



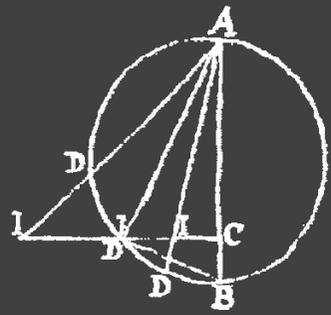
Eine Open Access Forschungsinfrastruktur für Kulturerbe

Berliner Bibliothekswissenschaftliches Kolloquium

14. Juli 2009

Urs Schoepflin
Max-Planck-Institut
für Wissenschaftsgeschichte





Max-Planck-Institut für Wissenschaftsgeschichte

- Gründung 1994 in Berlin als eines von 80 Instituten der Max-Planck-Gesellschaft
- Erforschung der Entwicklung des naturwissenschaftlichen Denkens
- „Historische Epistemologie“
- Disziplin-, epochen- und kultur- und sprachübergreifend

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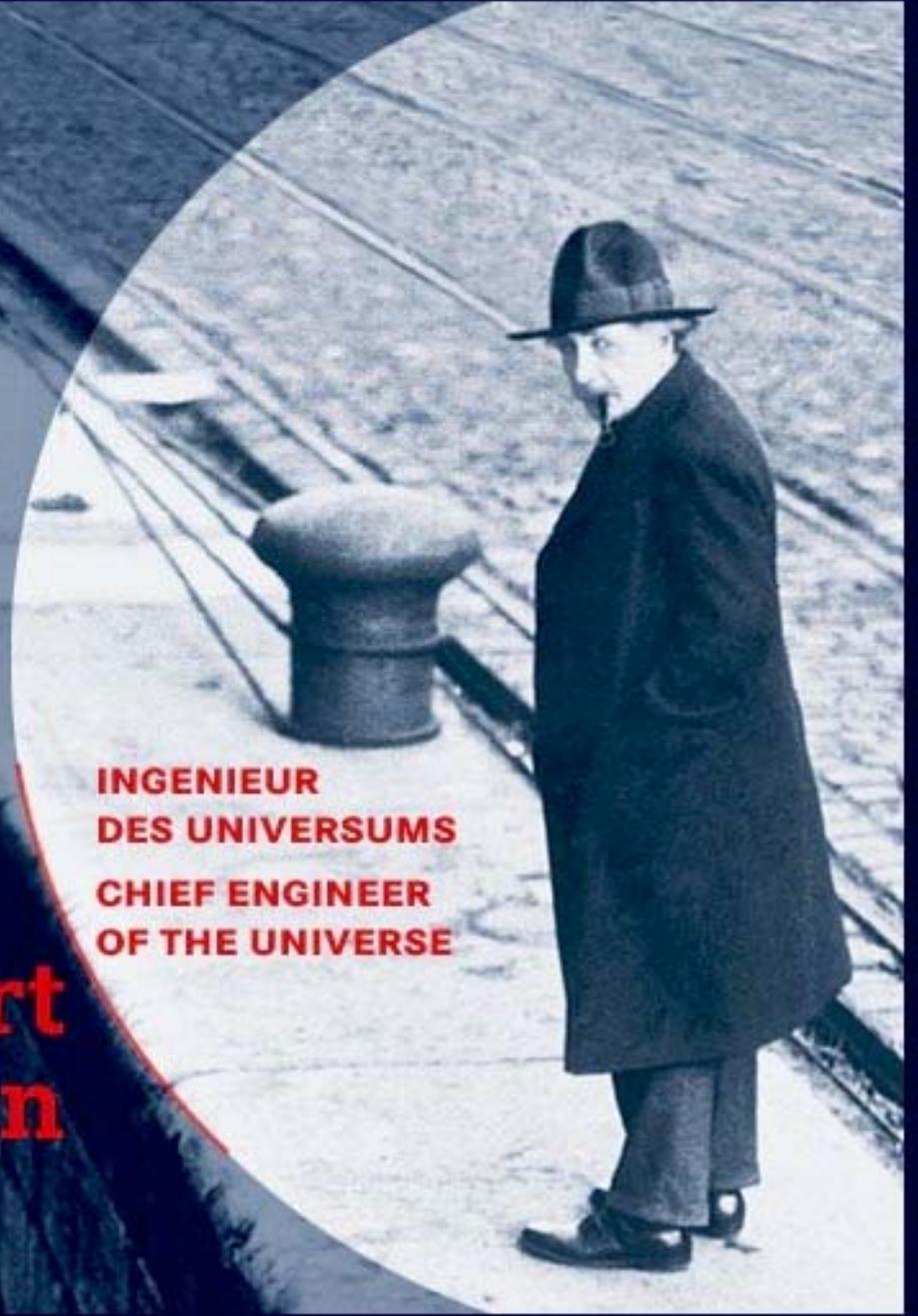
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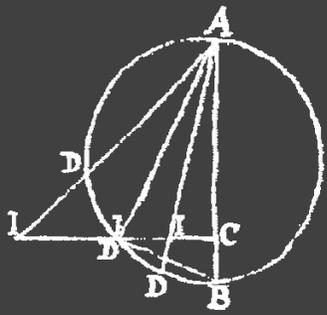
INFORMATION ZUR AUSSTELLUNG

INFORMATION ON THE EXHIBITION

Albert Einstein

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OF THE UNIVERSE**



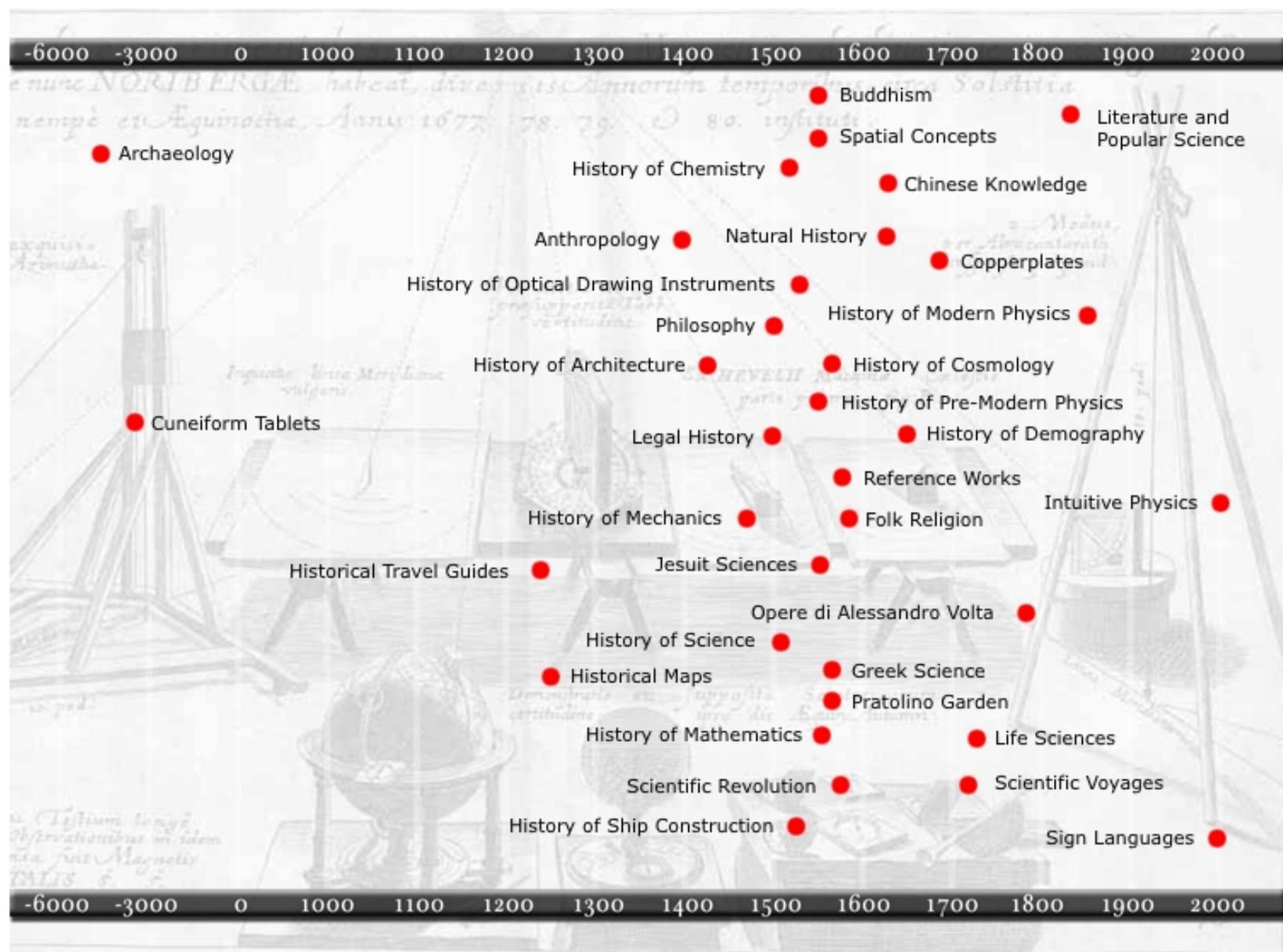


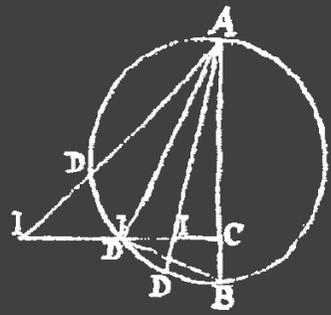
MPIWG Arbeitsweise I

- Erweiterung der empirischen Grundlagen über traditionelle Angebote edierter Quellen hinaus
 - elektronische Repräsentationen
 - Rohdaten
- Aufbau von digitalen Archiven
- Entwicklung von spezifischen Hilfsmitteln
 - Bsp. forschungsbezogene elektronische Arbeitsumgebungen
 - Bsp. Sprachtechnologie

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- History of Modern Physics
- History of Optical Drawing Instruments
- History of Pre-Modern Physics

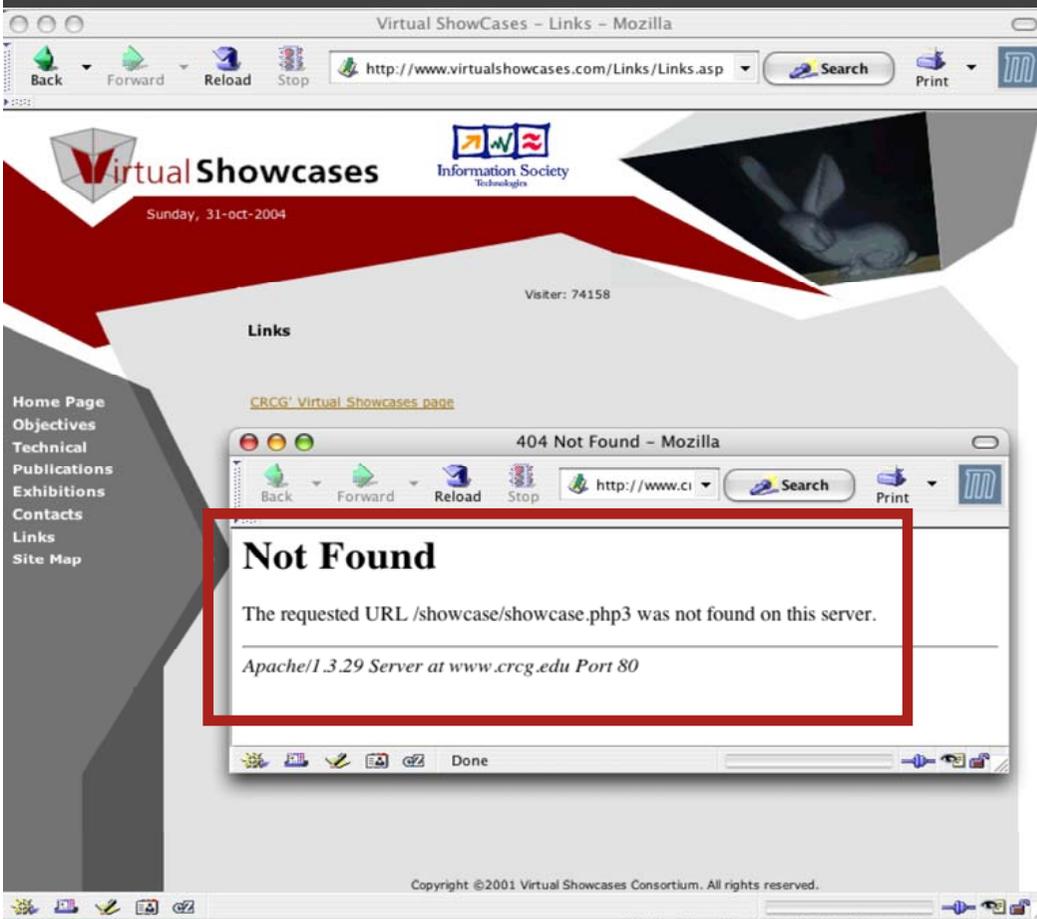
The ECHO Content: Seed Collections of a Growing Web of Culture

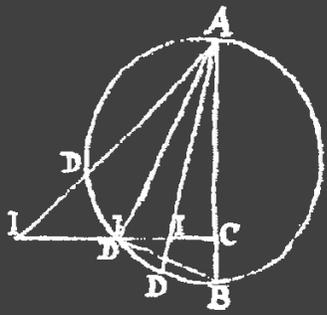




Bisherige Situation: Kulturerbe im Internet

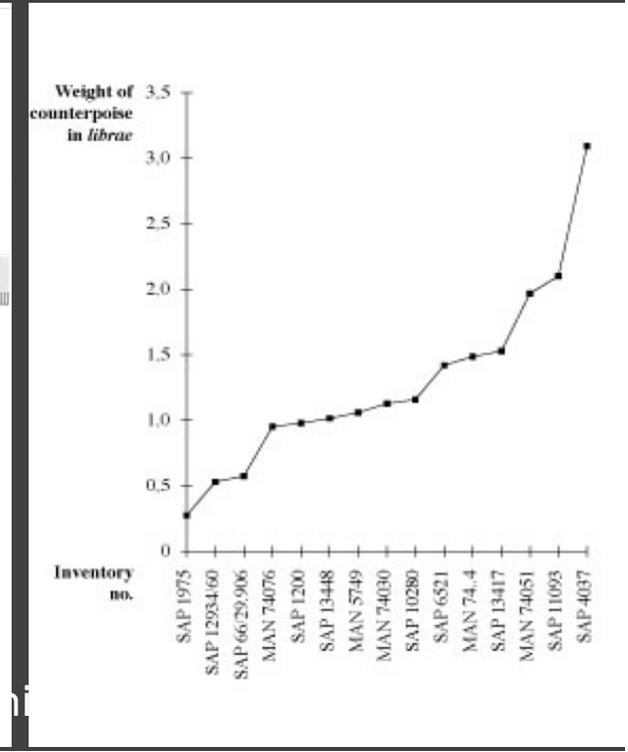
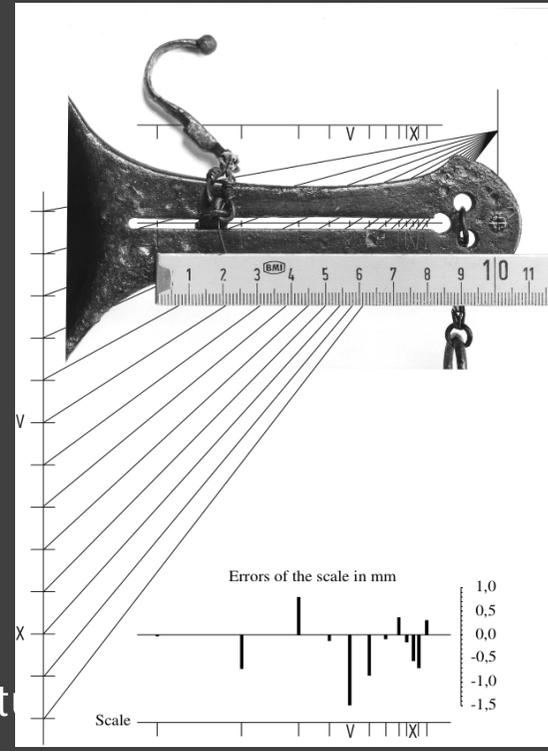
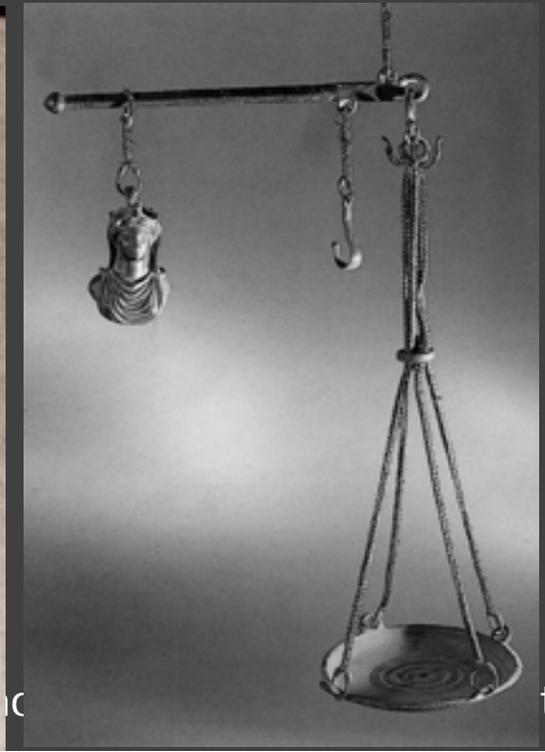
- zu wenig Primärdaten in guter Qualität im Internet
- kein freier Zugang zu den Primär- und anderen wissenschaftlichen Metadaten
- fehlende Langfristigkeit und Stabilität
- unzureichende Darstellungsumgebungen
- keine Werkzeuge zur Unterstützung von Bearbeitung und Publikation wissenschaftlicher Daten
- keine Interoperabilität
- keine Transparenz

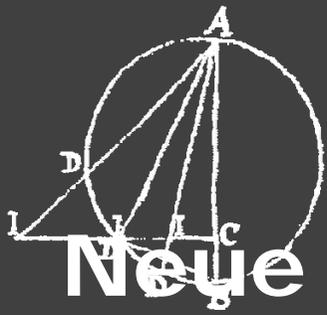




Eröffnung neuer Möglichkeiten

- disziplin-, sprach-, kultur- und epochenübergreifendes Arbeiten
- Vernetzung wird zum Bedeutungsträger
- Multiple Verwendung von Primär- und Forschungsdaten
- Mehrwert durch Kontextualisierung und wissenschaftliche Bearbeitung





Neue Medien schaffen neue Anforderungen

- Primärdatentypen setzen disziplin-übergreifende Anforderungen



Stevin, Simon De Beghinselen der Weegconst 1586 reference

author index ◀ 38 / 131 ▶ 38 English

2

ders swaer; daerom als wy segghen een haudt te weghen hondert pondt, wy verstaen daer by de macht sijnder daling in gestede plaets, dat is in dien Grondt daert in gheweghen was.

DOOR I verkeerde deser bepaling is te verstaen, dat lichticheyt eens lichaems de macht is sijnder rijsing, maer in ghestelde plaets, want yghentlick is alle lichaem swaer.

Materia.
* Subiecto.

III. BEPALING.

BEKENDE swaerheyt is diemen door bekent ghewicht uytet.

VERCLARING.

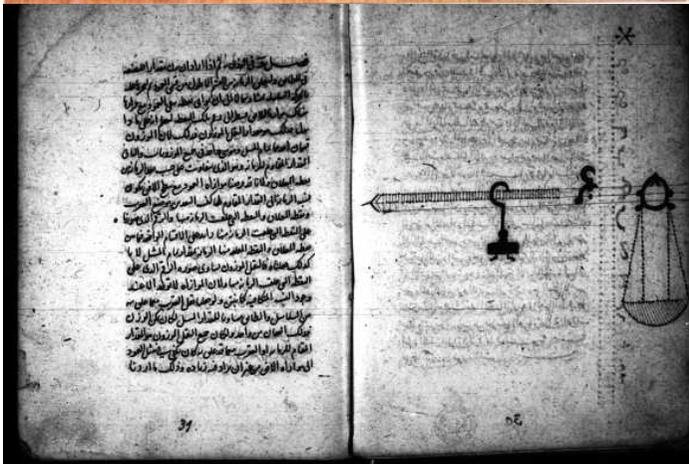
ALS wanneermen seght een lichaem ofte swaerheydt te weghen ses , ofte acht marck, oft drie oncen, &c. Om datse door sulcke bekende ghewichten gheuytet wort, wy noemense Bekende swaerheyt.

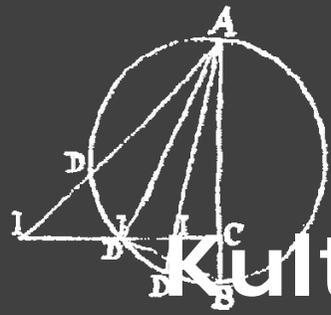
IIII. BEPALING.

SWAERHEYDTS middelpunt is, an twelck het lichaem door ons ghedacht hanghende, alle ghestalt houdt diemen hem gheeft.

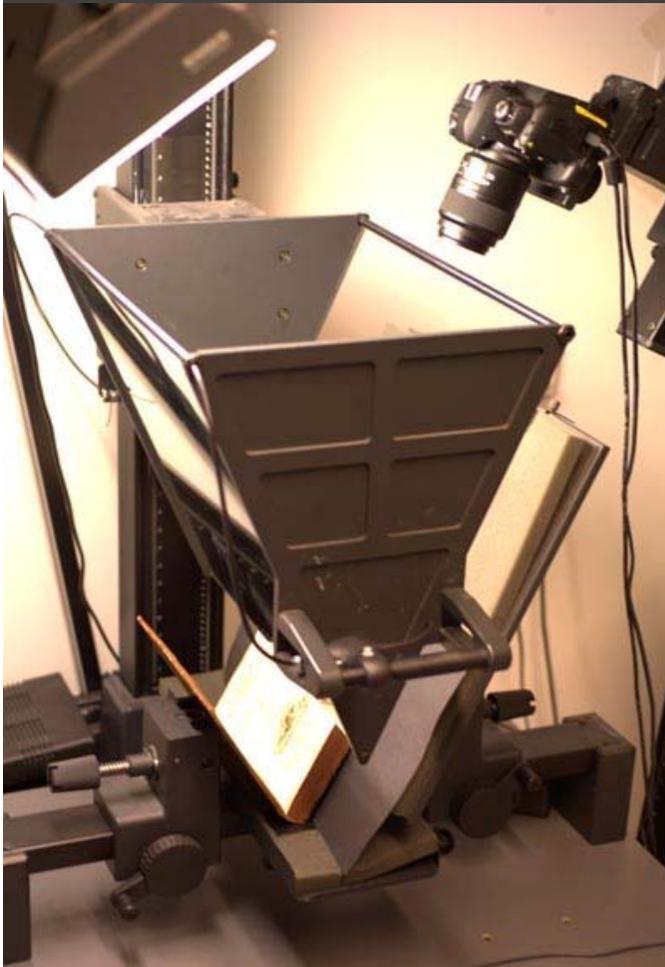
VERCLARING.

LAET ABC een cloot sijn, diens stof ouer al eueswaer is, welcke wy met haer middelpunt D door ons ghedacht nemen te hanghen ande lini ED; Ende is kennelick dat dien cloot ghekeert wordende, sal houden alle ghestalt diemen haer gheeft, want soomen B keerde daer A is, B sal daer bliuen, ende voort yder deel

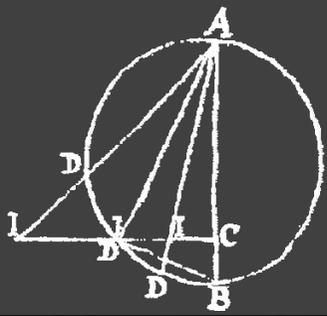




Kulturerbe im Internet: Anforderungen

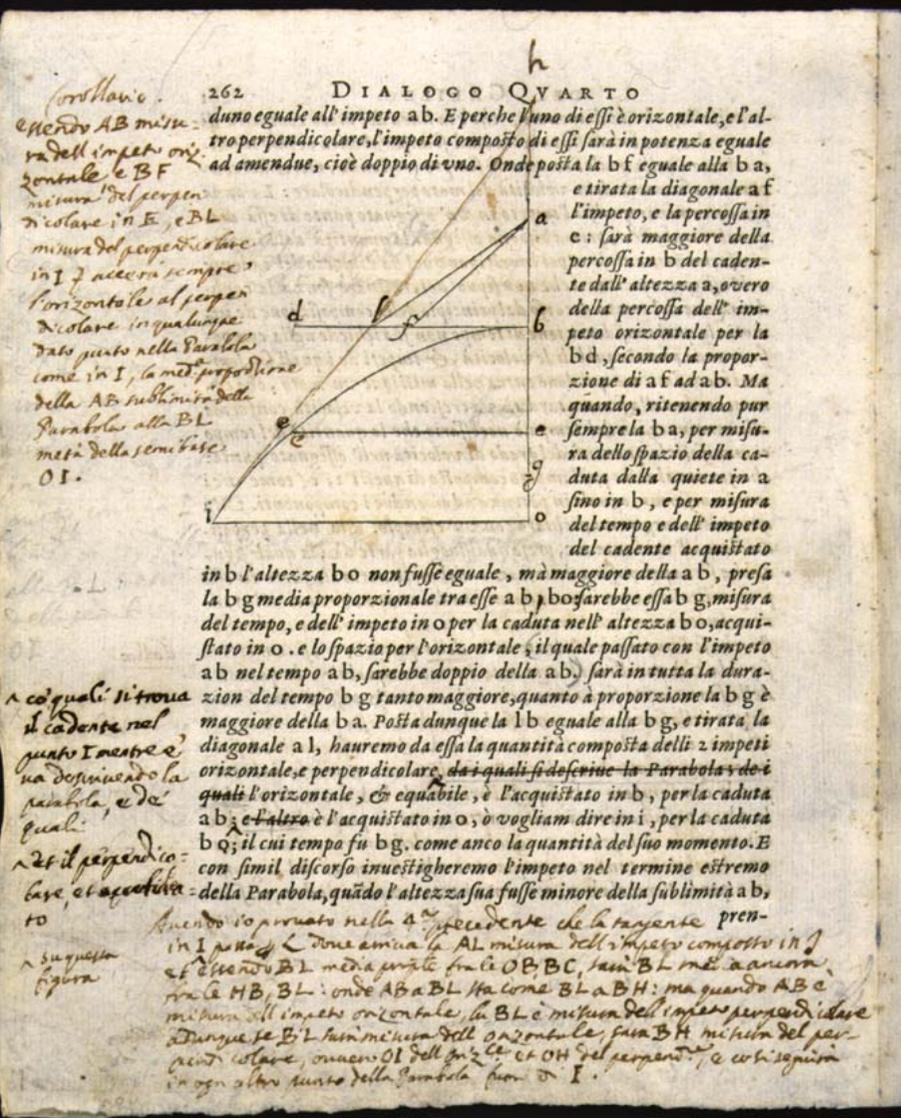


- Erzeugen einer kritischen Masse von kulturellen Primärdaten
- Digitalisierung
- Bereitstellung der Primärdaten in adäquater Qualität
- Langzeitarchivierung



Kulturerbe im Internet: Zugang und Qualität

- Open Access zu Quellen und Werkzeugen



Arboreal

<http://archimedes.fas.harvard.edu/arboreal/>

Arboreal

The Arboreal XML browser is a powerful and flexible tool developed by the [Archimedes Project](#) for content-based access to, and annotation of, XML texts. Arboreal includes special features for working with parallel versions of texts, morphology and terminology, and linked images. Integrated language support is currently provided for Latin, Greek, Arabic, Chinese, languages written in cuneiform, and major western European languages. Arboreal supports many standards and is designed as a cross-platform tool that can be used on many different computing systems.

Why Arboreal? The following document addresses some basic philosophical issues.

[Beyond Browsing: The Web of the Future](#)

Arboreal is constantly being expanded and improved. The following versions are available at present for download:

Arboreal 5.16

- [Arboreal for Mac OS X](#) (requires Mac OS X 10.2 or later)
- [Arboreal for Windows](#) (please read [installation notes](#))
- [Arboreal source code](#) (for GNU/Linux and other systems that support the [Java 2 Platform](#))

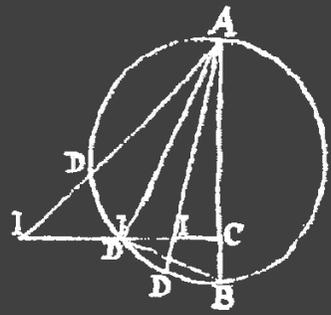
Arboreal 5.14

- [Arboreal for Mac OS X](#) (requires Mac OS X 10.2 or later)
- [Arboreal for Windows](#) (please read [installation notes](#))
- [Arboreal source code](#) (for GNU/Linux and other systems that support the [Java 2 Platform](#))

A general [change log](#) is available.

There is also a [scrapbook](#) which contains some provisional documentation.

webmaster@archimedes.fas.harvard.edu
Last modified: Tue Dec 26 18:46:15 EST 2006



Kulturerbe im Internet: neue Publikationsformen

- Online-Publikationen von Primärdaten und wissenschaftlichen Daten
- Transparenz und Überprüfbarkeit wissenschaftlicher Interpretationen

CDLJ 2002:1 - Mozilla

http://cdli.ucla.edu/pubs/cdlj/2002/cdlj2002

Cuneiform Digital Library Journal
2002:1
ISSN 1540-8779
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The Ur III Collection of the CMAA

Robert K. Englund < englund@ucla.edu >
University of California, Los Angeles

Keywords
Ur III, Umma, Drehem, labor, animals

This material is based upon work supported by the
National Science Foundation under Grant No. 0000020.

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CDLJ 2002/1, no. 1
Record 1 of 1 records found

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Information
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Primary Publication: CDLJ 2002/1, no. 1, Englund, Robert K., 2002
Collection: California Museum of Ancient Art, Los Angeles,
California, USA
Museum no.: CMAA 002-C0005
CDLI no.: P212341
Provenience: Drehem ?
Genre: Administrative
Period: Ur III
Measurements (mm): 30x27x13

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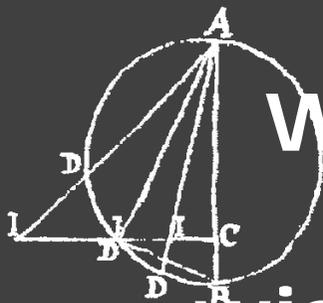
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Obv.
1. 4(disz) gu4 4(disz) ab2
2. e2 muhaldim
3. u4 2(u) 5(disz)-kam
4. zi-ga
5. ur#-{d}en-lil2-la2
Rev.
n lines broken
blank
1. mu us2-sa ki-masz{ki} ba-hul

Please report any errors or other problems, and suggestions for improvement to: cdli@ucla.edu

P212341.jpg (JPEG Image, 693x1086 pixels) - Mozilla

http://cdli.ucla.edu/dl/photo/P212341.jpg



Wissenschaftliche Arbeitsumgebung: Verbindung von Primärquellen mit wissenschaftlichen Arbeitsinstrumenten

<<http://echo.mpiwg-berlin.mpg.de/content/historymechanics/archimdesecho>>



Monte, Guidobaldo del
Mechanicorum liber 1577

Show amount: 48 cols: 4 change

Show thumbnail group no.: 1 2 3 4 5 6



Dictionary entries possibly relevant to **metimur**:

metior	Lewis and Short	Latin Lexicon
metior	Thomas Cooper	Thesaurus Linguae Romanae et Britannicae 1584
meto#2	Thomas Cooper	Thesaurus Linguae Romanae et Britannicae 1584

MARIAM II
VRBINATVM
AMPLISSIMVM DVCEM
GVIDIVBALDI
E MARCHIONIBVS
MONTIS
PRAEFATIO.

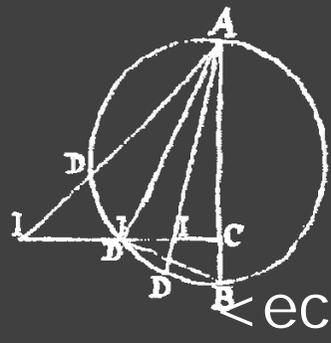
Thomas Cooper
Thesaurus Linguae Romanae et Britannicae

Metior, metiri., pen. prod. mensur sum, metiri. Cic.

To meate or measure: to passe or go ouer: to esteeme: to indge. *Interuallis æqualibus aliquid metiri.* Cic. To draw out with equall spaces betweene. *Agrum aliquem metiri.* Cic. *Fruentum metiri.* Cic. *Parcè & paulatim metiri frumentum.* Cæsar. To serue out come sparingly by litle and litle. *Mundi magnitudinem metiri.* Cic. *Stipendium.* Curt. In hasta. *metiri se.* Stat. *Aunum metiri sol dicitur.* Ouid. *Æternitas nulla temporis circumscriptione metitur.* Cicer. T'uerlastingnesse hath no boundes or limits of time. *Oculo*

DVAE res (AMPLISSIME PRINCEPS) quæ ad conciliandas hominibus facultates, vtilitas nempè, & nobilitas, plurimum valere consueuerunt. illæ ad exomandam mechanicam facultatem, & eam præ omnibus alijs appetibilem reddendam conspirasse mihi videntur: nam si nobilitatem (quod plerique modò faciunt) ortu ipso metimur, occurret hinc Geometria, illinc verò Phisica; quorum geminata to complexu nobilissima artium prodit mechanica. si enim nobilitatem magis, tum stratæ materiæ, tum argumentorum necessitati (quod Aristoteles fatetur aliquandò) relatam volumus, omnium

http://nausikaa2.mpiwg-berlin.mpg.de/cgi-bin/toc/toc...e_mecha_036_la_1577&step=textonly&corpus=:page=5;n=5



Annotationen: wissenschaftliche Kommentare

<echo.mpiwg-berlin.mpg.de/content/chineseknowledge>

ECHO
Schreck, Johann Terrenz Yuanxi Qiqi Tushuo Luzui 1627

author index ◀ 110 / 404 ▶

110

第十一款有重體，不論正斜，皆有徑線。分破，其側面即為重之徑面。

假如上圓圖，徑線ae。從徑線開之，即作兩半球。半球平面，即重之徑面也。又如上方圖，iou為外周徑線分之，則兩半方形。其分開之內兩平面，即重之徑面也。如從c、ch 徑線開之，則兩側面即重之徑面也。因徑面常過重心，所以兩分相等。

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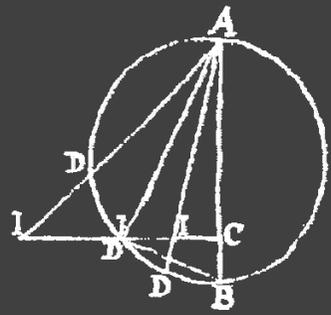
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Author: Schreck, Johann Terrenz Zheng Wang
Title: Yuanxi Qiqi Tushuo Luzui
Year: 1627
Page: 110

comment

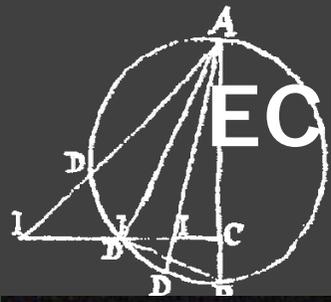
Section 11: • Definition of the Radial plane of weight (zhong zhi jing mian) • Definit rather than a plane (finite rather than infinite). Commentary: WT's definition here is Principal Works of Simon Stevin (p101), but W & T used two figures (cubic solid, sl Explanation of W & T is more complicated than Stevin's. WT's explanation is somev Mechaniche, 259).

http://nausikaa2.mpiwg-berlin.mpg.de/cgi-bin/toc/toc.x.cgi?dir=stevi_weegc_085_nl_1586&step=thumpage&page=39

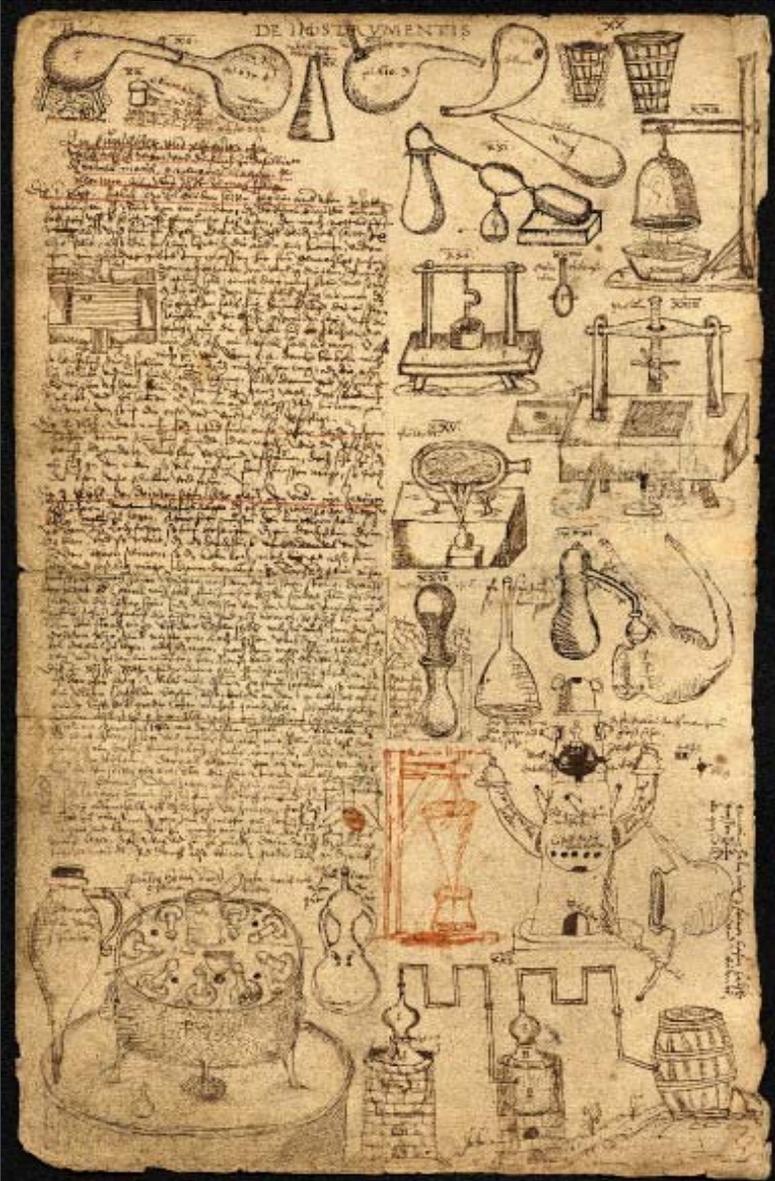


Zwischenbemerkung zu Open Access

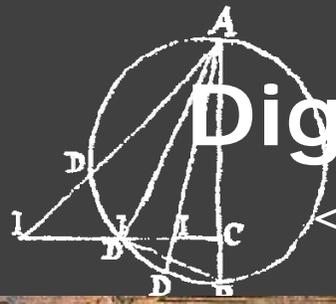
- Ökonomische Begründung
- Moralische Begründung
- Wissenschaftliche Begründung



ECHO: ein Open-Access Repository für Primärdaten

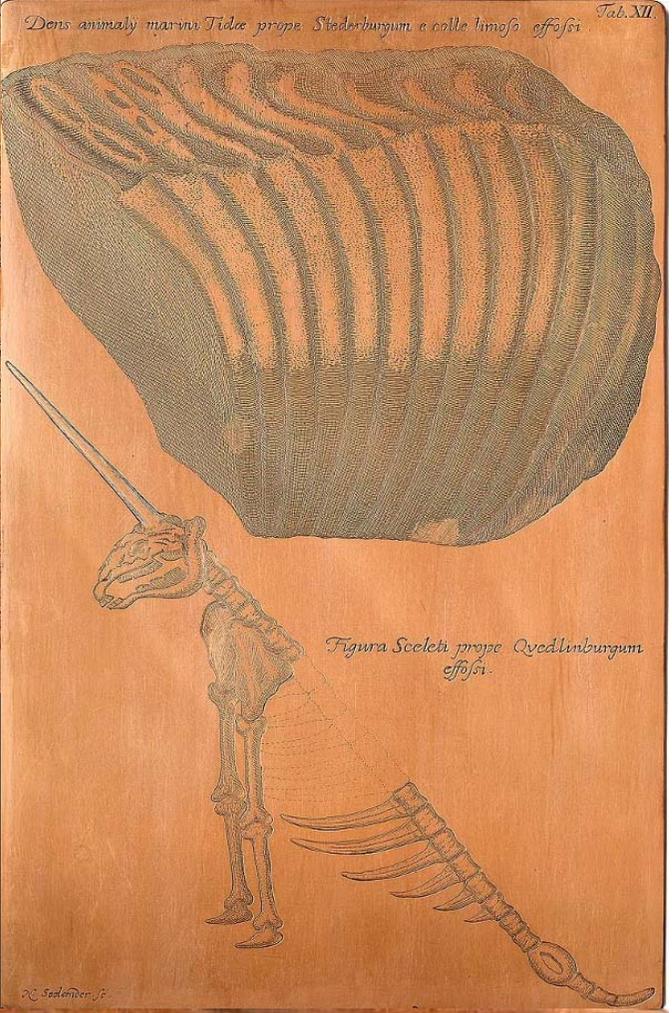
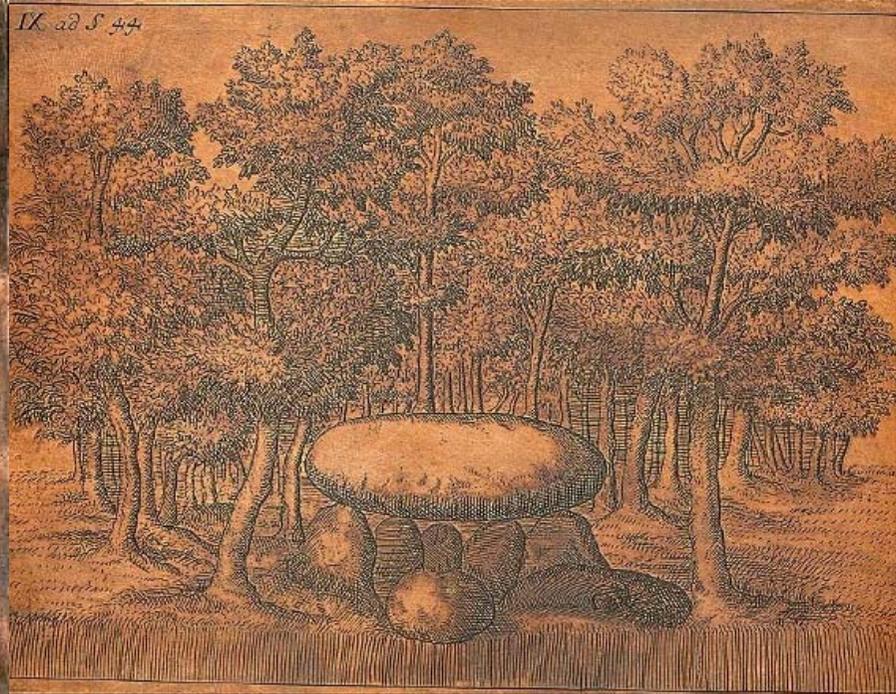
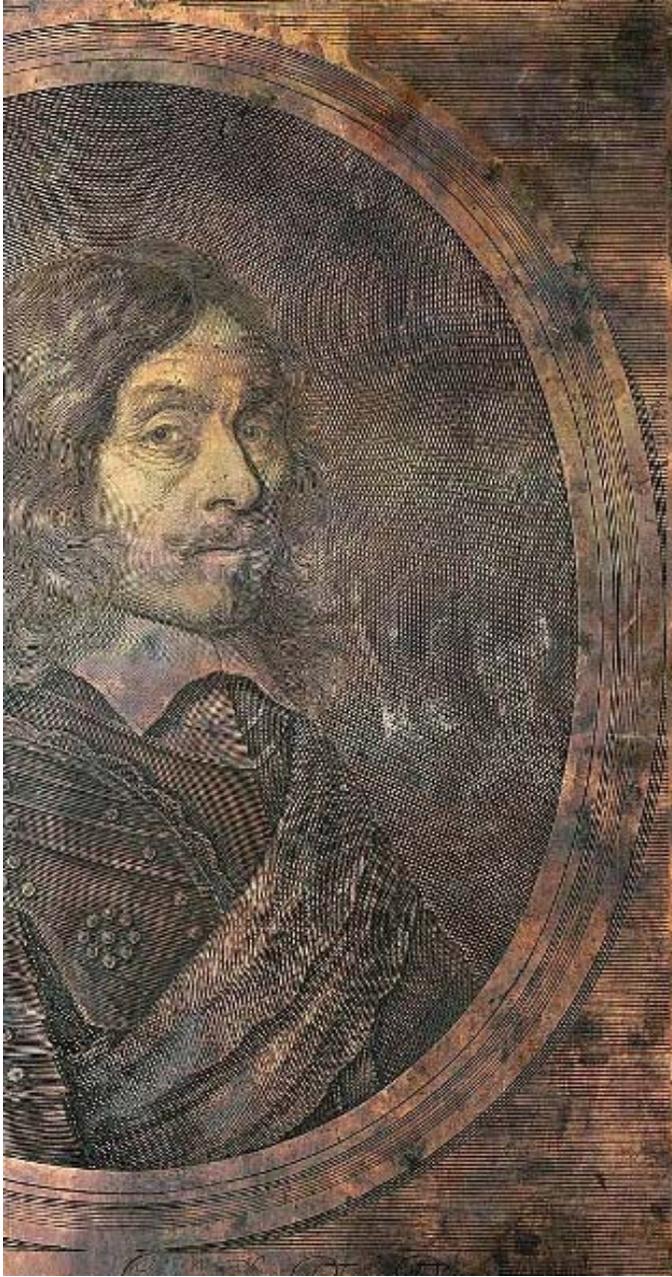


- 70 “seed collections” aus verschiedenen Disziplinen und Bereichen
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- 476.000 hochaufgelöste Bilder von historischen und kulturellen Artefakten und Dokumenten
- 240 Videosequenzen mit wissenschaftlichen Inhalten
- 57,500 Seiten Volltext-Transkriptionen in verschiedenen Sprachen

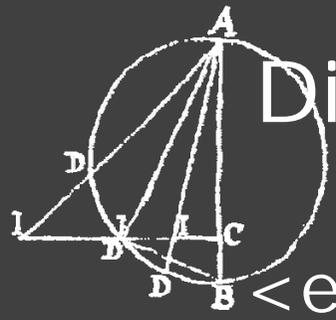


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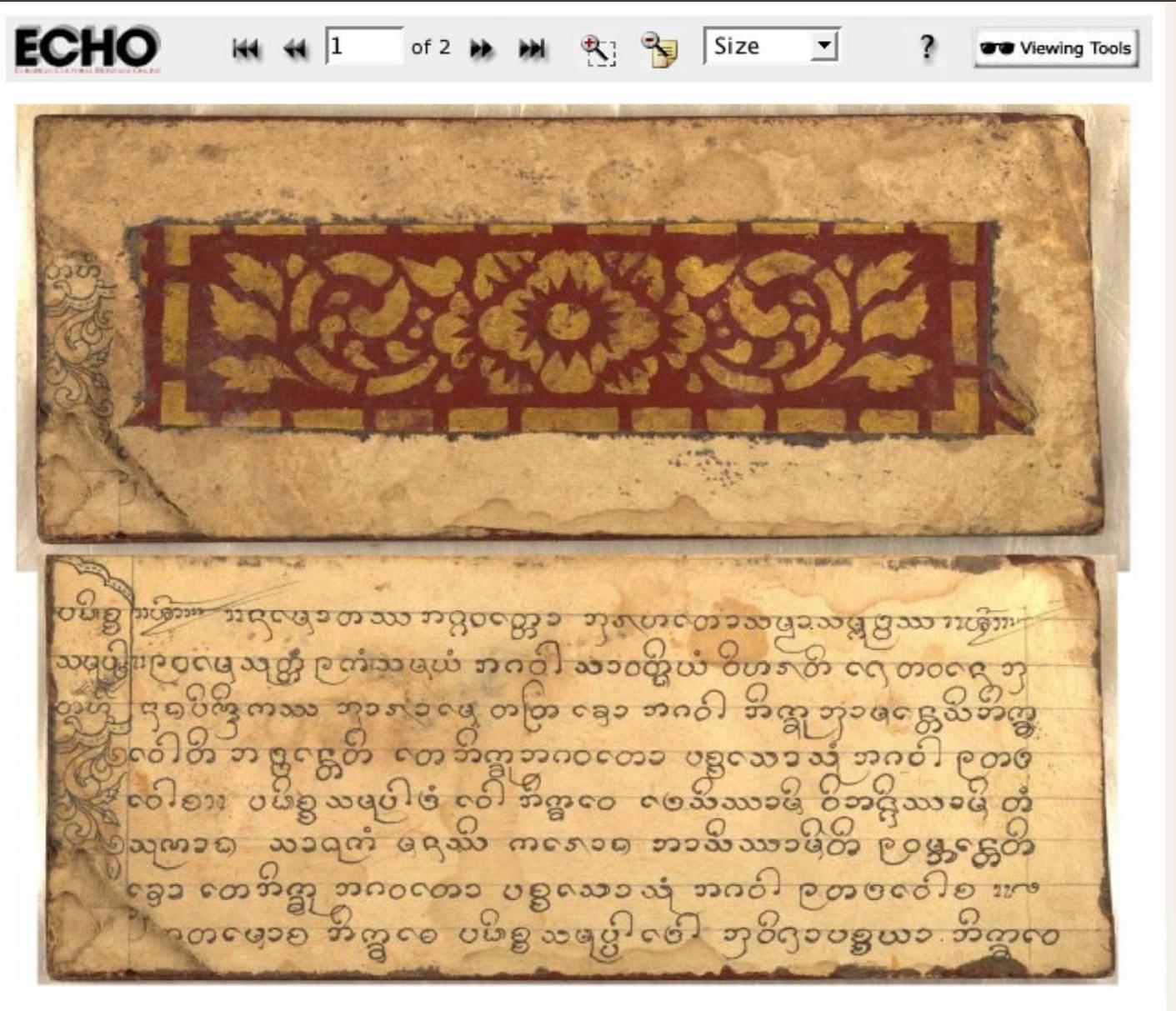


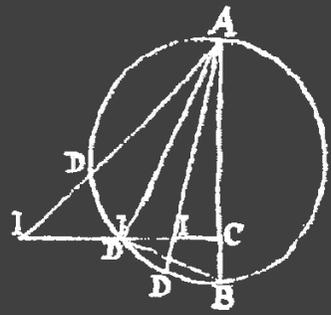
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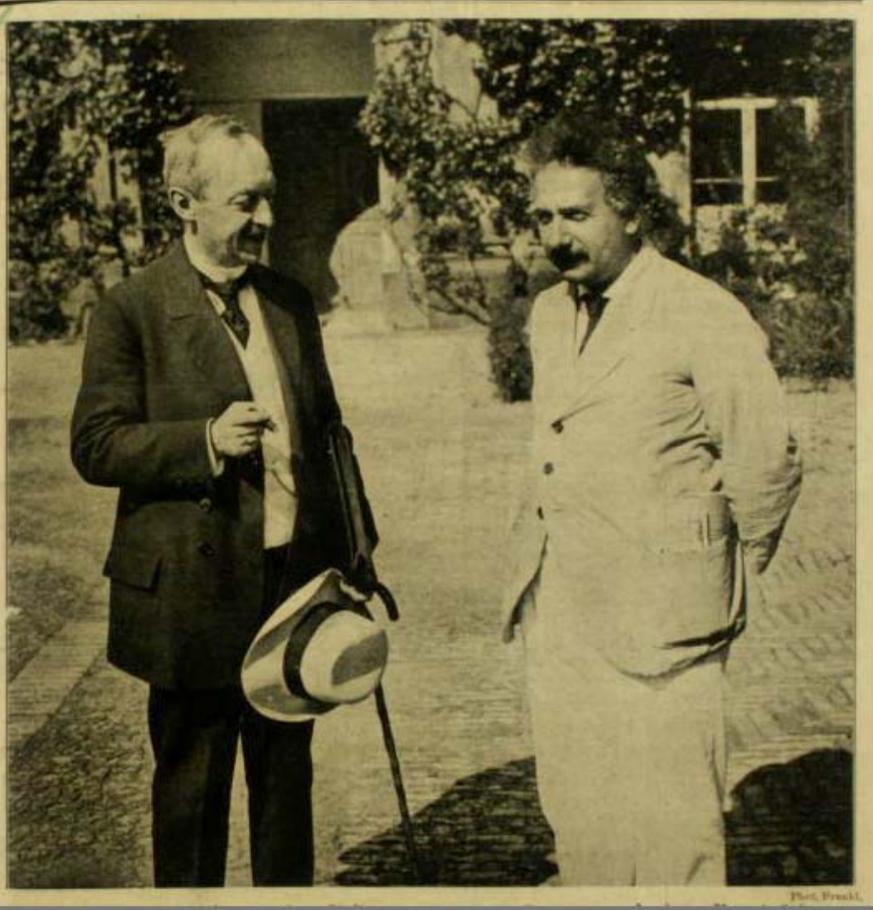

ECHO CONTENT

Gehrcke, Ernst Sample from newspaper archive

   
1 2 3 4

   
5 6 7 8

  
9 10 11

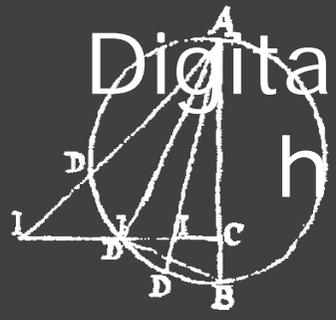


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next
page
digital
mark
reference
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zoom point
zoom out
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?

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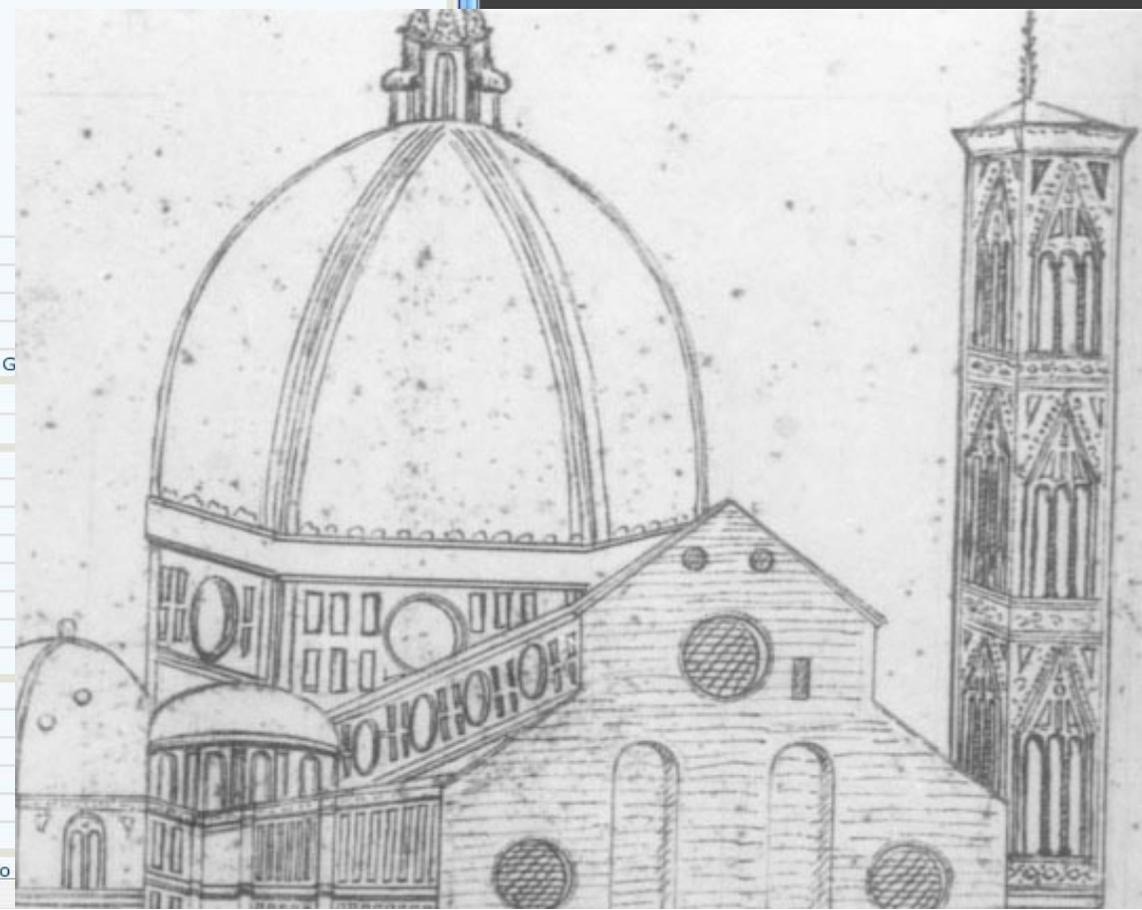
Firenze, Uffizi, 11726-11730 (2) Sant.

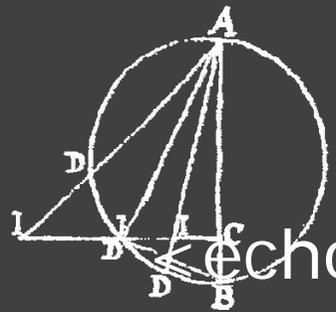
Firenze, Uffizi, Sant - Zope-Id: 1045306181.85

Vorschau

Ort	Firenze
Institution	Uffizi
Teilbestand	Santarelli
Signaturen	11726-11730 (2) Sant.
Gegenstand	Firenze, Santa Maria del Fiore, Darstellung des G
Recto	
Verso	
Stempel	Reali Gallerie Firenze
Wasserzeichen	nicht ermittelt
Papierqualitaet	
Papierfarbe	
Größe	0 x 0 mm (Minimum: 0 x 0 mm)
Zustand	
Montierung	
Datierung	
Bauwerke	
Schriftquellen	
Zeichnungen	
Stiche	
Fotos	
CAD	

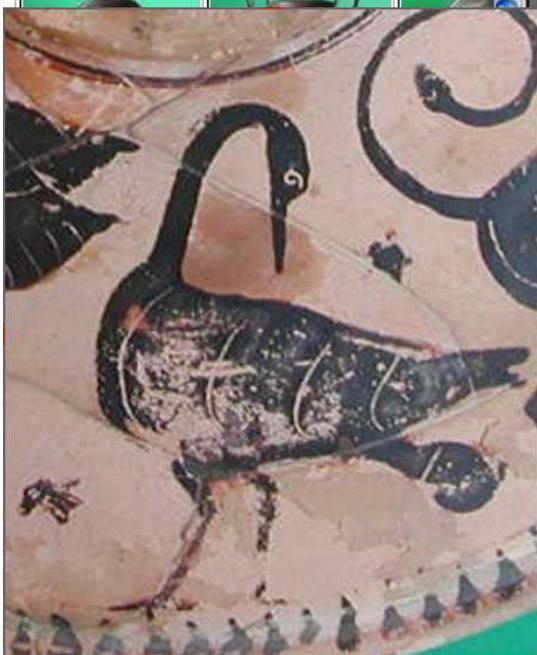
Kopie nach einer Darstellung im Palazzo Vecchio





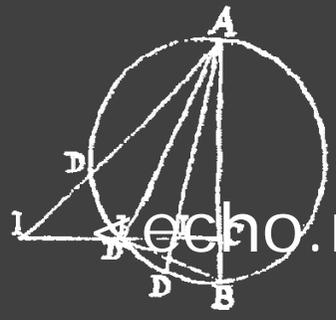
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33 of 33
back
next
page
digital
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Accession Number 80.7.1
Shape Lekanis
Shape description Vertical sided, slightly outturned rim; two U-shaped handles with protrusions either side; shallow body; almost conical footring with flat resting surface and base.
Material Terracotta
Fabric Boeotian
Fabric description
Munsell color 7.5YR 8/4
 The interior of the lekane is black with a reserved band. On the outside, the main zone shows two confronting sirens, bird, two confronting panthers, bird; lotuses and stars in field. All figures have detail created by a deliberate scarring of the glaze. There are vertical stripes round the rim. Two handles, horizontal from the body, have black exteriors and reserved interiors. Either side of each handle is a black protrusion. At the top of the foot are two thin black bands. The outside and inside edges of the footring are black, but the flat base and resting surface are reserved. Inside the well of the foot is reserved except for a thin red band, a thin black band and a black dot in the centre.
Decoration
Inscriptions
 Complete but not intact. Reconstructed from many separate pieces, resulting in a rough exterior surface. On the inside, the rim and the handles, the black glaze has been rubbed away in patches, there are small scratches on the surface and some detail in gloss has worn away. Small scratches show signs of wear and the resting surface of the foot feels smooth from use.
Condition
Technique/Style Black figure
Provenance
Period High Archaic
Date 550
Dating details
Artist



Bildbearbeitung

echo.mpiwg-berlin.mpg.de/content/maps/ebstorf_map



- Online-Bildmanipulation für wissenschaftliche Fragestellungen



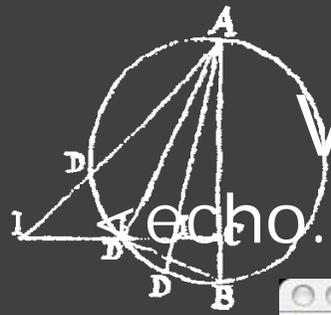
Options - Mozilla

Zoom Functions	Marker Functions
select area	place marker
zoom in	remove marker
zoom out	
whole page	

Other Functions

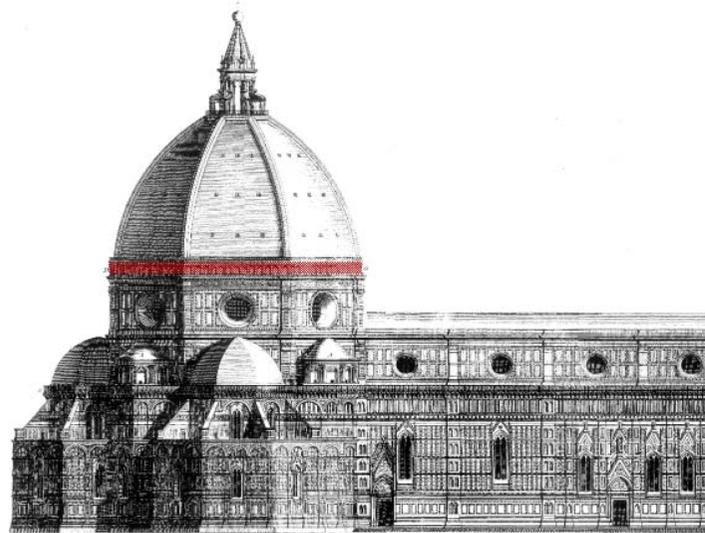
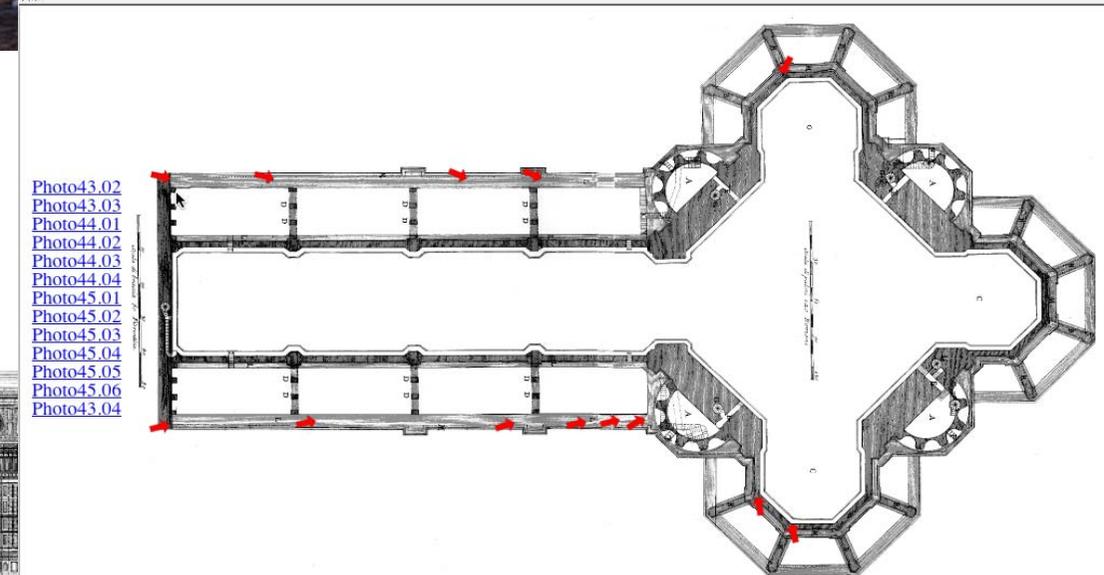
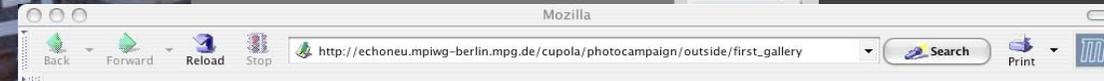
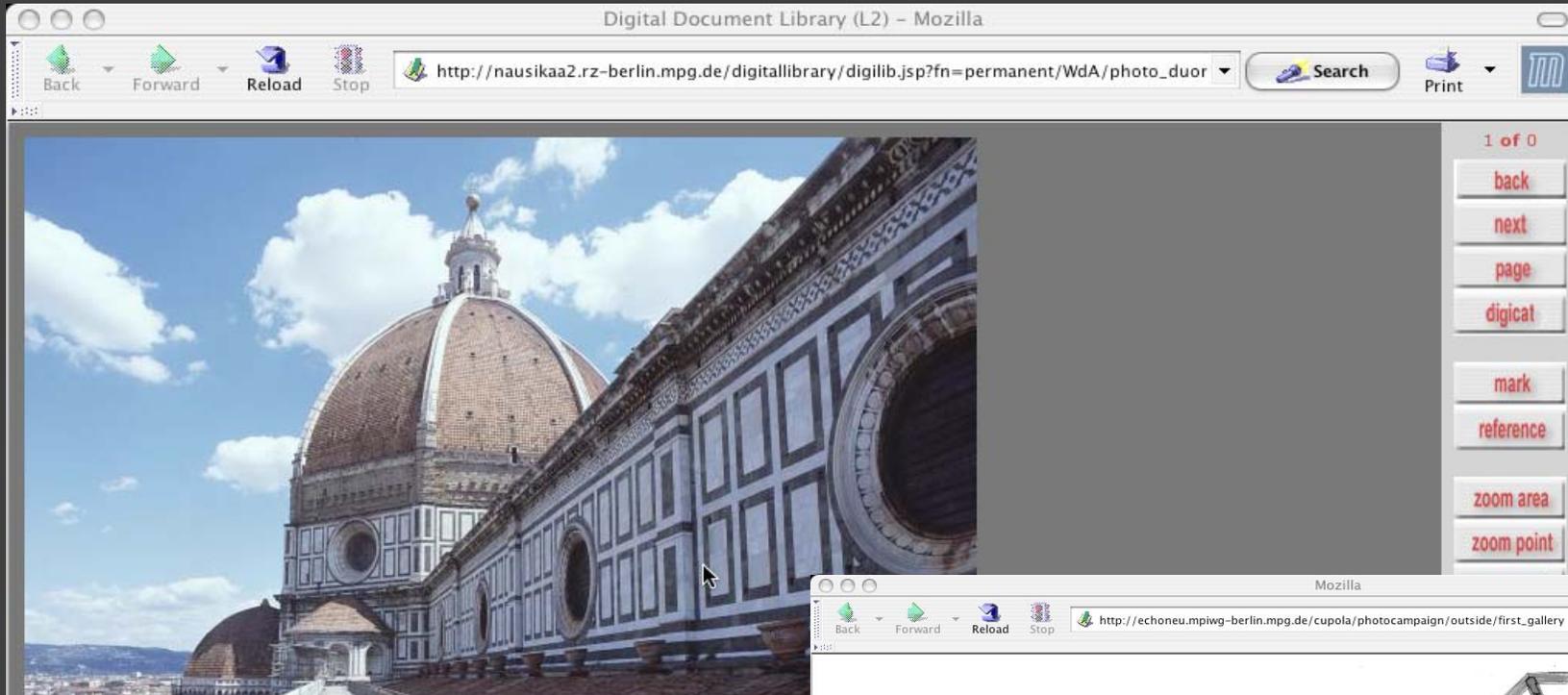
[view URL](#)
[move center](#)
[Mirror \(h\)](#)
[Mirror \(v\)](#)
[Download](#)

Rotate: (0..360) clockwise
Brightness: (-255..255)
Contrast: (0..8)



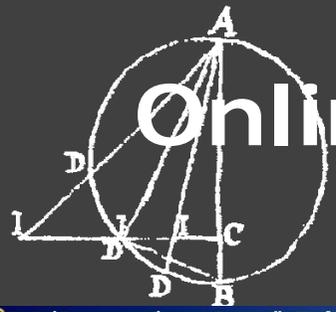
Visualisierung von verknüpften Daten

<http://echo.mpiwg-berlin.mpg.de/content/florentinecathedral>>



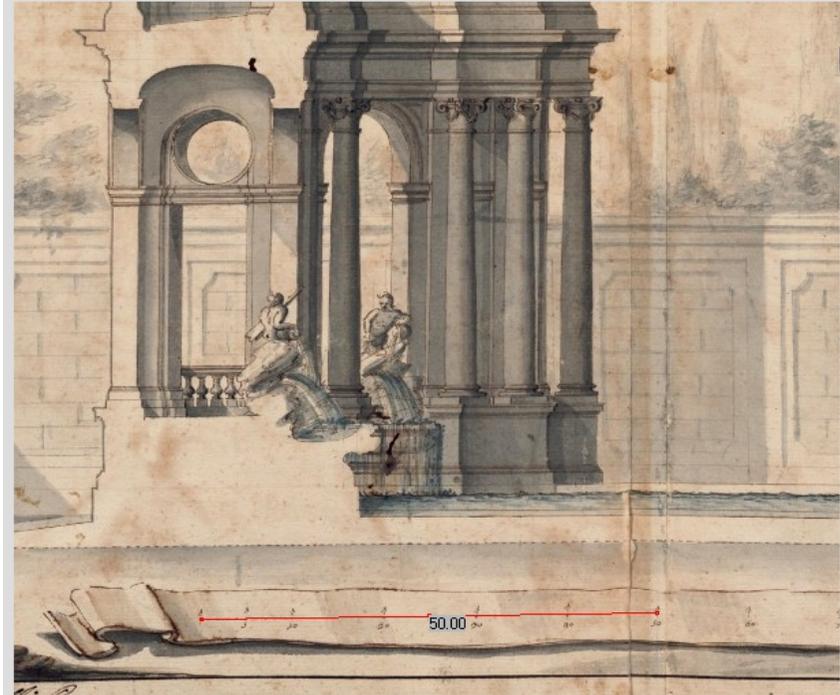
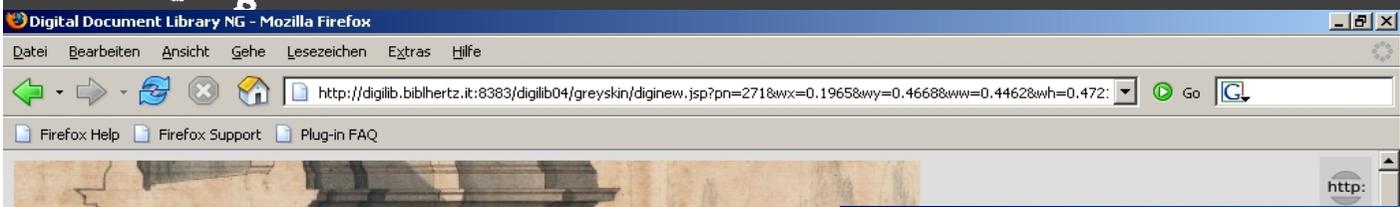
Ground plans:

- [Level of the first exterior gallery](#)
- [Level of the theridge of the main building](#)
- [Level of the base of the lantern](#)
- [Level of the Gabbia dei Grilli](#)

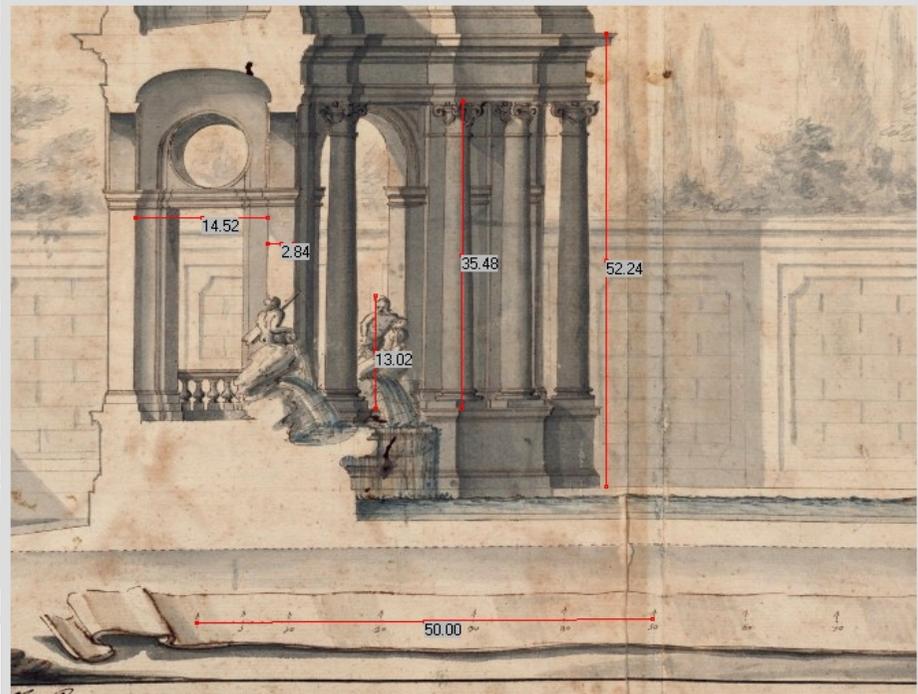
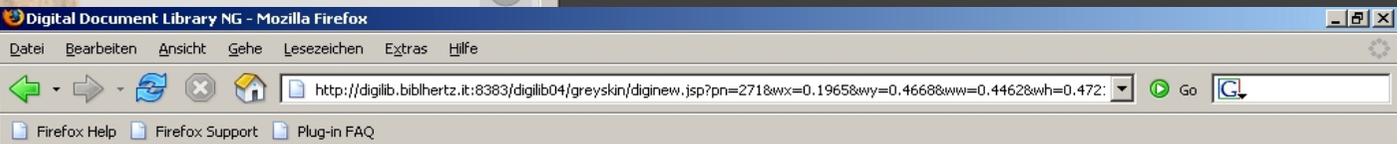


Online-Messung mit historischen Plänen

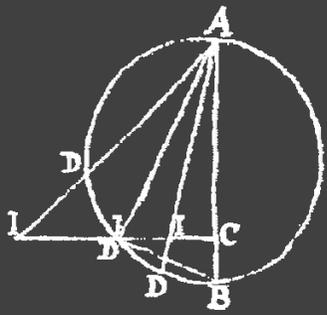
<lineamenta.biblhertz.it>



Strecke 334.04 Pixel * 0.15 = 50.00 palmo d'architetto (Rom) = 11

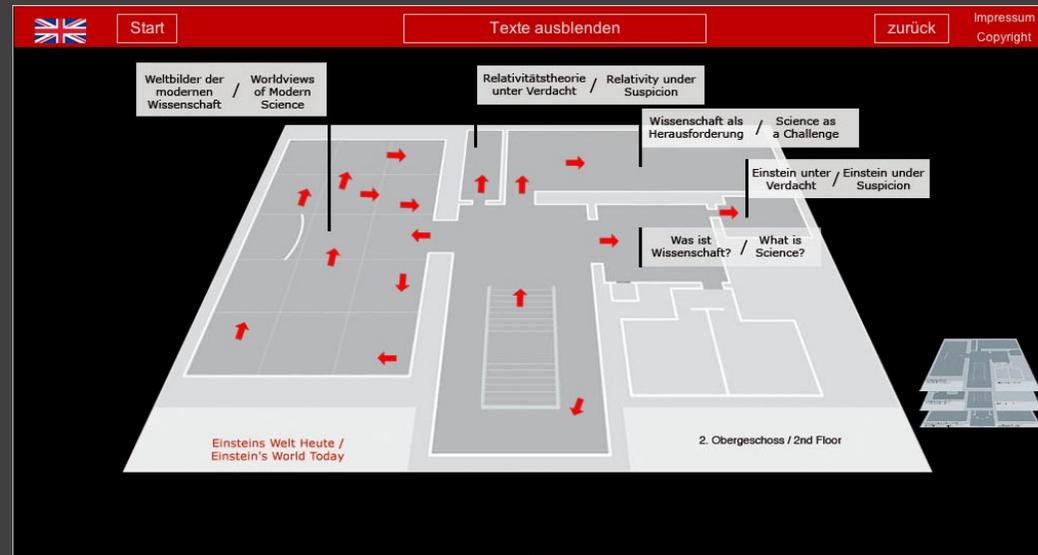


Strecke 87.00 Pixel * 0.15 = 13.02 palmo d'architetto (Rom) = 2.91 m 0.00° (a)



"Virtuelle Ausstellung"

<einstein-virtuell.mpiwg-berlin.mpg.de>



Der Kosmos als Mechanismus

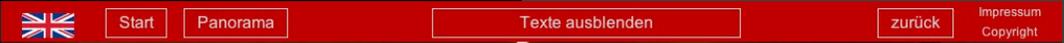


Es ist nicht einfach, sich aus der Beobachtungsperspektive auf der Erde zu lösen und die scheinbaren Bewegungen der Gestirne auf einen von den Bewegungen der Erde unabhängigen Beobachter zu beziehen. Diese Schwierigkeit macht Modelle attraktiv, die jeweils bestimmte Annahmen über die wirklichen Bewegungen der Gestirne mechanisch realisieren. Ein Betrachter des Modells befindet sich dann gewissermaßen außerhalb der sich bewegenden Himmelskörper an einem von deren Bewegungen unabhängigen Standort.

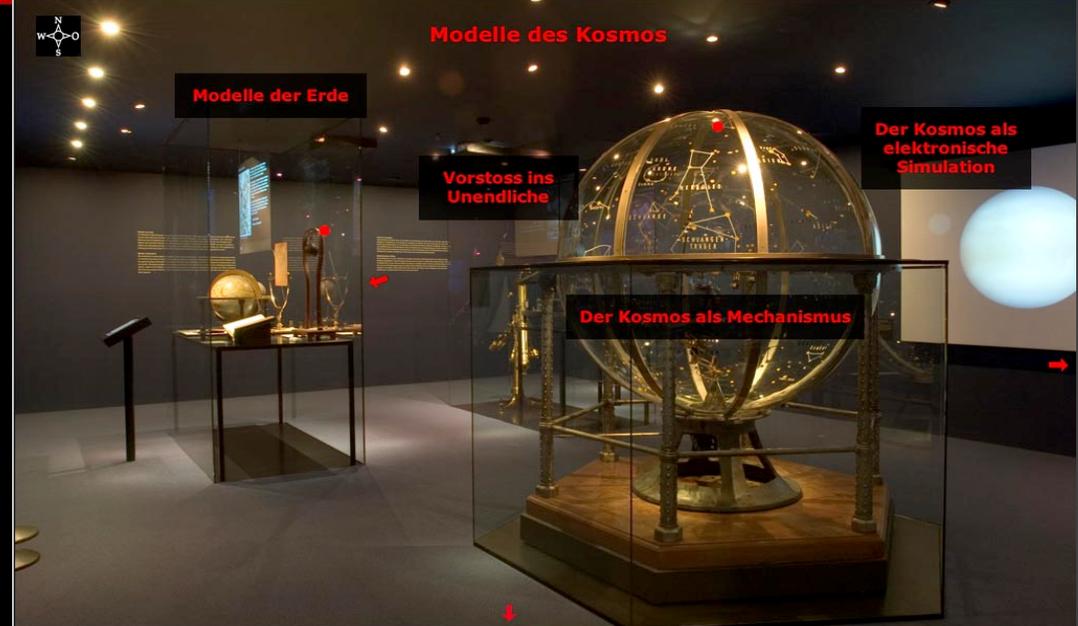
Modelle dieser Art erfreuen sich seit den Auseinandersetzungen des 17. Jahrhunderts um den Kopernikanismus großer Beliebtheit. Feinmechanische Werkstätten stellen in den folgenden Jahrhunderten zahllose Tellurien, Planetarien und kosmografische Uhren her, die entweder repräsentativen Zwecken oder aber der Unterweisung in der Astronomie dienen.

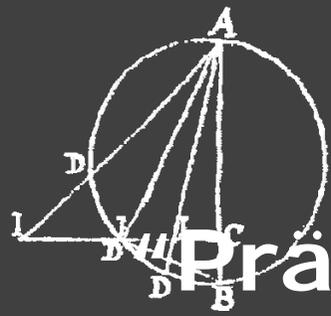
C. F. Delamarche, *Les usages de la sphère, et des globes céleste et terrestre*

Charles F. Delamarche: *Les usages de la sphère, et des globes céleste et terrestre*, 1800

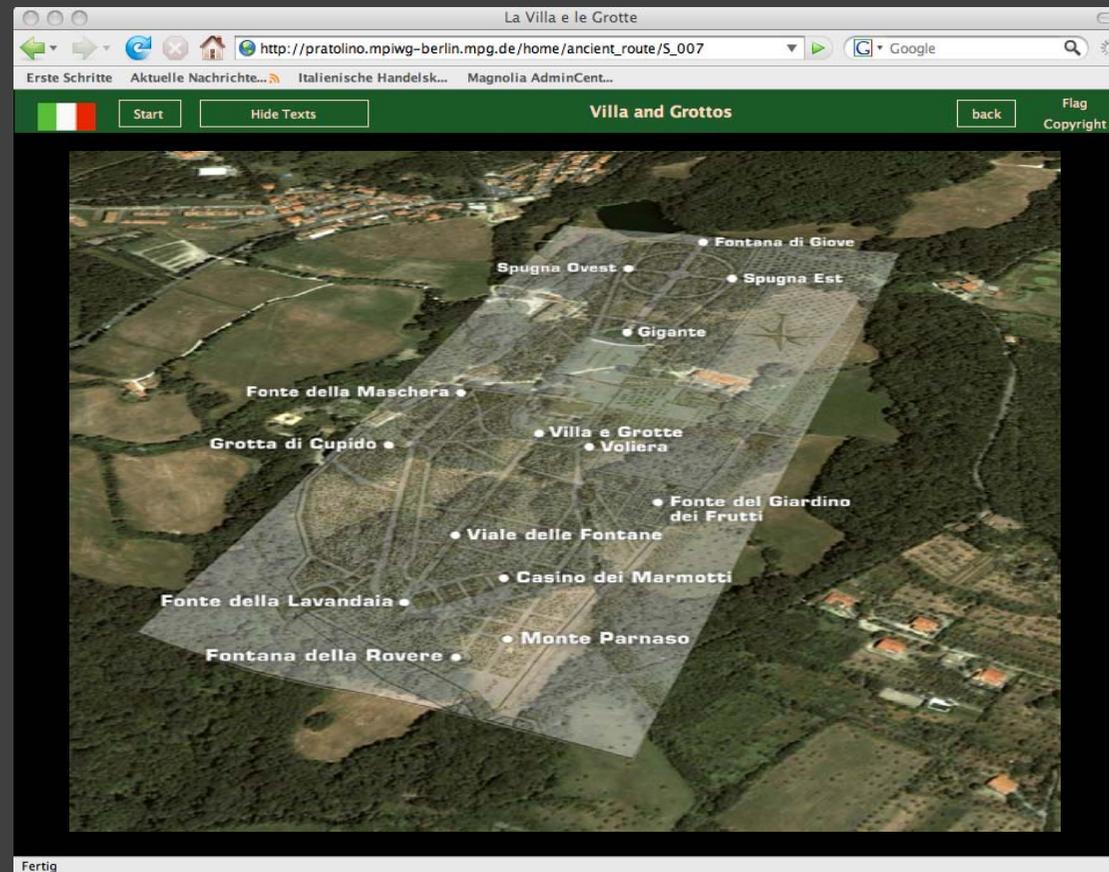


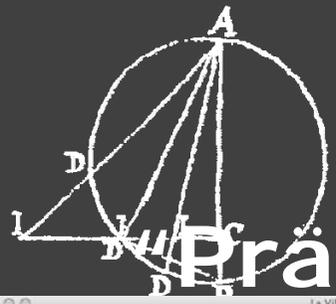
Modelle des Kosmos



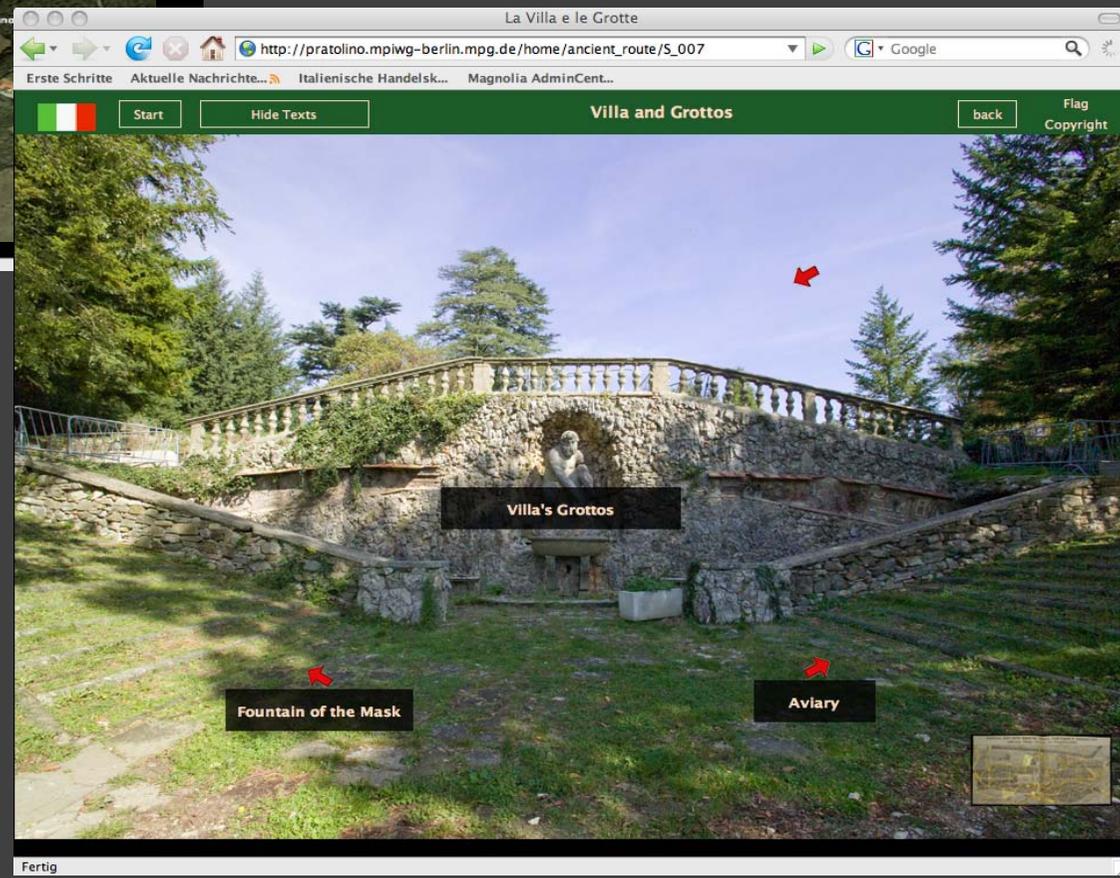
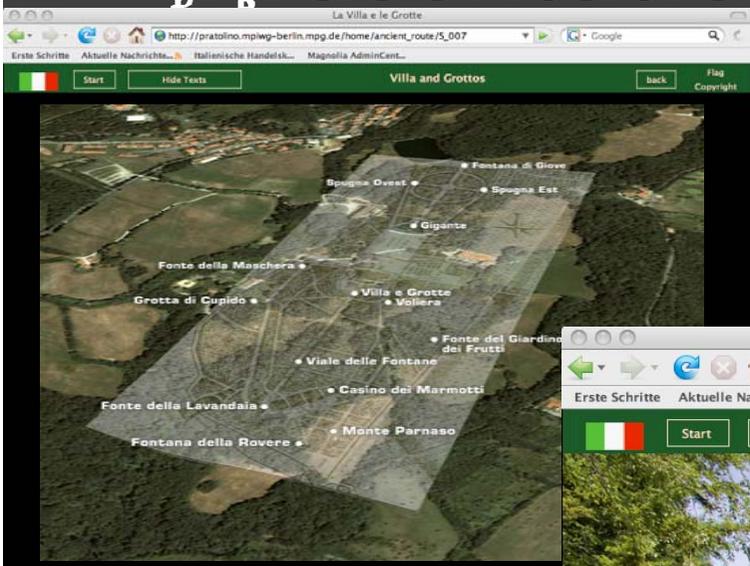


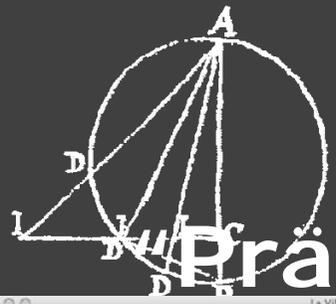
Präsentation virtueller Wissens-Räume"





Präsentation virtueller Wissens-Räume"



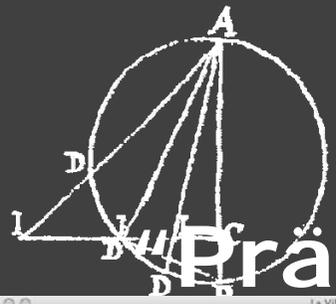


Präsentation virtueller Wissens-Räume"

Hidden passage for hydraulic practitioners

Passage to connect the machines room of the Grotto of Pan to the Grotto of the Fame, and a staircase connected to the six grottos of the Villa placed at the upper level.

In the garden of Pratolino the hydraulic system and the pneumatic devices were not running constantly. A great number of keys and valves were placed along underground passages through which hydraulic practitioners moved to operate them. When a visitor moved within the garden, hidden practitioners traced their movements underground. The concept of the garden is such that the places and the times of a visit had to be very well coordinated in advance.
 Photo: Jochen Büttner (October 2007). Max Planck Institute for the History of Science. Berlin



Präsentation virtueller Wissens-Räume"

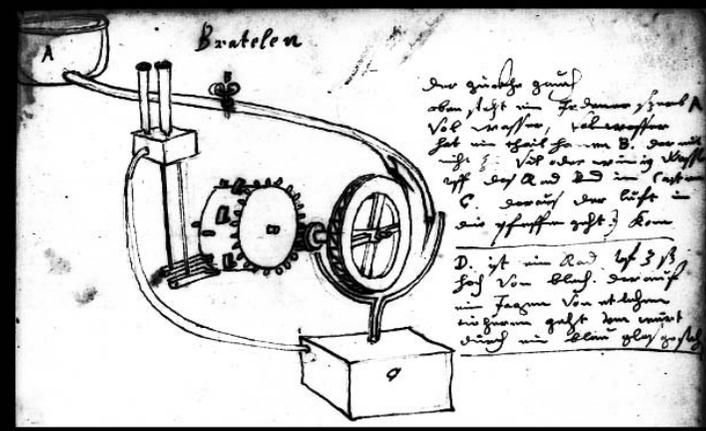
Villa and Grotto

1.2.1. Macchina CUCU Schickhardt/1.2.1. Macchina CUCU Schickhardt

Hidden passage for hydraulic practitioners

Passage to connect the machines room of the Grotto of Pan to the Grotto of the Fame, and a staircase connected to the six grottos of the Villa placed at the upper level.

Pneumatic machine reproducing the cuckoo

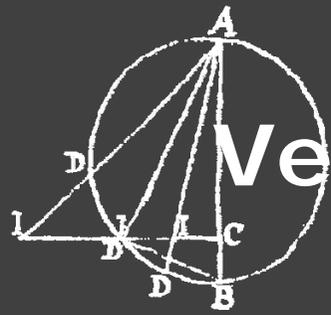


Translation:
At the top there is a certain container A full of water. It has a middle tap B, so that neither too much nor too little water goes onto the wheel and into the container C (from which the air goes into the pipes)

Transcription:
X — steht ein Guckhgauch. Der Guckhegauch: oben steht ein irdener Scherb A vol Wasser. Hat ein Thailhanen B, darmit nicht zuviel oder winig Wasser uf das Rad und in Casten C (daraus der Luft in die Pfeifen geht) kom

Database Machine Drawings

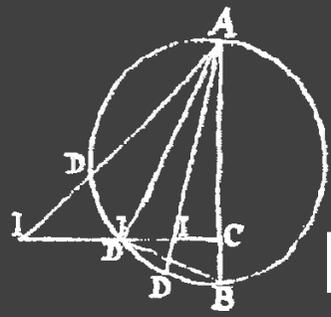
Cod. hist. Q. 148, Württembergische Landesbibliothek, Stuttgart. Transcription: Jonkanski Dirk, Die Italienreisen Heinrich Schickhardts, in: *Neue Forschungen zu Heinrich Schickhardt*, ed. Robert Kretschmar, Stuttgart, pp. 79-102



Verbreitung und Unterstützung einer Open-Access-Politik

“Unsere Aufgabe Wissen weiterzugeben ist nur halb erfüllt, wenn diese Informationen für die Gesellschaft nicht in umfassender Weise und einfach zugänglich sind. Neben den konventionellen Methoden müssen zunehmend auch die neuen Möglichkeiten der Wissensverbreitung über das Internet nach dem Prinzip des offenen Zugangs (Open Access-Paradigma) gefördert werden. Wir definieren den offenen Zugang oder den „Open Access“ als eine umfassende Quelle menschlichen Wissens und kulturellen Erbes, die von der Wissenschaftsgemeinschaft bestätigt wurden.”

Max-Planck-Gesellschaft,
“Berliner Erklärung über den offenen Zugang zu wissenschaftlichem Wissen”, 2003



Danke für Ihre Aufmerksamkeit!

- Kontakt:

Urs Schoepflin

Max-Planck-Institut für
Wissenschaftsgeschichte, Berlin

Mail: schoepfl@mpiwg-berlin.mpg.de

Web: <http://www.mpiwg-berlin.mpg.de>
<http://www.echo-project.eu>