
What We Expect From Sundials - a Story from Latvia

Martins Gills

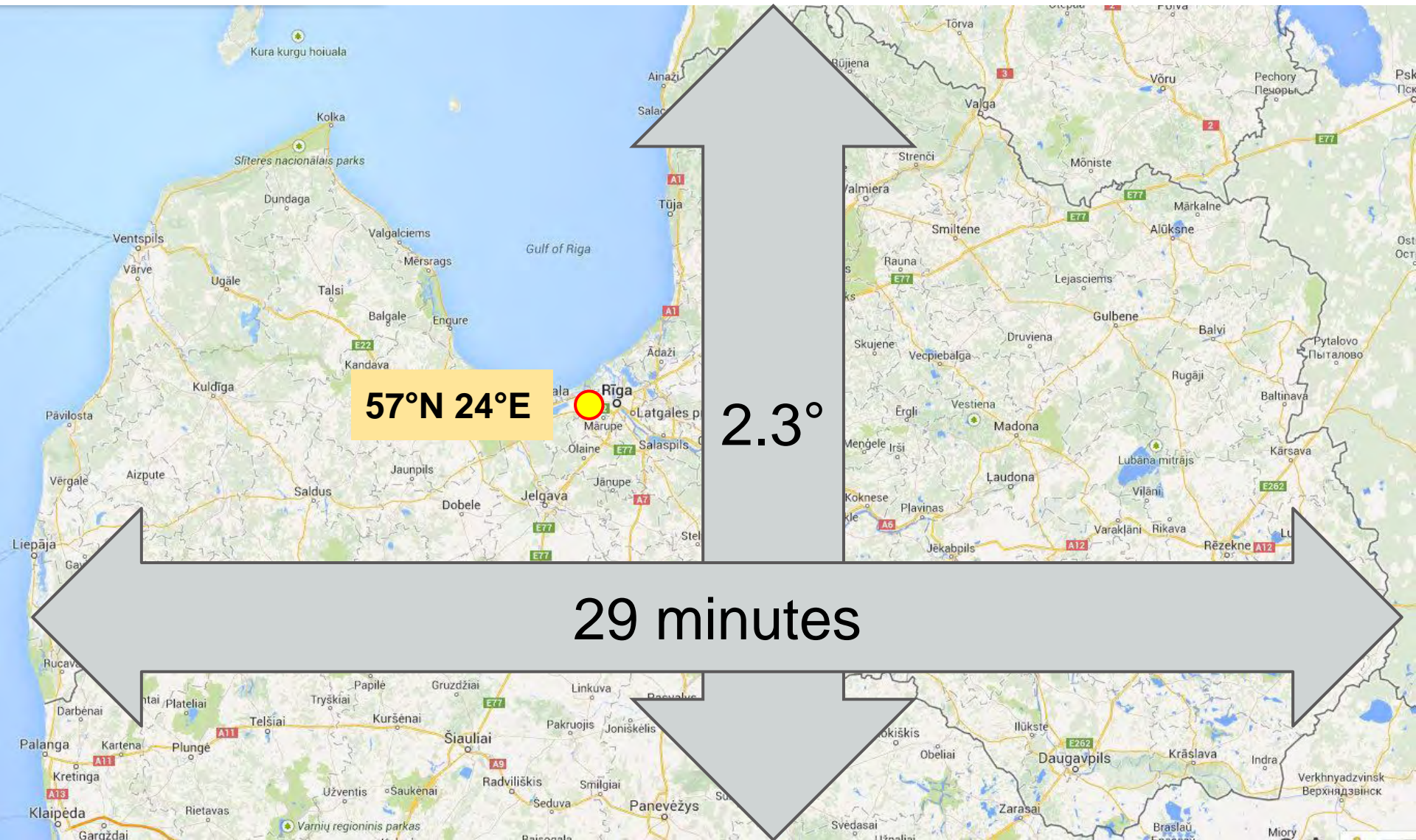
BSS 25th Conference, Greenwich

April 25, 2014

Where is Latvia

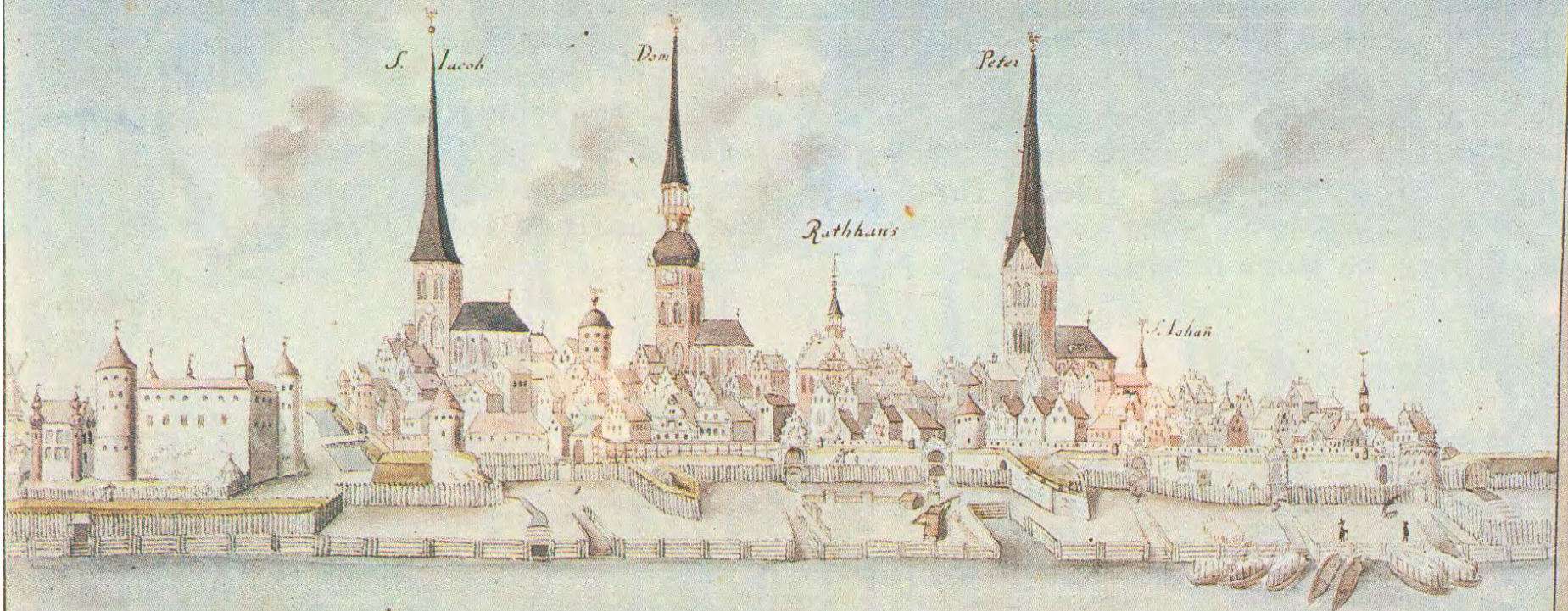


Size of the country - perspective of gnomonics



Riga

Prospect der Stadt Riga ums Jahr 1650.



Riga



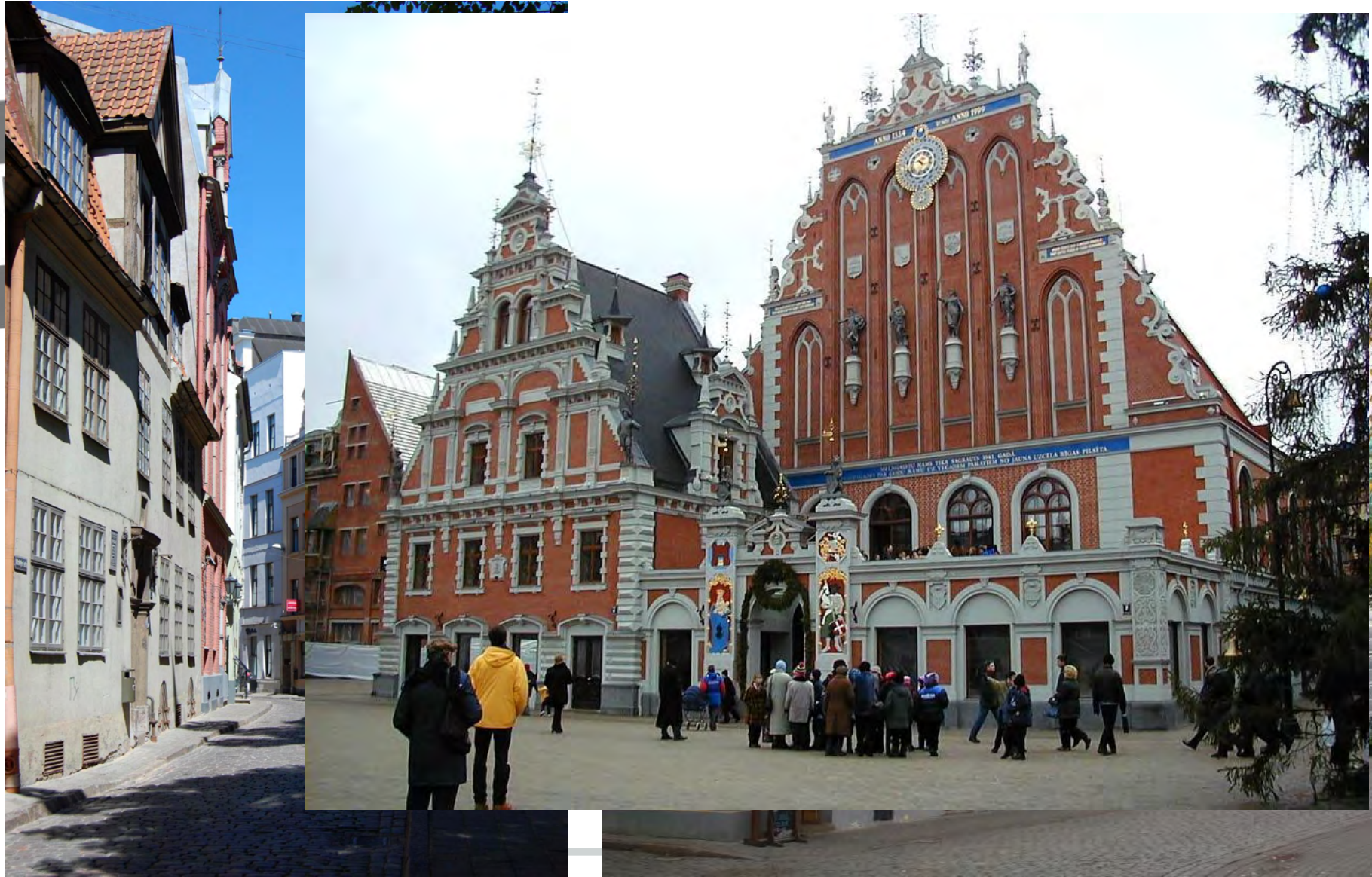
Riga - Capital of Culture 2014

RĪGA | 2014

EUROPEAN CAPITAL OF CULTURE



Riga - Capital of Culture 2014



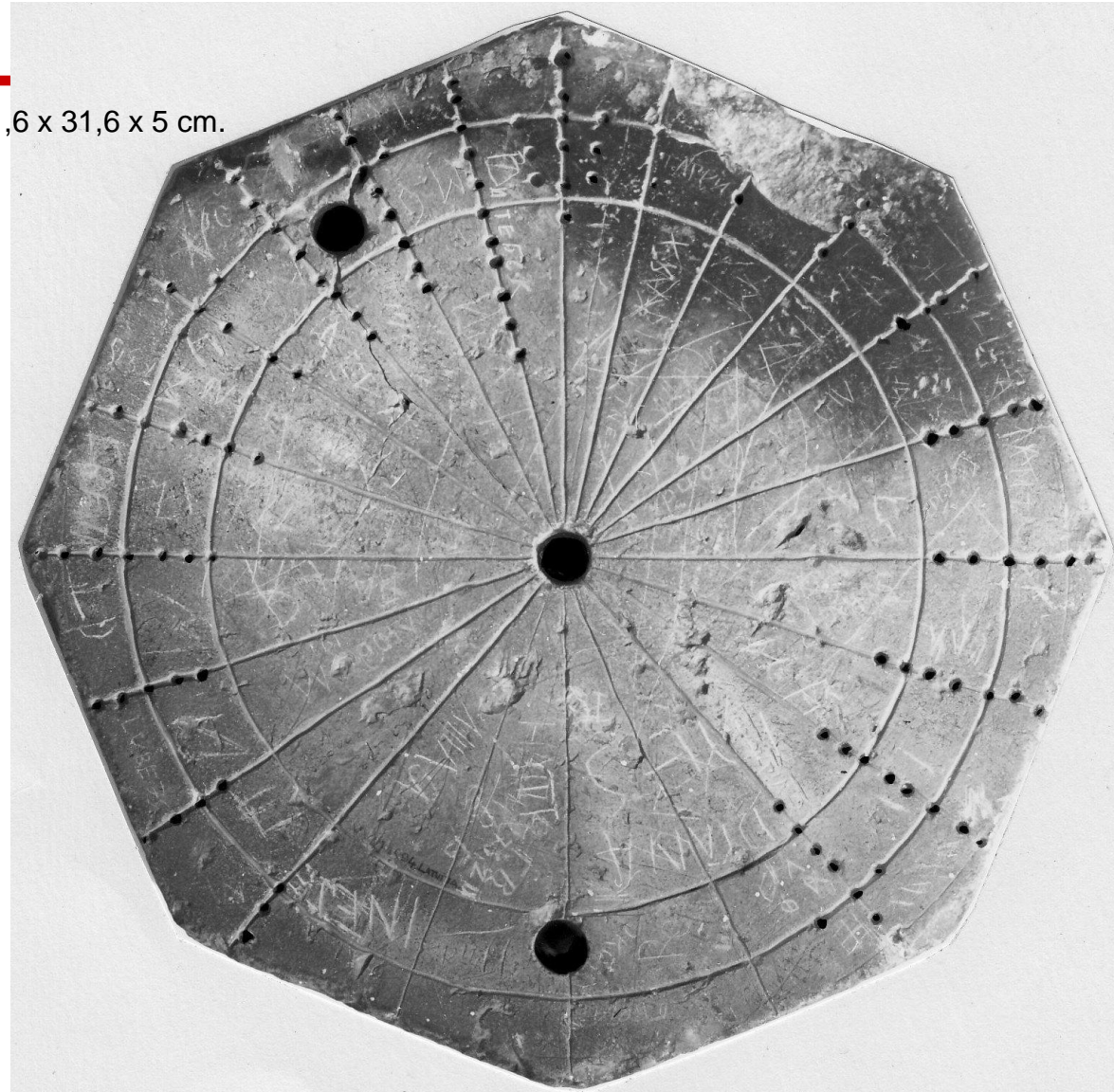
The oldest

Found near Rauna (57.33°N 25.6°E). Size - 31,6 x 31,6 x 5 cm.
Estimated 14-15 century.

Hour	Measured degrees from noon	Corresponding latitude (°)
3	138,2	63,39
4	122,8	63,62
5	106,7	63,27
6	88,7	
7	71,7	54,12
8	55,7	57,82
9	40,7	59,33
10	26,5	59,72
11	12,9	58,73
12	0	
1	12,6	56,53
2	25,9	57,25
3	40	57,05
4	55,5	57,15
5	71,9	55,06
6	90,6	
7	107,7	57,10
8	124	58,87
9	139,4	58,99

average latitude =

58,62



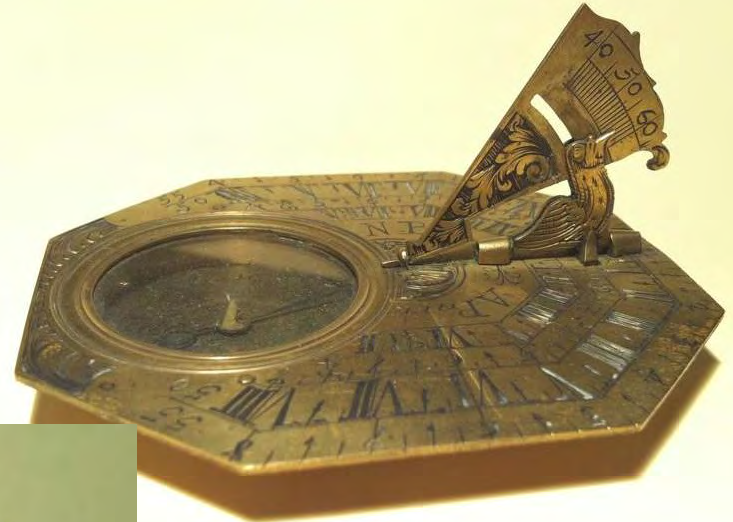
Thanks to Tony Wood for asking questions about this sundial.

Sundials that survived after 1941



None in Riga.
Cēsis 1744; Straupe 1857

Collections at museums



Collections at museums



Recently found



Recently found

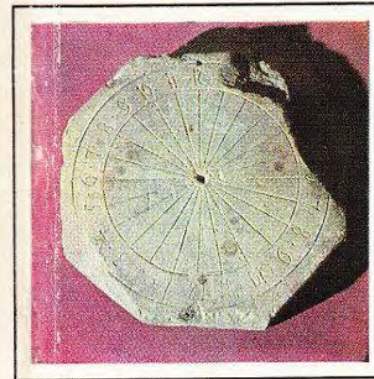


Book on sundials



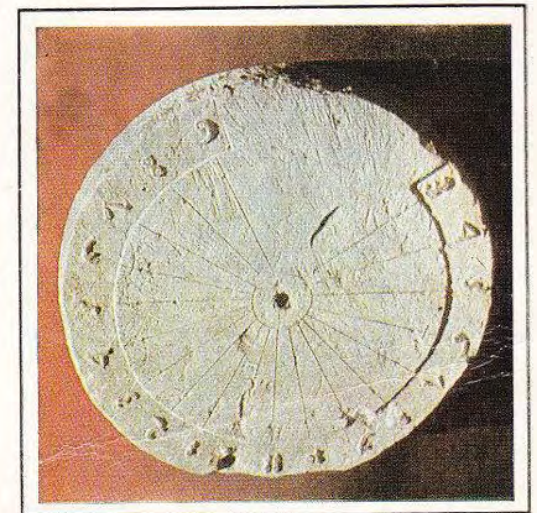
J.Klētnieks (1929)

Rīga, 1983



Jānis Klētnieks

SAULES PULKSTENI LATVIJĀ



Sundials after 1990



Sundials after 1990



Sundials by Martins Gills



Sundials by Martins Gills



**What do people expect from
sundials?**

Sundials

- They are not items of a daily necessity
 - Over the centuries their role have changed considerably
 - Many sundials have been lost, but still many new ones are being made
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Raison d'être for sundials today

- Historical - restoring the heritage
 - Improve the environment
 - Add decorative element
 - Create special atmosphere in a garden
 - ...
 - Educational purpose
 - To prove the mastery in gnomonics
-

Typical questions

- *Do they tell time as well?*
 - *Well, could you show the same time as in our clocks then?*
 - *How precise are they?*
 - *We want to see the time of our town/village!*
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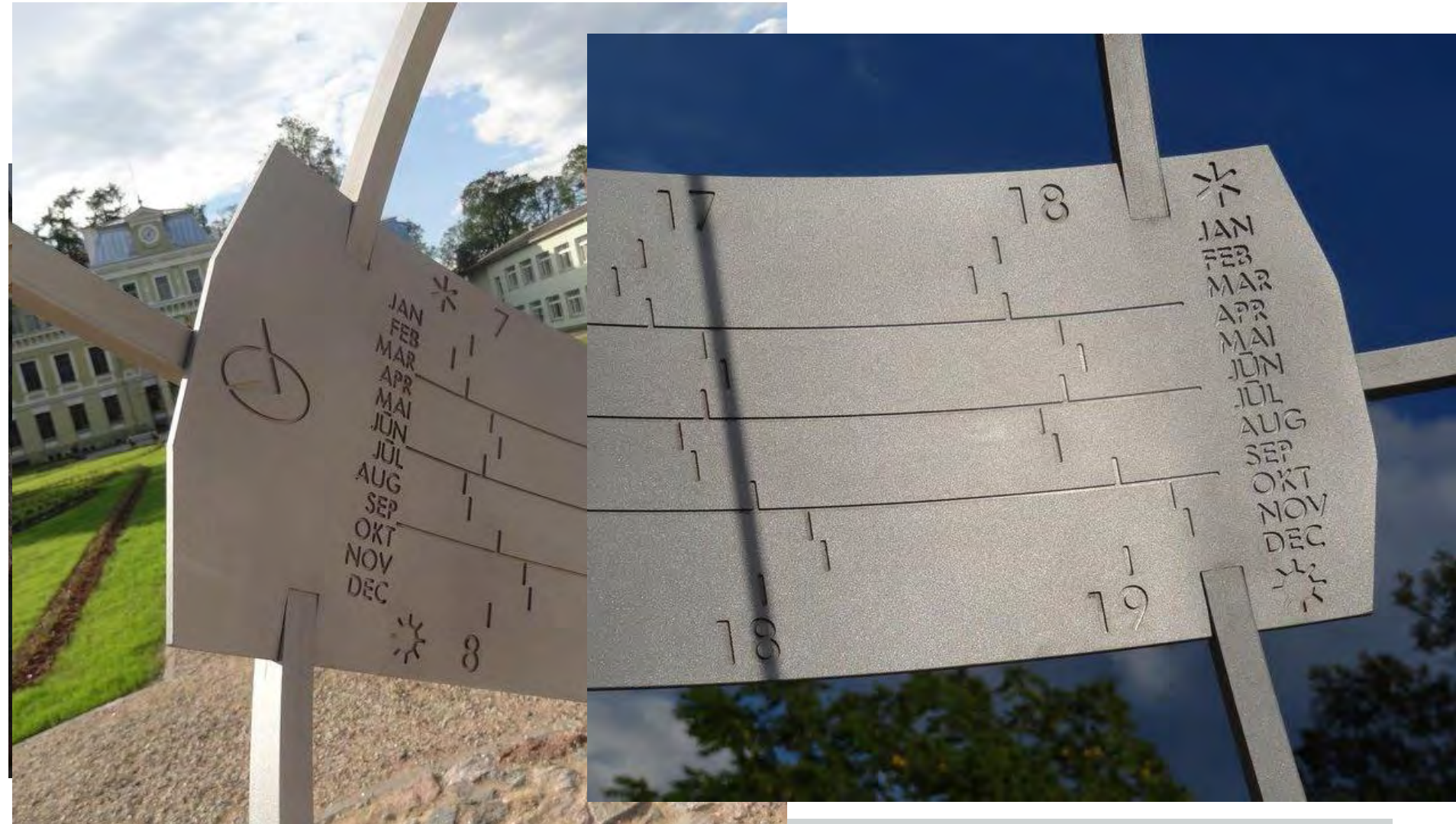
Usability issues

- Local vs. standard time
 - Summer time vs. winter time
 - Equation of time
 - Usage and name of analemmatic sundial
-

Materials

- Robust construction
 - No fragile elements (e.g. glass)
 - Corrosion free
 - No “new” materials (e.g. epoxy resin)
-

Reading time



“Analemmatic sundial” - sounds too complicated

- Human sundial
- Human gnomon sundial
- Participation sundial (*direct translation from Latvian*)



Summary

People expect the sundial to:

- represent traditions
 - show certain originality
 - be usable
 - implement specific wishes of a client
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