

Astronomical Clock in Rostock

- First clock of 1379 not preserved (except for bell in ridge turret)
- The present clock is dated 1472. Later modifications:
 - 1641 (striking mechanism and glockenspiel added),
 - 1710 (Pendulum-anchor escapement retrofitted).
- In 1835, during construction on vaulted ceiling in church, clock damaged by dust and debris. For lack of funds operative again only in 1885, after the calendar disk had expired 1877 (see below).
- In 1942 allied bombing raids; fire bomb hits church, but janitor prevents damage. 1943-1951 clock is immured for protection.
- 1974-77 Restoration.

Two large disks: clock disk (upper), calendar disk (lower).

Also: music works, apostle works.

Clock disk from outside towards center:

- 1) **Hour ring**, divided in 2*12 hours: 24-hour system, but no minute indication. Two pointer ends: upper for daytime, lower for nighttime
- 2) **Zodiacal ring** (30° sections, subdivided in 5° increments)
- 3) **Month ring**: Symbols for months*
- 4) Inner disk, solar disk. Stars and a dragon painted on it. **Date pointer** moves counterclockwise, 1 turn annually: Shows date by zodiacal symbol and month.
- 5) In the opening of the solar disk, the lunar disk shows **lunar phase**.
- 6) Lunar age: Numerals on the edge running from 1 to 29, indicated by the **lunar pointer**
- 7) Disk with portrait of Senator Sebes: **gravity clock**. A weight makes it turn such that the hand at its edge always points to the hour.
- 8) Disk driven by gears, pointer held vertical by a weight. Astrological display which of the 7 "wandering stars" (sun, moon, planets) "governs" the particular hour.

In the corners the evangelists: lower left Matthew, upper left Marc, upper right John, lower right Luke

* Symbols of months:

Jan.	A gentleman dines
Feb:	A man warms himself at a fire
Mar:	A man plants or grafts two trees
Apr:	A woman digging over
Mai:	A farmer sowing
Jun:	A reaper cuts grass with a scythe
Jul:	A farmer woman cuts corn with a sickle
Aug:	A farmer thrashing corn with a flail
Sep:	A vintner harvests grapes
Okt:	A man plucks apples
Nov:	A man chops wood
Dez:	A man slaughters a pig

Calendar disk from outside towards center:

- 1) Zodiacal symbols
- 2) Six outer rings: perpetual calendar
- 3) Seven inner rings for information specific to each year

Ad 1)

Easily recognized on top: twins (Gemini). Then counterclockwise: crab (Cancer), lion (Leo), maiden (Virgo), scales (Libra), scorpion (Scorpio), archer (Sagittarius), capricorn (Capricornus), aquarius (Aquarius), fish (Pisces), ram (Aries), bull (Taurus).

Ad 2) Six outer rings as perpetual calendar

- a) **Month names**, indication of number of days in month
- b) Alternating red and white segments. As the number of days in the year (365) is not divisible by 2, there is some 'fudging' in late march
- c) **Day** in the month. There is no Feb. 29; it was more economical to manually adjust once every 4 years, rather than make the clockwork more complex. The calendar man points to the date with a long stick.
- d) Day letter code for weekdays (see 3c below)
- e) **Day name** in the Rostock calendar of saints and holidays. Important holidays in red lettering.
- f) Local time of sunrise, indicated by pointer from the disk's center. Each entry valid for 2 consecutive days; Dec. 31 has its own entry to accommodate the odd number of 365 days. Sunrise in Rostock (local time) ranges from 3:29 to 8:31. The resulting length of day and night is shown in the disk's center.

Ad 3) Seven inner rings for information specific to the year

- a) Golden Number: serves to find the **phases of the moon** and the date for Easter
- b) **Year** (1885-2017)
- c) Sunday letter: Together with the day letter (see 2d above) one finds the **week-day**. Leap years have two Sunday letters: the first for Jan-Feb, the second for Mar-Dec.
- d) **Solar circle**: Numerals 1-28, because after 28 years the calendar repeats itself (7 for weekdays, 4 for leap years)
- e) **Roman dues number**: 15-year cycle for paying taxes as introduced by Roman emperor Constantin the Great in 313. This date format was used until ca. 1500 in official documents.
- f) the so-called **interval**, i.e. the time between christmas and carnival (begin of fasting).
- g) **Easter date**: Since the Council of Nicaea AD 325 the date is defined as the sunday after the first spring full moon (spring begins Mar 21).

The present disk is the fifth:

Original from	1472
Second	1643-1744
Third	1745-1877 (then, gap from 1877-85, see above)
Fourth	1885-2017 (preserved underneath the present disc)
Present	2018-2150

Fitting the 5th calendar on Jan. 1, 2018 kicked off the double anniversary celebrations of city (800 years in 2018) and the university (600 years in 2019).