0.1 Summary

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Individual monuments and art works are commonly filed in countries with long cultural traditions. Sundials could be thought as one of these artefacts. However, there were none such filing in the Czech Republic until 80'.

A thought to collect a documentation on outdoor sundials, to evaluate it and to create a list of sundials on fixed stands arised at Charles University, Faculty of Natural Sciences in Prague. Students, led by RNDr. Ludvík Mucha, finished their outstanding work in 1990. The total number of sundials ascertained at that time was 1202. Unfortunately, their results were not published.

A database of sundials have to be made contemporary, completed and last, but not least, have to be accessible to broader public and every party concerned. In spite of there is none sundial society in our country, several enthusiasts are. A proof is the following catalogue.

Filing of sundials in Bohemia, Moravia, Silesia and Slovakia is complemented step by step; existent records are continuously refined. The newest data are on the Internet:

http://www.astrohk.cz/slunecni_hodiny.html

Either if you know about an existence of sundials, which are not listed in the catalogue, or you have more precise informations about today's sundials, or whether you have any suggestions and comments to the catalogue, please contact us on the address:

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0.1.1 Contents of individual chapters

In Chapter 2, Section 2.1 we briefly review the history of time measurement and development of sundials. Section 2.2 deals with diurnal and seasonal motions of the Sun, basic principles and types of sundials.

Chapter 3 is the catalogue of sundials, the main part of the book. (You can find a legend to the catalogue in Section 1.2.2.) The catalogue contains 2258 records. We also calculated statistics of the sundials (ie. numbers in districts, numbers of dial and indicator types, etc.). Both the catalogue and the corresponding statistics are divided to two parts — the Czech and Slovak Republic. The enclosed CD-ROM holds an electronic version of the catalogue (in HTML, PostScript, PDF, DBF formats) and 3782 images of sundials.

Chapters 4 and 5 should draw attention to the most interesting or the most beautiful sundials (thought they need not to be the well known ones). There is a bunch of "Sundials' Best ofs" in Section 4.1. The next sections are organized according to the following topics: multiple sundials, northern sundials, Moon-dials, sundials with analemmas, other unusual dials (from the point of the gnomonics), curious locations, elements of decoration and common inscriptions on Czech sundials.

Chapter 5 is devoted to the description of sundials, particularly in Moravská Třebová and Dvůr Králové. Two groups of sundials are also of interest to us: (i) constructed during 18./19. century by Johann and Antonius Engelbrecht and (ii) located nearby astronomical observatories.

Construction (and reconstruction) of sundials is the topic of Chapter 6. At first, a simple method how to draw hour-lines is described and then a complex sundial design software SHC is presented (it is available on the CD-ROM too).

The last Chapter 7 contains a list of sundials (sorted by districts), indices of locations and names, maps, a vocabulary of terms and a list of references.

0.1.2 English legend to the catalogue

Sundial records are ordered alphabetically by the address. Every record has this form:

address (locality, street no.) [district, postcode, geographical latitude, longitude] description of the location; notices

0	1	2	3	4	5	6	7	8	9	10	11	12	13

Individual cells are ordered in the following way (the same numbers are in the catalogue header):

0. sequence number in the catalogue
1. catalogue key number (in the form: state abbrev., district abbrev., incremental number; this is used in maps)
2. approach to the sundials (Tab. 6)
3. rating of sundials state (Tab. 3)
4. year of rise ('?' is behind an estimated datum)
5. year (or month/year) of the state verification
6. astronomical azimuth of the normal to the wall, ie. counted from south (a wall oriented towards the south have 0°, towards the west 90°); or an abbreviation of the cardinal points: J – south, Z – west, S – north, V – east, etc.
7. height above the ground (meters)
8. (maximal) size of sundials (meters)
9. type of the sundials (Tab. 1), unique for each sundials
10. type of the indicator (Tab. 4)
11. type of the dial (Tab. 2), 1 sundials could have a dial with more attributes

12. range of the dial (hours); it is possible to distinguish between roman and arabic numbers
13. appearance of the sundials (Tab. 5)

We use abbreviations for some items, due to lucidity, which are explained in the following tables:

–	unknown
S	vertical
V	horizontal
R	equatorial
P	polar
PP	ring polar
PJ	southern polar
K	spherical
E	“extra”
Y	symbol only
O	horologe

Tab. 1 — Sundial types.

C	numbers
Z	labels
R[0–9]	tics (every 1/number h)
O	1 – 24
P	1 – 12
L	summer time
D[0–9]	date lines, number
A	analemma
S	“special”
G	gnomonic error

Tab. 2 — Dial types.

–	unknown
V	excellent
D	good
P	damaged
PZ	severly damaged
U	only indicator
C	only dial
Z	destroyed sundials
X	planned sundials

Tab. 3 — State.

–	unknown
P	oblique (polos)
PN	oblique with nodus
K	vertical
KN	vertical with nodus

Tab. 4 — Indicator types.

–	no specialities
N	sign
V	graphically interesting

Tab. 5 — Appearance of the sundials.

–	unknown
D	good
O	restricted
V	entrance fee
F	visible

Tab. 6 — Approach.