

The Research Institute for Global Heritage



with details on the CunAI Project

*A long-term Investment into the Research and Preservation
of Early Humankind Knowledge*

The Aims of The Institute - I

- **Interdisciplinarity:** Research in early humankind cultures and knowledge today is by category, area, or time within the greater areas of Mesopotamia, Egypt, Mayan Culture, China, Greece, etc.
The Institute will use modern technologies and interdisciplinary knowledge across many platforms to find common or contrary traits, items and features in areas such as writing, language, trade, ethics, the arts, philosophy, astronomy, religion, food production, climate, etc.
- **International Exchange:** Scholars on a world-wide level participate in the interdisciplinary research activities of the Institute by means of sabbaticals, conferences, meetings, research grants and an exchange of knowledge with scholars in other than their own fields.

The Institute will make all information available on an open research basis.

The Aims of The Institute - II

- Big-data analysis by the most advanced technologies quickly providing answers.
- A.I. Databases: Computers employing state-of-the-art Artificial Intelligence (A.I.) provide a means of storing early humankind information as digital data in image (2D and 3D scans) and text databases in an efficient manner.
- Open Access and Research: Computers with A.I. provide a neutral presentation and translation of the facts for researchers in all fields.

The Institute will make all information available on an open research basis.

First Approach – the CunAI Project

- Cuneiform writing in all formats (tablets, wall inscriptions, etc.) covers over 3,000 years of verifiable, early humankind communication.
- Of the about 1 Million cuneiform texts only a small portion has been intensively researched and its interpretations are very often debated.
- Computer analysis of cuneiform writing based on hi-resolution 3D scans. Artificial Intelligence methods assist in translating the content in an impartial manner. A self-learning mechanism assures improvement over time and with quantity of information.
- Large database content is being searched and analysed by Big-Data Analysis Engines to present relevant results.

General Organisation

Projects

The Institute will develop and encompass diverse projects.

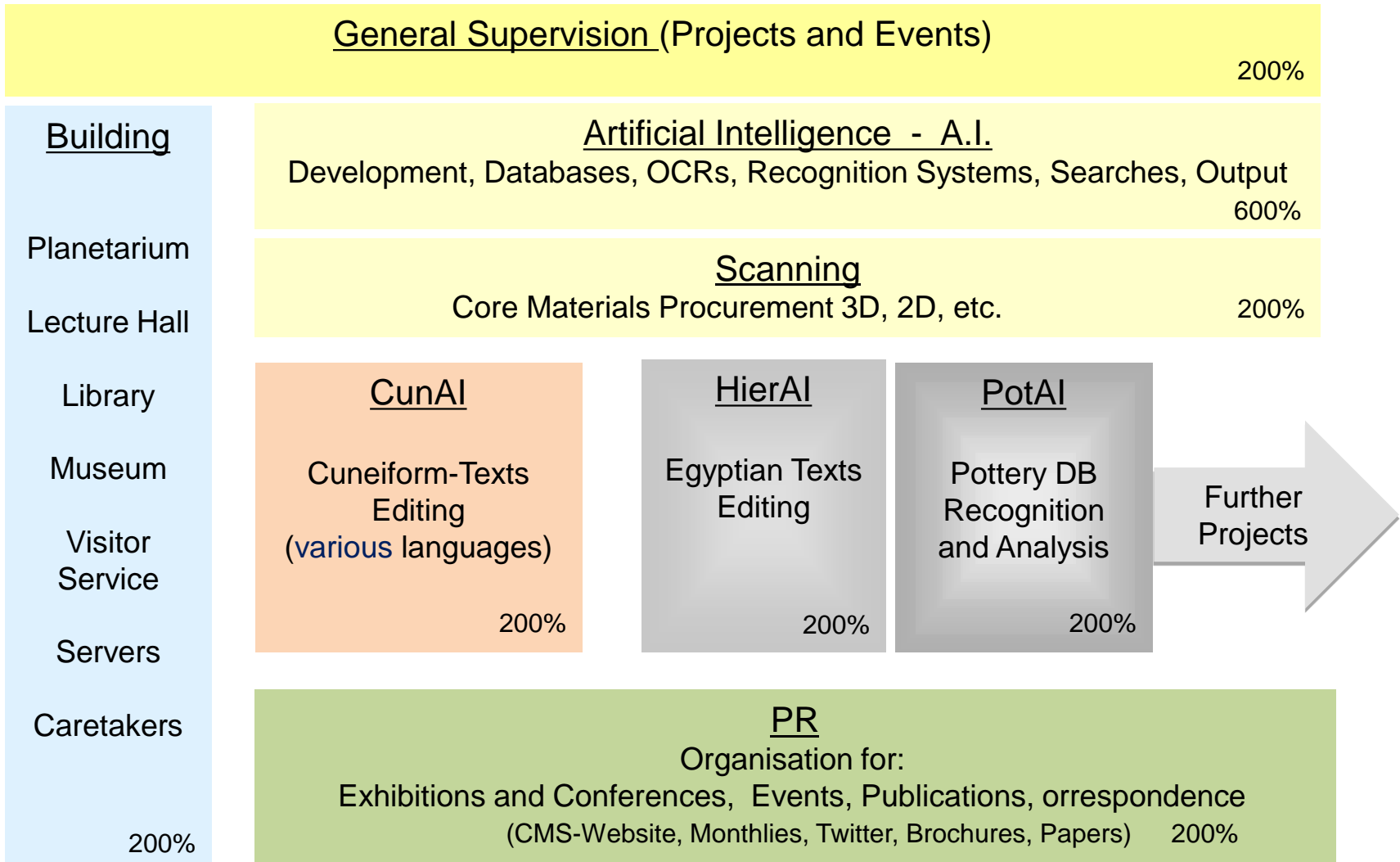
General Project Goals are:

- Development and implementation of tools and algorithms for an A.I. based analysis of world heritage objects.
- Regular presentation of information and knowledge derived from these objects and data collections.

All projects and research will be on an open access basis!

The Institute – Overall Organisation (min. 1600 %)

100% refers to one full-time position



Project CunAI - Overall Organisation

(min. 1150 %)

*100% refers
to one full-
time position*

A.I.

Development, Databases, OCRs, Recognition-Systems, Searches, Output 600%

Scanning

Core Materials Procurement 3D, 2D, etc. 200%

CunAI

Cuneiform **Text** Editing, Output (dictionaries, etc.)
Various Languages: Akkadian, Sumerian, Hittite, etc.

200%

Public Relations and Administration

Organisation Exhibitions and Conferences, Events, Publications, Correspondence
(CMS-Website, Monthlies, Twitter, Brochures, Papers)

150%

The Location of „The Institute“

Lake Geneva Area

Facilities of the Venue

The Institute will be located in the Lake Geneva area:

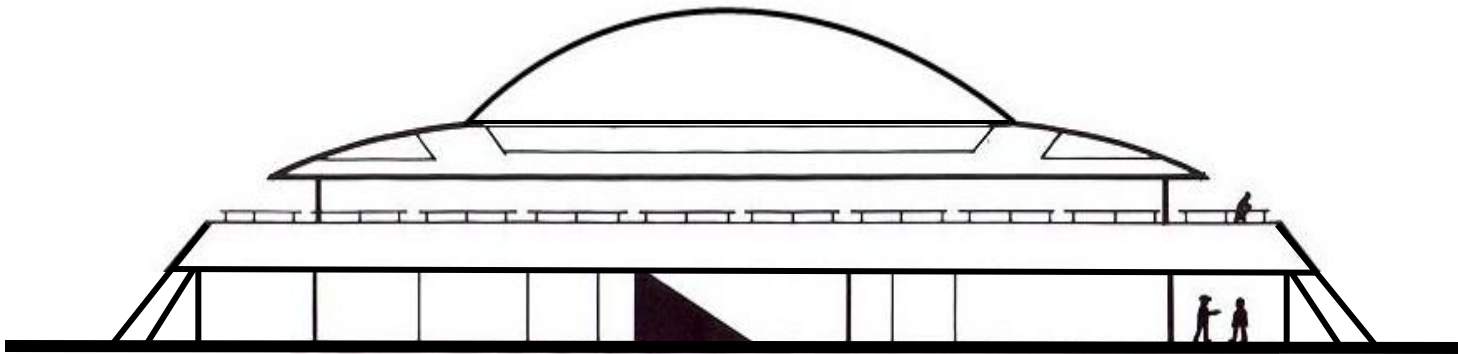
The facilities of the venue serve:

- the accomodation of projects
- modern, state-of-the-art public presentation.

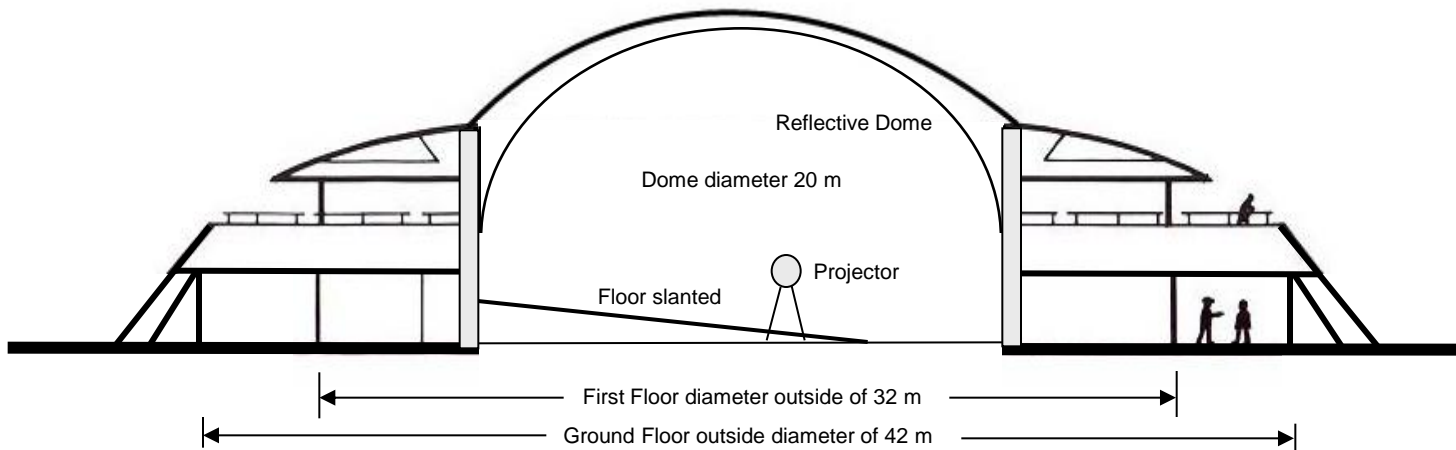
The facilities are:

- Planetarium - projection area serves as a teaching aid, used at the same time as the lecture hall and exhibition area
- Research offices and computer rooms
- Library and archives for photographs and documentation
- Swiss bunker storage system for data and objects in exile.

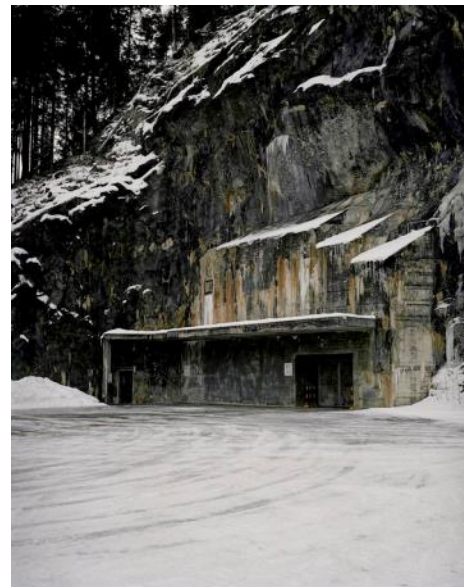
Planetarium / Lecture Hall, Offices, Exhibition Area and Museum



Building of 44 m outside diameter; inside dome diameter of 20 m (120 seating) with 2.5 m edge height. Offices, museum and exhibition space 6 m deep on first floor, 11 m deep on ground floor; total usable space around the dome cylinder of 1500 m². Dome cylinder 315 m². Building material: all wood with copper sheathing.



Swiss Bunker Storage Systems



Activities

Data Acquisition

- Worldwide acquisition of objects in public and private collections in 3D and 2D.
- Integration, publication and analysis of data via A.I. Systems, developed by the Institute.
- Data set and database window for the collections.
- Long-term data storage in a Swiss bunker.



Data Output

- Visual Database of the 3D/2D objects
- A.I. based computer analysis of data
- Transcriptions and Translations
- Dictionaries and Encyclopedias
- Query functions
- Login and comment functions for researchers.



Meetings and Conferences



Exhibitions

- biannual (odd years)
- Planetarium and shows (ceiling, premises, lake)
- 50+ objects from the virtual collection
- accompanying brochure (free download).

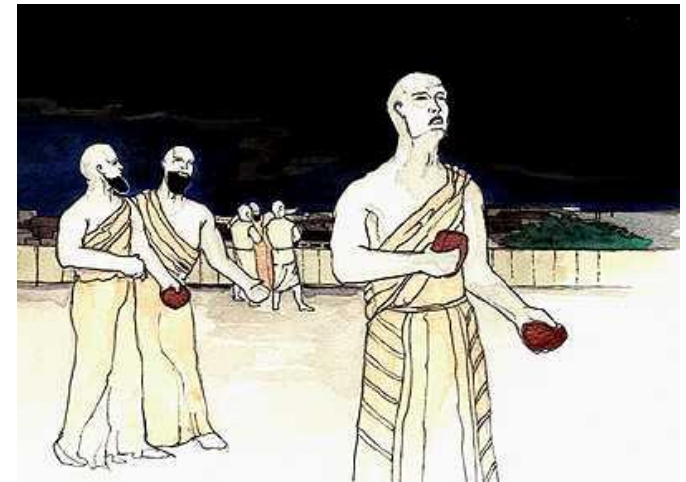
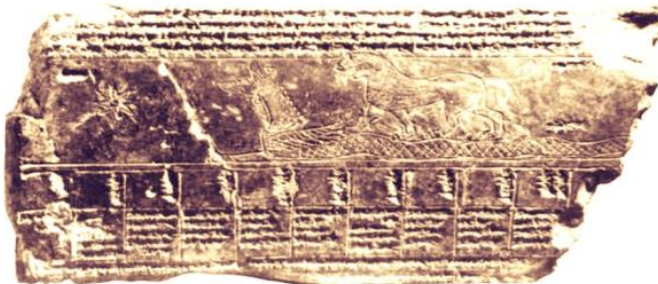


Papers and Publications

- Scientific Books & papers on topics extensively based on the Institute's data collection (with a special focus on rarely researched smaller and greater topics).
- eBook & print on demand.

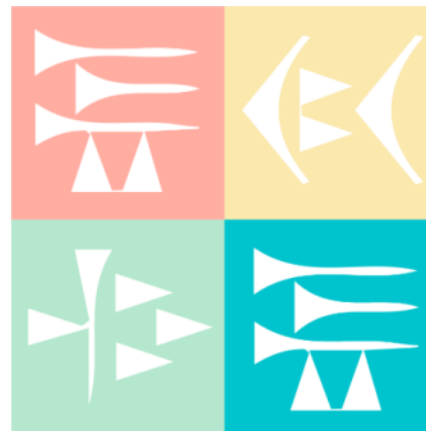
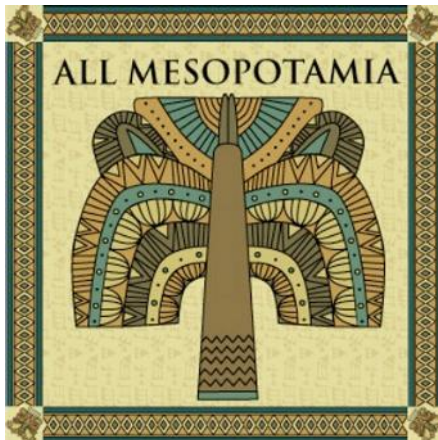
Website: Magazine and Virtual Exhibitions

- all year round: publications on the web
- monthly: popular presentation of topics based on approximately seven objects from the virtual collection
- anthologies: deciphering of Cuneiform languages, timeline of the development of writing systems, ANE in modern pop culture (movies, TV, comics, etc.).



Twitter et al.

- Ongoing updates on progress at The Institute, news and events for a large, interested public.



Library

- work library for everyday use.
- extending library via legacies, donations and heritage, etc.
- library system similar to Sitterwerk St. Gallen (<http://www.sitterwerk.ch/en/art-library/dynamic-order/rfid-technik.html>)

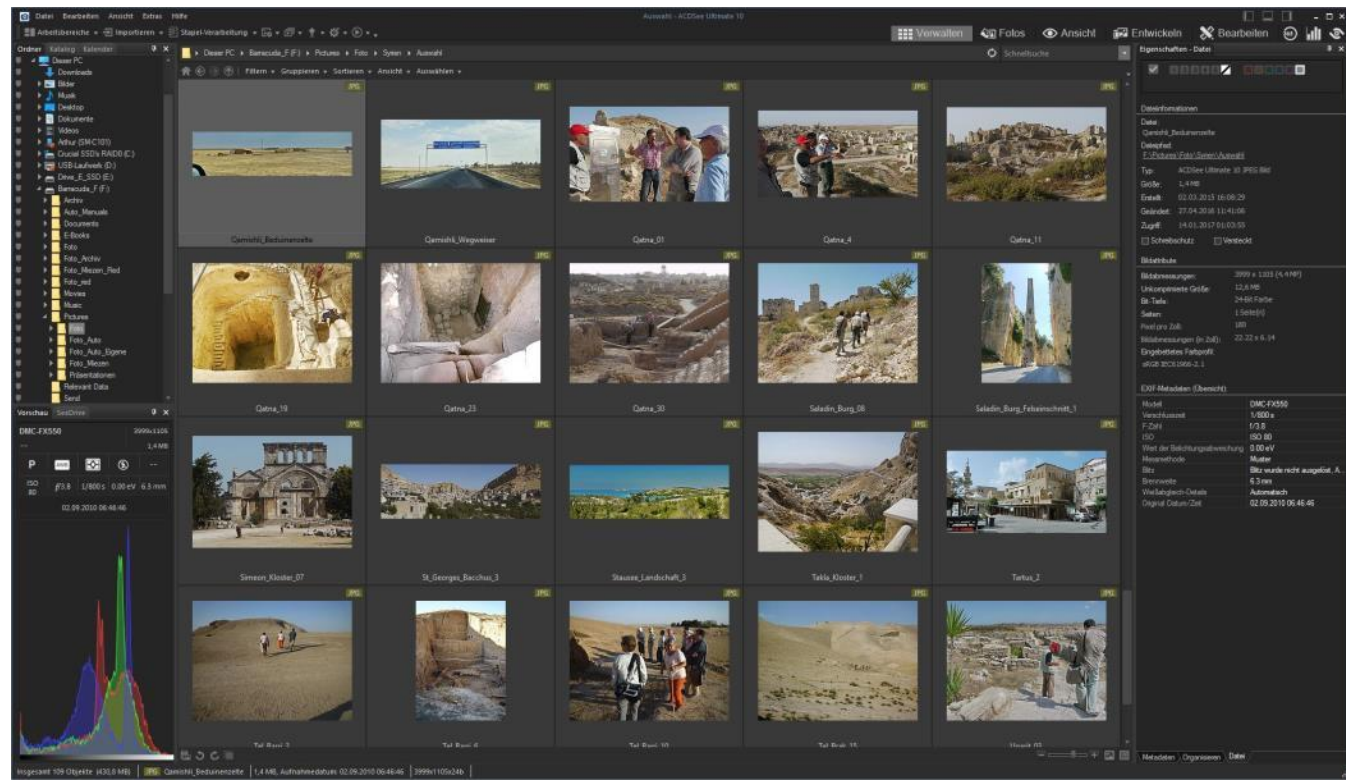


Image Archive

For decades, scientists and tourists have taken millions of images (photographs — slides — digital) of ancient sites and objects. Some of these objects are now lost.

Most of these images are in private possession and inaccessible to science. Professional and lay photographers sometimes own tens of thousands of images of important cultural objects. They are unknown and likely to be discarded at the owner's old age or demise.

The Institute offers to collect, digitise and publish these images. This image archive provides a maximum of visual information documenting changes of buildings, sites, landscapes and objects.



Brainstorm for Exhibitions, Magazine, etc.

- Babylonian Heavens – astronomy and astrology in Mesopotamia
- When Adad roars - weather in Mesopotamian life (climate, heat, winds, floods, gods, omina, weather and astronomy)
- All the Birds in the Sky – fauna of the ANE, birds in reality, texts, iconography
- Call the Exorcist – medicine and healing in the ANE
- Counting on Clay - mathematics in Mesopotamia
- Bankers of Empires - money and finance in the ANE
- Surrounded by Gods - life in polytheistic Mesopotamia
- Arranging the World – Mesopotamian views on the world
- Be a Scribe – schools and scholarships in ANE
- Legal Matters – law and order in the ANE
- Inventions and Technologies – firsts and the most important ones
- The ANE in Comics
- The ANE in Film
- The ANE in Modern Art

Preliminary 20 - Year Plan

Establishing the Institute ensures a long-term strategy for researchers that profits from improved A.I. tools, big data and a growing know-how.

The proposed funding allows financial security for the Institute on a continuing basis!

Projects throughout the first 20 years:

2016 – 2020	establishment of the final venue of the Institute
2016 – 2020	ANE Cuneiform texts
2020 – 2023	ancient Egyptian texts (hieroglyphic, hieratic, demotic)
2023 – 2026	pottery (worldwide)
2026 - 2030	Phoenician, Aramaic, Old South Arabian, hieroglyphic Luwian, Meso-American Writing and Chinese Oracle Bones, etc.
2030 – 2035	all year round archaeological projects in Near Eastern countries; local people: education and training as professional excavators.

The dates proposed are the timelines for developing the essential features of a project. Maintenance and add-ons will, of course, be on a continuing basis.