

Entry Number: 01

Title:

MS papers on the structure of the nuclear atom;

Theory of structure of atoms, Deflection of α particles through a large angle, Deflection if centre is attractive instead of repulsive, Law of force, Large deflections, Effect of mixture of velocities, Further calculations (later incorporated and published as The scattering of α and β particles by matter and the structure of the atom, Philosophical Magazine, series 6, vol. 21, May 1911

Location & Classmark:

Cambridge University Library MS.Add.7653:PA.194

Author:

Ernest Rutherford

Creation Date:

ca. 1910-1911

Story:

The Rutherford gold foil or Geiger-Marsden α -particle scattering experiment is one of the foundations of modern physics. It was the first experimental demonstration that, rather than the atom being an amorphous positively charged mixture embedded with negatively charged electrons as William Thomson (Lord Kelvin) and J.J. Thomson suggested, the atom had in fact a massive, positively charged nucleus taking up a very small space in the atom. This marked the discovery of the fundamental model accepted in atomic and nuclear physics throughout the 20th century and up to our time.

These papers are Ernest Rutherford's calculations used to prove that the results obtained by Hans Geiger and Ernest Marsden were explained by the postulation that the atomic nucleus was enormously dense, though minute.

In addition to the experiments leading in time to the discovery of sub-atomic particles and the stimulated fission and fusion of nuclei in weaponry and civil power-generation, our astrophysical ideas about matter collapsing to form white dwarf and neutron stars and eventually black holes, stem directly from the experimental work at the University of Manchester carried out from 1908 and 1913.

Entry Number: 02

Title:

The Golden book of the C.U.M.C.

Location & Classmark:

The Pendlebury Library of Music, N/A

Author:

Various

Creation Date:

1891 - 1989

Story:

This is a unique and quirky item, containing signatures and short musical quotations of famous composers and conductors who were asked by Cambridge University Music Club to sign this “golden book” on their visit to Cambridge over a period of almost a century. Many of the composers who signed had received honorary music degrees, including Dvořák, Saint-Saëns, Bruch and Tchaikovsky. Content ranges from simple dated signatures to more elaborate entries by, for example, Herbert Howells, Roberto Gerhard and György Ligeti.

The Golden Book illustrates the history of music research and performance in Cambridge in an unusual and visually attractive way. Cambridge University Music Club was established in 1889 and was, alongside Cambridge University Musical Society (CUMS) and later also Cambridge University Chamber Orchestra (CUCO), an important Cambridge music institution. It was wound up in 2010, when it merged with CUMS.

The notebook is a lovely object that complements the University Library's CUMC archival holdings, Cambridge related concert programme collections, and early printed music collections (partly catalogued online). It is unlikely to attract external funding for digitisation but is a beautiful example of an item that can highlight related research collections, spread out over various Cambridge libraries.

The American & the Cambridge
 University Musical Club
 report to their Spring
 concert of the 19th June
 the "GOLDEN BOOK"
 of the Club.

10 May 1899.



10 May 99.
 Cambridge
 19 June 1899

1. *Mass* *Mass* *Mass*
 2. *Mass* *Mass* *Mass*
 3. *Mass* *Mass* *Mass*

1. *Mass* *Mass* *Mass*
 2. *Mass* *Mass* *Mass*
 3. *Mass* *Mass* *Mass*

Cambridge Academy
 Cambridge Nov. 27
 1898

Henry Jones

HYMNODY
 Robert Graham
 1963
 1. *Strong* *Strong* *Strong*
 2. *Strong* *Strong* *Strong*
 3. *Strong* *Strong* *Strong*

1. *Strong* *Strong* *Strong*
 2. *Strong* *Strong* *Strong*
 3. *Strong* *Strong* *Strong*

26 January 1967

Henry Jones

Entry Number: 03

Title:

Manuscript Portolan Chart of the Aegean Sea and part of the eastern Mediterranean

Location & Classmark:

Cambridge University Library, Maps.Ms.Plans.697

Author:

Estienne Bremond

Creation Date:

Ca.1650

Story:

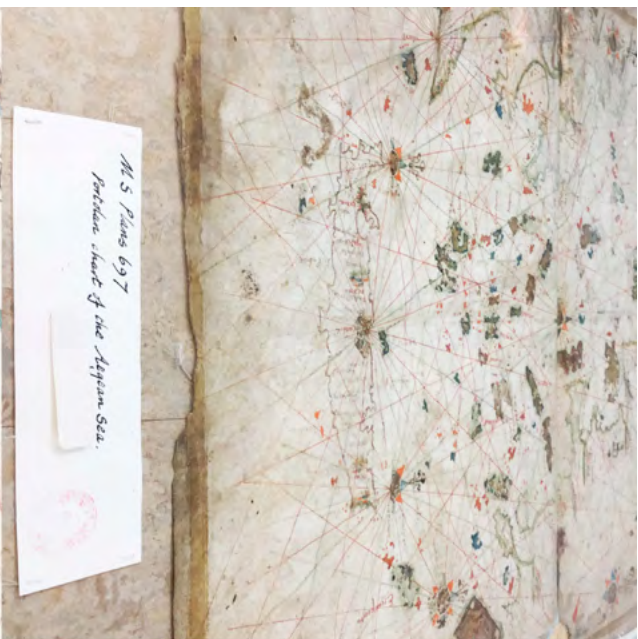
The library possesses no other original examples of this rare and important type of early maritime chart. These charts are unique manuscripts items of global interest and the digitisation of our sheet would assist in the greater effort to identify all such holdings worldwide.

The story behind the unearthing of our sheet is of particular note as it was acquired, quite by accident, amongst a miscellaneous collection of some 200 Turkish maps purchased in 1969. A very welcome surprise!

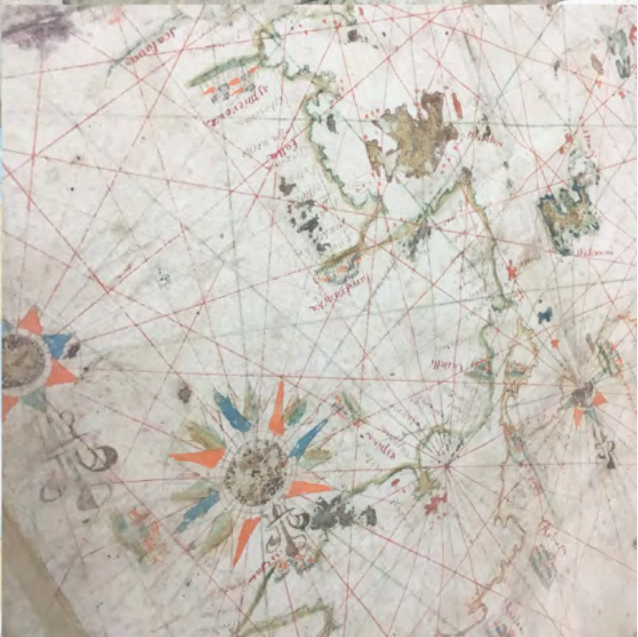
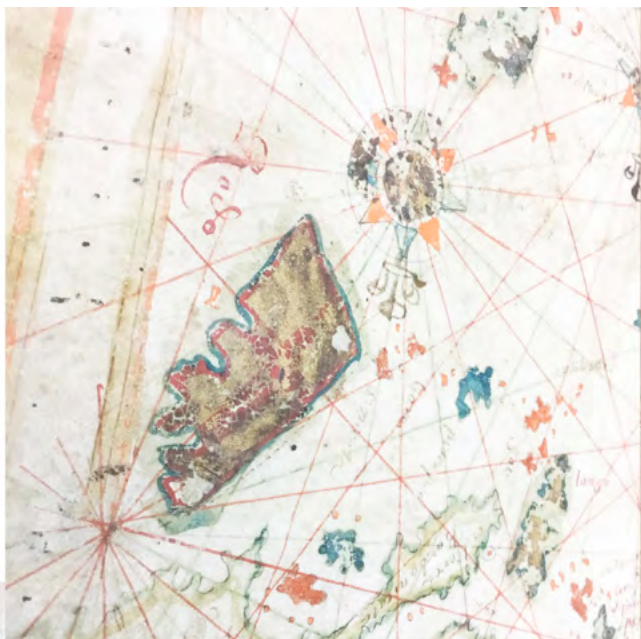
Portolan derives from Porto meaning harbour and is used to denote the charts which would accompany portolans, or sailing guides. They were first made in the 13th century in Italy, and later in Spain and Portugal, with later 15th and 16th century charts noted for their cartographic accuracy. With the advent of widespread competition among seagoing nations during the Age of Discovery, Portugal and Spain considered such maps to be state secrets.

Old manuscript mapping of this sort preserves a vision of our world that, due to its graphical nature, is innately captivating to the viewer. When compared to modern mapping the chart's accuracy is still very favourable and for this reason we often display it alongside a modern chart of the same region. Such a display has always proven to be very popular with visitors.

Digitisation of this item would represent a welcome conservation effort, preserving a unique treasure that would be a handsome addition to the Digital Library.



*Ms. S. 697
Particular chart of the African Sea.*



Entry Number: 04

Title:

Botanicum antiquum

Location & Classmark:

Cambridge University Library, MS Ee.5.7

Author:**Creation Date:**

17th century

Story:

This is a pictorial guide to medicinal plants, with some reptiles and insects added at the end and containing a coloured drawing on each page and the name of each of the specimens written in Hebrew and other languages including Greek, Arabic and Turkish. The names are arranged in the order of the Greek alphabet.

The volume appears to have been compiled early in the early 17th century and there is an ownership note from an Eliezer in Constantinople in 1637 and a title page note added in Smyrna in 1682 perhaps indicating a connection with the Levant Company, which was a common source of manuscripts entering European collections at the time.

The plants and animals are clearly drawn with colours (mostly green, brown and reds) added later.

A label in the front cover identifies the volume as a donation from Thomas Adams, founder of the Chair of Arabic in Cambridge, although it is thought that it was purchased from the proceeds of a fine levied on Edmund Castell, (the second Sir Thomas Adams professor), for not fulfilling his lecturing commitments.

The volume is interesting in that the multilingual texts denote a cross-cultural context of the work. In addition, the drawings show many characteristics in common with the style of European herbals, floras or botanical works of a similar era.

The highly-coloured nature of these images, the cross-cultural nature of its content and origins and the connection with Sir Thomas Adams, all make it an interesting candidate for digitisation.

It is a unique volume in our collections and yet shows, in its intellectual content and artistic tradition, many connections to other works we possess in this subject area in European collections, both manuscript and printed items.

Entry Number: 05

Title:

Paintings and Drawings of the Royal Observatory, Greenwich

Location & Classmark:

Cambridge University Library, Various from RGO 116

Author:

Richarda Airy (née Smith), Elizabeth Smith, Caroline Smith, Christabel Airy & unknown

Creation Date:

Ca.1836 - 1880

Story:

The Royal Observatory, Greenwich: images from women who called the Observatory 'home'

These drawings and watercolours of views of the Royal Observatory, Greenwich, are not only visually stunning, they provide an early record of the Observatory buildings and grounds, much of which underwent substantial changes in later years. Importantly, they were created by four women closely associated with the early history of the Observatory, two of whom lived much of their lives at Flamsteed House.

In 1830, Richarda Smith (c.1805-1875) married George Biddell Airy. Upon Airy's appointment in 1835 as the seventh Astronomer Royal, they moved into their new home of Flamsteed House, Greenwich, with their young family. Richarda was an amateur artist, a talent shared by both her sisters, Elizabeth and Caroline Smith, and by her daughter Christabel (1842-1917), who grew up at the Observatory and who later exhibited some of her views of Greenwich at the Ipswich Fine Art Club.

The drawings and watercolours of Greenwich by these talented women, held at RGO 116, would make a stunning addition to the Digital Library. The pencil drawings are extremely fine and the watercolours are vibrant and visually striking. They are limited in number (28 items) and could be imaged all or in part. As they are newly catalogued, the images have yet to be 'unveiled' to the public and digitising them would be a nice way of showcasing the wider collection of drawings held at RGO 116.

The images provide important evidence of the changing landscape and architectural history of the Royal Observatory in the mid-late 19th century. They also provide a female perspective on the experience of living there, created by women who called the Observatory 'home'. There is, as yet, little or no female representation on the Digital Library. Digitising these drawings and watercolours will help redress this gender imbalance and show off the work of some of the wonderfully talented women who helped create the archives held at the UL. (Need I mention that 2018 marks 100 years of votes for women? What better way to mark it!).



Entry Number: 06

Title:

Diary of a journey to Greece (1891-92)

Location & Classmark:

Christ's College Lower Old Library, MS. Box 186 (i)

Author:

William Henry Denham Rouse

Creation Date:

1891

Story:

Classicist and committed educational reformer William Henry Denham Rouse (1863-1950) was an intrepid traveller. Christ's Library holds 11 of Rouse's manuscript travel journals which span the period 1891-1932 and detail journeys to Greece, Italy and Russia. Our bid would involve digitising the oldest of Rouse's travel journals, which describes his trip from Cambridge to Greece over Christmas and New Year 1891-92.

This unique item provides a fascinating insight into some of the most famous Classical sites of Greece, such as Olympia, Corinth and Eleusis. His journal is filled with vivid descriptions of the Grecian landscape and the lived experience of Greeks in the nineteenth century. He documents his explorations in great detail – especially the trials of nineteenth-century travel! This intriguing journal is also filled with intricate sketches of landscapes and objects, bringing to life the details of his adventures.

The 'quirkiness' of this item comes from Rouse's idiosyncratic sensibilities and wit. The journey from Cambridge to Greece was not an easy one, but Rouse confronted trying circumstances with characteristic resilience and a stoic sense of humour. The travel journal, therefore, would make a valuable and unique contribution to the travel writing genre, and complement other travel journals displayed on the Cambridge Digital Library platform.

Rouse's oldest travel journal has the potential to inform many areas of research, providing a fresh perspective for classicists but also for political scientists, historians and literature students. Importantly, these travel journals will appeal to those outside of the academic community; the content is accessible, informative and engaging.

Rouse, a well-known classicist and educator, was also a great letter writer, who corresponded with important twentieth-century figures such as Ezra Pound. It would be fantastic to reveal another side to Rouse by digitising this journal so that we can share his spirit for adventure more widely.

Entry Number: 07

Title:

Rockets, confetti and eggshells used in 1897 protests

Location & Classmark:

Cambridge University Library, DOC 812

Author:

N/A

Creation Date:

1897

Story:

It's a tangible and unusual reminder of the depth of outrage felt by male students in Cambridge during the late C19th and early C20th centuries in relation to granting equality to female students.

Women could attend lectures and sit the same exams as their male counterparts but were not allowed to be full members of the University until 1948. In 1890 Philippa Fawcett topped the exam results but, as a woman, could not be conferred with a degree. Votes to change this inequality often ended in protests and riots by male students.

On 21st May 1897 students gathered outside Senate House where a vote was taking place about granting full degrees to women. They showed their opposition by protesting aggressively and noisily. Rockets were set off and items such as eggs were thrown. An effigy of a female cyclist representing women students was burned in Market Square.

These fragile items bring home how physically threatening it must have felt for these women, who simply wanted their hard work and exam success acknowledged equally. It's important to remember how inequality can be sustained through the determined belief of individuals.

It is unusual for objects such as these to survive as they were designed to be thrown away. They can be best presented through imaginative digitisation as handling has to be restricted. Digitisation can bring them to life as 3D objects.



Entry Number: 07

Entry Number: 08

Title:

The Maxim Aircraft

Location & Classmark:

Cambridge University Library, MS Vickers 2008

Author:

N/A

Creation Date:

1894

Story:

This photograph album contains photographs, dating from 1894 contains photographs of what could be deemed as the first manned powered flight. The photographs are of a 'flying machine' designed and built by Sir Hiram Stevens Maxim, American born engineer and inventor of, amongst other things, the first machine gun.

The rudimentary aircraft powered by two 150 hp steam engines and weighing in at over 4 tonnes was designed to run on a line of light railway. In order to prevent the plane from soaring, uncontrolled, into the air additional wheels, fitted as 'outriggers,' were designed to run on inverted train tracks fixed on wooden rails raised two feet in the air running parallel with the railway.

Its maiden, and only, flight took place in Kent with Maxim and two assistants on board. Within seconds of launch, the machine had risen off the inner wheels and could be seen to be flying for some 150 metres, held down by the outer inverted rails. Unfortunately, the airplane proved too powerful for the flimsy wooden structure, broke free of its restrictions, and attempted to climb into the air, only to catch on the rail, twist round and crash to the ground. Maxim's assistants were thrown through the air, sustaining minor cuts and bruises, whilst Maxim himself hung on to a strut and landed with the craft, walking away without a scratch.

The album contains photographs of the aircraft, its maiden flight and of it under construction. Not only is it of historical importance, but it also shows the breadth of material which we hold in the Manuscripts department, unlike anything already in the Digital Library.



Entry Number: 09

Title:

An Historical Atlas containing Maps of the World at Twenty-One Different Periods : With a General View of Universal History.

Location & Classmark:

Whipple Library, STORE 57:15

Author:

N/A

Creation Date:

1830

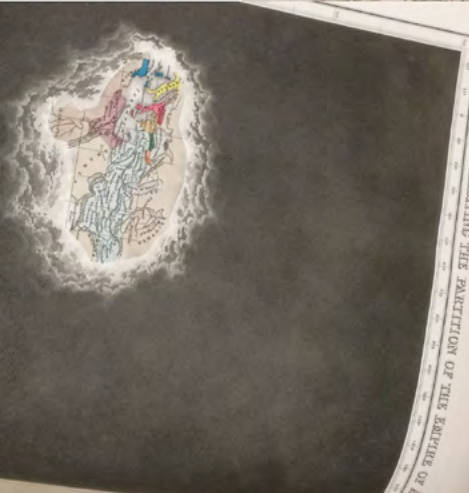
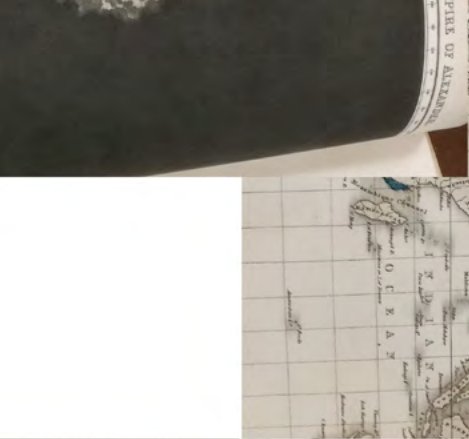
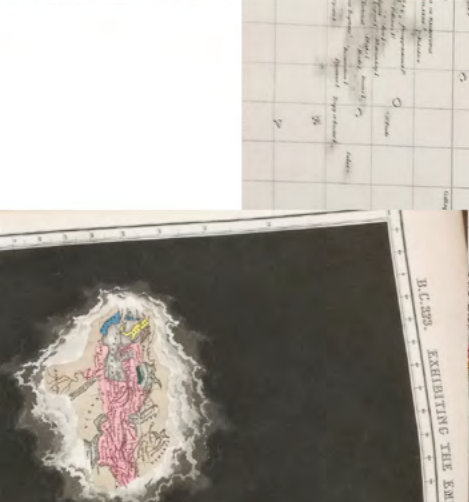
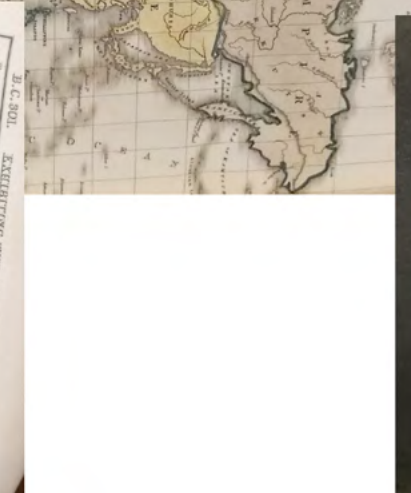
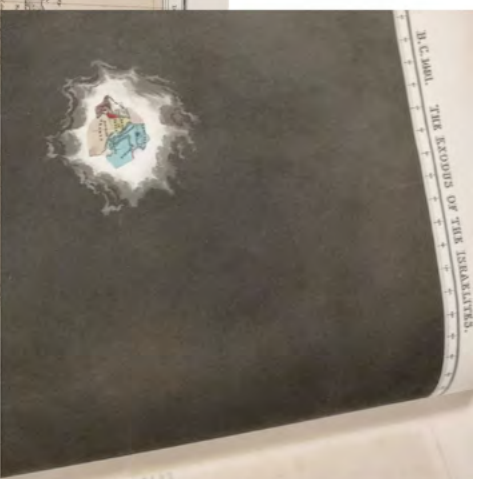
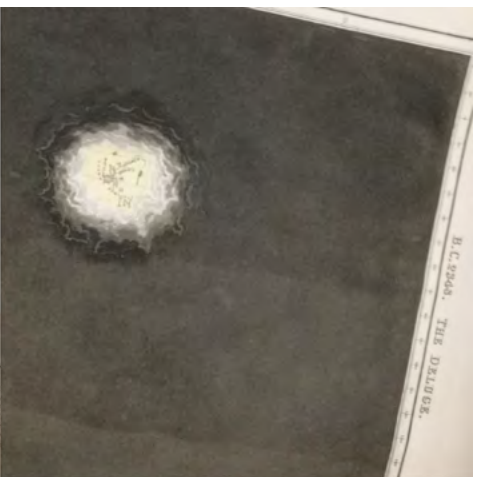
Story:

'The Maps are Twenty-one in number; and nothing can be more interesting and amusing than to turn them over, one after the other, and observe the gradual advance of civilization; from the Rembrantish effects of the first, in which Eden is the only bright spot, amidst a mass of deep shadow, to the Rubens like diffusion of light, and of gay colours, by which the world in its present state is represented.

The descriptions contain a condensed, but perfectly intelligible, and, as far as our inspection allows us to judge, correct narrative of all the great contemporaneous events of history. Whoever reads them attentively, assisting his comprehension, and ensuring his remembrance , by an examination of the accompanying Maps, will acquire a knowledge of general history possessed by few ; and will be admirably qualified to prosecute with advantage more minute inquiries into the history of any country, or epoch, which may have peculiar claims on his curiosity'
– Literary Gazette, Oct. 9, 1830.

This books visually striking style lends itself well to digitisation. I think it would be possible to do something really cool by layering the maps over each other, so that one could scroll through, rolling back the black clouds of ignorance.

A fascinating piece of late Georgian cartography, of interest to scholars in a range of disciplines and the general public.



Entry Number: 10

Title:

A collection of calligraphy albums

Location & Classmark:

Cambridge University Library, Or. 2509, R. 5, Oo. 6 36 & Or. 498

Author:

N/A

Creation Date:

19th C. (but exemplifying an ongoing medieval tradition!)

Story:

These albums are selected specimen of Islamic calligraphy, and other types of fine art, produced in the late 19th to 20th Century, while, exemplifying an ongoing medieval tradition. These types of albums portrait a genre, which is very under- studied.

At Cambridge, we are fortunate to have a PhD student at the Faculty of Asian and African Studies, who is currently focusing on an item from this genre (not from Cambridge) and has kindly provided us with descriptive metadata for these objects.

The albums are of ample interest to students and specialists of Islamic palaeography, Art History and Codicology. If accessible from CUDL, they could very effectively be used for teaching the Islamic calligraphy course at FAMES, which has been taught by a practicing calligrapher during Michaelmas term, for the past few years.

When showcased in CUDL, the albums will provide a further resource for the active fundraising campaign on Islamic Art and thus be widely shared and reused for outreach and other educational purposes.

In their current state of preservation the items are fit for imaging, however extensive handling – as required for teaching purposes- will inevitably cause damage to the unbound but loosely glued pages forming a harmonica style gathering.

No doubt, digitisation will reduce the damaging effect of frequent handling and elongate the current state of preservation.

