

Assessment of the Abt Archive for the  
American Astronomical Society  
2017 December 20–21

## Assessors

Julie Steffen, Director of Publishing, American Astronomical Society (AAS)

Jennifer Bartlett, Working Group on the Preservation of Astronomical Heritage (WGPAH), AAS

Molly Stothert-Maurer, Processing Archivist, University of Arizona Special Collections

## Background

Helmut A. Abt was the fifth editor of the *Astrophysical Journal (ApJ)* serving from 1971, when he took over from Subrahmanyan Chandrasekhar, through 1999, when he was succeeded by Robert C. Kennicutt, Jr. Abt has a doctorate in astronomy from the California Institute of Technology in addition to bachelor's and master's degrees from Northwestern University. In addition to his work as *ApJ* editor, he was on the scientific staff of Kitt Peak National Observatory, where he now holds emeritus status.

In 1971, a separate editor began handling the *ApJ Letters to the Editor* (later *ApJ Letters*). The University of Chicago transferred ownership of *ApJ* to the AAS in 1972 although the University of Chicago Press continued to publish it. In 1990, Yervant Terzian and Virginia Trimble became the first associate editors followed by Anne P. Cowley, Bernhard M. Raisch, Theodore Simon, and John H. Thomas in 1993. Edward L. Wright became an associate editor in 1994.

Towards the end of Abt's editorship, he and the associate editors used computers and email for correspondence and processing manuscripts. However, they made no effort to retain the electronic files associate with this work; instead, they printed copies of the relevant documents to place in the official files.

Kennicutt was the sixth editor of the *ApJ* serving from 1999 through 2006, when he was succeeded by Ethan Vishniac. Kennicutt has doctorate in astronomy from the University of Washington and a bachelor's degree from Rensselaer Polytechnic Institute. In addition to his work as *ApJ* editor, he was a professor at the University of Arizona's Steward Observatory.

At the beginning of Kennicutt's editorship, the processing of manuscripts became all electronic. However, some paper records remained in use, usually for manuscripts received during Abt's term.

## Investigation Plan

The assessors spent most of Wednesday, December 20 at the CubeSmart Self-Storage facility<sup>1</sup> investigating the contents of the three units. The primary concerns were

What is the physical condition of the stored materials?

What is the historical value of the stored materials?

What guarantees of confidentiality were made to reviewers and authors?

Inspection of individual boxes within the units was restricted to those towards the front that could most easily be reached. After which, they returned the publishing office in the National Optical Astronomy Observatory (NOAO) buildings to discuss their findings. They planned to meet with Abt to hear his thoughts on the status and value of the archive; unfortunately, he was unavailable. They also planned to meet with Janice Sexton (Editorial Operations Manager) to learn more about the handling of manuscripts during Abt's editorship; she was delayed and unavailable until Thursday. Because Steffen and Bartlett had reserved a few additional hours Thursday morning for further discussions, they were able to talk to Sexton then.

In addition to reporting their findings to the AAS Board of Trustees, Publications Board Committee, WGPAH, and HAD, the assessors were to formulate a recommendation regarding whether the materials should continue to be saved based on their potential historical value and physical condition or should be destroyed responsibly. If they recommend retention, then they should also recommend the next steps towards conserving them.

The assessors should be prepared to submit their recommendations to the Publications Board before their meeting on February 2, 2018. Ideally, their recommendations should have been available for the Strategic Assembly and WGPAH meetings on Monday, January 8; however, only a preliminary version of this report available at that time.

## Physical Condition

The materials are stored in three non-adjacent, 10'x10' units without climate control, which are located along a single row of the CubeSmart Self-Storage facility. Each unit is fronted with a roll-up garage-style door; the weather-stripping along the bottom of these is damaged. The assessors saw spiders but no rodents; old containers of rodent poison were in place.

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<sup>1</sup> 201 South Plumer Avenue, Tucson, AZ 85719



Unit #347 contains the oldest material and is overfull. Although a pallet underlies most of the boxes, several were placed in front on it. Some of the boxes here showed signs of water damage, but the files inside appeared to be mostly unharmed. A single lock secures this unit.



Unit #343 contains materials from the end of Abt's editorship and is slightly less full. A pallet underlies all the boxes in here. In addition to the oversized file boxes used in Unit #347, this unit contain some more heterogenous containers, including unsealed boxes. Fewer signs of water damage appeared. A single lock secures this unit. The floor of this unit shows signs of overspray from outside painting.



Unit #331 contains the most recent materials, including furniture<sup>2</sup> that may belong to a staff member, and is the least full. It is also the cleanest unit but mixed-size boxes are stacked directly on the floor. The container also has three file cabinets; only one of which appears to still contain papers. In addition to papers-related to Abt's editorship, materials associated with Kennicutt are present. A single lock secures this unit. A few years ago, vandals damaged a second lock, which the assessors removed.

The units contain a total of approximately 450 oversized, brown, cardboard file boxes sealed with shipping tape. The boxes are covered with dust, dirt, cobwebs, and possible rodent feces; some boxes show evidence of water damage and the presence of mold. Some stacks of boxes have shifted resulting in the crushing of some boxes and the disgorging of some files and papers.

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<sup>2</sup> The refrigerator is clean inside and does not contain a body.

Most boxes contained pale green, stiff pressboard folders holding batches of office-grade paper stapled together; occasionally, a batch contained a few interleaved sheets of other types of paper: thinner paper, carbon paper, facsimile sheets. The files and papers inside the boxes inspected were in apparently good, but slightly dirty, condition; they did not appear to be moldy, brittle, or browning. Files and papers that were no longer encased were in slightly worse condition. A few boxes inspected contained tightly packed office paper without organizing folders, tightly packed bound journals, loosely packed binders holding office paper, and loosely packed miscellanea.

**Biological Hazards.** On May 26, 2017, Applied EnviroSolutions evaluated the conditions in the storage containers. They found

- no evidence of Hantavirus or Valley Fever fungus
- insignificant amounts of mouse allergens, which they describe as below the normal threshold
- evidences of mold growth in storage units #347 and #343

The full report is available upon request.

**Meteorological Conditions.** According to Weather Underground, Tucson<sup>3</sup> experienced temperatures of 26–113°F and relative humidity of 4–100% during 2017. The mean of the average daily temperatures was 72±13°F while the mean of the average daily relative humidity values was 33±18%. Over the course of a day, the temperature changed 4–42°F with a mean difference of 28±6°F while the relative humidity changed 7–77% with a mean difference of 35±16%. Precipitation was recorded on 43 days for a total of 21 inches.

Applied EnviroSolutions reported a temperature of 86°F and relative humidity of 21% on May 26, 2017. The National Weather Service reported a temperature range of 40–60°F for December 20, 2017, but the relative humidity data for that day is missing.

**Materials Remaining in the Publishing Offices.** A locked file cabinet in Steffen's office contains files of materials deemed not suitable for publication (NSP). A set of four paired, metal drawers of 3"x5" cards in Sexton's office contain an index of reviewers; these drawers are currently taped shut. Having remained in climate-controlled spaces, these supplemental materials are in generally good condition.

## Editorial Content

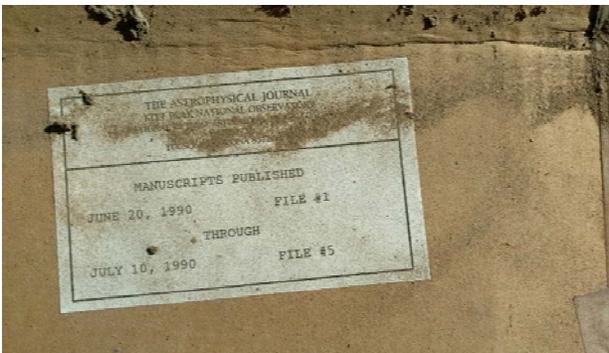
Most of the boxes inspected contained well-organized files of editorial correspondence primarily related to published manuscripts plus some dealing with unpublished submissions. A small number of boxes inspected contained bound journals or miscellaneous materials; these boxes probably makeup slightly less than 10% of the collection.

**Published Papers.** The bulk of the collection appears to be well-marked boxes of published manuscripts. The individual cartons have affixed labels identifying the journal issue and paper numbers of the manuscripts they contain. These boxes contain paperboard folders further labeled with the manuscripts they contain; at least some of

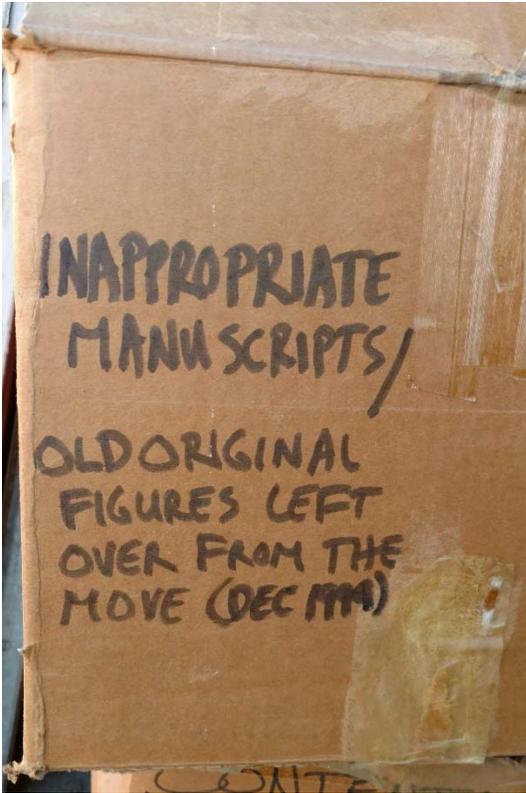
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<sup>3</sup> reported at Davis-Monthan Air Force Base

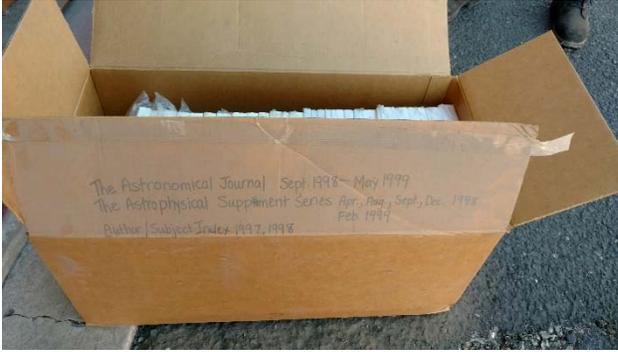
these folders were held closed with rubber bands that have partially survived. The correspondence associated with each published manuscript is stapled together. A manuscript package contains the correspondence associated with that article in reverse chronological order and ends with the original submitted manuscript as shown in the redacted sample. The correspondence sets include the reviewers' reports and responses to those by the authors along with form letters associated with routine processing. Some sets may contain correspondence mediating a dispute among reviewers or documenting efforts to find a suitable, willing reviewer. The bulk of each package is the original manuscript; the final published version is not part of these files. Although the assessors did not find any intermediate versions in the packages they inspected, Sexton recalls that such versions were also occasionally kept.



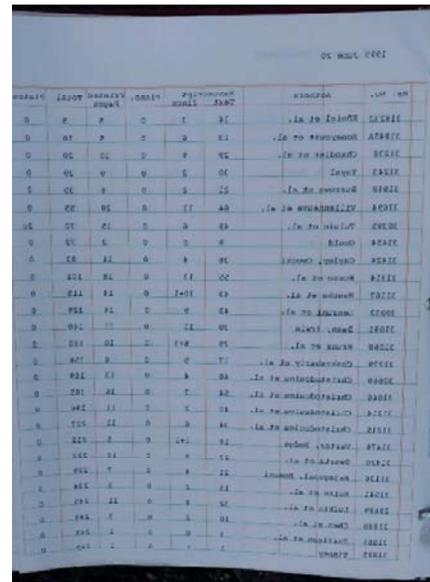
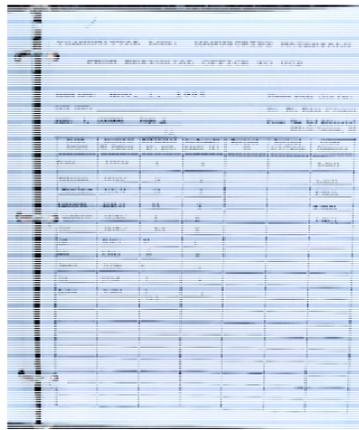
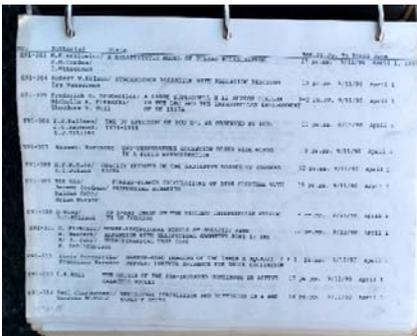
**Unpublished Papers.** Several boxes inspected and the file cabinets contained manuscripts that became inactive during the review process or that the editor deemed NSP. The assessors did not immediately discern a clear organizational scheme for these papers. These boxes and files probably make up around 5% of the collection.



**Bound Journals.** Two boxes inspected contained bound journals; one set of journals was sealed in plastic and the other was not. The assessors removed these for destruction. The markings on several other boxes indicated they also contained publications. These boxes probably make up around 5% of the collection.



**Miscellaneous Materials.** A few boxes inspected briefly contained miscellaneous materials, such as binders documenting the flow of manuscripts through the editorial process, loose figures, NSP correspondence, and office supplies. These boxes probably make up less than 5% of the collection.





## Confidentiality Policies

The assessors found two different statements regarding the confidentiality of reviewers' reports as shown in the redacted samples. First, in a 1989 manuscript package, the standard reviewer's report form was headed by the statement

The 1978 copyright law states that this referee report cannot be used by historians of science without your permission or that of your heirs until 50 years after your death. If you are opposed to having your report made available (to qualified historians only) at the discretion of the journal Managing Editor after that time, please check this box: Destroy correspondence

The reference to the 1978 copyright law implies that a different statement would have been used earlier but the assessors did not open any boxes from the 1970s, which are probably located at the very back of unit #347. Second, in a 1998 standard letter, the sixth and last question that reviewers were asked to address was

If qualified historians wish to use your report, we will ask you and your heirs. If you wish us to destroy your report. please inform us.

The statements available indicate that at the time of submission the reviewers knew their reports would be available on a limited basis in the distant future. The references to qualified historians also implies that the material was considered of historical value at the time.

Sexton recalls that very few reviewers requested that their reports be destroyed. In those cases, she remembers destroying those reports, but no other related correspondence, before moving the manuscript packages to the storage units.

## Costs

Maintaining the Abt archive in its current condition has going costs. Most significantly, the annual rent of the current CubeSmart units is ~\$3,000. In December

2017, the monthly rent for that size unit was advertised as beginning at \$80.00 per month but the minimum rate rose to \$85.00 per month in January 2018. Consolidation and use of a larger unit might reduce these costs. The staff time to oversee the archive so far has been minimal.

In addition to on-going storage costs, continued maintenance of the archive has occasionally required additional outlays. The environmental testing of the spaces cost \$4,480.00 in 2017. The cost of this assessment is anticipated to be ~\$1,100 in travel and miscellaneous expenses; Stothert-Maurer and Bartlett donated their time.

## Considerations

If the materials are cleaned as a preliminary conservation measure, Stothert-Maurer indicated that the files should be re-housed in standard-size, acid-free boxes. She also suggested using the empty file cabinets already in the storage units to replace some of the damaged boxes. She recommended reusing the existing folders as much as possible. When necessary, she thought standard folders would be sufficient replacements. However, she cautioned that continuing to store the materials in the current units would undermine the benefits of cleaning. If possible, the cleaned and re-housed files should be stored in a climate-controlled environment.

The assessors estimate that the storage units contain 450 oversize boxes, of which approximately 90–95% may contain material of historical interest. Stothert-Maurer estimates that re-housing this material in standard-size, acid-free boxes will require double the number of boxes (~855).

Ideally, working papers and other records are archived at the home institution of the astronomer who generated them. Bob Blum, deputy director of NOAO, did not recall NOAO having been approached to house the archive in the past. Stothert-Maurer indicated that the University of Arizona Special Collections would not accept it because of the current confidentiality restrictions and because of the volume of material.

The boxes relating to Kennicutt's editorship are a small portion of the total material. These files could be segregated and treated as a separate collection. Finding a home for this limited allotment might be easier than finding one for the main collection.

## Summary

The Abt archive consists of approximately 450 oversize boxes of materials related to the *ApJ* during the editorship of Abt and Kennicutt. Most of the material is in good physical condition and is well-organized. However, all the boxes are filthy, and some are moldy; therefore, some remediation will be necessary if the materials are to be retained.

The files inspected contain material of interest to historians of science as is suggested by the references to them in the confidentiality statements. The reviewers' reports, the authors' responses, and the editors' mediation of those discussions show how the editorial process shaped the resulting science. The various communications from authors and reviewers provide glimpses into their personalities, document other events in their personal and professional lives, identify the formal and informal networks in which they participated, and hint at other research in which they were engaged. The routine correspondence and administrative paperwork document the

processes by which manuscripts moved through the pipeline from initial submission to final publication. Of these, the reviewers' reports and authors' responses are most significant. Transferring administrative materials in binders to folders, in accordance with archival best practices, would reduce the volume slightly. In addition, representative sampling could further reduce the routine correspondence and other administrative papers.

In addition to the files of editorial correspondence and other administrative paperwork, the units contain a small amount of material that is not of historical value. In particular, bound journals that are available elsewhere and miscellaneous office supplies should be recycled or discarded responsibly. Also, personal items stored in the units should be returned to the owner, recycled, or discarded responsibly.

The confidentiality assurances examined only protect the contents of the reviewers' reports. Neither example ensures perpetual confidentiality. However, the statements indicate that the editors will seek permission from the reviewer during his or her lifetime or from their heirs for at least 50 years after their death. These restrictions on access to reviewer reports are more stringent than those currently in effort for all AAS journals and the recommendations of American Institute of Physics (AIP). For articles published since 2008, the names of the reviewers and the contents of the review-related correspondence is embargoed for 50 years although aggregate studies may be permitted after 15 years. AIP recommends a 50-year embargo period with provisions for the designated officials to permit earlier access and other type of analysis, if appropriate.

Given the historical value of the Abt archive, the costs of conservation and continued storage, and the challenges imposed by the confidentiality guarantees, the assessors defer to the WGRAH for recommending a long-term plan for this material and recommending the best approach to handling it in the near term. Steffen is happy to take on the local supervision of the next steps in archive remediation.

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excellent report, very detailed and meaningful



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Dear [REDACTED]:

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We are pleased to report that the article above has been accepted for p  
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Please sign the enclosed Publication Agreement pertaining to copyright

Sincerely,  
Helmut A. Abt  
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Cc: apj@noao.edu

*Pull for accept*

Dear [REDACTED]:

RE: ApJ ms# [REDACTED]: [REDACTED]  
by: [REDACTED]

I am happy to report that your paper is accepted for publication in the Astrophysical Journal.

I am sending the accepted version to the Tucson office. Please note that all further correspondence concerning the logistical aspects of publishing this manuscript should be directed to apj@noao.edu. If you have any additional questions concerning the scientific content of your manuscript, please direct them to me.

You will be hearing from the Tucson office regarding the proofing of the manuscript, galleys, scheduling, etc.

Best wishes,  
Fulvio Melia, Scientific Editor, ApJ  
se@apj.arizona.edu

The University of Arizona

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Thanks!  
Fulvio

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Mime-version: 1.0  
Content-Type: text/plain; charset=X-roman8  
Content-Transfer-Encoding: 7bit  
Status: RO

Page 112  
JLB

Dear Dr. Fulvio,

We have considered the thoughtful points in the referee's report and have made the appropriate changes. The figures have not changed. We have added further descriptions in the text and figure captions clarifying issues raised by the referee. Following this e-mail message, we send you the TeX file of the modified manuscript. The referee had 14 comments. Here is a brief description of the modifications we made in response to each of the referee's 14 points:

- (1) [redacted]
- (2) [redacted]
- (3) [redacted]
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- (5) [redacted]

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JLB

Referee report for [redacted]  
[redacted] by [redacted]

This is an excellent paper which will be enthusiastically received by the small but fervent community interested [redacted]. I recommend it be accepted for publication in the Astrophysical Journal. In the process of reviewing this paper, I did have a number of remarks and suggestions for the authors which are given below. I would emphasize that these are advisory to the authors, and they may respond to them as they see fit. In no case should they cause a significant delay in the publication of the paper. The comments which I would particularly emphasize are 1,3 and 9.

(1) [redacted]

(2) [redacted]

(3) [redacted]

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Please, let me know if have any information that would allow me to comply  
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[REDACTED] 1998

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