OVERVIEW OF OBSERVATORY ARCHIVES

COMPILED BY

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WORKING GROUP ON LIBRARIES, COMM. 5

Larger Astronomical Archives Programs

Well organized National Archives in many countries.

Support comes from many sources:

National Government (example Italy – Specola 2000)

University to which the Observatory is attached (example Lick Obs., Harvard Univ. Obs. , Princeton Univ. USA)

Libraries and Archives Dept. within a University (example RGO and ROE archives, UK)

Dedicated efforts of individuals within countries (example Wayne Orchiston, Australia and New Zealand)

Italy – Specola 2000 Project

Shown above: Observatory at Padova

Italy - Specola 2000 - Archives of all Italian Observatories

http://www.archivi.beniculturali.it/divisione_III/progspecola.html

Lick Observatory

Lick (Univ. California, Santa Cruz) **Mary Lea Shane Archives of the Lick Observatory** http://library.ucsc.edu/collect/lickarchives/

Harvard Observatory

Cecilia Payne-Gaposchkin 1900-1979

Harvard University Observatory Archives
http://hul.harvard.edu/huarc/access_tools.shtml

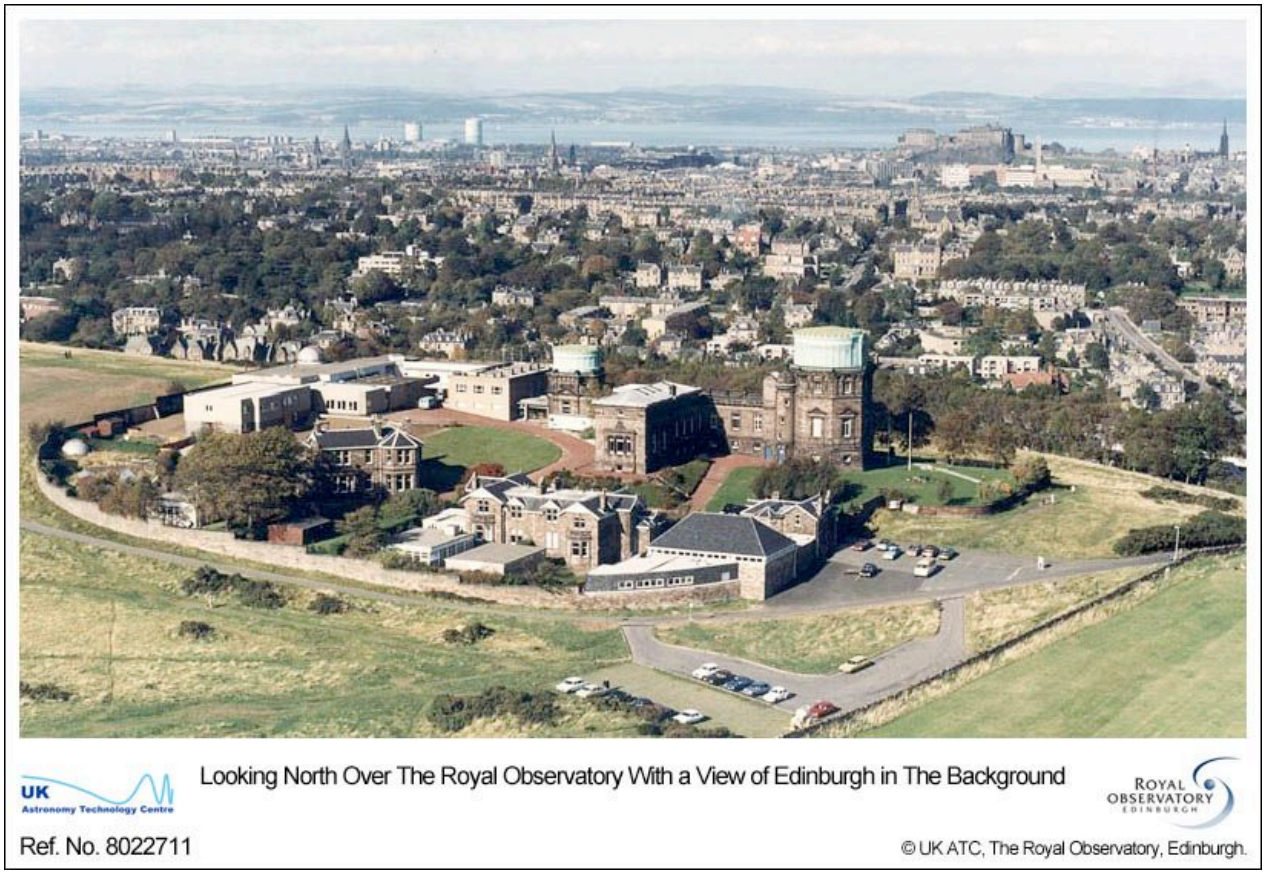
Royal Greenwich Observatory

UK - Royal Greenwich Observatory (RGO) Archives

Now housed within Cambridge University Archives

http://www.lib.cam.ac.uk/readershandbook/D12.html

Edinburgh



Royal Observatory Edinburgh (ROE) Archives

http://www.roe.ac.uk/roe/heritage/index.html

Australia and New Zealand

Carter Observatory,
Wellington, New Zealand

Sydney Observatory
Time ball

Sydney Observatory about 1860

Compilation of archives within different institutions begun (Wayne Orchiston)

What about archives programs at smaller astronomical institutions?

** Smaller institutions do not often have the support from the larger group (Natl. Govt., University, Larger Library, etc.)

**** However, these smaller institutional archives are also very important and should be preserved and made available.**

** Brief report on 3 small institutions within the USA who have had great success in organizing their archives on a very limited budget. There are most likely similar successful programs in many countries which can also serve as examples for other archival collections.

Archives Programs at Smaller Astronomical Institutions - Successes on Limited Budgets

Lowell Observatory

Antoinette Beiser, Librarian asb@lowell.edu

National Radio Astronomy Observatory

Ellen Bouton, Archivist ebouton@nrao.edu

Yerkes Observatory

Judy Bausch, Librarian jab@yerkes.uchicago.edu

LOWELL OBSERVATORY- USA
Librarian/Archivist Antoinette Beiser

Founded in 1894 by Percival Lowell, it was here on Feb. 18, 1930, that Clyde Tombaugh discovered the ninth planet Pluto. It was also at Lowell that astronomer V. M. Slipher gathered the first evidence that the universe is expanding.

Shown at right: The oldest office building at Lowell, the Slipher Building was the former home of the library and archives. Some archival material such as the plates and older publications are still housed there.

Lowell Librarian in charge of archives

The librarian has long had the responsibility for organizing and preserving the archives.

The current librarian has been successful in arranging for volunteers to work on the archives, including scanning of photographs and historical logbooks, putting plates into acid-free envelopes and various other tasks.

Although a one-person library, Antoinette Beiser has also been successful in getting small grants for the archives work from the state of Arizona and private foundations dedicated to education and preservation. Some of the funds are used to purchase supplies.

Right: **Percival Lowell at the 24-inch telescope.**

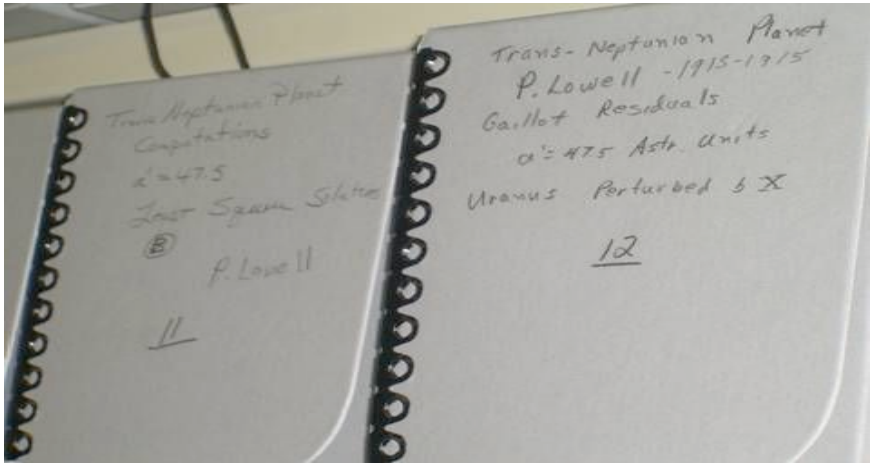
Left: The old basement bank vault with letter boxes

Below: Glass plates in the old vault, some in new acid-free envelopes.

For the glass plates of people, telescopes, buildings etc., all have been cataloged and given subject headings. Information which was on the old envelope has been included in a content field which is searchable from the historical photographs database on the library's web page.

Processed papers in the new vault with compact shelving

The librarian was able to obtain funding to have a new climate controlled above ground vault outfitted with compact shelving. Most of the correspondence and papers are in this vault.



Processed plates including Pluto discovery plates in the plate vault

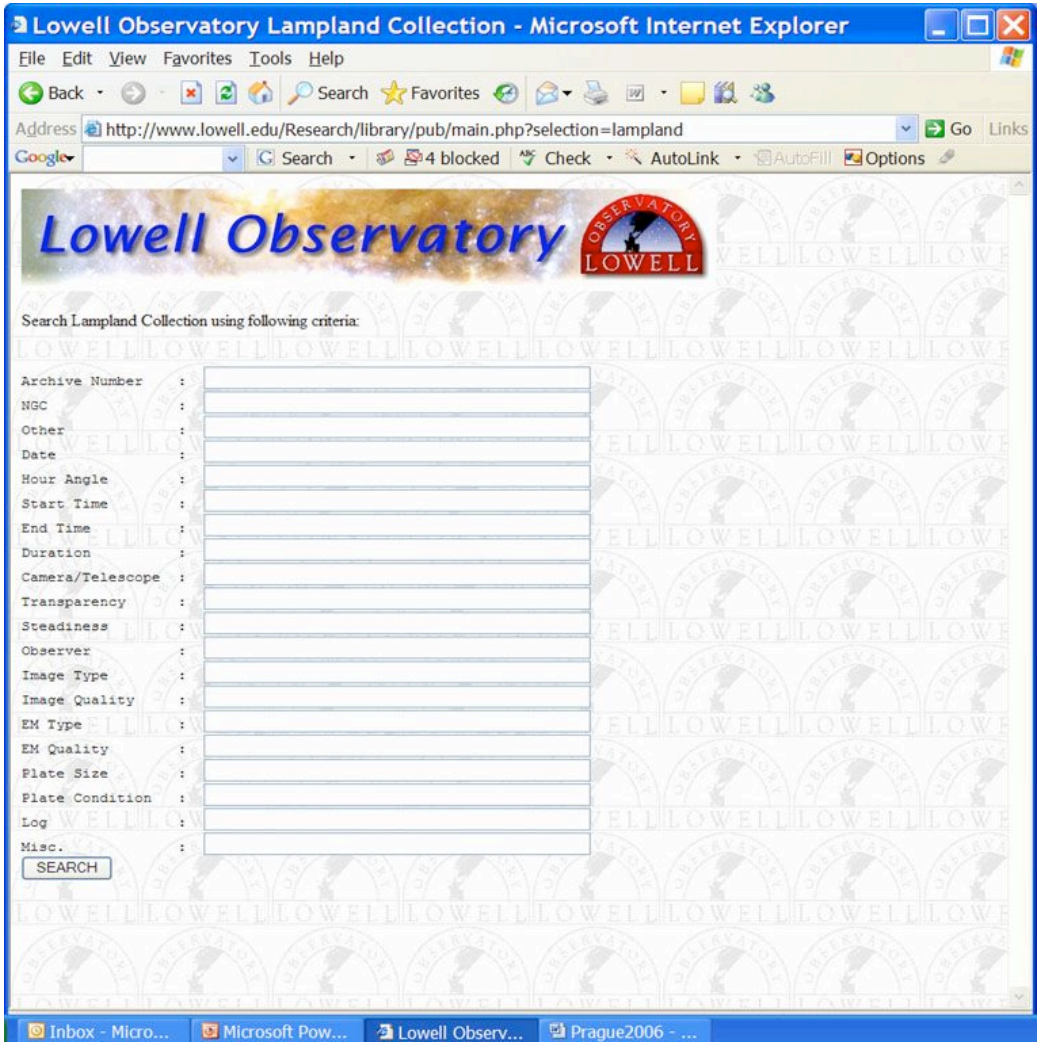
Plates have been removed from old acidic envelopes and placed in acid-free envelopes. Data information on the old envelopes has been preserved. In the case of the sky plates the old envelopes were saved. For some of the surveys, this information was entered into searchable databases on the library's web page.

Lampland Plate Collection Search Screen

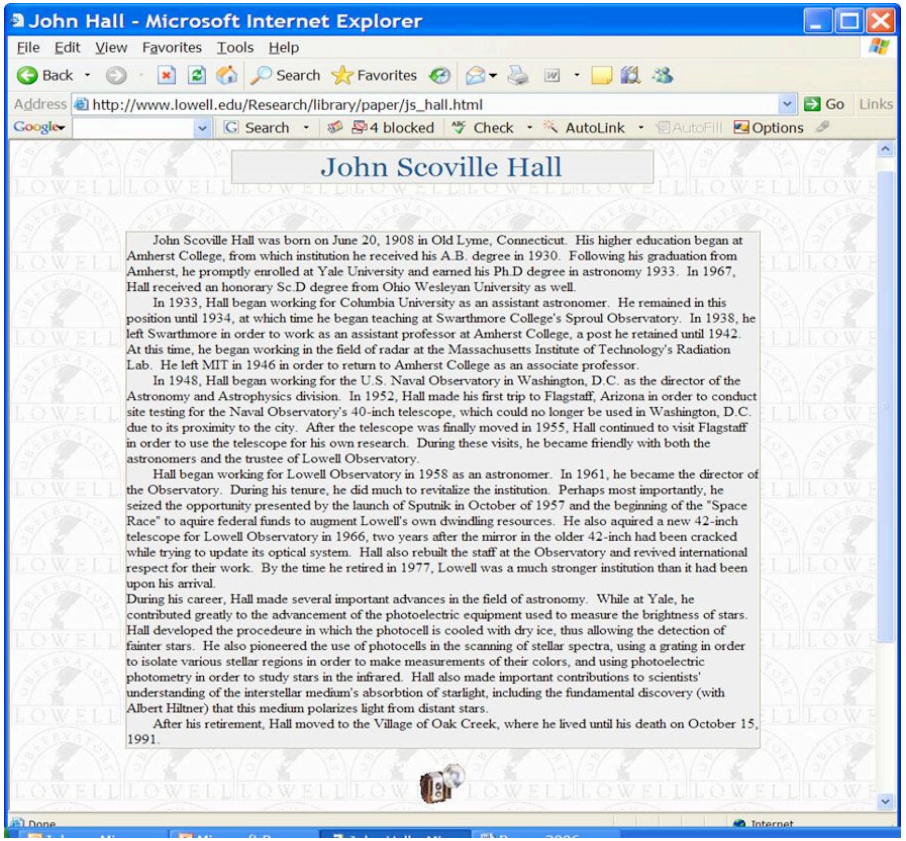
The plate information is online and can be searched via an online catalog using various terms.

Note this information on the Archives web page:
"Also, the library has quite a bit of material available which has not yet been sorted and indexed. This material will be added to the list as it becomes available."

This most likely describes on-going archival projects at many institutions.

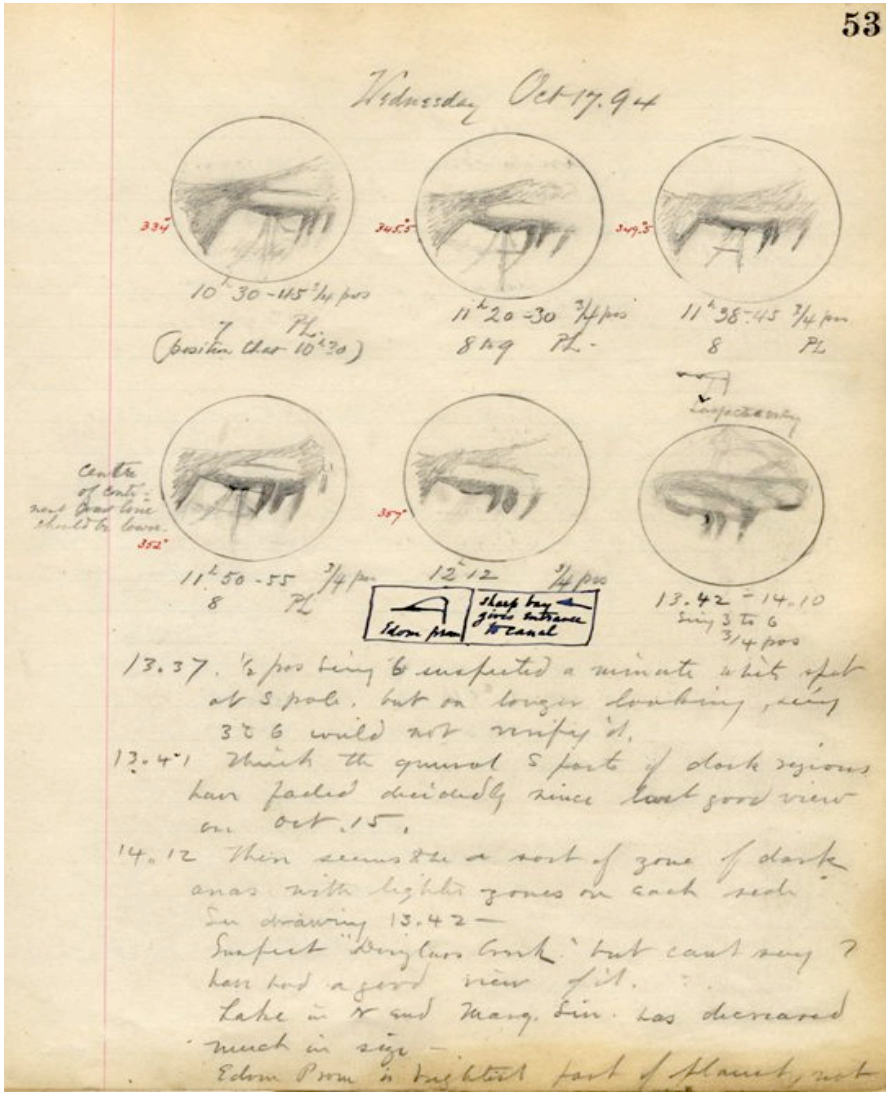


John Hall Biographical Note



Library intern processing papers of former Lowell Director, John Hall

Scanning historical logbooks



Volunteers are a great help…Lowell has four.

Flagstaff, Arizona has a large retirement community and many volunteers are retired professional people.

National Radio Astronomy Observatory Archives (USA), Ellen Bouton, Archivist

http://www.nrao.edu/archives/

The National Radio Astronomy Observatory is a facility of the National Science Foundation operated under cooperative agreement by Associated Universities, Inc.

1956-2003: *No* archives

- NRAO's 50th anniversary in Nov. 2006
- Before 2003:
  - Many concerns about preserving NRAO's historical records
  - Nothing done about concerns

But by 2002 –

Ellen Bouton, Librarian, planning retirement (after 27 years)

- Many long-time staff retiring
- Losing "institutional memory" about
  - what happened?
  - what records are held?
  - where are those records?

NRAO Archives policy

- Needed guidelines:
  - What will NRAO collect and preserve?
  - What will NRAO **not** collect and preserve?
- No archives policies at similar institutions
- Had to write a policy specifically for NRAO
- Made this policy available on Web for other's use

Key factors in success of NRAO archives program

Formal archives policy

Support from NRAO's Director and staff (**VERY IMPORTANT!)**

Policy guided the planning

What records does NRAO have? Where are they?

- NRAO began in 1956 in Green Bank WV
- By 2003, offices and telescopes in 4 states
- Materials in official files (file cabinet? storage room?) – or someone's desk drawer or garage!

NRAO new Archives space

- Building addition begun June 2003, completed spring 2005
  - Includes 1400 sq ft (130 sq m) archives space
  - Planned in initial construction
  - Compact shelving
  - Work areas for staff and researchers

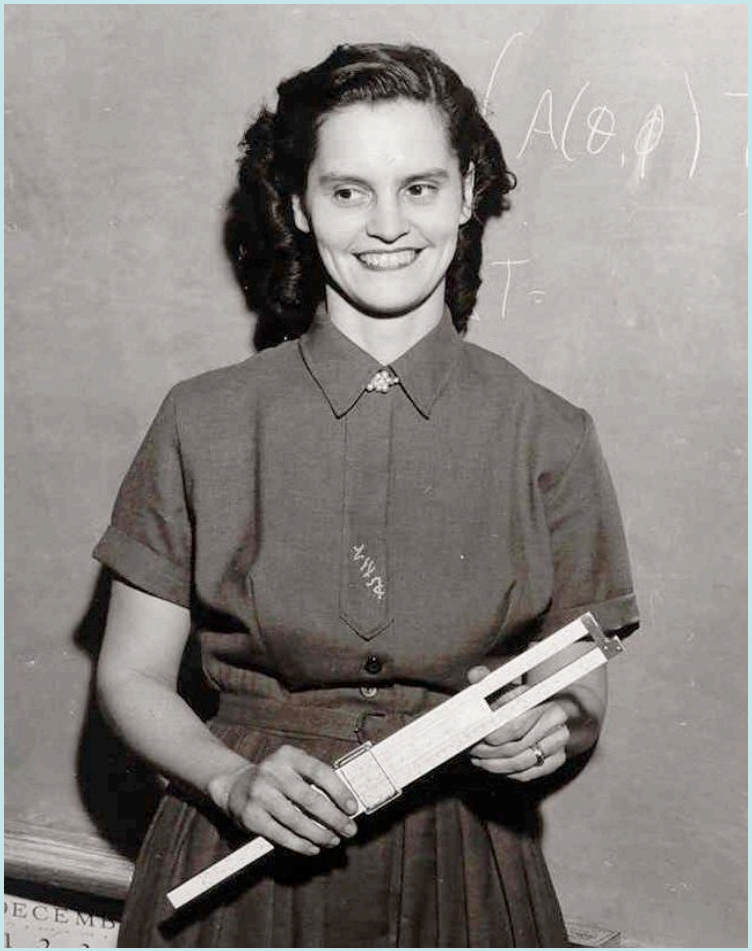
FUNDING:
Small ongoing budget
NRAO ~$47K/yr (part time archivist, supplies)
Part time asst paid from a gift fund
Use volunteers
-- Retired employees
-- Eagle Scouts

NRAO materials

- NRAO founding
- Director's Office files
- Telescope conception, design, construction
- Observing proposals and telescope logs
- Statistical and financial reports
- NSF contracts
- Photos and movies
- And lots more….

Nan Dieter Conklin

- First US woman whose PhD (1958) included original radio astronomy research
- First US woman to publish original research in radio astronomy in refereed journal (1952)
- Web resource: essay-length "Chronicle" about her astronomy career

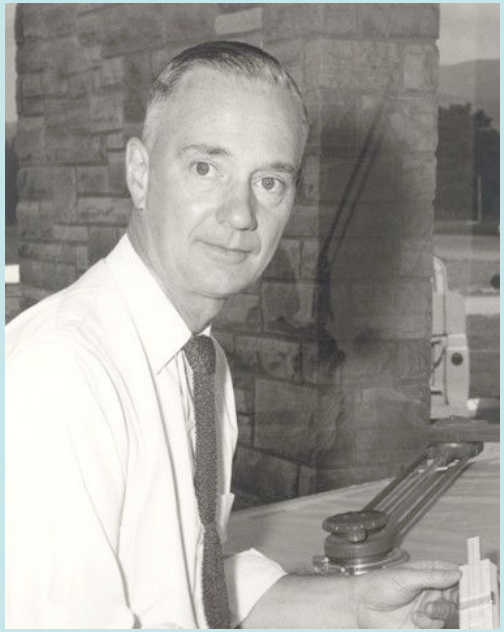


•Just published by NRAO and the NRAO Archives: Nan Conklin's memoirs of her professional and personal life, "*Two Paths to Heaven's Gate*".

Nan Conklin's "Chronicle" http://www.nrao.edu/archives/Conklin/conklin.shtml

Grote Reber

- "Father" of radio astronomy
  - First radio telescope in his backyard in Wheaton Illinois in 1937
- Work in radio astronomy, meteorology, geology, botany, archaeology (and more) up to death in 2002
- NRAO is repository for his papers



Right: Reber during NRL solar eclipse expedition, Attu, Alaska, Aug-Sept 1950

"This was probably the first total eclipse which was successfully observed during a torrential downpour of rain in a gale!" [letter to Oort, 5 Nov 1950]

Grote Reber papers http://www.nrao.edu/archives/Reber/reber.shtml

John Findlay papers

5th NRAO employee, worked 1956-1985

Project manager & engineer, building of 140ft, 300ft, 85ft, 12m telescopes

Long involvement in radio frequency protection and allocation (CORF, IUCAF)

Nat'l Academy of Sciences Space Science Board, chaired Lunar & Planetary Missions Board (manned Apollo missions to moon)

NRAO dedication, 1957. L-R: Dr. R.M. Emberson, Dr. L.V. Berkner, G.A. Nay, Dr. J.W. Findlay (seated), Prof. N.L. Ashton, Dr. D.S. Heeschen, and H. Hockenberry.

Doc Ewen's Recollections

http://www.nrao.edu/archives/Ewen/ewen.shtml

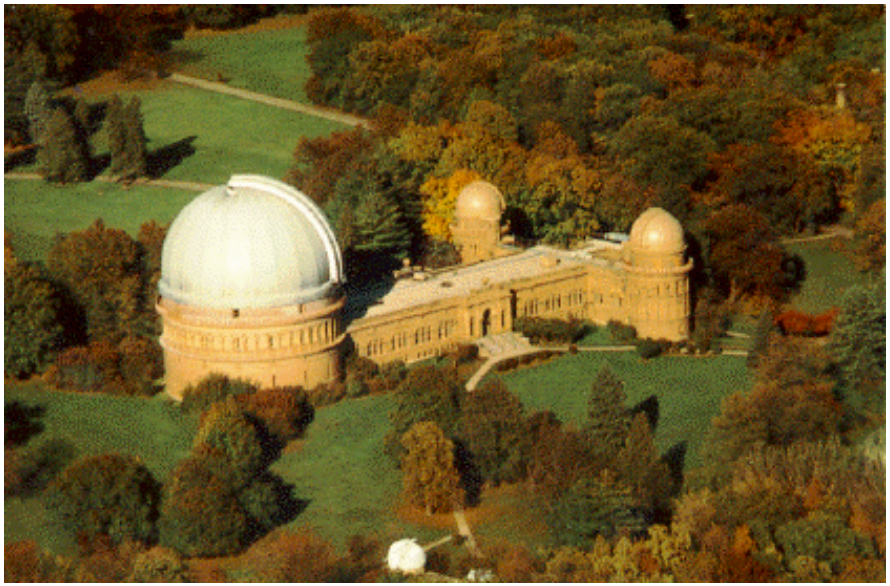
- **Web resource describes**
  - Ewen & Purcell 1951 detection of 21cm neutral hydrogen line using horn antenna at Harvard
  - Building of Harvard 24ft & 60 ft telescopes
  - Founding of NRAO
    - 1954 National Science Foundation committee that recommended a national radio astronomy facility, Green Bank WV as site for what became NRAO

John Kraus Papers

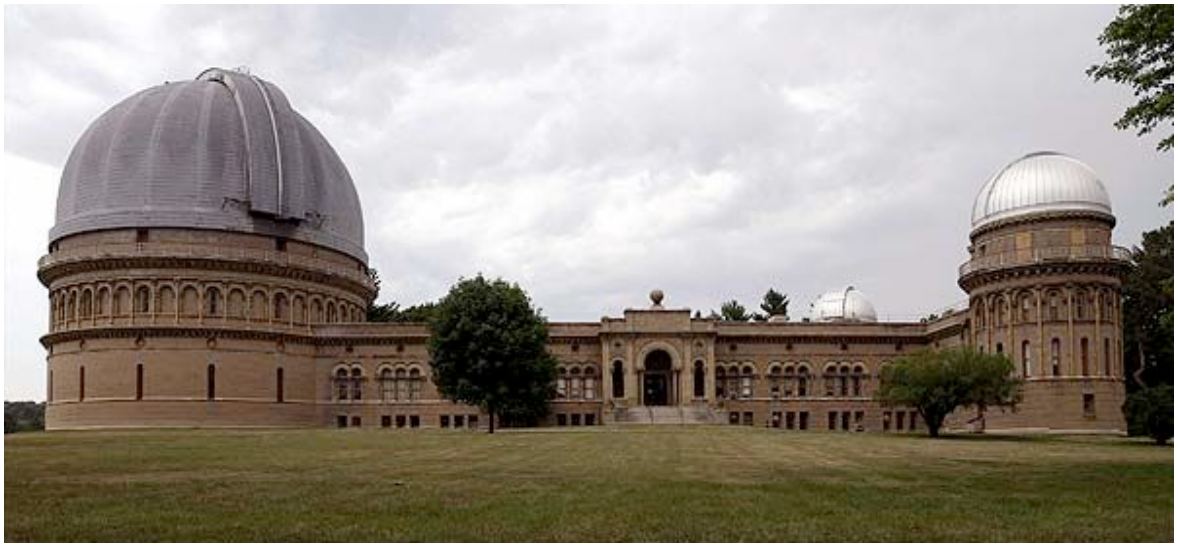
- Professor at Ohio State University
- Designed and built "Big Ear" radio telescope
- Many other antenna designs
- 1954 National Science Foundation committee that recommended a national radio astronomy facility, Green Bank WV as site for what became NRAO

Yerkes Observatory Archives - USA – Judy Bausch, Librarian/Archivist

University of Chicago plans to sell much of the Yerkes property for US $8 million. Property will be developed into luxury homes. However, the developer must get rezoning of the area approved, and there is much opposition by the community to this plan. Several alternate proposals are being considered.



Current plan is for the University to keep the Observatory open for 5 years and use the facility as an educational outreach tool for school children.

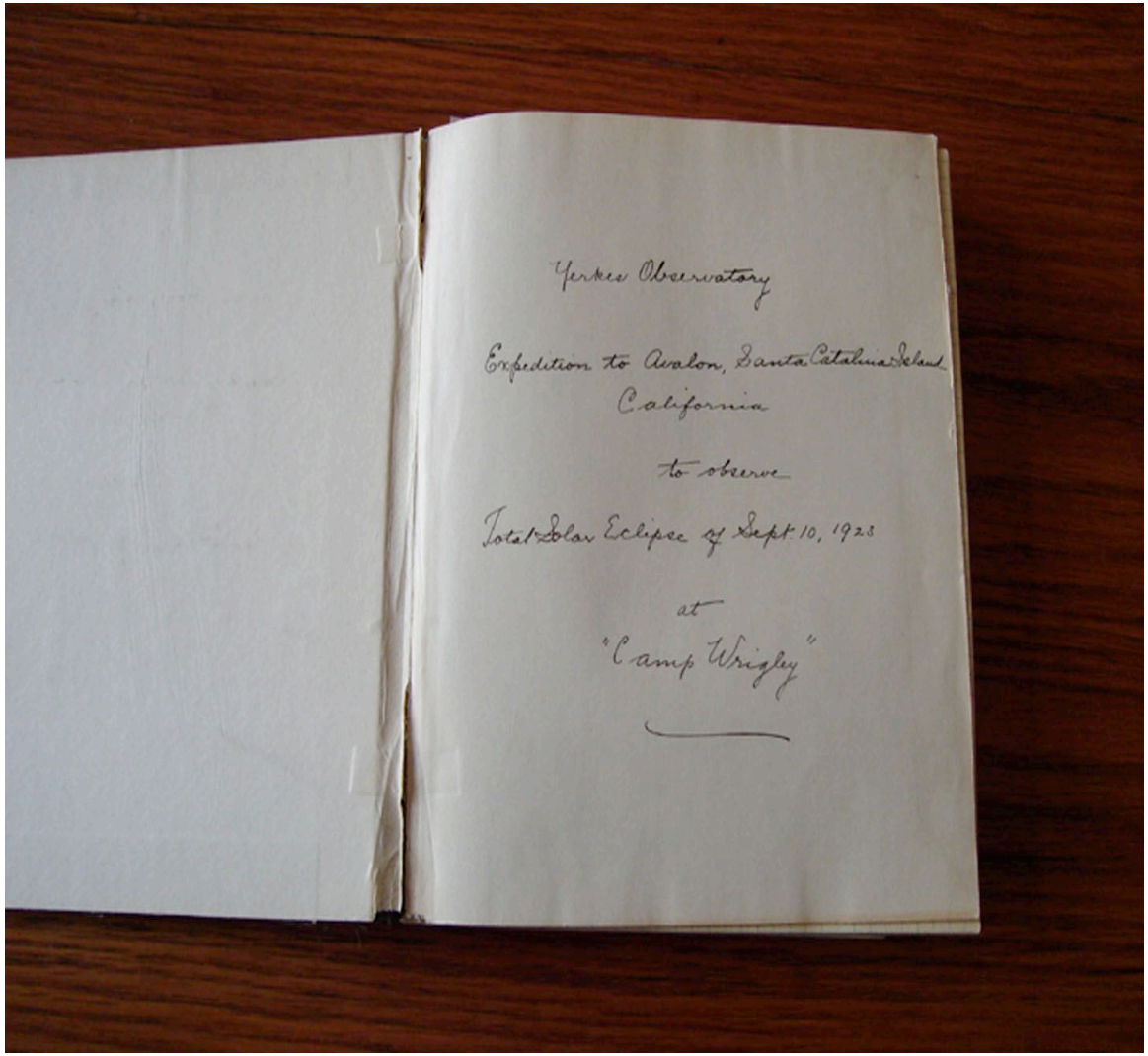


After 5 years, plan is unclear, it is hoped Yerkes will remain an educational site.

Yerkes Observatory Archives

At some time in the future, the Archives will move from Yerkes Observatory to the Special Collections Research Center, Regenstein Library, Univ. of Chicago. The librarian hopes to prepare more detailed finding aids for the archives before they move to Chicago.

Right: A scrapbook for the Yerkes expedition for the eclipse of Sept. 10, 1923.

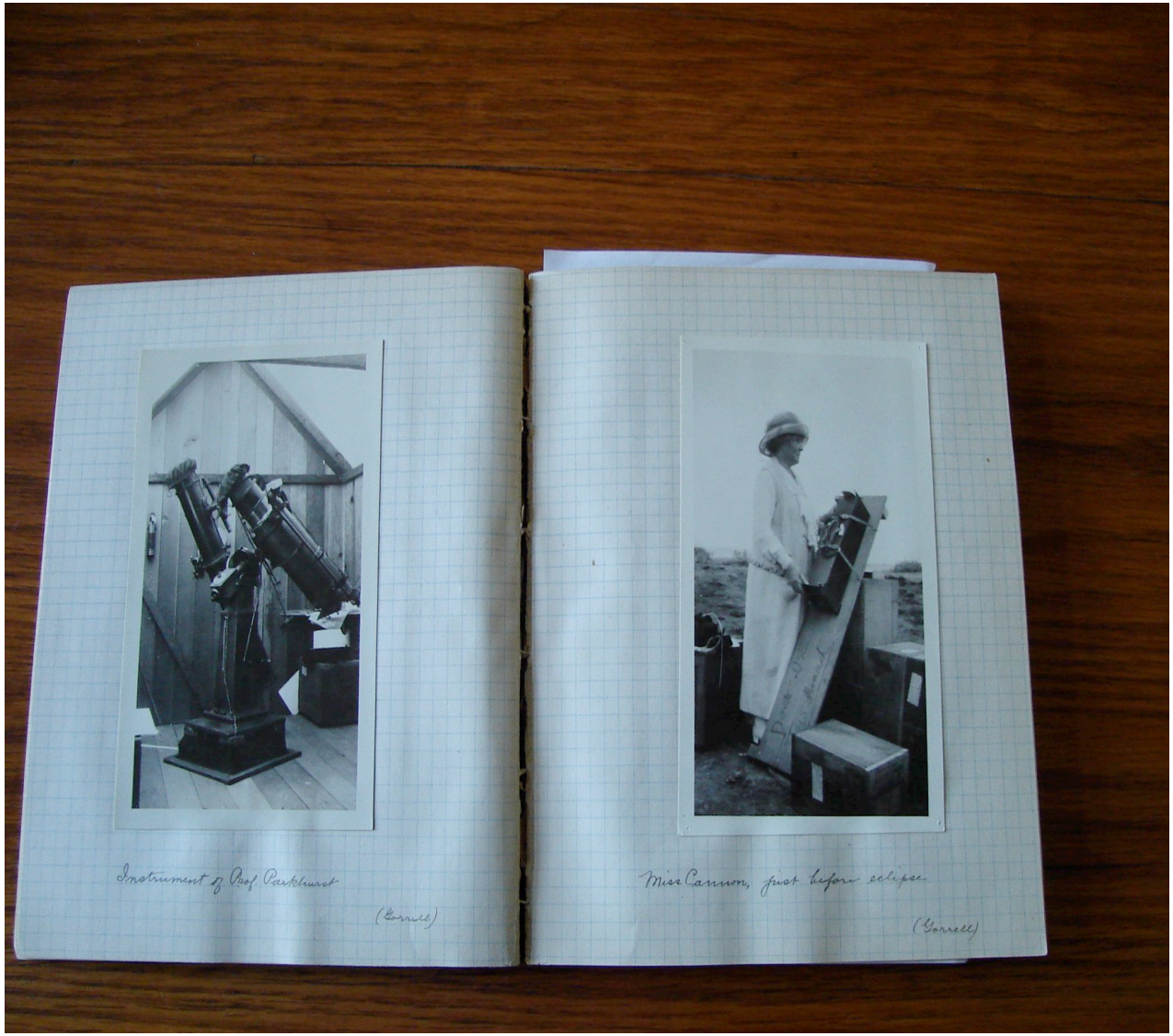


Yerkes Collections

Archives are primarily Director's Papers, beginning with George Ellery Hale.

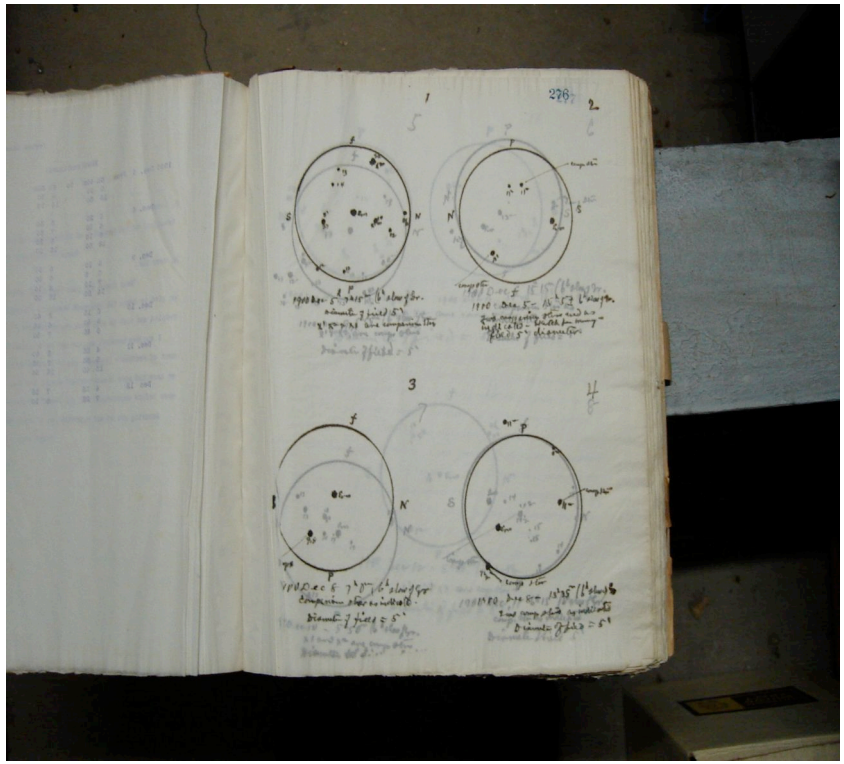
Selected Struve papers (director 1932-1947) were microfilmed by AIP and are available at several libraries.

Shown here are photos from the 1923 eclipse scrapbook: an instrument of J. A. Parkhurst's and a photo of Annie Jump Cannon



Although Yerkes is attached to a much larger institution (Univ. Chicago), for 30+ years all the work at Yerkes on the archives has been carried out by a single person, Librarian/Archivist Judy Lola Bausch.

Archives room

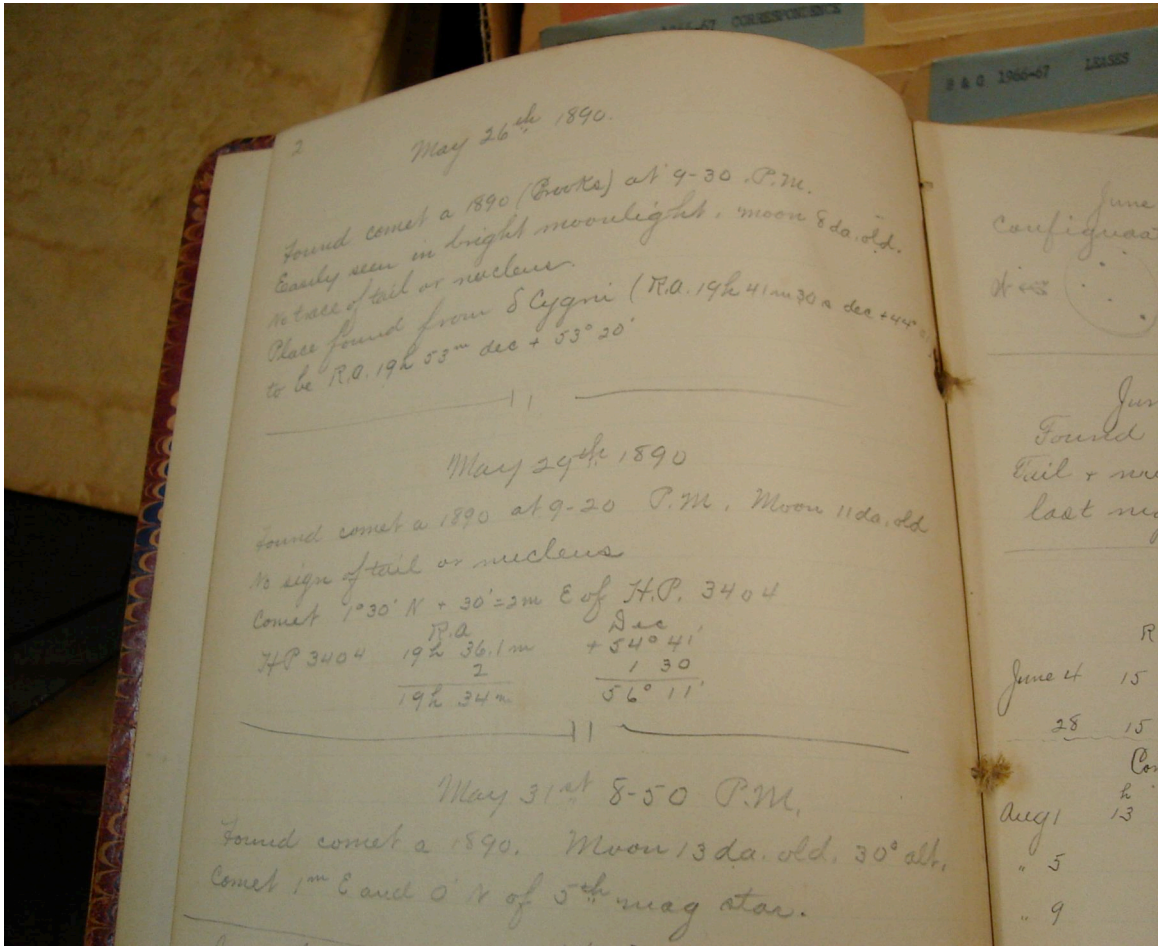


Page from one of the letter books, 1900

Yerkes Digital Photographic Archives

Plans are also underway to have the in-house digital photographic archives housed in the Special Collections Research Center at the Univ. of Chicago so they will be accessible to everyone. Judy Bausch plans to continue scanning the Yerkes photo collection with the additional images being added to this collection.

Right: An observing book from 1890, observer not identified. Observations not made from Yerkes.



Yerkes – other archival items

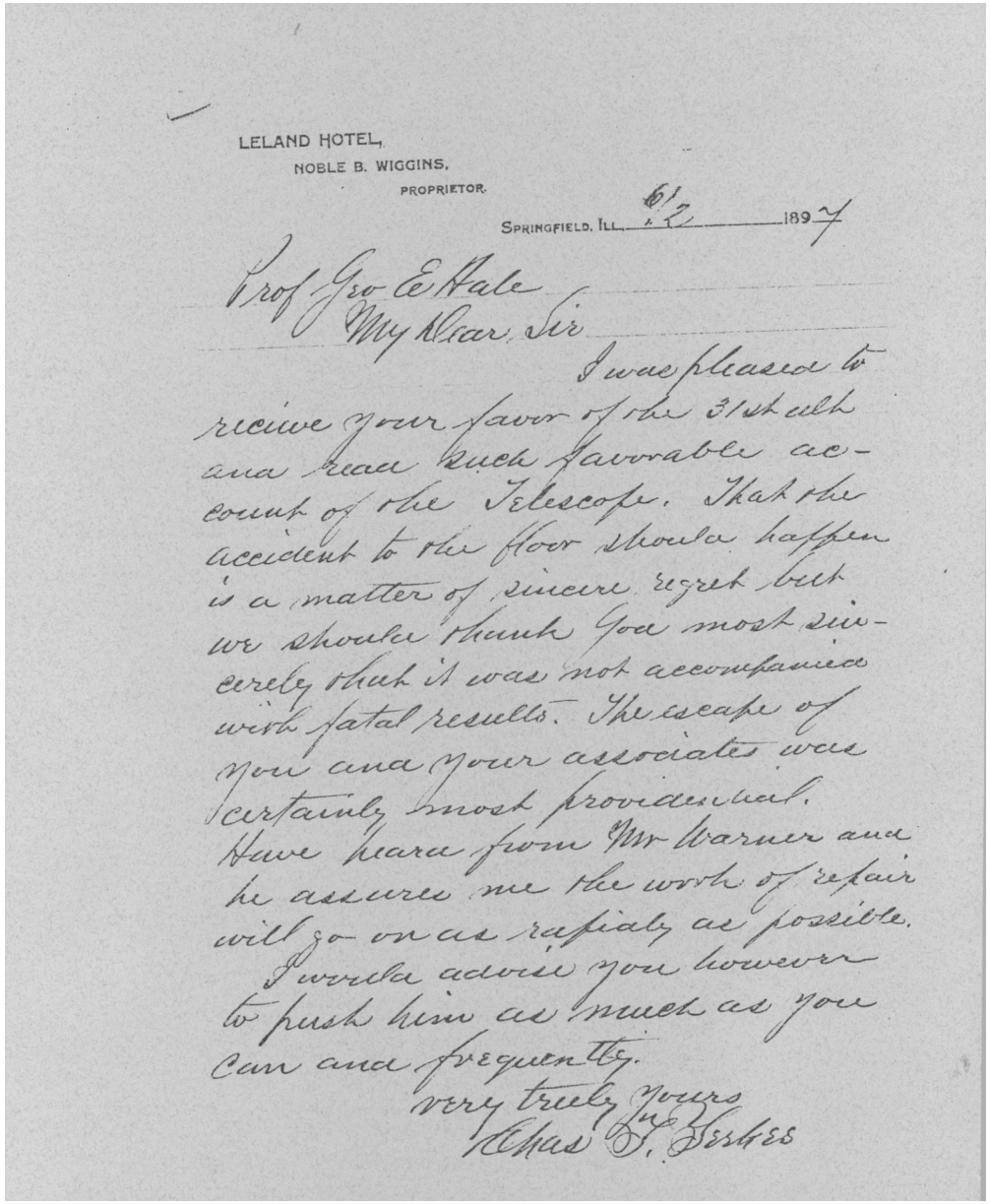
In addition to the Director's papers (which end in 1947), there are some smaller collections:

15 boxes related to McDonald Observatory, 1932-1940

5 boxes E.B. Frost material, 1899-1923

20 boxes ApJ materials, 1912-1934, later interfiled with Struve papers, then into separate ApJ files again 1947-1951.

Right: A letter from Charles Yerkes to George Ellery Hale, June 2, 1897 following an accident in which the elevated floor of the telescope collapsed. Fortunately, no one was on the telescope floor at the time..



LELAND HOTEL,
NOBLE B. WIGGINS,
PROPRIETOR.

SPRINGFIELD, ILL. 6/2 1897

Prof Geo E Hale
My Dear Sir

I was pleased to
recive your favor of the 31st with
and read such favorable ac-
count of the Telescope. That the
accident to the floor should happen
is a matter of sincere regret but
we should thank You most sin-
cerely that it was not accompanied
with fatal results. The escape of
you and your associates was
certainly most providential.
Have heard from Mr Warner and
he assures me the work of repair
will go on as rapidly as possible.
I would advise you however
to push him as much as you
can and frequently.

very truly yours
Chas T. Yerkes

Institutions described are only examples – there are other successful programs

- Smaller astronomical institutions in all countries should be encouraged to start an archival program, even with a very limited budget.
- Volunteers are very useful in these programs.
- Expertise possibly available from larger astronomical institutions who have successful archival programs.
- International Catalog of Sources (ICOS) maintained by the American Institute of Physics http://www.aip.org/history/