

- Mastering the measurement units for length, surface, volume and mass
- Decreasing sizes
- Effectively using the basic mathematical operations to solve real life's problems

CROATIAN LANGUAGE (LANGUAGE EXPRESSION)

- Listening and speaking
- Describing (landscape, object, structure, situation)
- Reporting on events outside of the actual context , executed tasks
- Discussing the topic
- Summarizing information

ART

- Mastering the visual art language and solve visual art problems

CIVIC EDUCATION

- Understanding the decision-making process

PHYSICAL EDUCATION

- Walking deftly and independently, running, jumping, climbing, coordinated performing of rhythmic and dance structures

Research areas

1. The territory of Straževnik
2. The settlement Straževnik
3. Buildings in the settlement
4. Economic activities
5. The defense and protection of the territory
6. Nutrition of inhabitants
7. Water supply of population
8. The importance of preserving cultural heritage for today's inhabitants

1. The territory of Straževnik

OBJECTIVE:

To calculate the area and to recognize natural and geographical characteristics of the territory

TASKS :

1. To collect important data in the field work
2. To mark spotted cultural sites on the map
3. To arrange the rule of determining the boundaries of the territory
4. To locate and mark the assumed border territory on the map
5. To make a sketch of the territory
6. To calculate the surface

1.1. Detecting the contents identified during field work

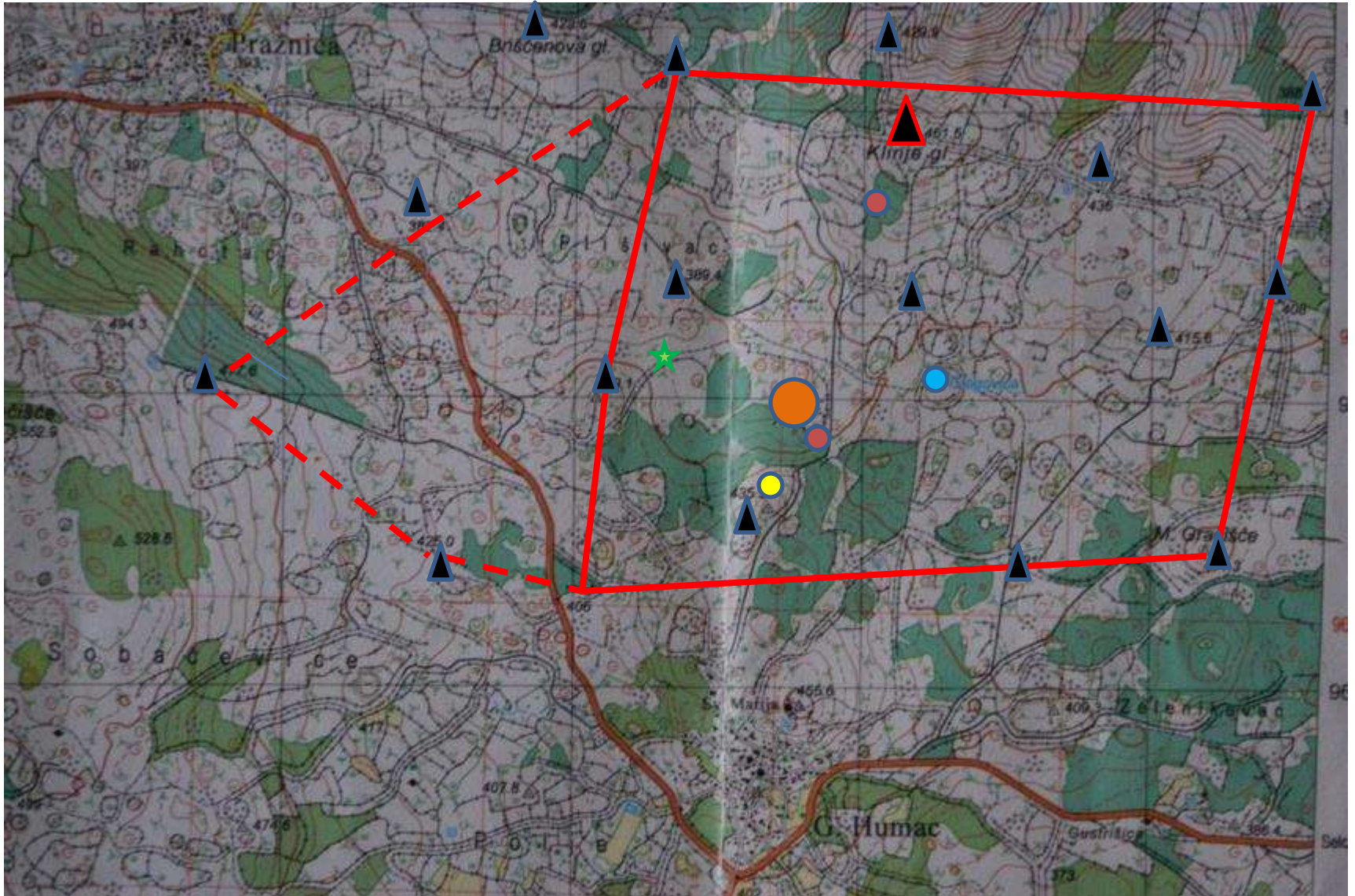


Disposition of medieval villages

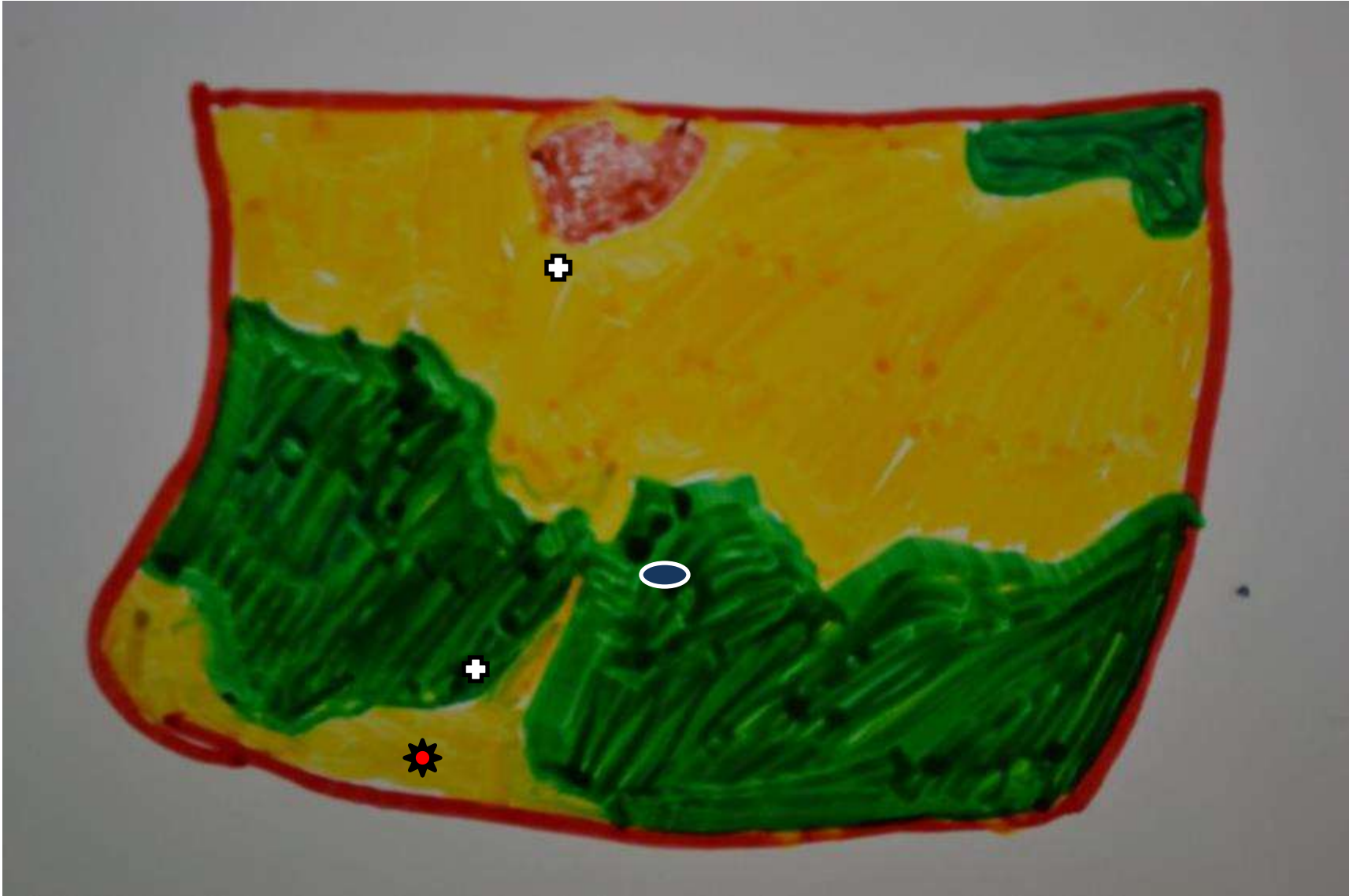


Today territory of Gornji Humac includes former territories of abandoned medieval villages.

1.2. Marking important data on map



1.3. Relief features of Straževnik territory



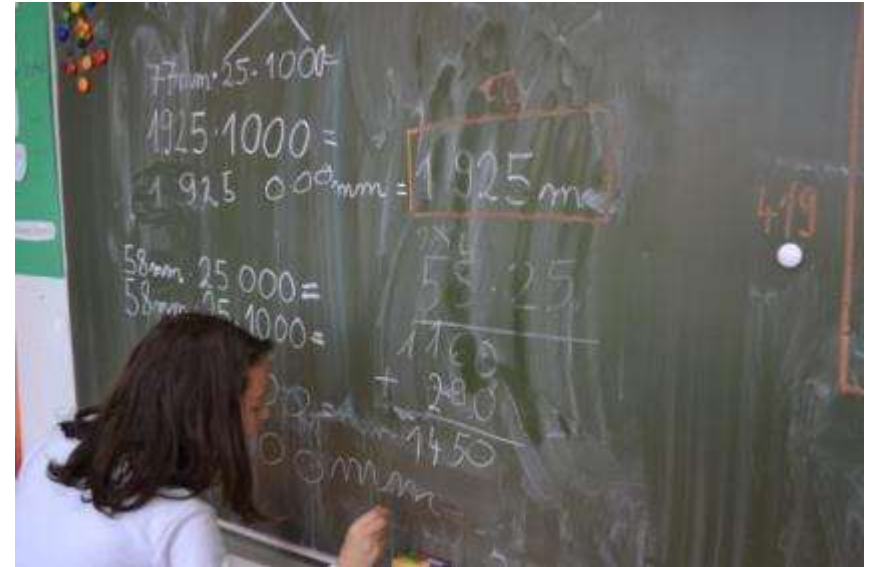
1.3. Making sketches of the territory according to observed data from the map



1.4. We transformed contour line of the territory (irregular, uneven character) in a rectangle



1.5. Calculating the surface of the drawn rectangle



P (decreased territory on map) = $85\text{mm} \cdot 60\text{mm} = 5\,100\text{ mm}^2 = 51\text{cm}^2$

the scale on map **1 : 25 000**

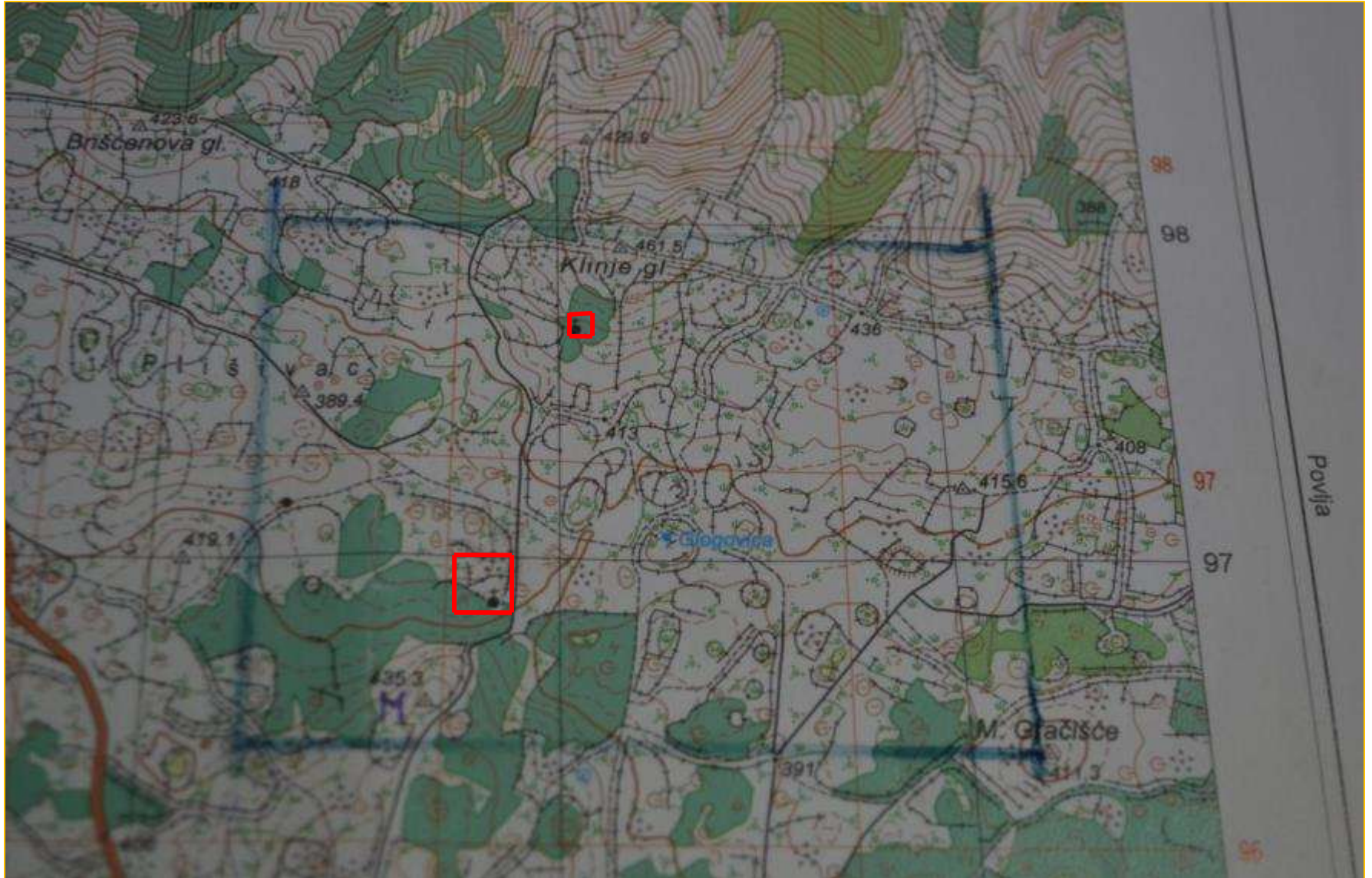
P (the territory in nature) = $51\text{ cm}^2 \cdot 25\,000 \cdot 25\,000$
 $= 1\,275\,000\text{ cm}^2 \cdot 25\,000$



$= 12\,750\text{ dm}^2 \cdot 25\,000 = 318\,750\,000\text{ dm}^2 = \mathbf{3\,187\,500\text{ m}^2}$

2. STRAŽEVNIK SETTLEMENT

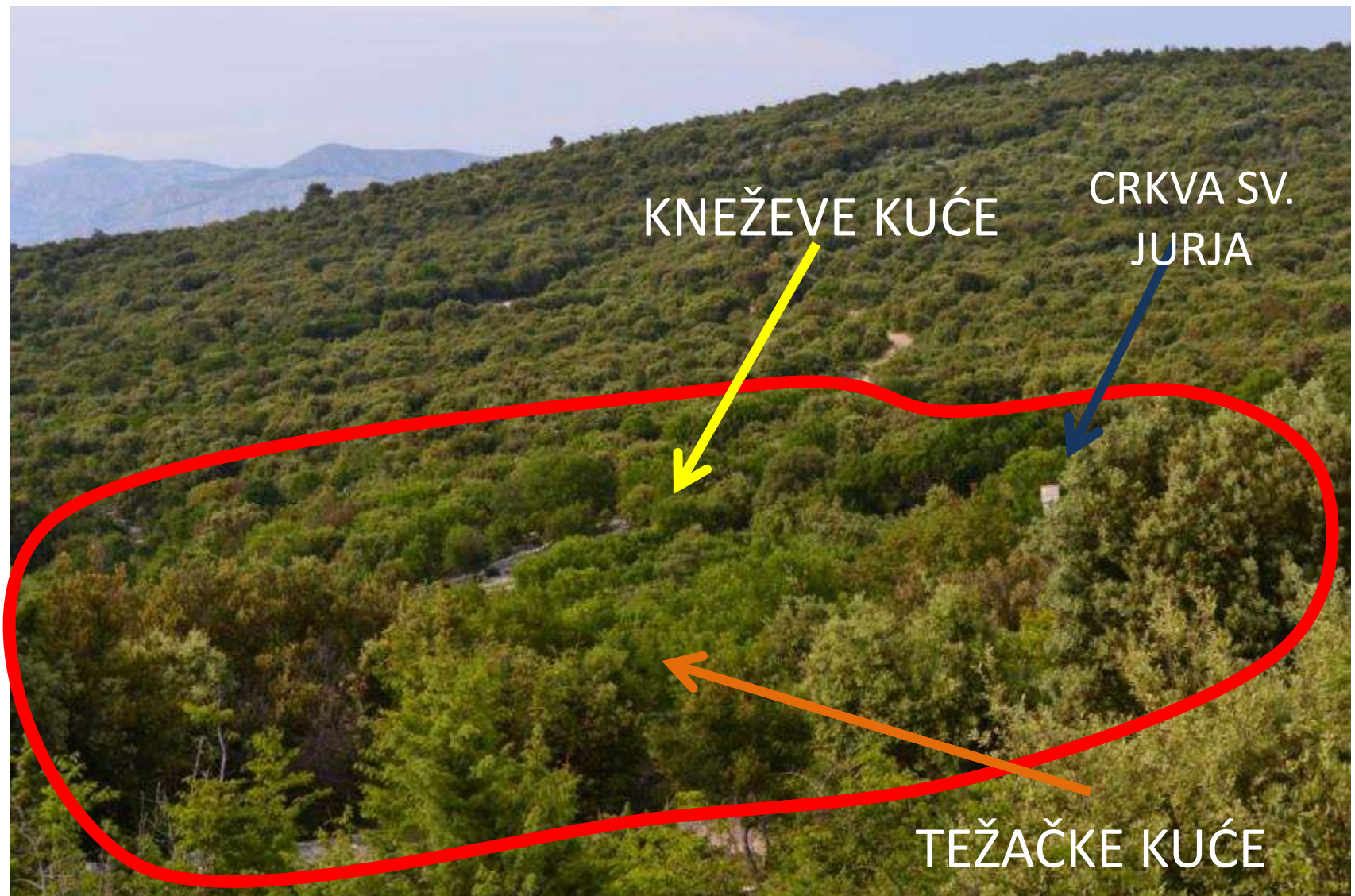
2.1. THE SETTLEMENT LOCATION



2.2.RELIEF FEATURES AND COMPOSITION OF THE SOIL



2.3. DISPOSITION OF THE HOUSES



2.4. DUKE'S ESTATE PLAN

Kneževno imanje - Stráževnik



TUMAČ
SIMBOLA

	SUHOZID
	GRADEVINE
	DOLCI
	REDI
	TRAVNJAK
	DRVEĆE
	CRKVA

MJERILO
1:932

3. BUILDINGS IN THE SETTLEMENT - DUKE'S HOUSE



DUKE'S HOUSE DATA

- The inner length of the house : 11 m
- The inner width of the house : 3m 40 cm
- Wall thickness : 130 cm
- Front door: on the south wall, width 1m
- Two holes in the wall :
 - northern wall: length 34 cm, width 40 cm i height 21 cm
 - eastern wall: length 50 cm, width 34 cm i height 36 cm
- No sign of interior walls
- Building techniques: drystone
- Material: stone, stone plates and wooden stakes

Assumed external appearance of the house



Backyard



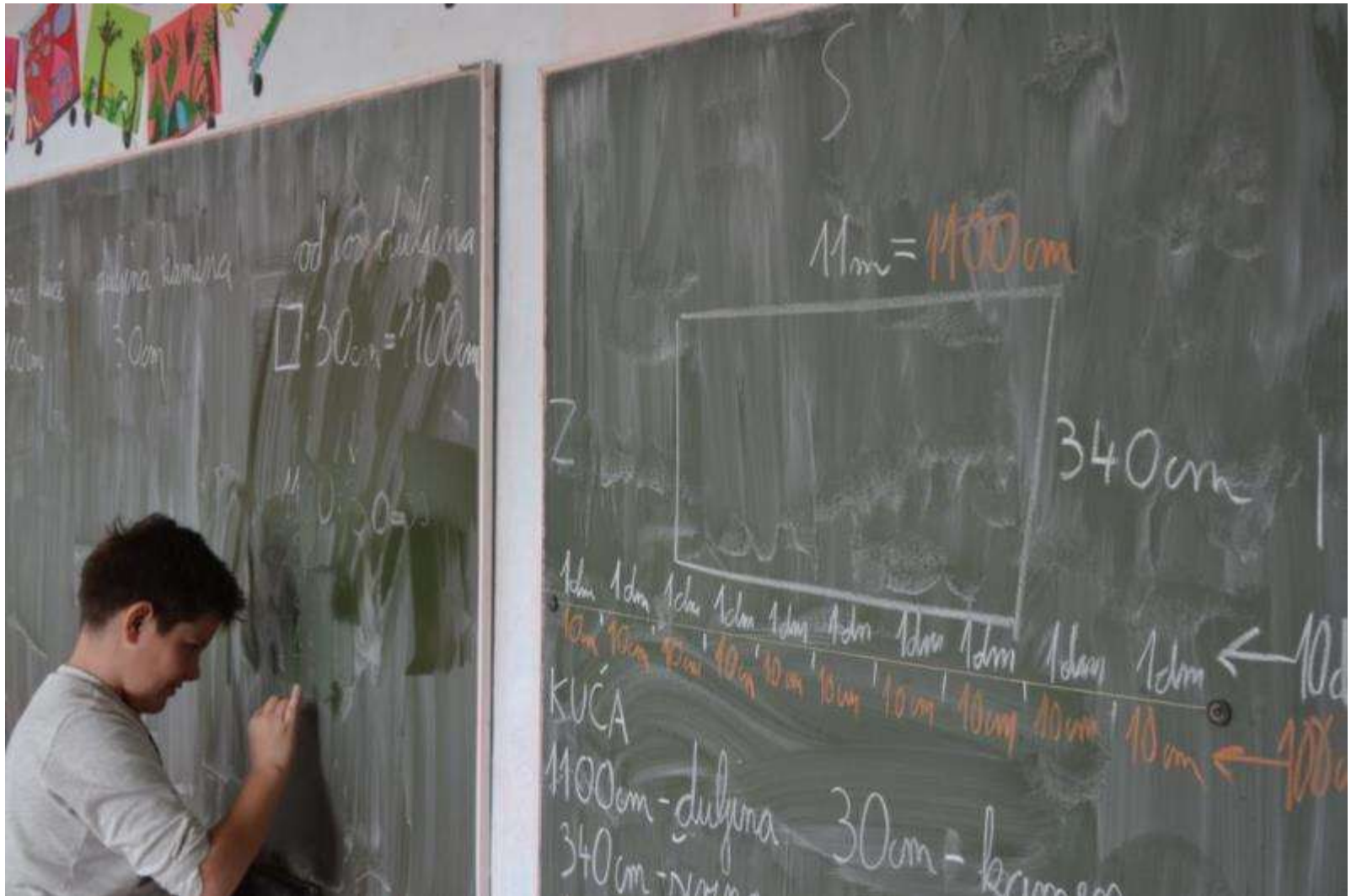
Interior of the house



- Kitchen is the largest and main room in the house
- in the middle of the kitchen is a fireplace with constantly burning fire for cooking and heating, around the fireplace are stone benches
- the table is improvised
- we assume there were no partition walls
- beds were made of wooden poles covered with straw mattresses

MAKING THE MODEL OF DUKE'S HOUSE

Decreasing natural length, scale 1 : 30



The ratio of the length of the house and built stone



length in nature

House length = 1 100 cm

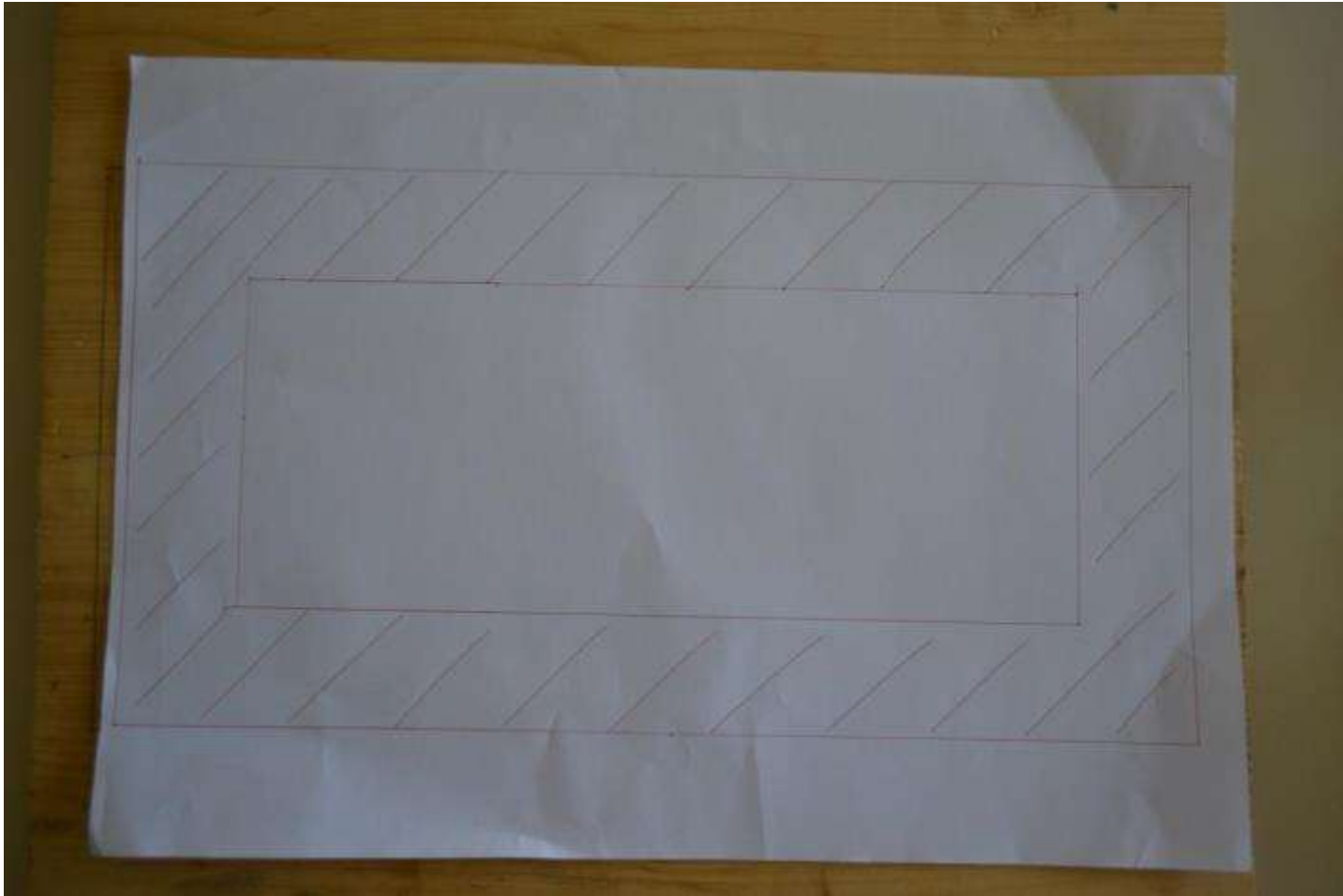
Stone length = 30cm

decreased length (1 : 30)

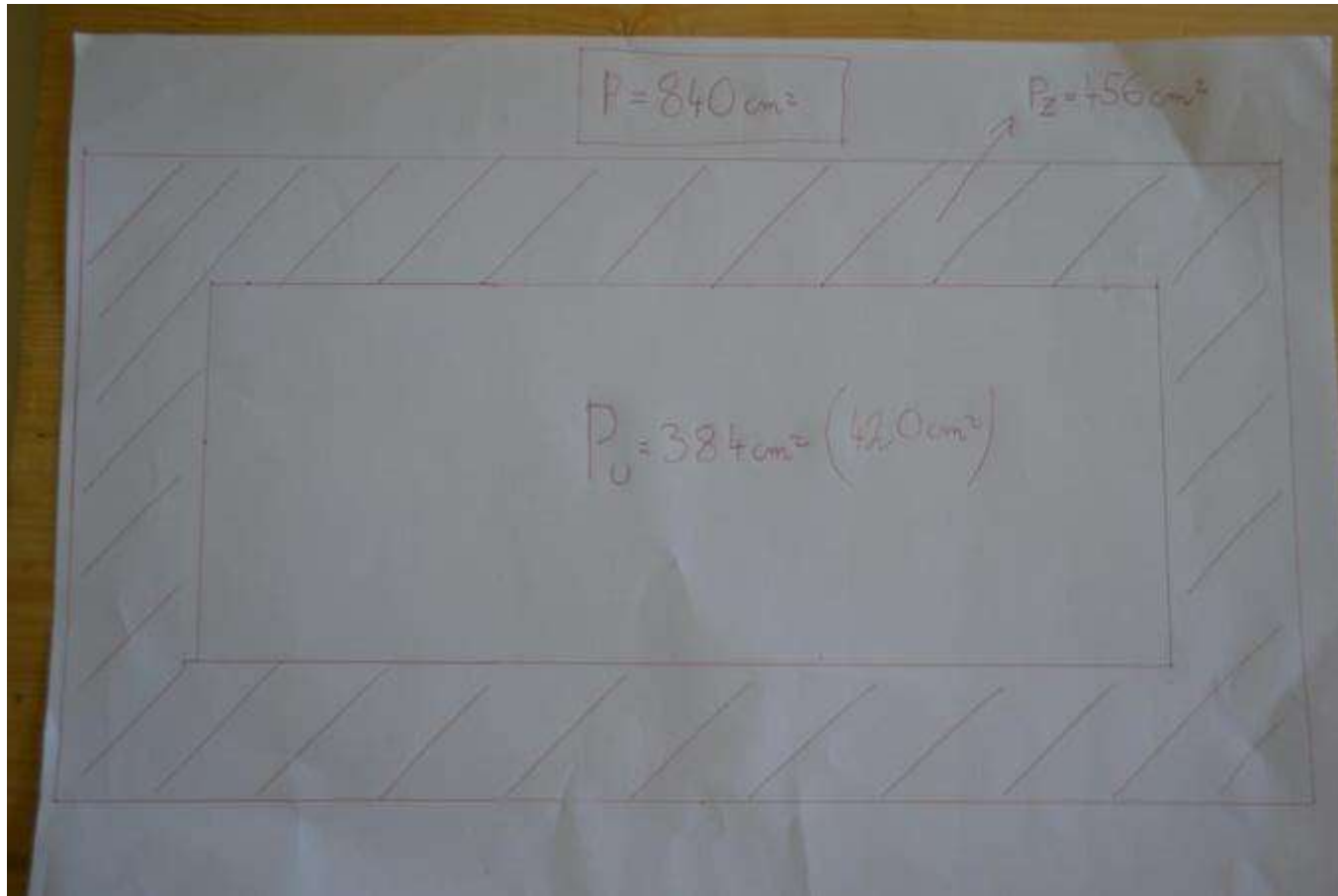
≈ 37 cm

= 1 cm

GROUND PLAN OF DUKE'S HOUSE (1 : 30)



The surface of the ground plan



SURFACE OF THE SKETCH

$$P = 840 \text{ cm}^2$$

$$P \text{ (interior)} = 384 \text{ cm}^2$$

$$P \text{ (under walls)} = 456 \text{ cm}^2$$

SURFACE IN THE NATURE

$$P = 840 \text{ cm}^2 \cdot 30 \cdot 30 = 756\,000 \text{ cm}^2 = 7\,560 \text{ dm}^2 \approx 75 \text{ m}^2$$

$$P \text{ (interior)} \approx 35 \text{ m}^2$$

$$P \text{ (under walls)} = 41 \text{ m}^2$$

The ratio of the total and the usable area

BUILDING	P (building)	P (usable)	P (under walls)
Duke's house	75 m ²	35 m ²	41m ²
classroom	84 m ²	70 m ²	14 m ²

Graphic display



CONCLUSION:

Using bonding materials (cement) we can build narrower walls, resulting in larger useable area.

4. ECONOMIC ACTIVITIES

- Straževnik residents were farmers, mostly farming and sheep-breeding, because it was the main food source.

4.1. AGRICULTURE

They cultivated the following crops:

- grains
- vegetables
- fruits

Grains and vegetables were sown in sinkholes, spread throughout the territory.

4.1.1. The calculation of the yield in the Duke's sinkholes

- The yield by 1 „vrit” \approx **300 kg**
- **1 „vrit” \approx 800 m²**
- total surface of Duke’s sinkholes \approx **1062 m²**
- Graphic display of total surface of Duke’s sinkholes (in „vrit”)



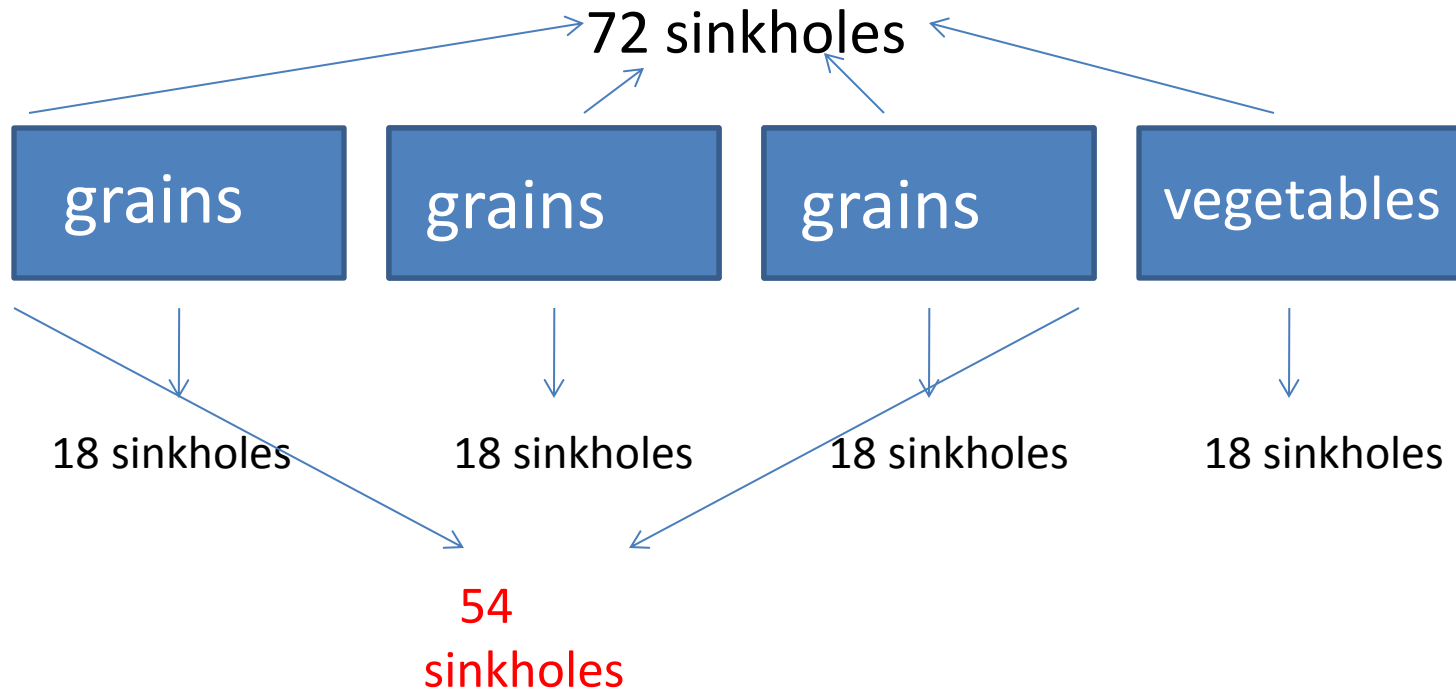
- total yield in Duke’s sinkholes = 400 kg

4.1.2. The estimated total wheat harvest

- sinkholes on Straževnik territory



Calculation of total wheat harvest



$$(400 : 5) \cdot 54 = 80 \cdot 54 = 4\,320 \text{ kg}$$

CONCLUSION:

Annual yield of grains was 4 080 kg.

4.2. CATTLE BREEDING

- They cultivated a variety of farm animals: sheep, goats, cattle, horses, poultry. From animals they were given meat, milk, wool and skin.
- Mostly the sheep were bred, grazing in the open space.

The calculation of the number of sheep on Straževnik territory

$$P \text{ (territory)} = 2\,812\,500 \text{ m}^2$$

$$\text{Area required to grow 1 sheep} = 10\,000 \text{ m}^2$$

numeric:  • $10\,000 \text{ m}^2 = 2\,812\,500 \text{ m}^2$

number of sheep \approx 281

CONCLUSION:

We think that the number of sheep was higher. Maybe the territory was larger or they used pastures outside their territory.

5. DEFENCE AND PROTECTION OF TERRITORY

Coastal area was threatened by pirates, who sometimes went into the interior of the island.

Also, there were cases of sheep theft and land disputes between local families on the island.

On the territory of Straževnik there's a site commonly known as *Straže (Guards)*. We visited the site and witnessed excellent visibility of the territory.

5.1. Straže (Guards)



5.2. Communication



5.3. A water collector on the site *Straža*



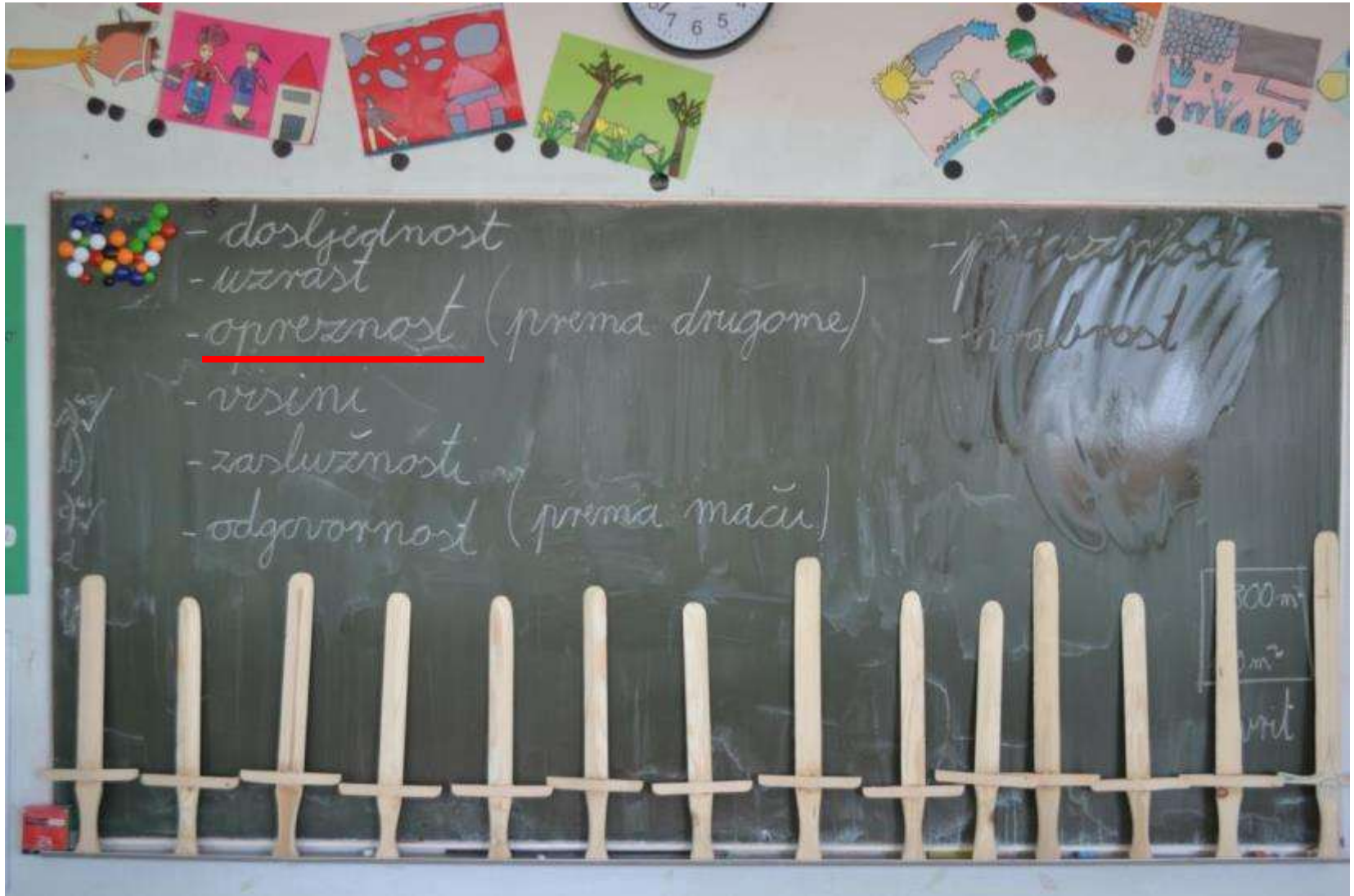
5.4. Equipment for the defense and the fight



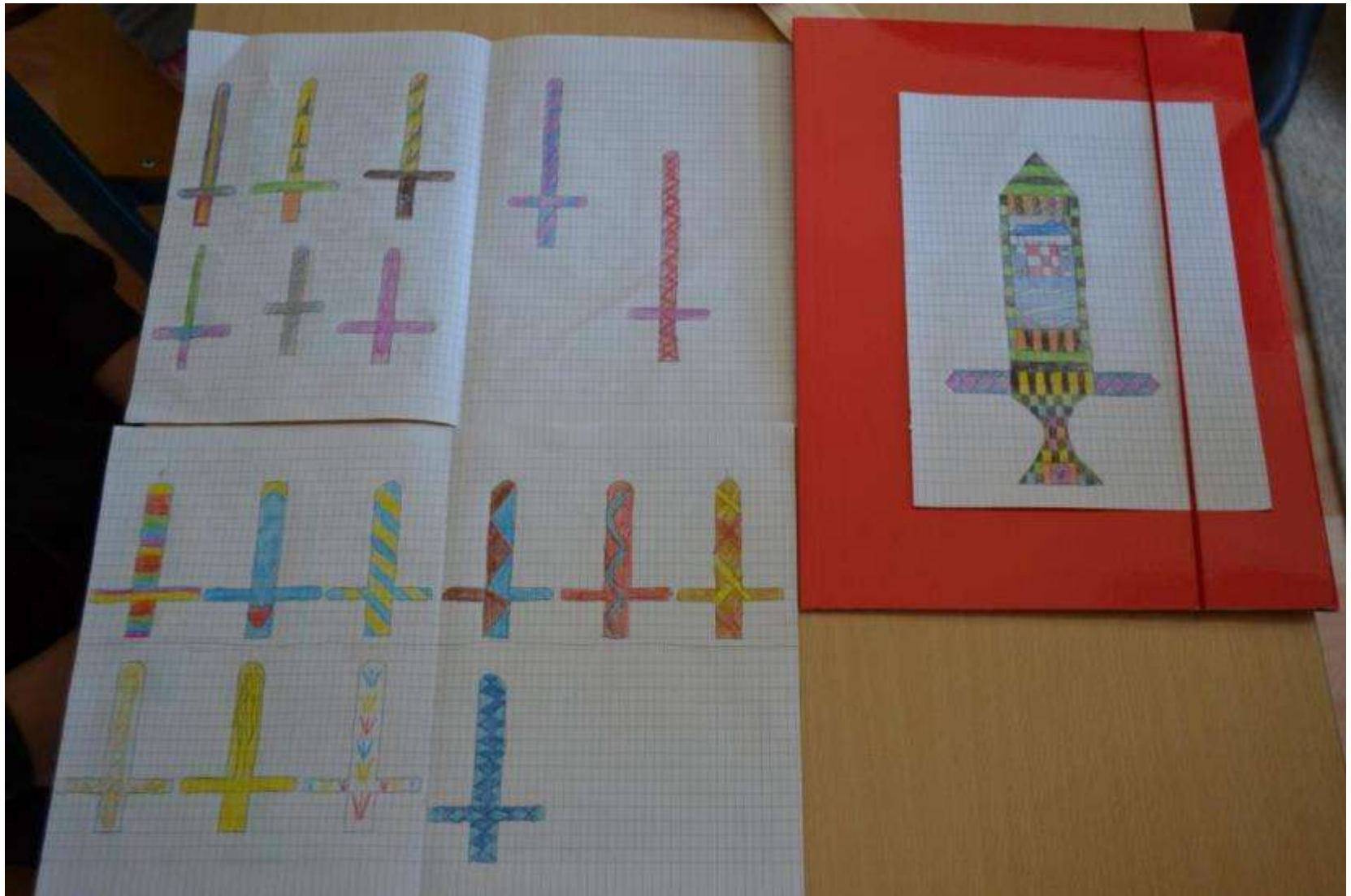
Making shields



5.5. Responsible decision-making on the allocation of swords (according to selected criteria)



5.6. Painting swords



Surface preparation for painting





5.7. Games and exercises with sword and shield





Improvising defense



Improvising attacks



The attack and defense



Creating martial techniques



Describing the attack

Naziv napada: Kružni napad

Slikoviti naziv: Vrtlog smrti

Uvjeti primjene: Pojedinačna borba na širokom prostoru

Oprema: Mali štit radi bolje pokretljivosti i dugi mač radi šireg borbenog zahvata, laka oprema

Karakteristike ratnika: Visok, dugih ruku, brz, dobra ravnoteža, orijentacija i koordinacija

Opis izvedbe prema položajima i pokretima tijela:

1. Raznožni stav, štit u srednjem položaju, mač zatvoren u srednjem položaju
2. Srednje velik korak lijevom nogom pa desnom iz uspravnog u spuštenu položaj
3. Težina na desnoj nozi, okret na desnoj nozi za puni krug u lijevo, podignuta lijeva noga radi bržeg okreta. Nakon polovine kruga otvaramo mač i pružamo lijevu nogu pripremajući je za iskorak
4. Nakon punog okreta prebacujemo težinu na pruženu oslonjenu lijevu nogu, prelazimo u pretklon, zasijecamo mačem u smjeru vrtnje

Prednosti opisane tehnike napada: Okretom dobijemo brzinu, a brzinom pojačamo snagu udarca

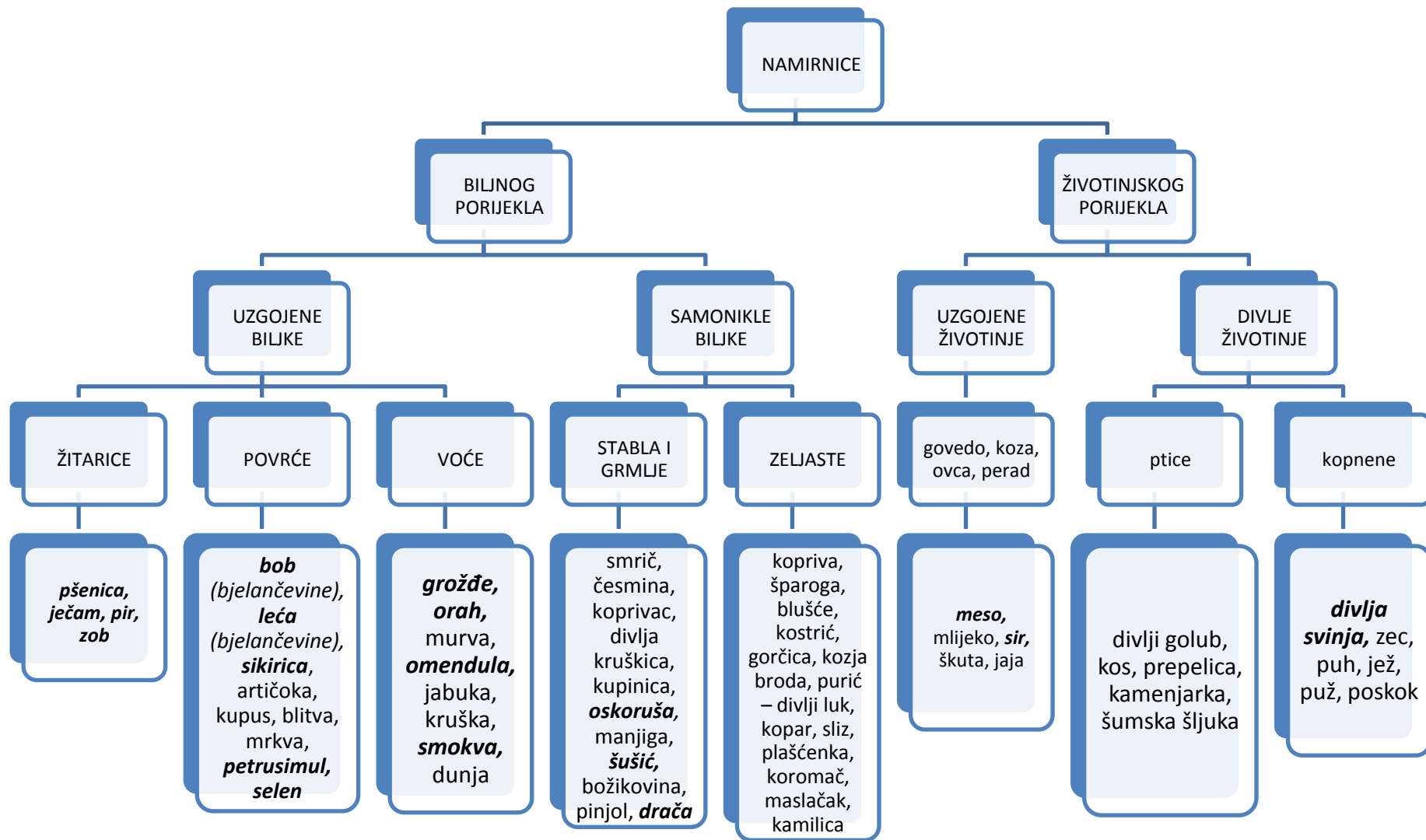
Slabosti opisane tehnike napada: U slučaju neuspjelog napada tijelo je u pretklonu što onemogućava sljedeći napad, treba se povući

6. EATING

- Meals consisted of what they grew and found in nature.
- Besides the seasonal (fresh) food they ate also dried foods.
- Drying was the only way to preserve food for eating throughout the year.
- Because of physical labor they had to eat a lot, especially foods rich in protein



The food



Seasonal menu

	winter	spring	summer	autumn
Straževnik – the past				
G. Humac -present				
ZAJUTRAK	pšenični kruh, ovčji sir, čaj od šipurika	ječmena kaša, kozje mlijeko	kozje mlijeko, pšenični kruh,	pšenični kruh, kozje mlijeko, marmelada od kupinica
	kruh, mliječni namaz i šipkov čaj	kukuruzne pahuljice i kravlje mlijeko	kruh, maslac i kravlje mlijeko	kruh, med i kravlje mlijeko
DORUČAK	sušena veprovina, pšenični kruh, vino	kuhana jaja, pšenični kruh, vino	pečeni zec, škuta, pšenični kruh, vino	pečeni puh, pšenični kruh, vino
	kinder bueno i sok	sendvič (kruh, šunka i sir)	breskva	bananko

	ZIMA	PROLJEĆE	LJETO	JESEN
RUČAK	kuhana bravetina i kupus, pšenični kruh i vino	pečena janjetina, jutika, pšenični kruh i vino	pečeni golubovi, prepelice i kamenjarke, pireni kruh, blitva i čaj od kamilice	pečene gljive i kokoš, pšenični kruh, vino
	juneći gulaš	povrtna juha, pečena riba i lešo blitva	punjena paprika i pire krumpir	kokošja juha, pohani šnicel, pire krumpir i zelena salata
UŽINA	sušene oskoruše i smokve	pečeni puževi, kuhane šparoge	smokve, orasi	omendule, jabuke
	puding	smoki	lubenica	grožđe
VEČERA	pečeni kosić, kuhana leća, kruh, vino	kuhani bob, kruh, vino,	kuhani kupus, pečeni poskok, vino	kaša od raži, gljiva i mrkve
	kupus i tvrdi ovčji sir, slani inćuni	salata od šparoga i jaja	manistra na pome	pečena lignja i lešo špinat

Conclusion on the quality of eating

- Many foods the same as today, but produced in different ways
- Straževničani ate more wild animals meat and wild fruit plants
- They had smaller selection of food, especially in winter, but their food was healthier
- Today, we eat a lot of junk food: sweets, snacks, canned food ...
- There are no hungry people in the village today, but in those days there probably were some