

**Ob-Ugric
Languages**



EUROCORES Programme
European Collaborative Research

EuroBABEL
Better Analyses Based on Endangered Languages

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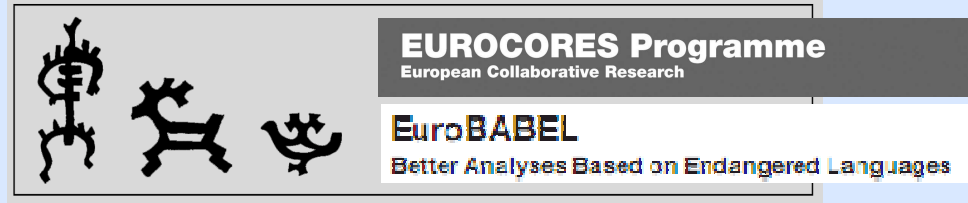
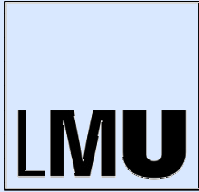
Numeric systems in Ob-Ugric

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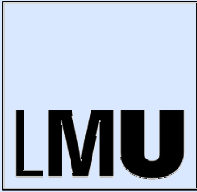
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**EuroBabel Final Conference, Leiden,
23-26 August 2012**




Overview

1. Numeric Systems
2. Structure of the Cardinal Numerals
 - 2.1 Atomic Numeral Terms
 - 2.2 Non-Atomic Numeral Terms
 - 2.3 Compositional Numeral Terms
3. Conclusion



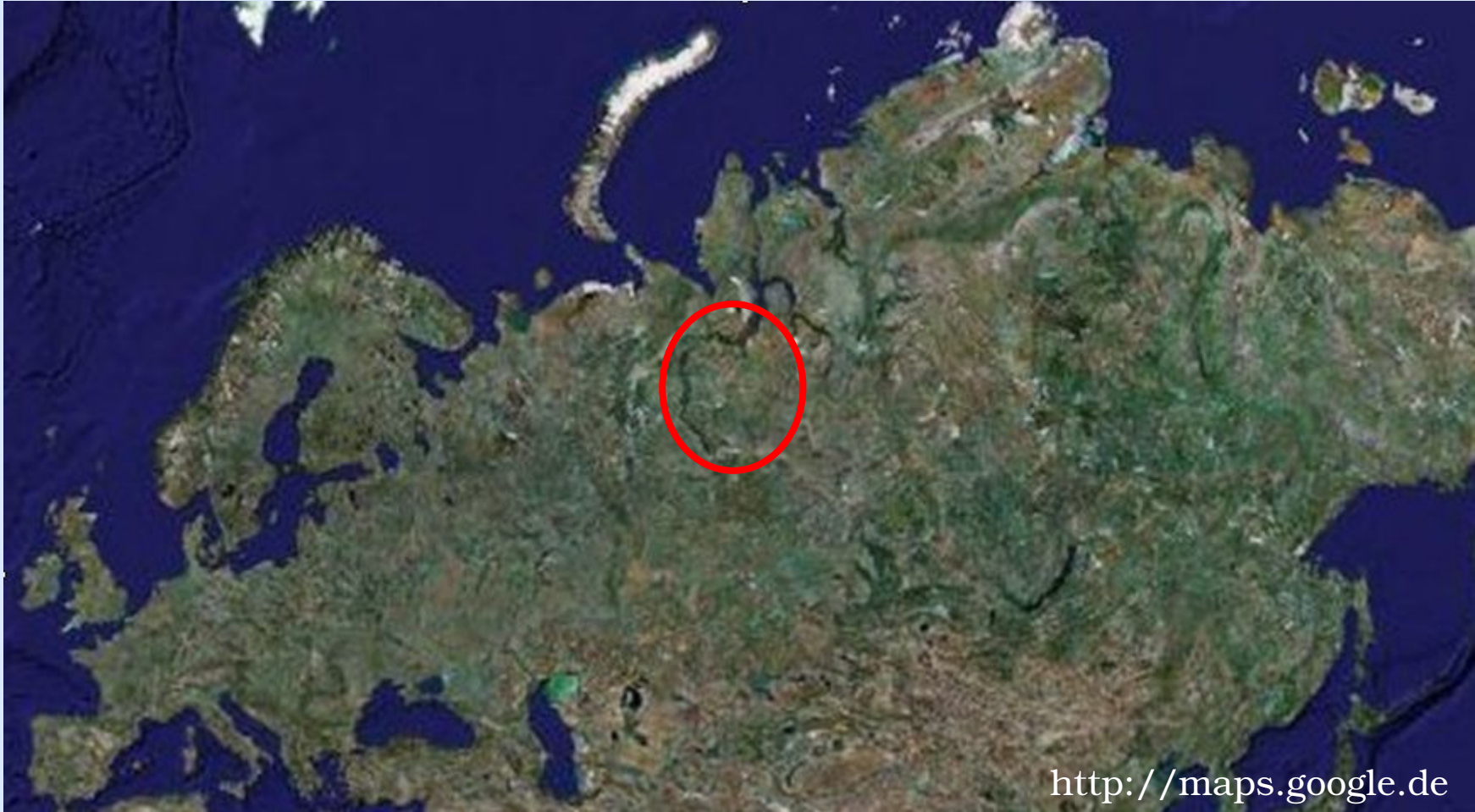
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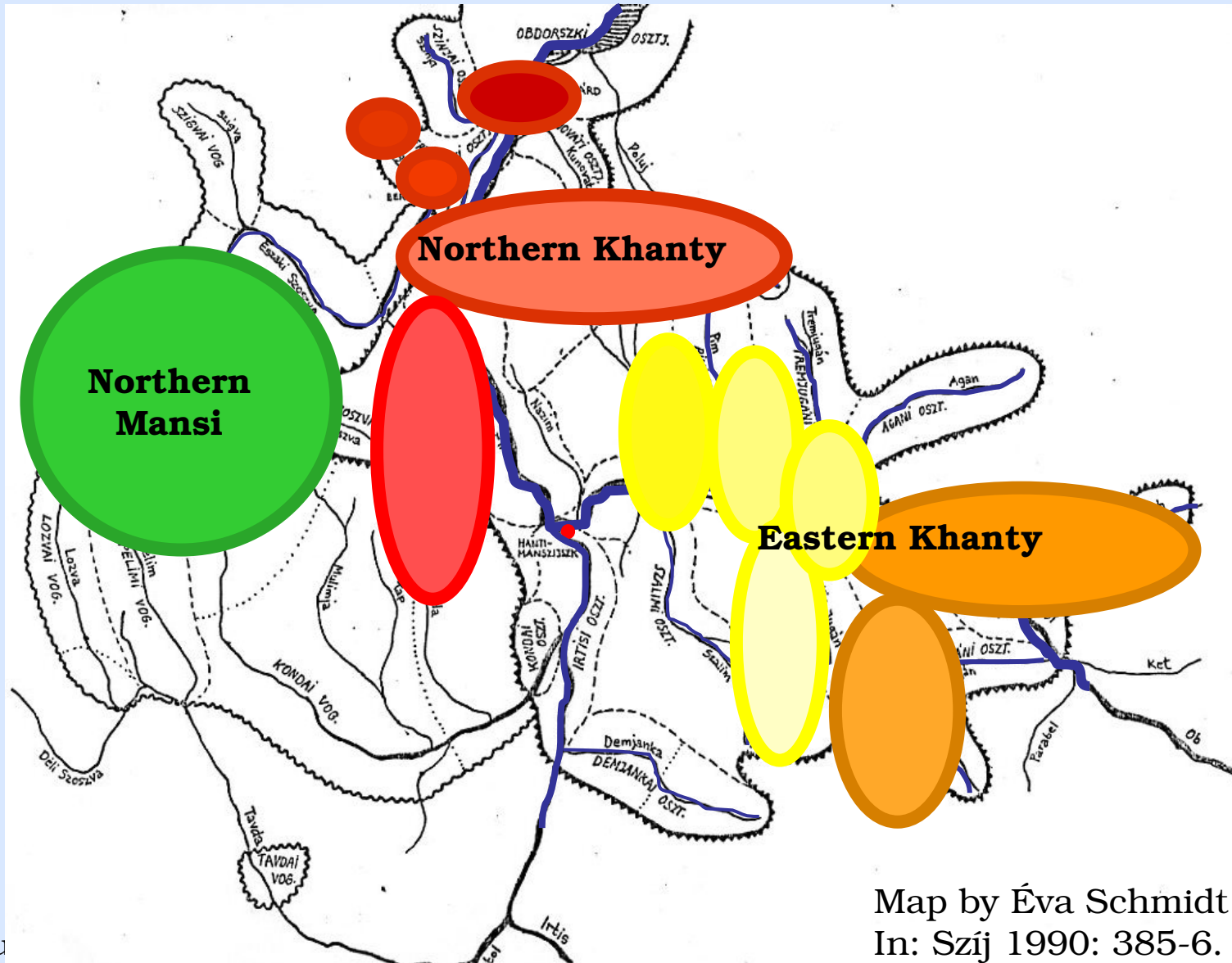
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The Ob-Ugric Languages

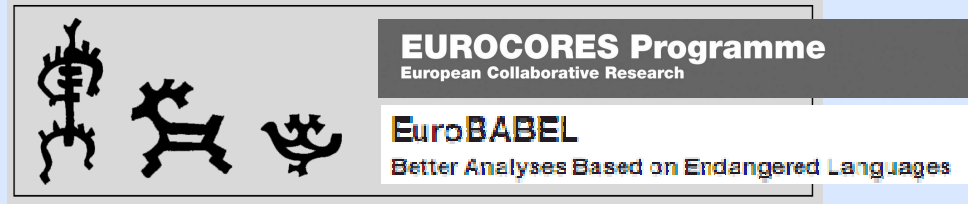
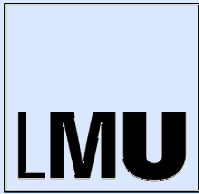


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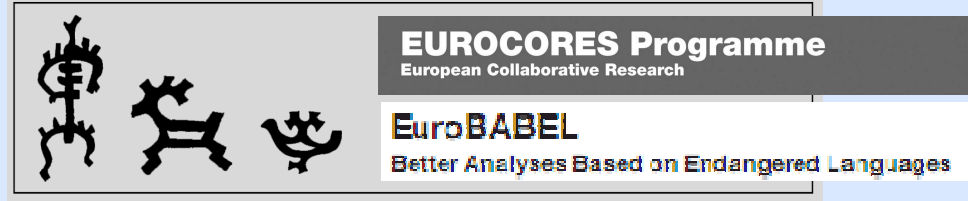
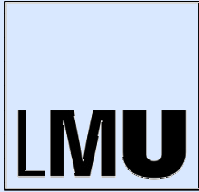
1. Numeric System

- cardinal numerals
- ordinal numerals
- distributive numerals:
‘each a peace’
- approximative numerals:
‘about’
- reiterative numerals:
‘first time, second time ...’



1.1 Numeric System

- upper limit: 1000
(the highest attested native numeral term)
- recognizable older upper limit: 7
- modern bases: 10, 100, 1000 (decimal system)
- higher numerals borrowed from Russian



2. Structure of the Cardinal Numerals

2.1 Atomic numeral terms:

- one unit
- opaque etymology

2.2 Non-atomic numeral terms:

- based on atomic numerals
- other components of unclear nature

2.3 Compositional numeral terms:

- syntactic constructions
- transparently derived

2.1 Atomic Numeral Terms

	Northern Mansi	Northern Khanty	Eastern Khanty
1–7	1 <i>ak^wa / ak^w</i>	3 <i>χułəm</i>	7 <i>łapət</i>
10	<i>low</i>	<i>jaŋ</i>	<i>jeŋ</i>
20	<i>xus</i>	<i>χus</i>	<i>qos</i>
30	<i>wa:t</i>	–	–
100	<i>sai:t</i>	<i>sə:t</i>	<i>so:t</i>
1000	<i>sotər</i>	<i>s^joras</i>	<i>t^jores</i>

2.2 Non-Atomic Numeral Terms

	Northern Mansi	Northern Khanty	Eastern Khanty
8	? + 10 <i>n'ololow</i>	? + ? <i>n'ibəł</i>	? + ? <i>n'włəy</i>
9	? + 10 <i>ontolow</i>	? + 10 <i>jartjaŋ</i>	? + 10 <i>irjeŋ</i>
18, 19	–	8 + 20, 9 + 20 18 = <i>n'ibəłχəs</i>	–
80, 90	? + 100 80 = <i>n'olsa:t</i>	8 + 100 <i>n'ibəłsɔ:t</i>	8 + 100 <i>n'włsɔ:t</i>

2.3 Compositional Numeral Terms

- additive scheme: Northern Mansi 91-99 $91 = o:ntəlsa:tak^w$
90 + 1
- Northern Khanty 21-99 $21 = \chiəsit$
20 + 1
- Eastern Khanty 31-99 $31 = qo:ʎəmjeŋəj$
30 + 1
- multiplicative scheme:
for all hundreds and thousands, and some tens

$$\text{NKh } 300 = \chi uʎəmsə:t$$

$$3 \times 100$$

$$\text{EKh } 7000 = ʎapətt'ores$$

$$7 \times 1000$$

2.3 Compositional Numeral Terms

- ‘locative’ scheme:

- ❖ Northern Mansi: 11-19

numeral + *xujp* + 10

xuj- ‘to lie down’ + old participle in *-p*

14 = *nⁱilaxujplow*

4 ‘lying on’ 10

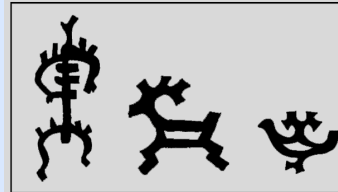
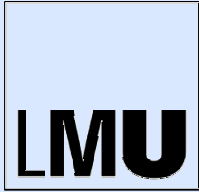
2.3 Compositional Numeral Terms

❖ Northern Mansi: 21-89

the next tens – *nu:pəl* – numeral

nu:pəl postposition ‘towards’

21 = *wa:t nu:pəl ak^w*
30 ‘towards’ 1



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2.3 Compositional Numeral Terms

❖ Eastern Khanty: 11-19, 21-29

10/20 + *ɯrəkəkə* + numeral

ɯrəkəkə postposition 'besides'

21 = *qos ɯrəkəkə əj*
20 'besides' 1

2.3 Compositional Numeral Terms

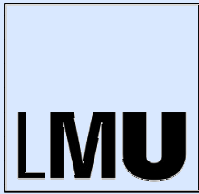
❖ Northern Khanty: 11-17

numeral + χos^j + 10

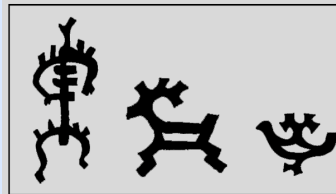
χos^j - > $\chi os^ja/\chi os^ji$ postposition 'to'

13 = $\chi u\acute{t}əm \chi os^j ja\eta$

3 'to' 10



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Northern Mansi

Northern Khanty

Eastern Khanty

Atomic
Numeral Terms

1-7, 10, 20, **30**
100, 1000

1-7, 10, 20,
100, 1000

1-7, 10, 20,
100, 1000

Non-Atomic
Numeral Terms

8, 9
80, 90

8, 9
18, 19
80, 90

8, 9
80, 90

Multiplicative
Schemes

hundreds
thousands

hundreds
thousands

hundreds
thousands

Additive
Schemes

91-99

21-99

31-99

'Locative'
Schemes

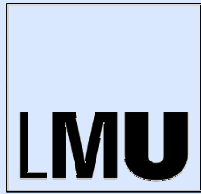
11-19
21-89

11-17

11-29

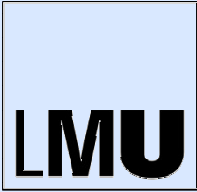
3. Conclusion

- the common pra-Ugric system seems to include 7 numerals
- the later development shows different patterns motivated probably by language contact

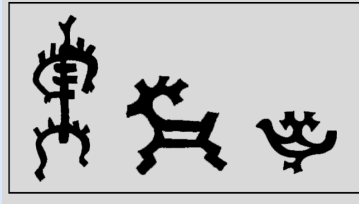


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The logo for the EUROCORES Programme, featuring three stylized black icons: a tree-like structure, a four-legged animal, and a crown-like shape. The text is arranged in a dark grey box with a white section for the EuroBABEL logo.

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