MUSEUM

Crypta Baldi

Verbania

Travelling through Italian science museums:

the ancient instruments of *Crypta Baldi*, ver. 2.0

ROBERTO BERTONI
CNR IRSA Verbania

(pdf version of the seminar held on May 15, 2020)

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Seminar track:

- *Crypta Baldi,* the small museum of ancient instruments of limnology, created in 2015.
- History of science museums at a glance
- Science museums in Italy and the *Crypta Baldi*
- Proposal for expansion of *Crypta Baldi*, a tool for the dissemination of the research on inland waters ecology.

Roberto Bertoni bio-sketch

1970-2010: student, researcher and finally senior scientist at the former Italian Institute of Hydrobiology, now Institute for water research (IRSA) of National Research Council (CNR)
Field of research: microbial ecology, organic carbon cycle, general limnology, sampling and analytical instruments
2011 to date: associated researcher.
- reduced research activity (same field)
- editor of the Journal of Limnology
- organiser of 33rd Congress International Society of Limnology.
- creation and maintenance of the museum of ancient scientific instruments at the institute

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The ***Crypta Baldi*** is located in the former icehouse of the villa hosting since 1938 the Italian Institute of Hydrobiology, now part of IRSA. I collected there the ancient limnological instruments used in the institute in the last century.

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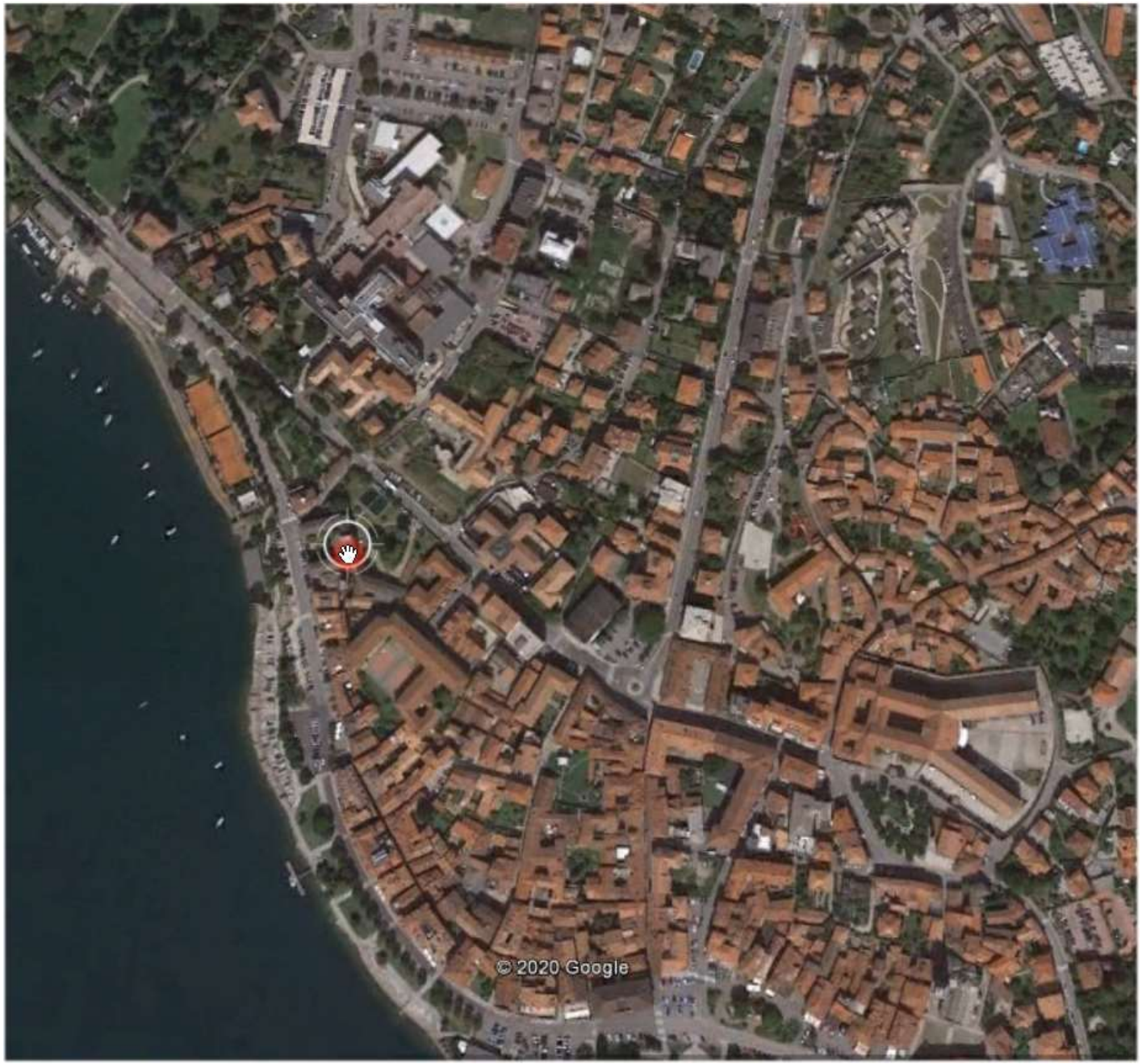
ISTITUTO DI RICERCA SULLA ACQUE
WATER RESEARCH INSTITUTE
Sede di Verbania



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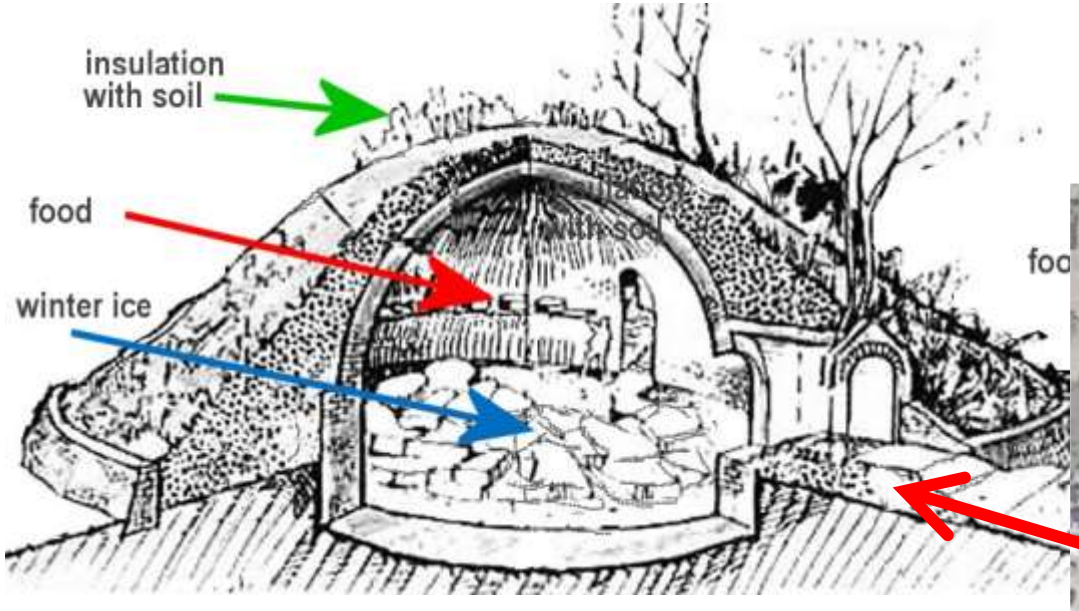
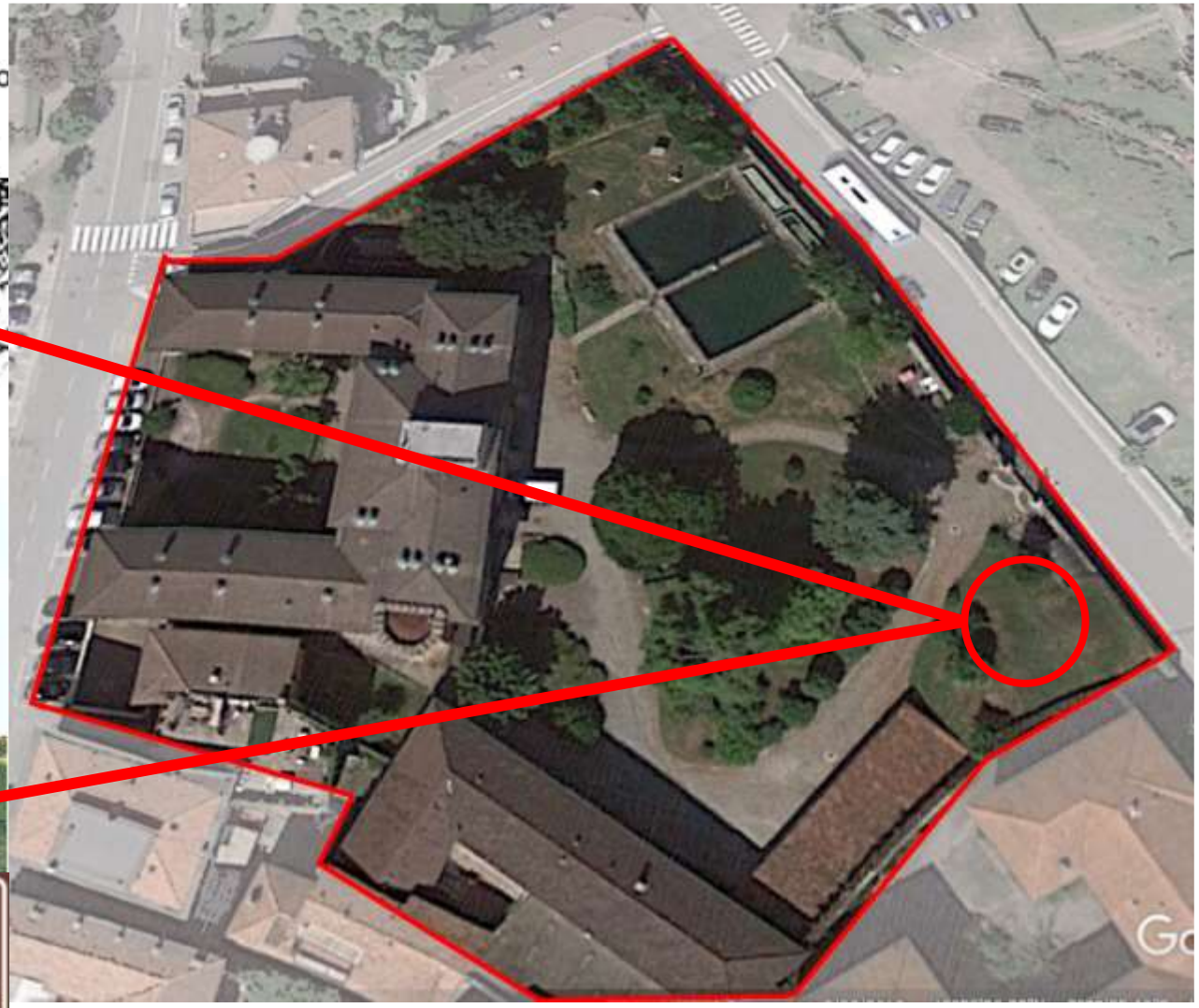


the ice house is an underground crypt where, in the 19th century, ice was stored during the winter to provide space for storing food



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Why museums

Museums are a fundamental and indispensable component of contemporary society. They are the places that collect the testimonies of those who have gone before us, putting them on display for visitors seeking aesthetic enjoyment and knowledge.

90th century B.C.
cave painting

1st century A.D.
pompeian
painting

15th century A.D.
renaissance
painting

1860 A.D.
impressionism

1907 A.D.
cubism

1950 A.D.
pop art

They help us discover who we are and how our culture has evolved

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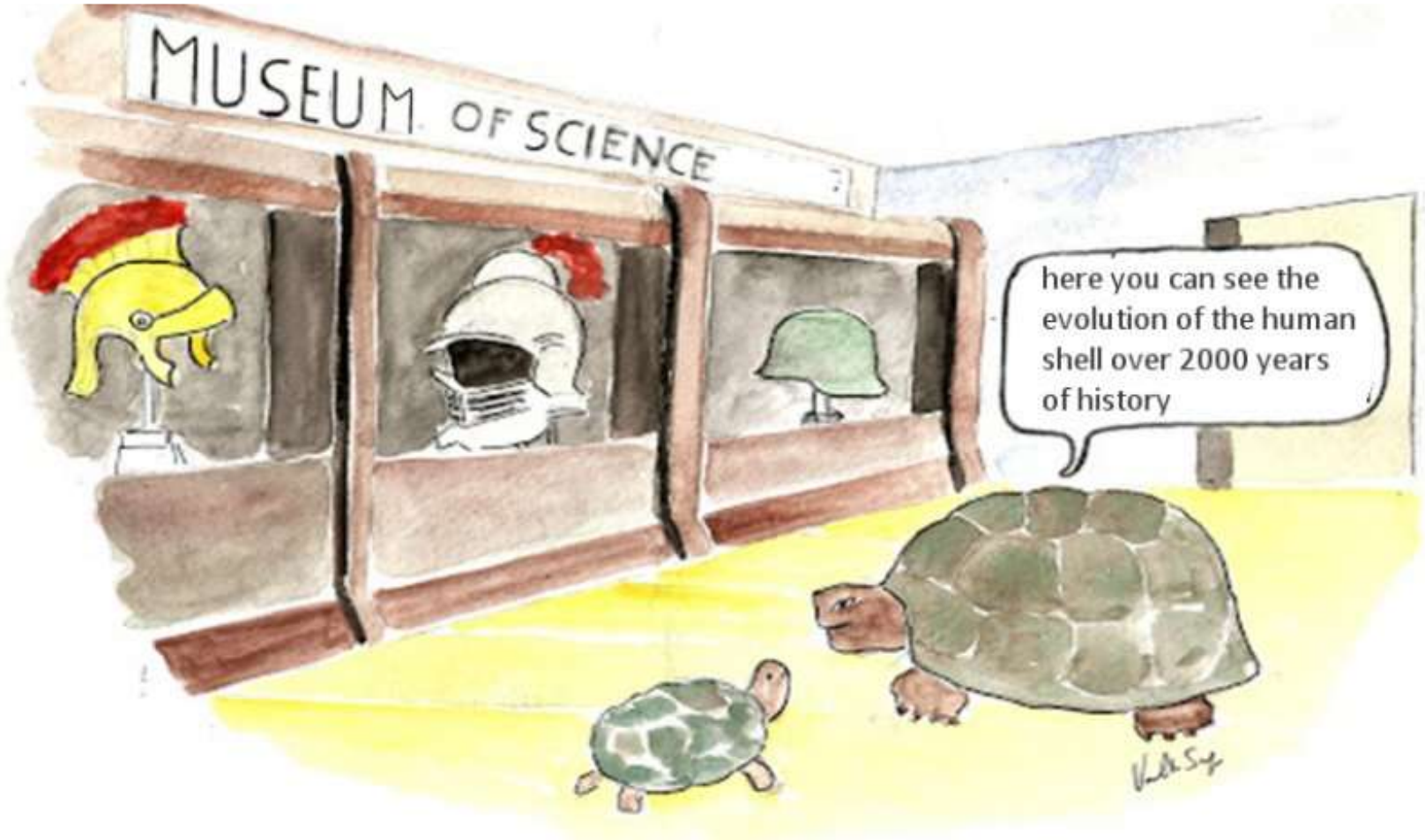
Science Museum

Science Museums are special.

They help us to know the man's path toward the understanding of the world hosting him, preserving the milestones of that path
(which are obviously different according to the specific interests of the museum users)



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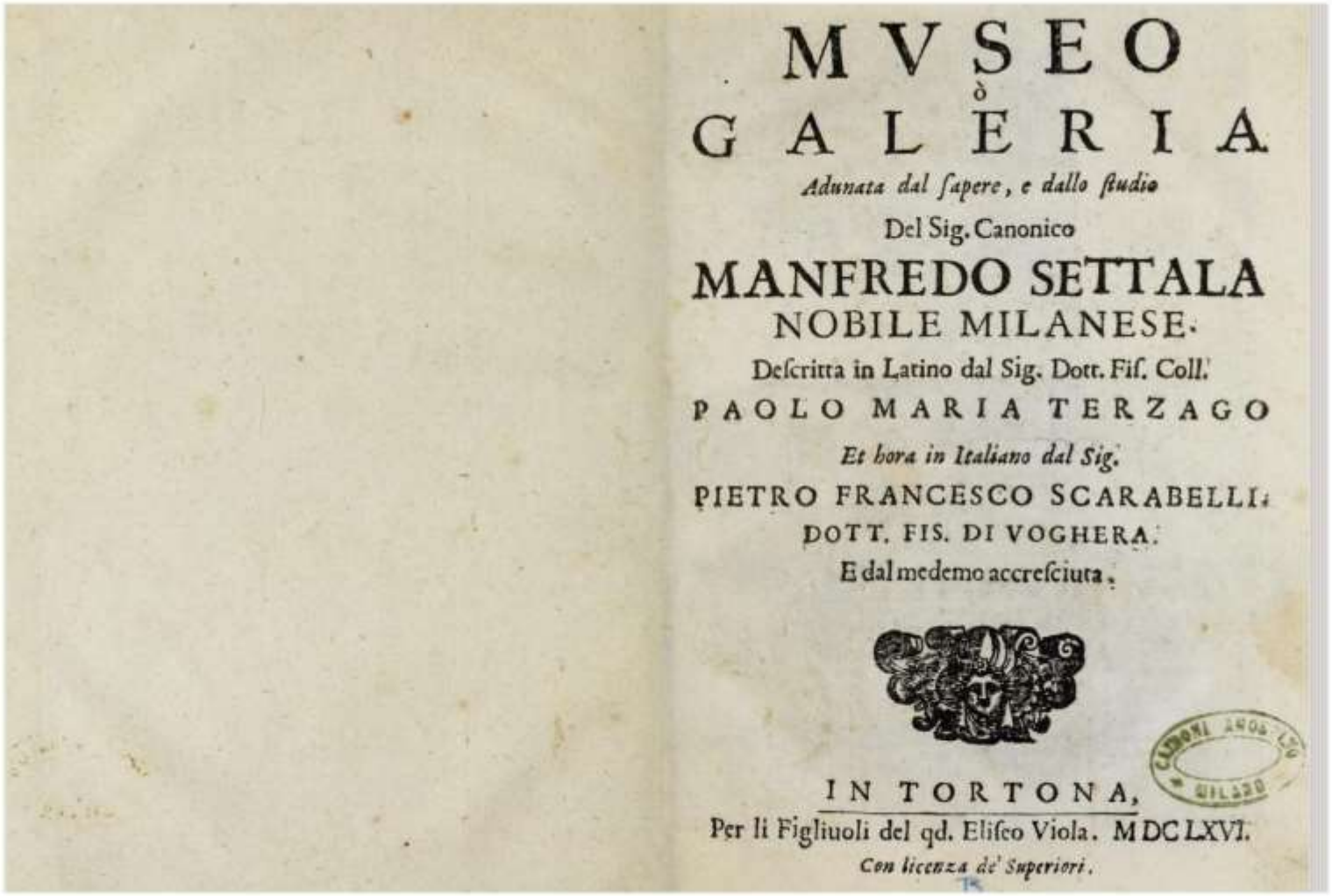
Minimal history of the science museum

Origin: Renaissance private collecting (**16th and 17th centuries**),
time of birth and spread of the wunderkammer, the cabinets of curiosities

from the documentary
Wunderkammer -
Le Stanze della Meraviglia
Francesco Invernizzi, 2017

Trailer: www.comingsoon.it/film/wunderkammer-le-stanze-della-meraviglia/56131/video/?vid=31298

17th century: wunderkammer began to be called museums. This is the case of Manfredo Settala's, who in 1664 drew up a catalogue, the *Musaeum Septalianum*, translated in 1666 into *Museo ò Galeria Adunata del Sapere* by M.P.Terzago and P.F.Scarabelli.



MVSEO
ò
GALERIA
Adunata dal ſapere, e dallo ſtudio
Del Sig. Canonico
MANFREDO SETTALA
NOBILE MILANESE.
Deſcritta in Latino dal Sig. Dott. Fiſ. Coll.
PAOLO MARIA TERZAGO
Et hora in Italiano dal Sig.
PIETRO FRANCESCO SCARABELLI
DOTT. FIS. DI VOGHERA.
E dal medemo accreſciuta.

IN TORTONA,
Per li Figliuoli del qd. Eliſeo Viola. MDCLXVI.
Con licenza de' Superiori.

(www.milanoplatinum.com/manfredo-settala-accumulatore-seriale-di-meraviglie.html)

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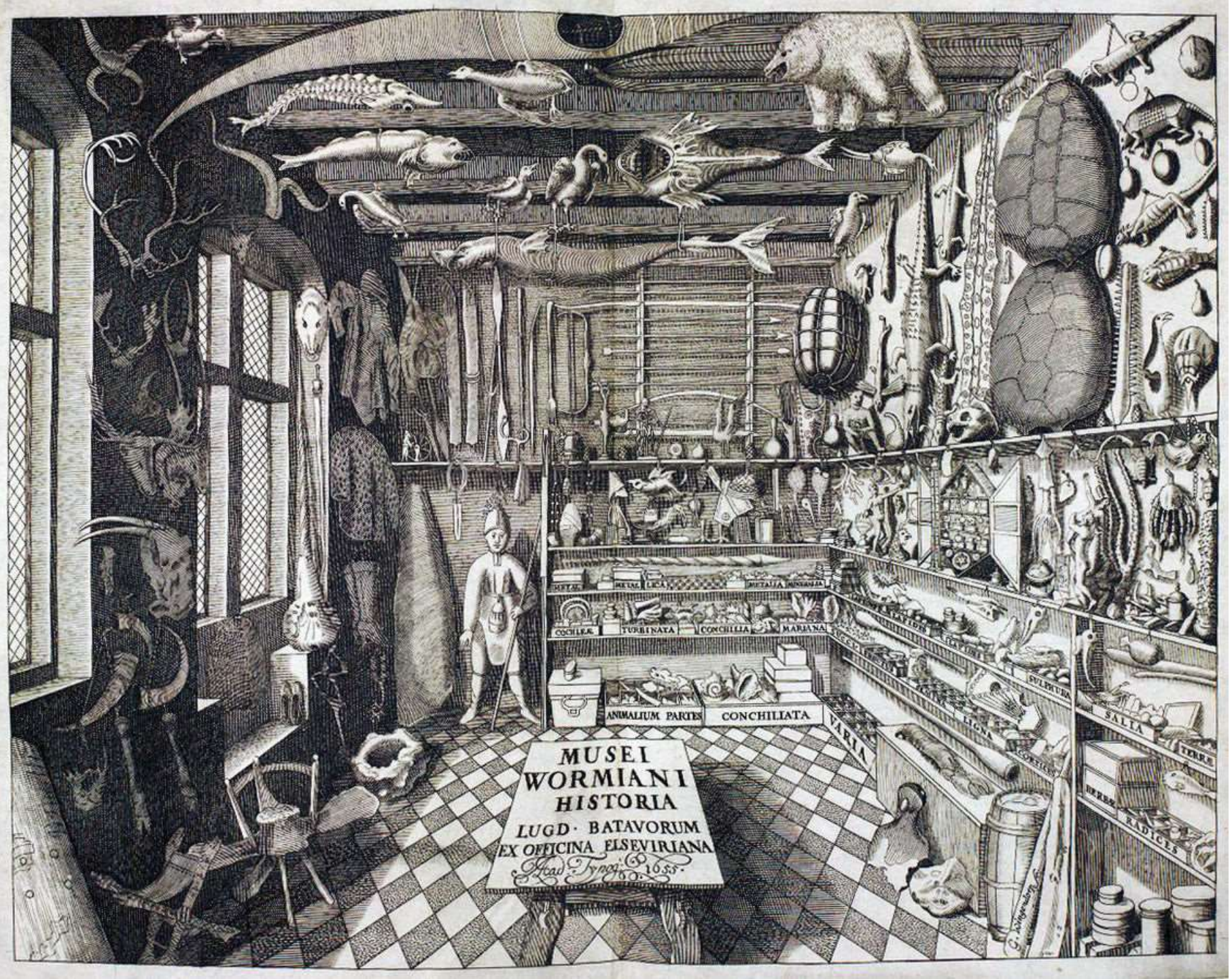

Other wunderkammer have been reconstructed in recent years.

This is the case of the *Museum Wormianum* - The Room of Wonder that Ole Worm, the 17th century Danish surgeon and naturalist, created in his home.

Left: title page of the museum catalogue published in 1655 after Worm's death.

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Left: Reconstruction of the *Museum Wormianum* set up in 2003 by photographer Rosamond Purcell at the Geological Museum of the Natural History Museum in Denmark, now on permanent display

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Other rooms of wonder created by naturalists, doctors and men of science have evolved into modern museums.

This is the case of the Ulisse Aldrovrandi Natural History Museum, now the Aldrovandian Museum of the University of Bologna, in Palazzo Poggi.

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In the 18th and 19th centuries: university collections flourished. Today, reconstructed and restored, they are often part of the university museum system. For example, the museum system of the University of Pavia includes the Museum of Natural History, today Kosmos, directed by Lazzaro Spallanzani in the 18th century, the Anatomical Collection "Museo Luigi Cattaneo", the Volta Physics Cabinet (Museum for the History of the University) (☞)

http://ppp.unipv.it/Museo/Pagine/fisica/GabVolta.htm

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In the 18th and 19th centuries:

- the museums of the sovereigns of the pre-unification states (e.g. in Florence, the Lorraines inaugurated the Royal Museum of Physics and Natural History in 1775, and in 1841 the Tribuna di Galileo with the Museum of Ancient Instruments. In Naples, the Bourbons opened the Royal Cabinet of Mineralogy in 1801 and Joachim Murat opened the Zoological Museum in 1813, with exhibits already belonging to the Bourbons and to private collections.)
- civic museums (Milan Natural History Museum in 1838)

Milan Museum of Natural History in 1918

SAGGIO
DEL REAL
GABINETTO
DI FISICA,
E DI
STORIA NATURALE
DI FIRENZE.

IN ROMA MDCCLXXV.
NELLA STAMPERIA DI GIOVANNI ZEMPEL.
CON LICENZA DE' SUPERIORI.

«Catalogo» del Regio Museo di fisica e storia naturale, 1775

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In the 19th century, the post-unification state museums were created:
- National Museum of Anthropology and Ethnology, Florence (1869), still existing
- National Prehistoric and Ethnographic Museum Luigi Pigorini, Rome (1876), still existing
- Italian Industrial Museum, Turin (1862), discontinued
- Geological Agricultural Museum, Rome (1885), discontinued

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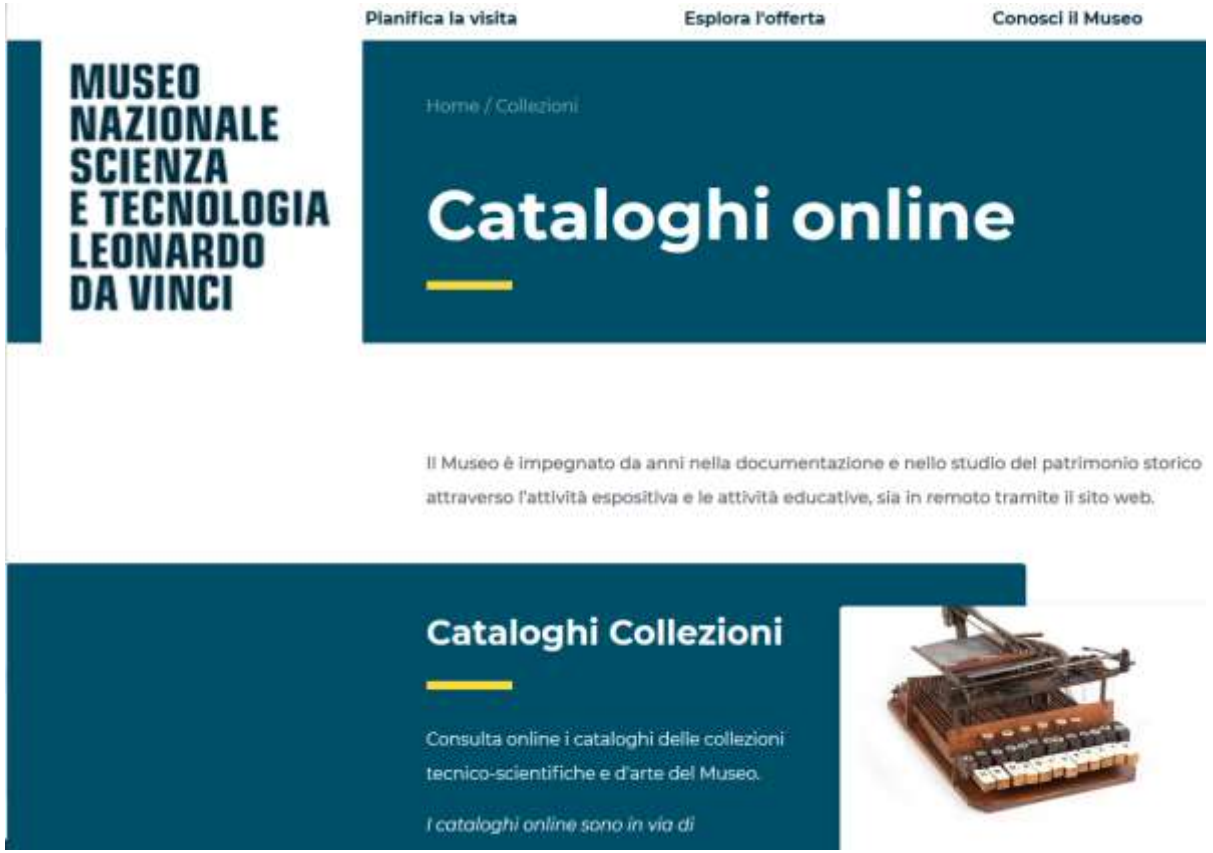
In the 20th century: persists the lack of legislation on historical-scientific material, worsened by conflicts between cities and institutions over its management.

In 1939, the Minister of National Education enacts a law for the protection of monuments of artistic or historical interest. Historical-scientific material is excluded. Scientific instruments and naturalistic collections remain dispersed.

In spite of disinterest, parochialism and lack of funds, were founded:

in 1930 the Institute and Museum of the History of Science, now Museo Galileo, in Florence.

in 1953 the National Museum of Science and Technology “Leonardo da Vinci” in Milan.



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Beginning of the 21st century: the scientific material is granted the status of cultural good. The latest act is the Code of Cultural Heritage and Landscape (2004, Urbani Code). The definition of "cultural heritage" does not yet explicitly mention scientific collections, which are covered by the measure because they belong to public institutions.

A bit of bibliography for those who want to know more:

Canadelli E, 2011. I musei scientifici. In F. Cassata, C. Pogliano (eds), Storia d'Italia. Annali 26. Scienze e cultura dell'Italia unita, Einaudi, Torino, pp. 867-893 www.academia.edu/5954696/I_musei_scientifici?auto=download

Canadelli E, 2015. Il Museo nazionale italiano di storia naturale. Storia di un'idea. Rendiconti Acc. Naz. Scienze detta dei XL Memorie di Scienze Fisiche e Naturali 132°, Vol. XXXVIII, Parte II, pp. 121-154
https://media.accademiaxl.it/memorie/S5-VXXXVIII-P2-2014/Canadelli121-154.pdf

Canadelli E, 2019. Il patrimonio storico-scientifico italiano: alcune riflessioni tra passato e presente. MUSEOLOGIA SCIENTIFICA nuova serie. N. 20, 16-19
www.anms.it/upload/rivistefiles/d01c4b9666fa761c531ade73d8684b91.pdf

Vergara Caffarelli R, 2017. La conservazione degli strumenti scientifici
www.academia.edu/35035319/LA_CONSERVAZIONE_DEGLI_STRUMENTI_SCIENTIFICI_1._Gli_strumenti_scientifici

How many museums exist in Italy?

On 29 January 2019, the outcome of the 2017 ISTAT survey on museums and similar institutions, public and private, open to the public in Italy was published.

The Italian museum heritage consisted of **4,889** museums, galleries or collections.

How many and which science museums exist in Italy?

The web

MUSEOItalia

Museum Italy - portal of Italian museums & monuments www.museionline.info/

Categoria:Musei scientifici d'Italia

WIKIPEDIA
L'enciclopedia libera

it.wikipedia.org/wiki/Categoria:Musei_scientifici_d'talia

Catalogo Generale dei Beni Culturali
Patrimonio Scientifico e Tecnologico

www.catalogo.beniculturali.it

A boock

Massimo Bozzo, 2005. I luoghi della scienza. Guida ai musei e alle raccolte scientifiche italiane. Di Renzo Editore, 276 pp

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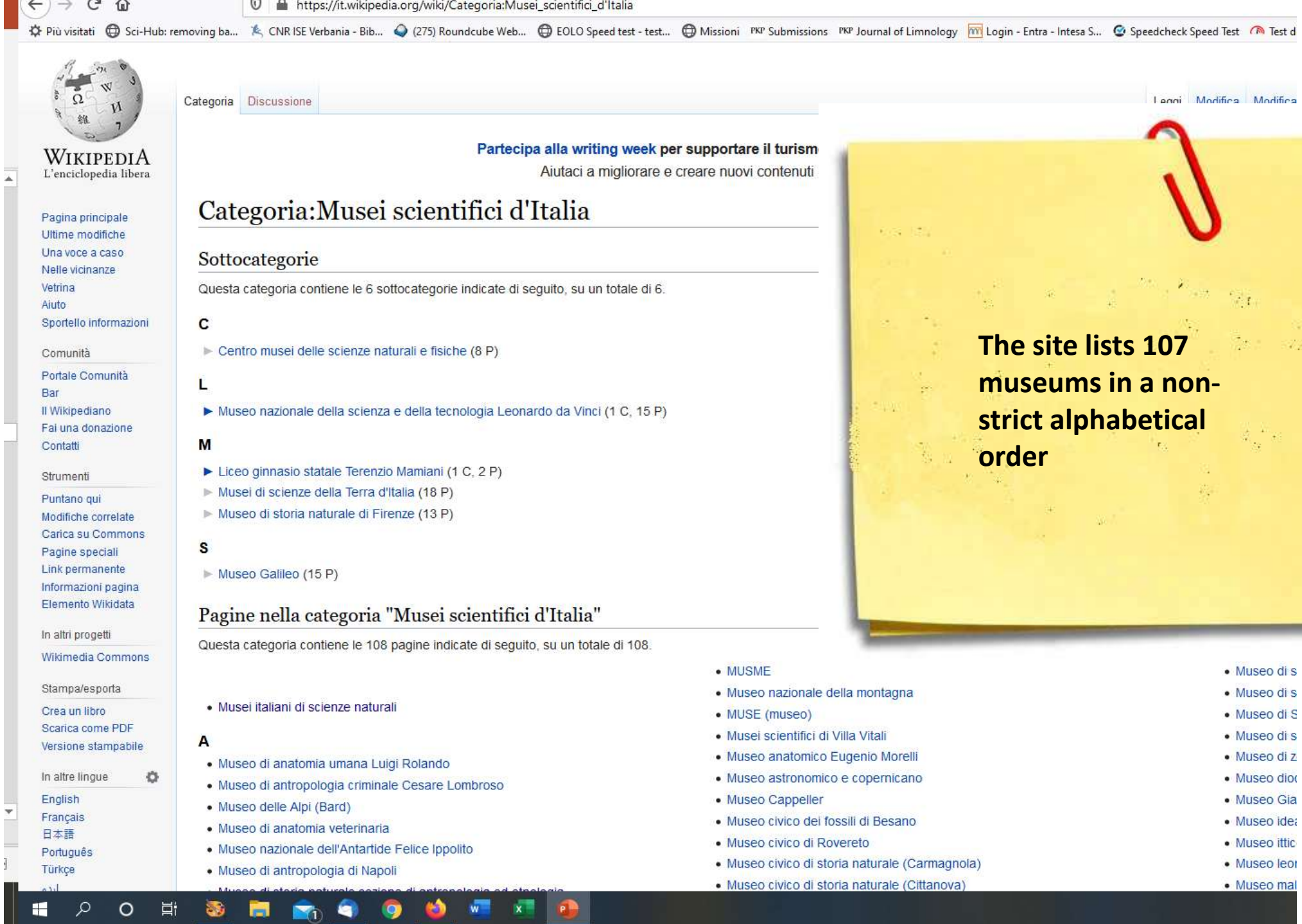
www.museionline.info/musei/musei-scientifici

MUSEOItalia

Museo Italia - portale dei musei & monumenti italiani
http://www.museionline.info/

The site lists 136 museums, divided into 3 main categories (in bold) each with several subcategories

Natural History Museums	
Aquarium	24
Botany	12
Geology	47
Mineralogy	58
Palaeontology	123
Volcanology	5
Zoology	44
Science Museums	
Science Centre	13
Astronomy	14
Chemistry	7
Physics	21
Mathematics	9
Technology Museums	
Informatics	5
Agriculture	21
Mechanics	1
Architecture	20
Medicine	23
Watchmaking	8
Printing	41
Telecommunications	9
Transport	8
total	136



https://it.wikipedia.org/wiki/Categoria:Musei_scientifici_d'Italia

Più visitati | Sci-Hub: removing ba... | CNR ISE Verbania - Bib... | (275) Roundcube Web... | EOLO Speed test - test... | Missioni | Submissions | Journal of Limnology | Login - Entra - Intesa S... | Speedcheck Speed Test | Test d

WIKIPEDIA
L'enciclopedia libera

Categoria | Discussione | Leggi | Modifica | Modifica

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Una voce a caso
Nelle vicinanze
Vetrina
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Bar
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Contatti

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Crea un libro
Scarica come PDF
Versione stampabile

In altre lingue
English
Français
日本語
Português
Türkçe

Partecipa alla writing week per supportare il turism
Aiutaci a migliorare e creare nuovi contenuti

Categoria:Musei scientifici d'Italia

Sottocategorie

Questa categoria contiene le 6 sottocategorie indicate di seguito, su un totale di 6.

C
- Centro musei delle scienze naturali e fisiche (8 P)

L
- Museo nazionale della scienza e della tecnologia Leonardo da Vinci (1 C, 15 P)

M
- Liceo ginnasio statale Terenzio Mamiani (1 C, 2 P)
- Musei di scienze della Terra d'Italia (18 P)
- Museo di storia naturale di Firenze (13 P)

S
- Museo Galileo (15 P)

Pagine nella categoria "Musei scientifici d'Italia"

Questa categoria contiene le 108 pagine indicate di seguito, su un totale di 108.

- Musei italiani di scienze naturali

A
- Museo di anatomia umana Luigi Rolando
- Museo di antropologia criminale Cesare Lombroso
- Museo delle Alpi (Bard)
- Museo di anatomia veterinaria
- Museo nazionale dell'Antartide Felice Ippolito
- Museo di antropologia di Napoli

- MUSME
- Museo nazionale della montagna
- MUSE (museo)
- Musei scientifici di Villa Vitali
- Museo anatomico Eugenio Morelli
- Museo astronomico e copernicano
- Museo Cappeller
- Museo civico dei fossili di Besano
- Museo civico di Rovereto
- Museo civico di storia naturale (Carmagnola)
- Museo civico di storia naturale (Cittanova)

- Museo di s
- Museo di s
- Museo di S
- Museo di s
- Museo di z
- Museo dio
- Museo Gia
- Museo ide
- Museo ittic
- Museo leo
- Museo mal

The site lists 107 museums in a non-strict alphabetical order

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Ministero per i beni e le attività culturali e per il turismo

- Ministero
- Amministrazione Trasparente
- Sala Stampa
- Manifestazioni culturali e fieristiche
- Luoghi della Cultura
  - Ricerca
  - Agevolazioni
  - Servizi
  - Viaggi Virtuali
  - In caso di sciopero
- Grandi restauri
- Pubblicazioni
- Normativa e Pareri

> Home > Luoghi della Cultura > Ricerca

Luoghi della Cultura

Selezione geografica delle regioni

www.catalogo.beniculturali.it/sigecSSU_FE/ricercaFaccetteGeneriche.action?statoCosa1=00000000000018&&statoCosa2=pst

Ministero dei beni e delle attività culturali e del turismo — ICCD Istituto Centrale per il Catalogo e la Documentazione

Catalogo Generale dei Beni Culturali

Beni culturali
- Beni archeologici
- Beni architettonici e paesaggistici
- Beni demoetnoantropologici
- Beni fotografici
- Beni musicali
- Beni naturalistici
- Beni numismatici
- Beni scientifici e tecnologici
- Beni storici e artistici

Categorie di beni
- Beni immateriali
- Beni immobili
- Beni mobili

Authority file
- Autori

Luoghi di conservazione
Musei, chiese, biblioteche, ecc.

Accesso per regione

Seleziona la regione

Strumenti per la catalogazione

Statistiche della catalogazione

Home page > Beni scientifici e tecnologici > Patrimonio Scientifico e Tecnologico

Patrimonio Scientifico e Tecnologico

2891 schede disponibili — **Mostra tutte le schede** ■ **Vai alla ricerca guidata**

Dove

Beni aggregati per collocazione geografica

Lombardia (998) | Sardegna (20) | Toscana (1150) | Campania (163) | Lazio (560) |

The site is a catalogue of 2891 objects subdivided by region of origin aggregated in the category “Scientific and technological heritage”.

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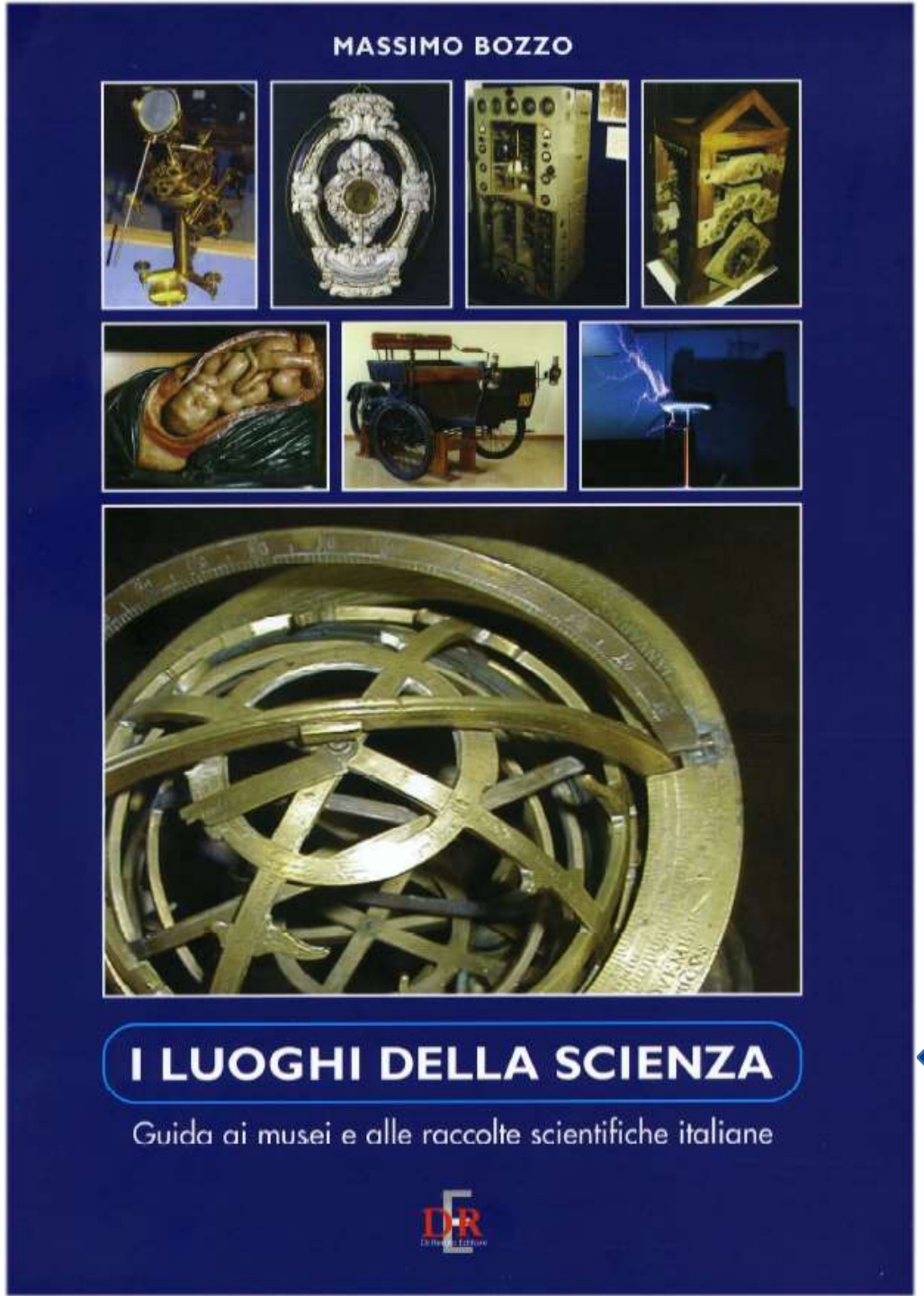

by
Massimo Bozzo, journalist. From 1979 to 2003 he was scientific editor and head of Ansa's weekly news bulletin Science and Technology.

THE PLACES OF SCIENCE

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the Places of Science

according M.Bozzo are

Facilities for the conservation of living organisms (botanical gardens, aquariums, etc.)

They also often collect specimens of botanical and zoological interest (herbaria, xylotheques, zoological preparations) or historical objects intended for the acquisition or preservation of organisms (sampling instruments).

Museums in the strict sense, i.e. permanent collections of objects related to one or more fields of science and technology

They can be
purely expositional
interactive,
multimedial,
archival

All of them have, with varying degrees of commitment educational, of study, of research purposes.

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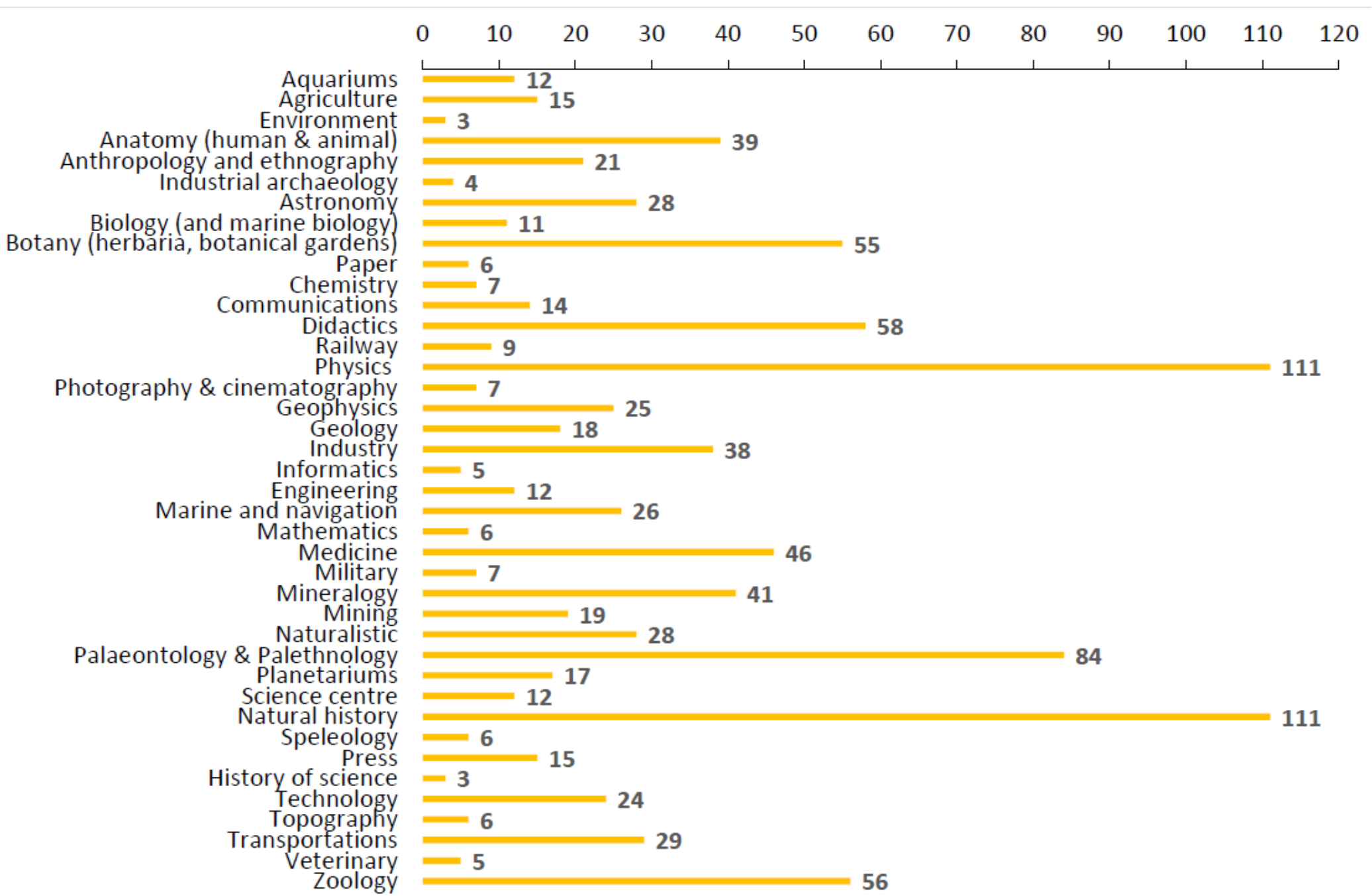
the Places of Science are:

766

divided into 40 categories



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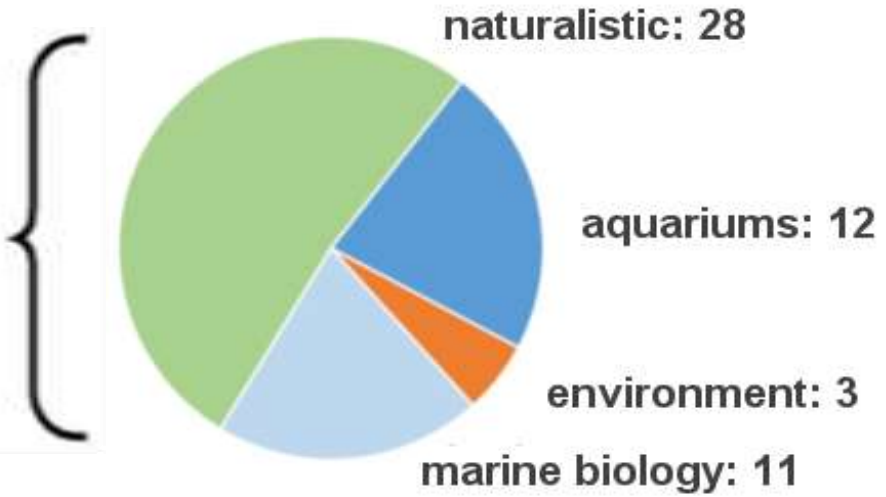
Places of science on water-related topics:

in 2005 **53** naturalistic aspects
conservation of the resource
preservation of biodiversity

0 science and freshwater ecosystems



in 2015 **1**

Crypta Baldi, a museum of ancient instruments for inland water ecology research, is born
I have collected instruments
- ignored in the attics and cellars of the institute
- destined for the dump and which I recovered and restored

Despite its small size and remote location, the museum has been a great success, with a large number of visitors during the institute's open days, the "researchers' nights" and visits by researchers.

The museum also has a small catalogue:
«Solai e cantine dell'Idrobiologico a Pallanza», TARARA' publisher

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The *Crypta Baldi* today (ver. 1.0):

It is located in the 19th-century ice-house of the villa where the institute is located, and in a little more than 10m^2 it houses about 80 scientific instruments that have made the history of Italian limnology, dating from about 1900 to 1970

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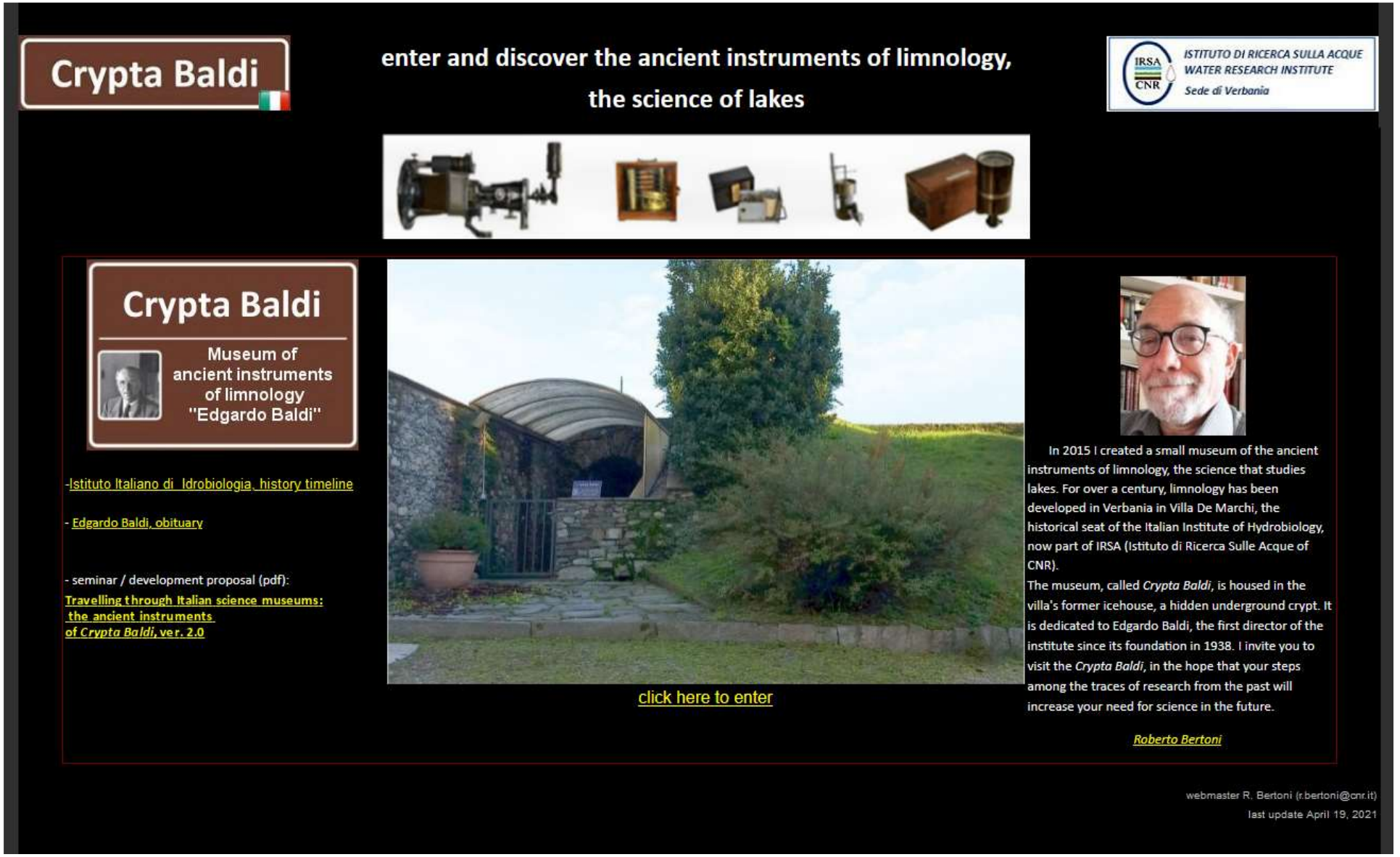
The virtual version of the museum is here: vb.irsa.cnr.it/crypta. you can find there:

- descriptions of exhibits in Italian and English
- film library with 10 films from 1938 to 1988
- library with free downloadable texts



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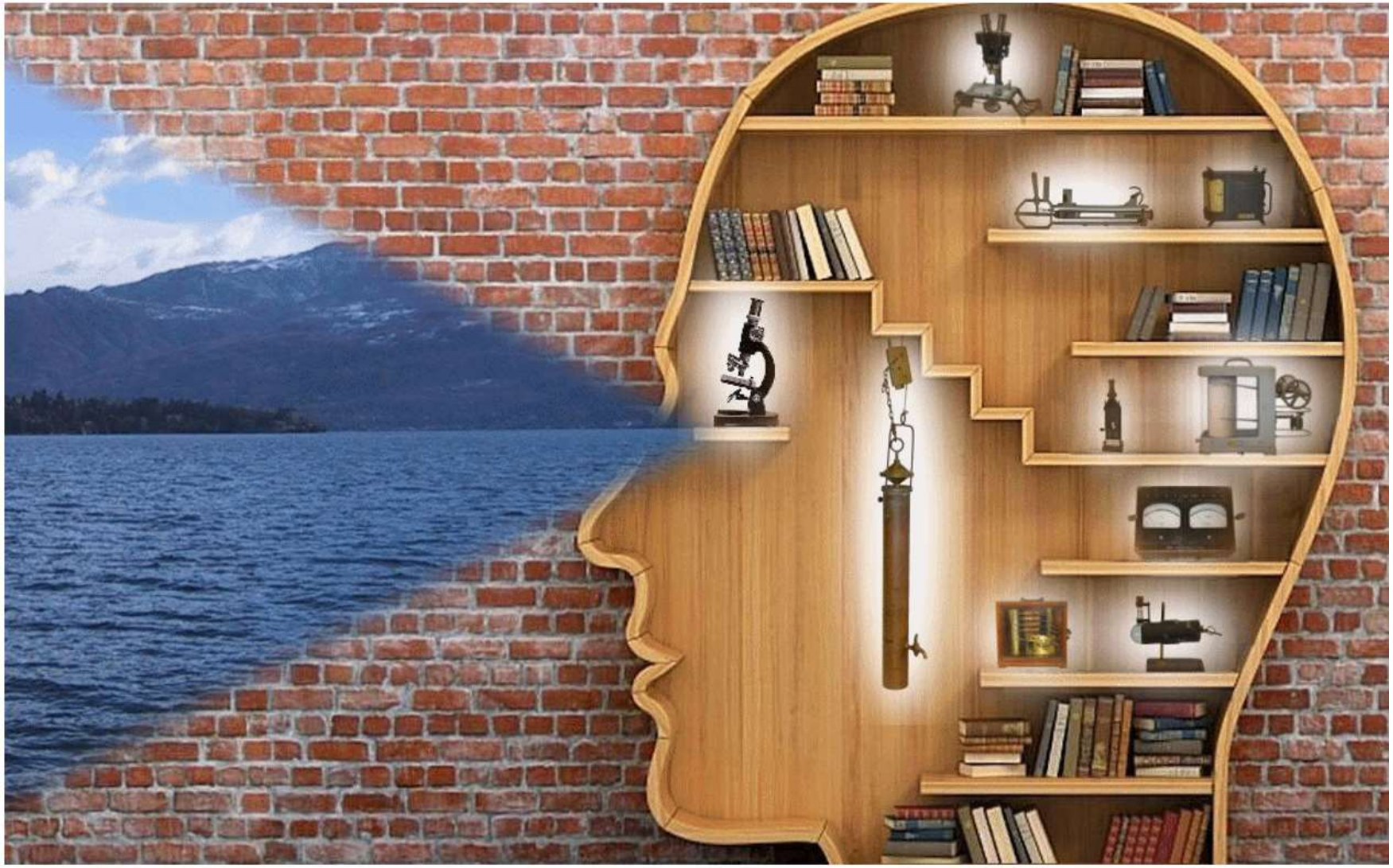
Why is a museum of antique instruments important?

Scientific instruments expand our senses.

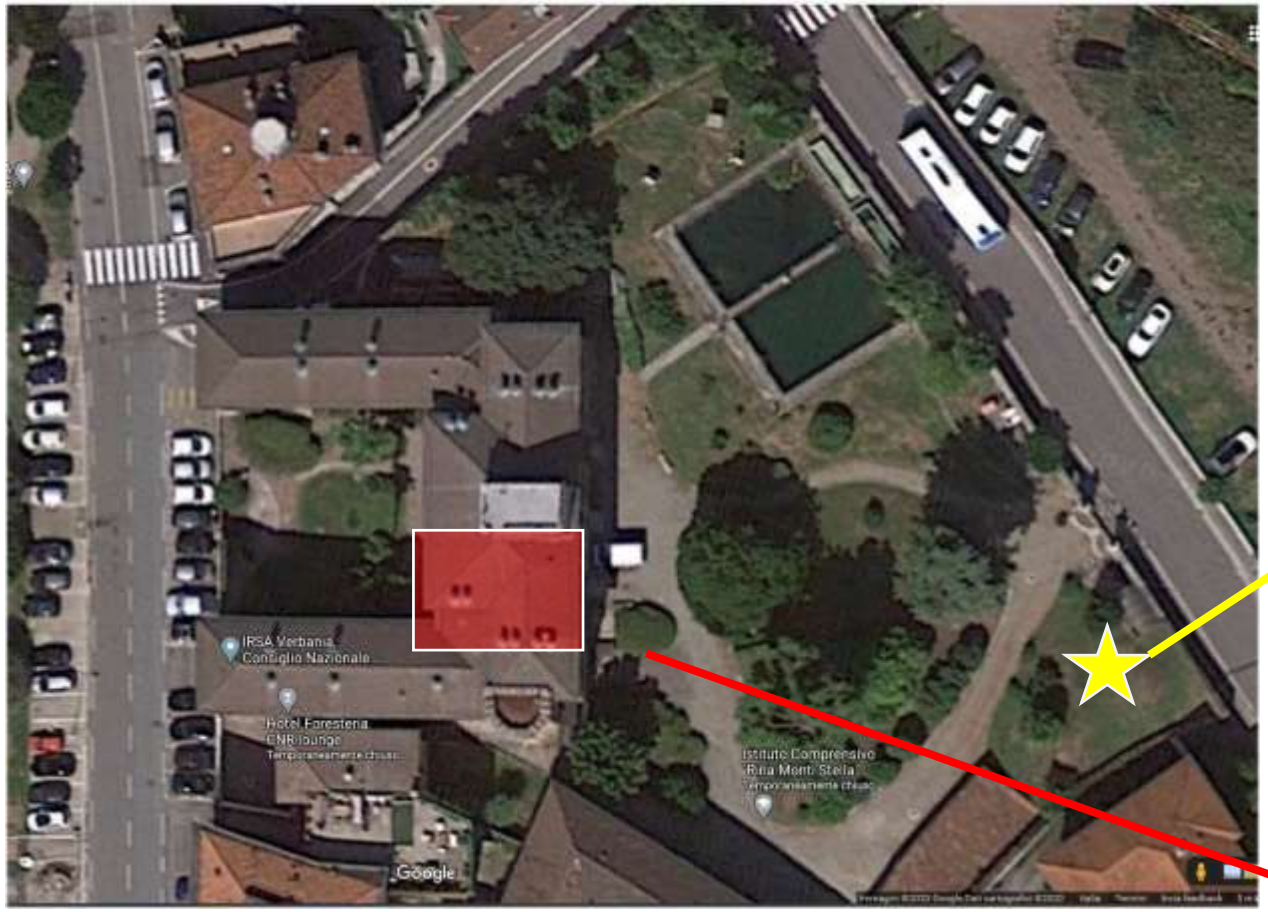
Scientific instruments evolve, allowing us to investigate our world in ever greater detail.

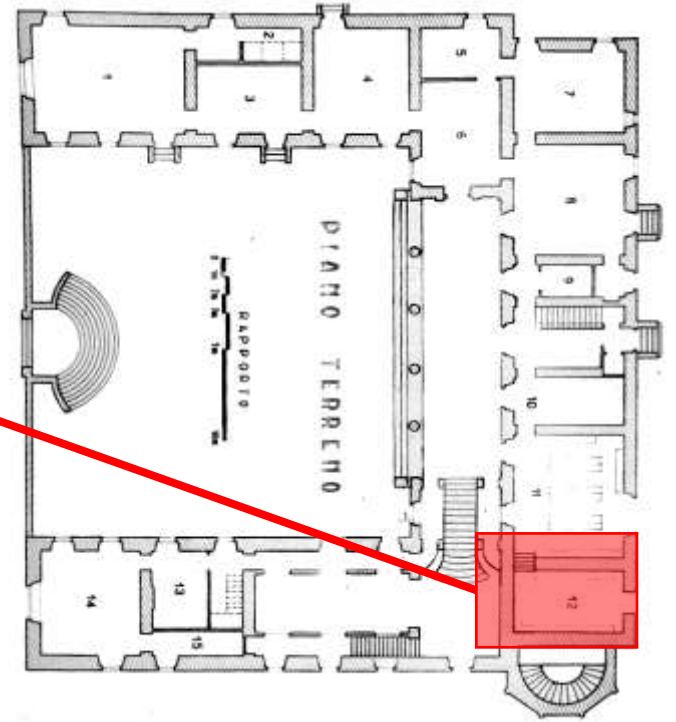
The history of scientific instruments is the history of our progress in understanding the world.



The *Crypta Baldi* is an access point to water research for the public!

Why this seminar





Recently a room adjoining the library became available at the IRSA headquarters in Verbania.
I propose to use this room, already emptied of books for security reasons and unsuitable as a laboratory, to accommodate a number of objects now crammed into the *Crypta Baldi* or dispersed in different institute's rooms.

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Proposal for reorganisation and extension

of the existing part of the ice-house

by equipping a room already belonging to the library.

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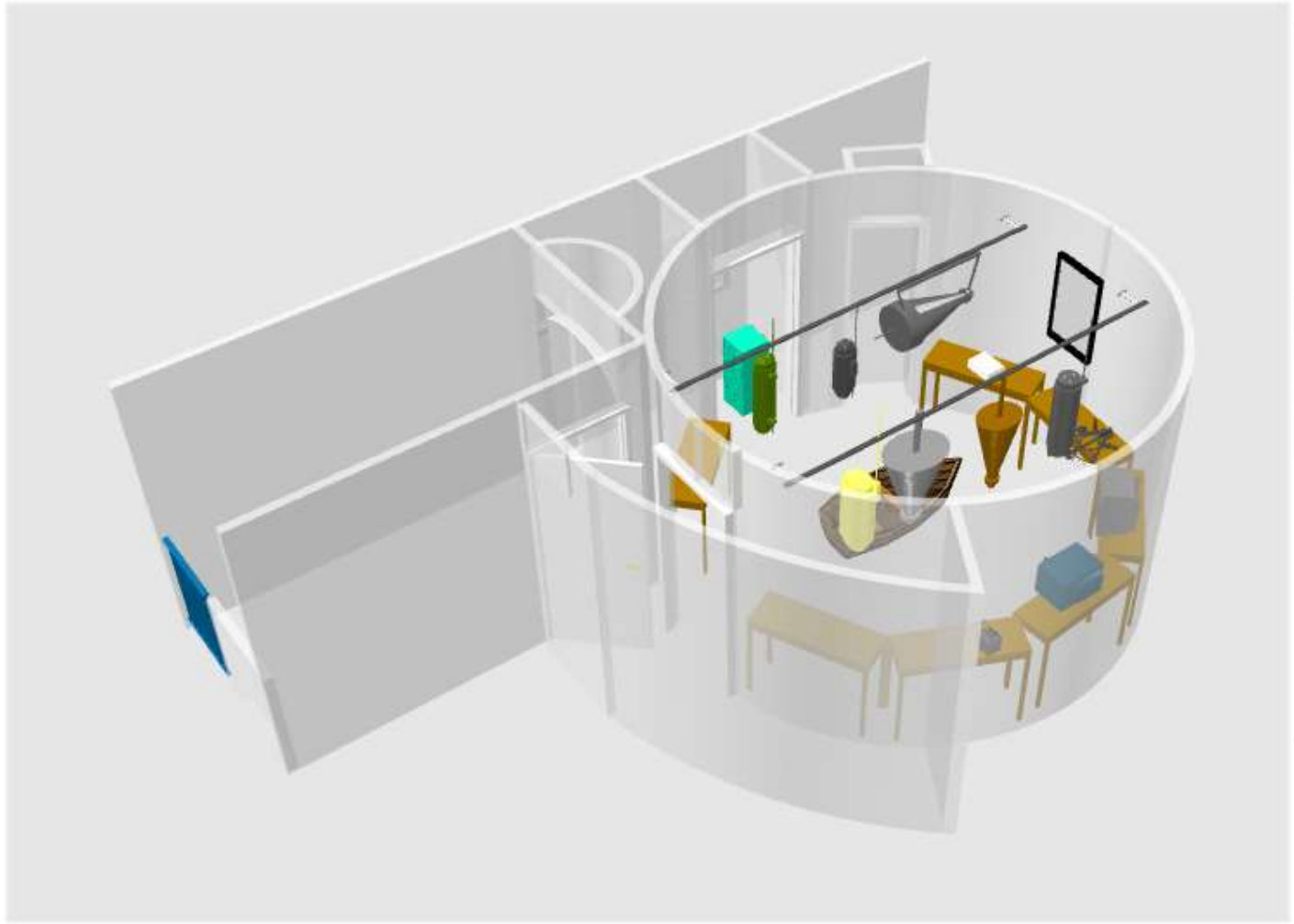
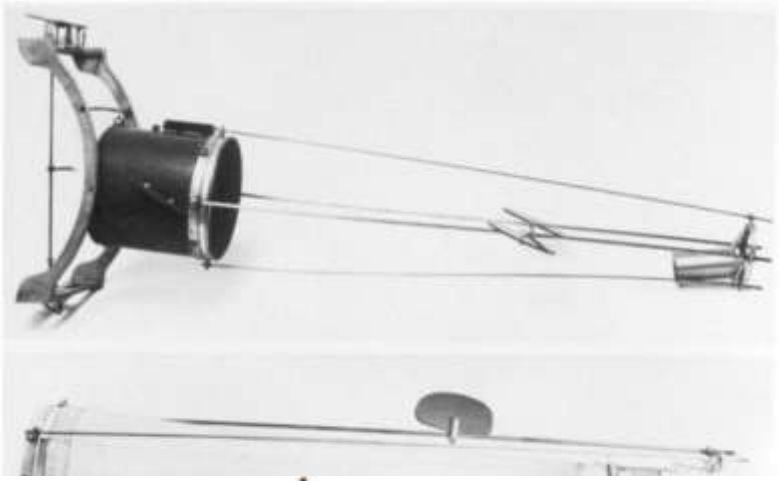
The current room could accommodate instruments used in the field

- in air: meteorology and physical limnology (current meters, limnigraphs, soundings, etc.)

- in water: sampling of water, organisms, sediment, in situ measurements, underwater photography, etc.

It could also house the *Pavesia* folding boat, now in the library, and could be used to mount instruments that are now packed because they are cumbersome (plankton sampler: *a*, Ekman current meter: b, as well as bottles and reversing thermometers to show how they work.





a

b

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The room to be equipped could house instruments used in the laboratory

- **Microscopy** and accessories (microscopes and illuminators, microcinephotography, drawing, microtomes, etc.)
- **Photography** and accessories (bromograph, enlarger)
- **Analytics and Chemistry** (balances, pH meters, photometers, spectroscope)
- **Communication** (projectors, film projectors, Dictaphone)

This room (of almost 20m^2), could accommodate:

- delicate instruments now in the former icehouse
- instruments already catalogued but dispersed in the institute
- instruments present in the institute but not yet catalogued
- reproductions of old photos and posters
- PC for access to instrument cards, educational software and the historical film library
- access point to the institute archive

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- Delicate instruments currently in the former icehouse

Here are now housed valuable antique electronic, mechanical and optical equipment that would be better preserved and protected in a dry, dust-free environment protected by the institute's alarm system.

Some examples:

Hellinge Potentiometer

Stereomicroscope Officine Galileo

Beckman pHmeter

Sartorius scale

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Hellige Potentiometer. 1939.

This potentiometer, built by F. Hellige & Co of Freiburg, was powered by direct current and had a reference electrode (hydrogen or calomel) and a quinhydron measuring electrode, which were stored in the compartment to the right sde of the measuring panel.

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Bekman Instruments pH meter Mod G. 1957.

In 1934 the first electronic pH meter was marketed, a potentiometer specifically designed for this measurement by chemist and inventor Arnold Orville Beckman (1900 - 2004). Similar to this first pH meter is the device shown in the figure, built by Beckman Instruments, founded by the inventor when he was a professor at the California Institute of Technology. The electronics were contained in a wooden box with a resealable compartment, shielded to prevent interference, containing calomel reference and quinhydrone measurement electrodes.

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- Instruments catalogued but currently out of the museum

There are many objects that, due to the limited space available in the current *Crypta Baldi*, are stored in different rooms of the institute (in brackets).
Some examples:

Zeiss inverted microscope (entrance cabinet)

Psychrograph Cantoni (direction)

Galileo-Hellinge Colorimeter (Tonolli room)

Telescope De Marchi (Tonolli room)

Copy of 18th century microscope, (direction)

Folding boat Pavesia (library)

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- Instruments already catalogued but currently outside the museum

Carl Zeiss inverted microscope. 1961.

Using the inverted microscope the specimen can be placed above the objective, making it possible to observe organisms suspended in liquid and left to sediment in containers with transparent bottoms. It is used to count vegetal and animal plankton, fixed and placed in a sedimentation chamber (Utermohl cell).

- Strumenti catalogati ma attualmente fuori dal museo

Eighteenth-century microscope

This microscope consists of a cardboard tube with parts inserted one inside the other and free to slide. In this way the total length of the tube itself can be varied to adjust the focus. The tube is held upright by three wooden columns anchored to a circular support base.
At its center is fixed an adjustable mirror to reflect sunlight towards the microscope objective and to illuminate the specimen.
Reproduction (first decades of the 20th century?) of a microscope used by Lazzaro Spallanzani's.

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- Instruments already catalogued but currently outside the museum

Cantoni-type psychrometer, owned by De Marchi. First half of the last century.

This instrument for measuring the atmospheric humidity consists of two side-by-side thermometers, one with a dry bulb and the other with a bulb kept damp by a water-soaked cloth enveloping it. This second thermometer measures a lower temperature than the other because the evaporation of the water subtracts heat, lowering the measured temperature of an amount inversely proportional to the humidity in the air. By comparing the measurements using a slide rule, the relative and absolute humidity of the air is known. This specimen dates back to the first half of the last century and was built by Angelo Cattano, a mechanic at the Regio Liceo Beccaria in Milan, according to the design of the physicist Giovanni Cantoni who, from 1874, was director of the Central Meteorological Service.

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- Instruments already catalogued but currently outside the museum

The *Pavesia*

This portable, folding boat was built by the "Pietro Baglietto" shipyard in Varazze (SV) in the early years of the last century. The *Pavesia* was given this name to honour Pietro Pavesi, Rina Monti's teacher at the University of Pavia and a scholar of the fauna of Italian lakes. It was used for sampling high-altitude Alpine lakes by Rina Monti and by Marco De Marchi, as shown by the abundant photographic documentation available. It rested for over seventy years in an attic of Villa De Marchi, Monti's base camp for many research campaigns on Alpine lakes. On the occasion of the Institute's 75th anniversary, the *Pavesia* was exhumed and restored.

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Instruments not yet catalogued but present in the institute or collected by me

Objects present in the institute but not considered in previous surveys or discarded in the past and collected and restored by me.

Some examples:

Thin-window Geiger counter (1960 ~)

Officine Galileo photogrammetry stereovisor (1960 ~)

Condor rotary converter 12-110 V (1962)

Lovibond comparator (1935~)

Salmoiraghi planimeter (1965)

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Instruments not yet catalogued but present in the institute or collected by me

Thin-window Geiger counter (1960 ~)

In the 1960s, the Italian Institute of Hydrobiology began measuring primary production using the ^{14}C method. The measurements were carried out with a SELO multichannel thin-window Geiger counter, which has been lost.
This small instrument was used to monitor possible contamination.

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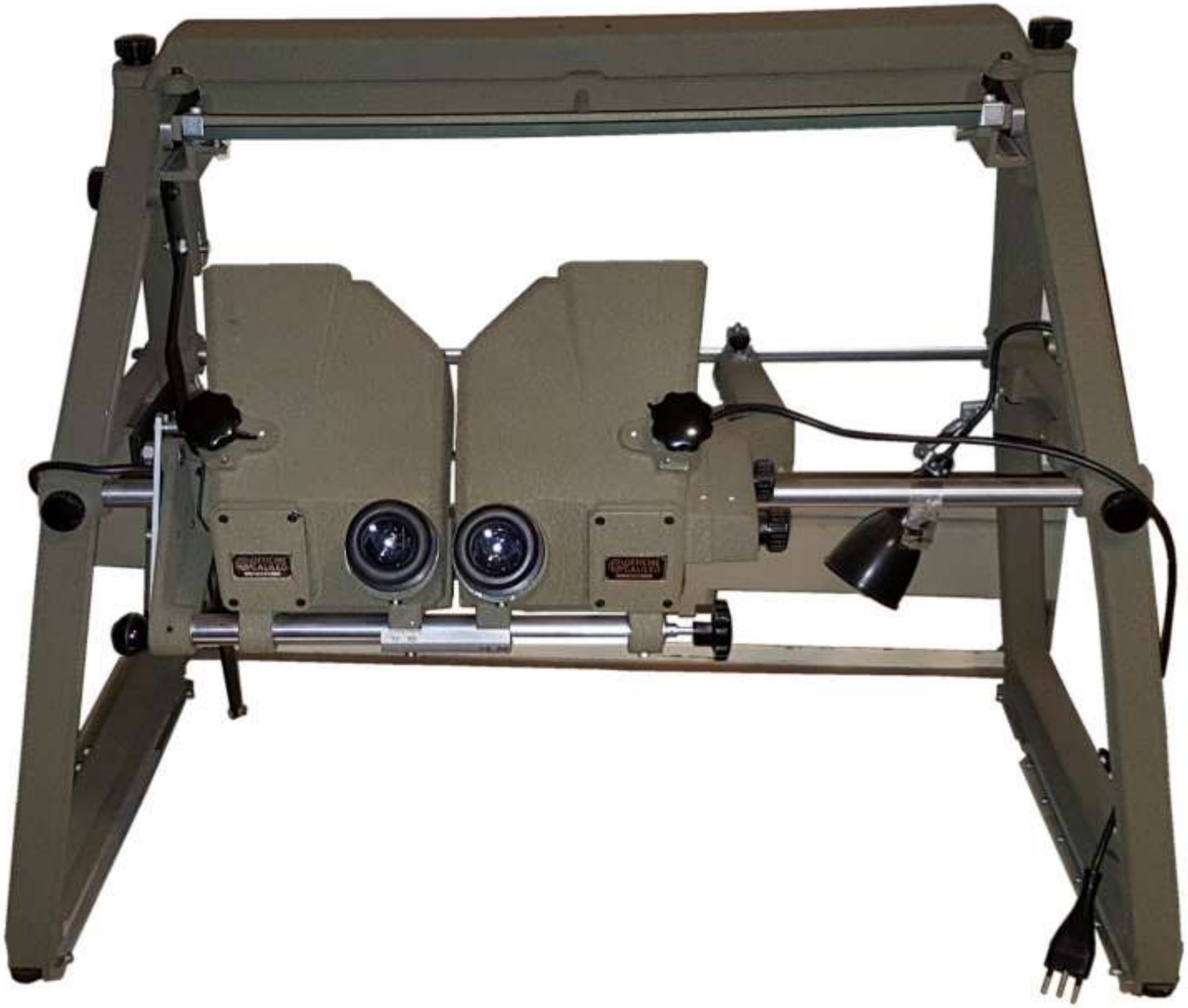
Instruments not yet catalogued but present in the institute or collected by me



Stereovisor for photogrammetry.
Officine Galileo (1960 ~)

It was used to define, on the basis of aerial photographs, the boundaries of the catchment area of some lakes in the Lazio region whose bathymetry had been measured and charted in the frame of Institute's research activity.

reproductions of old photos and posters illustrating the institute's history and activitie

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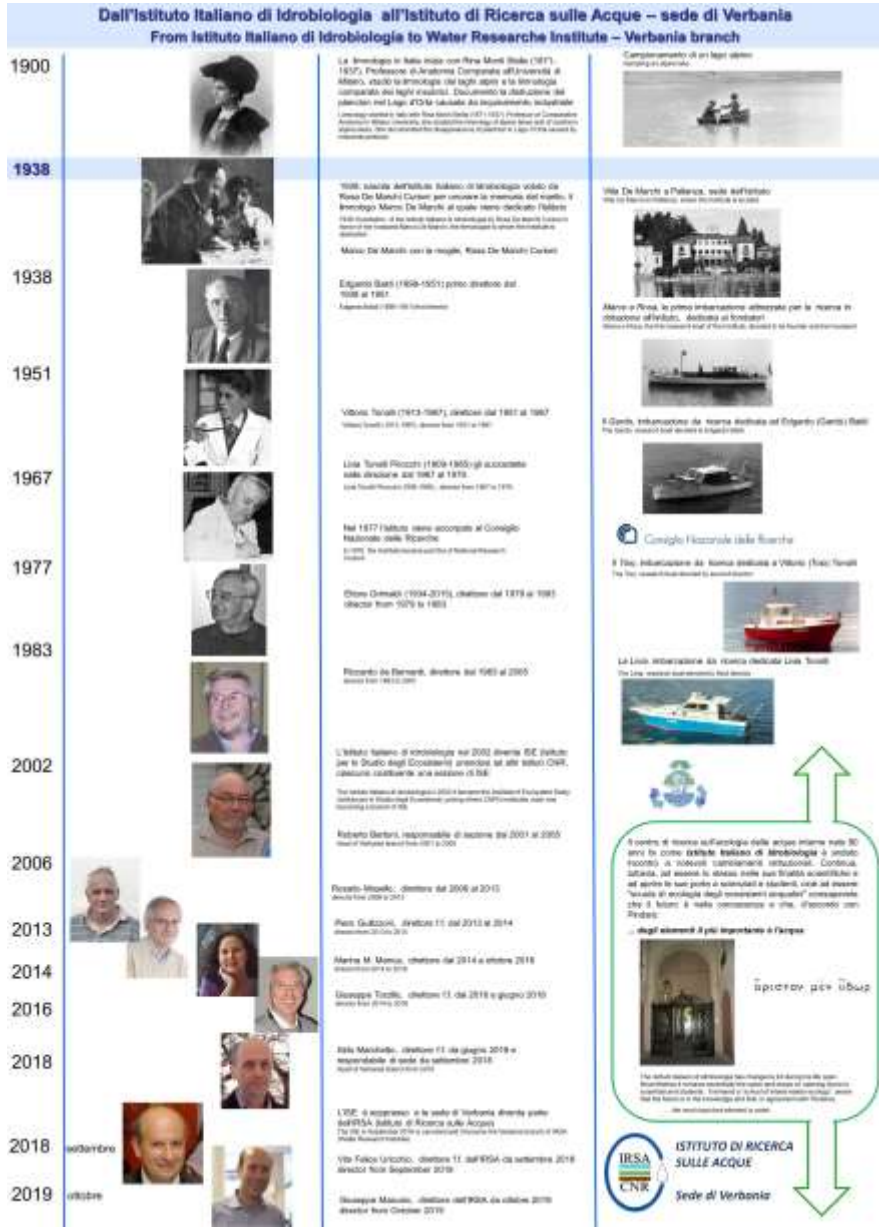
Field laboratory, Lake Tovel 1939

Director's lab, 1940

Chemistry lab, 1958

Many historically valuable photographic documents and posters illustrating the history and activities of the institute are not accessible to the public.
The walls of the new room could accommodate some of them, thus offering an overview of the evolution of limnological research in our country.

Time line history, IRSA branch of Verbania



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Dall'Istituto Italiano di Idrobiologia all'Istituto di Ricerca sulle Acque – sede di Verbania

From Istituto Italiano di Idrobiologia to Water Researche Institute – Verbania branch

1900

La limnologia in Italia inizia con Rina Monti Stella (1871-1937). Professore di Anatomia Comparata all'Università di Milano, studiò la limnologia dei laghi alpini e la limnologia comparata dei laghi insubrici. Documentò la distruzione del plancton nel Lago d'Orta causata da inquinamento industriale

Limnology started in Italy with Rina Monti Stella (1871-1937). Professor of Comparative Anatomy in Milano University, she studied the limnology of alpine lakes and of southern alpine lakes. She documented the disappearance of plankton in Lago d'Orta caused by industrial pollution.

Campionamento di un lago alpino
Sampling an alpine lake

1938

1938: nascita dell'Istituto Italiano di Idrobiologia voluto da Rosa De Marchi Curioni per onorare la memoria del marito, il limnologo Marco De Marchi al quale viene dedicato l'Istituto

1938: foundation of the Istituto Italiano di Idrobiologia by Rosa De Marchi Curioni in honor of her husband Marco De Marchi, the limnologist to whom the Institute is dedicated

Marco De Marchi con la moglie, Rosa De Marchi Curioni

Villa De Marchi a Pallanza, sede dell'Istituto
Villa De Marchi in Pallanza, where the Institute is located

1938

Edgardo Baldi (1899-1951) primo direttore dal 1938 al 1951

Edgardo Baldi (1899-1951) first director

Marco e Rosa, la prima imbarcazione attrezzata per la ricerca in dotazione all'Istituto dedicata ai fondatori

2018

Aldo Marchetto, direttore f.f. da giugno 2018 e respondabile di sede da settembre 2018
head of Verbania branch from 2018

2018 settembre

L'ISE è soppresso e la sede di Verbania diventa parte dell'IRSA (Istituto di Ricerca sulle Acque)
The ISE in September 2018 is canceled and it became the Varbania branch of IRSA (Water Research Institute)

Vito Felice Uricchio, direttore f.f. dell'IRSA da settembre 2018
director from September 2018

2019 ottobre

Giuseppe Mascolo, direttore dell'IRSA da ottobre 2019
director from October 2019

The *Istituto Italiano di Idrobiologia* has changed a lot during his life span. Nevertheless it remains essentially the same and keeps on opening doors to scientists and students. It remains a "school of inland waters ecology", aware that the future is in the knowledge and that, in agreement with Pindarus,

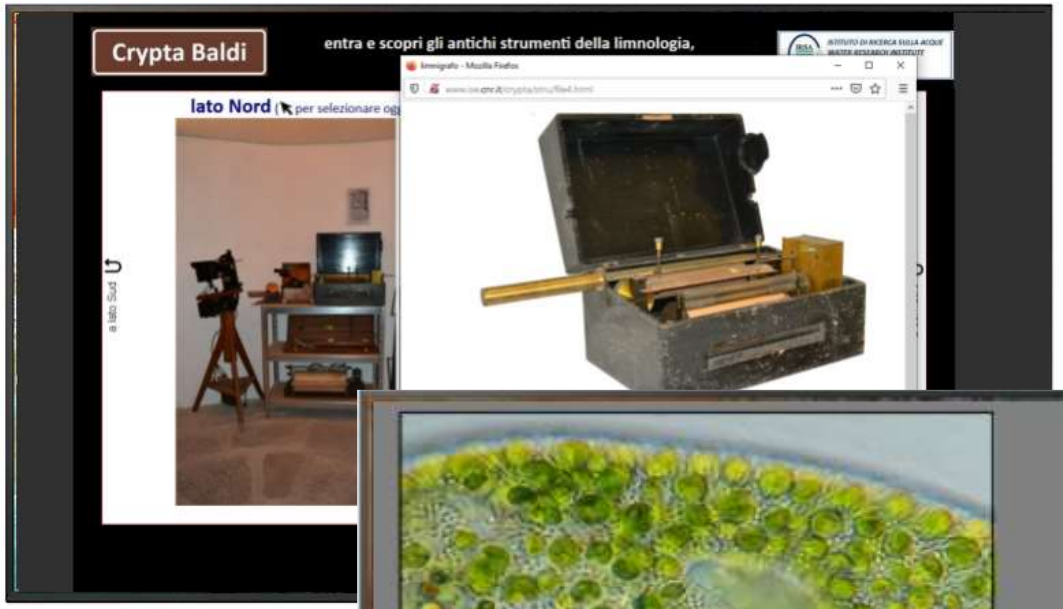
... the most important element is water

ISTITUTO DI RICERCA SULLE ACQUE

Sede di Verbania

Verbania

PC to access the instruments description, the educational films, the film library



The illustrative sheets of the instruments (in Italian and English) can be selected from a special menu by typing in the number corresponding to the object on display. Interface already available.

The teaching material will be selected from a special menu. Some films and animations are already available.

The films will be selectable from a special menu.
10 digitised historical films are already available.

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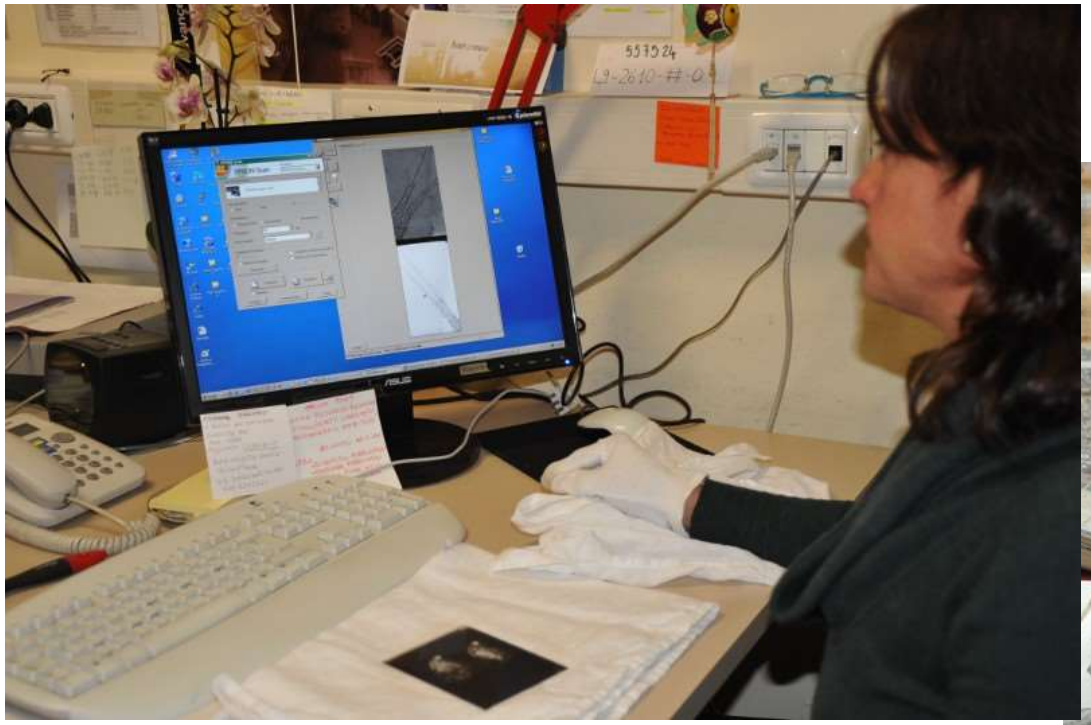
Access to the institute's historical and photographic archives

The PC made available to access the illustrative sheets of the instruments and to the films, can also be an access point to the historical and photographic archive set up by Rosario Mosello and collaborators.



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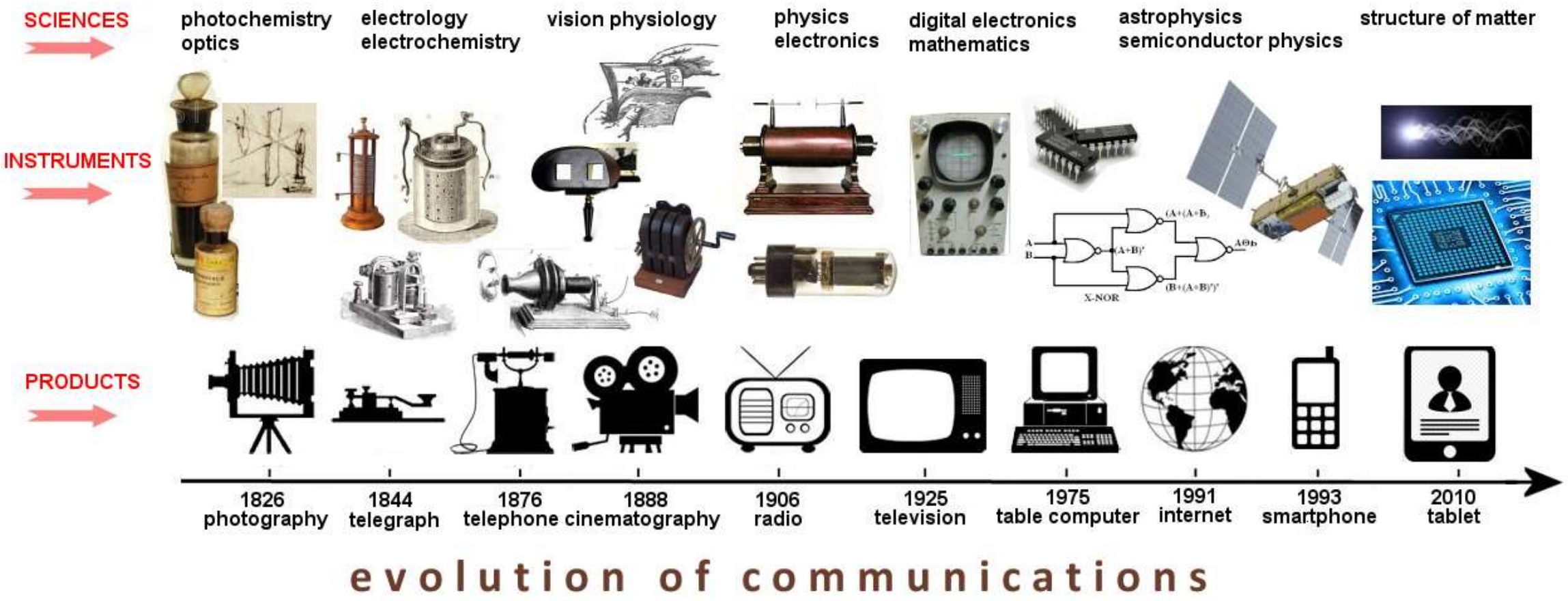
The museum produces culture and participation, and is a means of disseminating research.

The museum is a bridge between science and society because it allows the public to see the cultural and practical return of the investment in research.

It communicates to the non-specialist public how scientific research was done in the past and what it has produced, opening the mind on today's science and its value for the future.



evolution of communications

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A research institute with a museum makes public its *raison d'être*, its history, its scientific and social value by speaking a language that everyone can understand.

By disseminating scientific culture, the museum lays the foundations for ensuring society's recognition of the institute's research activity.

For these reasons, I believe it is important for IRSA to implement and enhance the *Crypta Baldi*, its museum of ancient limnological instruments.

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thanks for your attention

...and see you at *Crypta Baldi* ver. 2.0!

roberto.bertoni@irsa.cnr.it

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