

Deutsches Museum



Open Access for Museum Collections and Research

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Digital transformation in the museum sector:

A tough matter

Opportunities and Challenges

Opportunities

- Improved accessibility of collections
- Increased efficiency in administration/exhibitions/research
 - Broader knowledge transfer

Challenges

- Data management
- Keeping up with technology
- Integration into museum's overall strategy

Deutsches Museum Digital

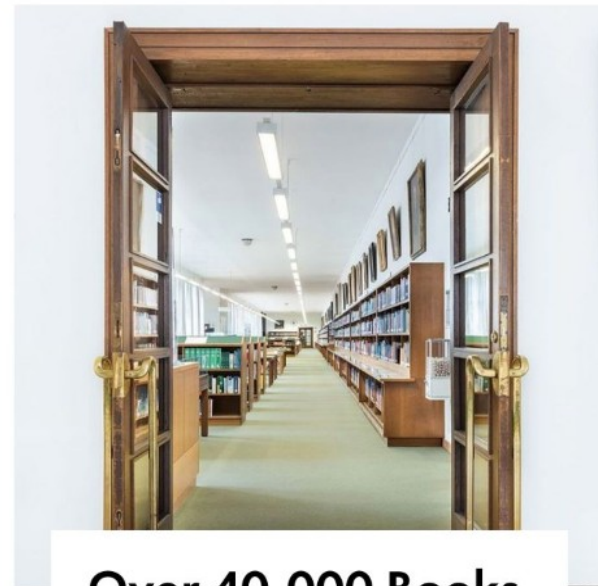
51359 objects

41675 books

102951 archival records



**40,000 new objects
online**



**Over 40,000 Books
in our online portal**

...from the history of science and
technology - from our library



Roman man with axe
(diorama figure)



Astrolabe (made in 1598)



Automaton (made around 1560) in the form of a monk

bavarikon

Bavaria's digital treasury

Discover art, culture and a treasure trove of knowledge from museums, archives and libraries of Bavaria

Search



Albrecht Dürer: Druckplatte zu Christus am Ölberg

Measurement of time and space: historical measuring instruments from the Deutsches Museum

The collection contains 3D digitised objects for the measurement of time and space from the Deutsches Museum. The original instruments in this collection are examples of outstanding measuring instruments from the Deutsches Museum's four specialist areas of "time measurement", "astronomy", "navigation" and "geodesy".

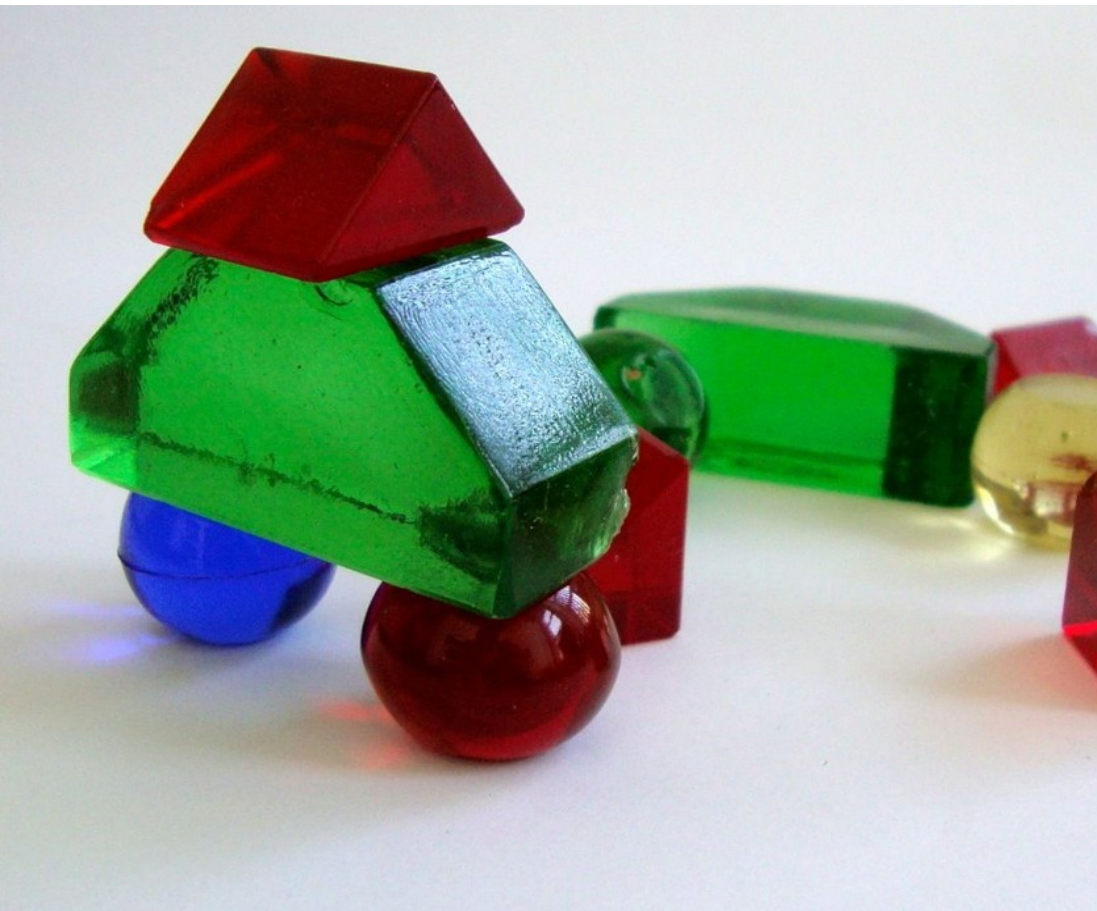
These are various historical measuring instruments that were manufactured mainly in Europe from the 16th to the 19th century. Using them, people could orientate themselves day and night, on land and water, in time and space. The fixed wall or table sundial manufactured for one latitude and the [portable sundial](#) with compass were used to measure time during the day, the [Nocturnal](#) (also: star clock) measured time at night. Since the late Middle Ages, these sundials have displayed hours of equal length (equinoctial hours) – just like mechanical clocks. Towards the end of the 16th or beginning of the 17th century, the [equatorial or equinoctial sundial](#) was developed, whose dial or ring was set parallel to the equator.

With a weight-driven mechanical wheel clock with spindle escapement with balance, time could be measured independently of the weather (sun, moon, stars), but its accuracy was rather poor until the Dutch natural philosopher and mathematician Christiaan Huygens (1629-1695) developed the free-swinging pendulum (for large clocks) or the spiral balance spring (for small clocks) in the 17th century. Sundials were still used to adjust wheel clocks until the 19th century.



Deutsches Museum: Open Science Policy

- Strongly encouraging Open Content
- Implementing transparency throughout the museum:
from Methods, Tools, and Infrastructures
to Research Results and Publications



PREPRINT 6

Artemis Yagou

**Modernist complexity
on a small scale:**

The *Dandana* glass building blocks
of 1920 from an object-based research
perspective

Deutsches Museum



12

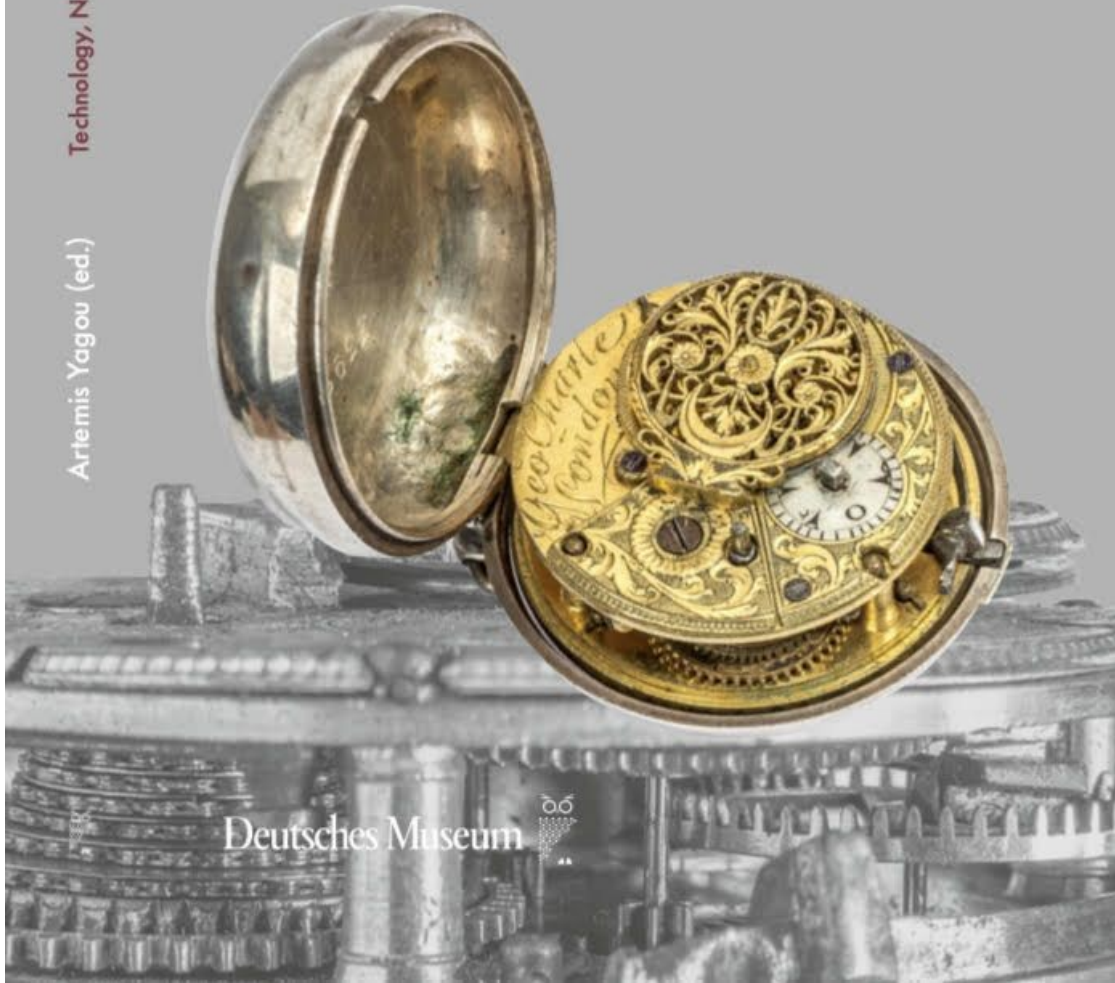
Studies 12

Artemis Yagou (ed.)

Technology, Novelty, and Luxury

Technology, Novelty, and Luxury

Artemis Yagou (ed.)



Deutsches Museum



Key issues for the future

- Access and management of resources
(human, material)
- Need for a long-term, consistent digital strategy
- Stepping out of one's comfort zone

Links to explore:

deutsches-museum.de/

digital.deutsches-museum.de/en/

Any comments/questions?

Thank you very much for your attention!

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