"Library as laboratory: From facts to history" in "Widener Library: Voices from the stacks"

Library as Laboratory: From Facts to History

Owen Gingerich

For the historian of science, the Harvard College Library is a laboratory teeming with a billion facts. These are "facts-in-themselves" waiting to be hammered into "reasoned facts," to borrow Aristotle's terminology. Here is the raw material to build and test historical hypotheses. Indeed, what the observatory is to the astronomer or the tevatron to the particle physicist, Widener is to the historian. For those who believe that salvation is in the details, here are data, mere facts, waiting to be discovered and converted into historical facts.

Central to my own research program is an attempt to understand how the idea of Copernicus' heliocentric theory was received and perceived in the century following its publication in 1543. How many copies of his masterpiece, *De revolutionibus orbium coelestium,* were published, and what became of them? In the absence of any printer's records, we need to make an educated guess about the press run. Widener contains a certain amount of misinformation about this, a wild and unsubstantiated guess of a thousand copies, and some rather good data from the Plantin-Moretus press in Antwerp, where we can see editions ranging from 20 to 2,000 in the sixteenth century.

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One way to gauge the number of copies printed would be to list the possible sixteenth-century owners, and then to see what fraction of owners is actually found among the surviving copies. Neither prong of this investigation is trivial, but it happens that over the past two decades I have personally examined nearly every surviving example of Copernicus' first edition, some 260 copies, and also the second edition of 1566, nearly 300 copies. As for the list of sixteenth-century owners, Widener is a great source of information as to who was teaching astronomy, and where, at that time, which enabled me to construct a list of some seventy potential owners. And now comes the salvation of details, the matching of actual owners with potential owners.

Let me give an example of Widener to the rescue. A likely owner was Erasmus Oswald Schreckenfuchs, author of several folio commentaries on classic astronomical texts. In the Bibliothèque Mazarine in Paris I found a first edition Copernicus inscribed by one Johannes Oswald Schreckenfuchs. Who was he? A brother? A cousin? I was baffled until one day I accidentally hit pay dirt in the Educ section of Widener's stacks. The Graduate School of Education at Harvard was long a poor relation of the Faculty of Arts and Sciences, and I suspect many users of Widener walk past the Educ section (for many years just inside the Mass Avenue door on

Vol. 2, p. 190, of Die Matrikel der Universität Basel *(1956), which lists Schreckenfuchs among the students of 1569–70.*

12. Nicolaus Wasserhún Basiliensis – 6 ß
*1554 XII. – † nach 1602.
STAB Taufregister I 5, 103. – MCI 240 (N. Wasserhienlin). – Wp. Basel 458.

13. Johannes Heinricus Musculus, Bernensis – 6 ß
= Jo. H. Müsli. – 1569 5. IX. Heidelberg. – 1572–73 Helfer in Zofingen; 1593–1602 Pfarrer in Dießbach bei Thun.
Matr. Heidelb. 2, 52. – Leu 13, 436. Pfister, Aargau 1186. 1153. 1093. Lohner 109. 85.

14. Leonhardus Crassus Bernensis – 6 ß
= L. Dick.
1569 5. IX. Heidelberg. – 1569 W Leipzig. – 1572 Helfer in Signau; 1577–†86 Pfarrer in Messen.
Matr. Heidelb. 2, 52. Matr. Leipz. 1 (1909) 68. – Lohner 138. 114. 578. – Vgl. HBLS 2, 708.

15. Johannes Glaserus Aulensis – 1 lb 11 ß 8 d[1]
[1] Gilt für Nr. 15–18.
1572 Jena (Jo. G., Aulensis Suevus).
Matr. Jena 1, 122.

16. Georgius Cúnradus Oxenfurdensis

17. Johannes Gisderdorffer Oxenfurdensis
Auch Jo. Geisendorfer, O.
MCI 240.

18. Georgius Bosman Oxenfurdensis
1576 6. VIII. Tübingen (G. Busmannus).
Matr. Tüb. 1, 552.

19. magister Johannes Oswaldus Schreckenfuchsius, Bitighemius – 6 ß
Auch bekannt als Erasmus Oswaldus Schreckenfuchs; Freund und Schüler des Bas[ler] Hebraisten Sebastian Münster; Herausgeber von verschiedenen in Basel erschienen[en] astronomischen Werken («Claudii Ptolemaei omnia opera», Basel 1551; «Commentaria [in] sphaeram Joannis de Sacrobusto», Basel 1569). – *1511 in ? Merckenstein (Österreich). Studium: Wien, Ingolstadt. – In Tübingen: 1550 8. III.; 1550 12. III. b. a.; 1551 7. II. m. a. 1552 13. VII. Freiburg. – In Basel: 1571 21. VIII. dr. med. (de arthritide) – 1570–?76 Pro[fessor] fessor der Rhetorik in Basel. Vorher, gleichzeitig und später auch Dozent für Mathema[tik] und Hebraistik an der Universität Freiburg. – † 1575 (79) VIII. Freiburg.
MFM I 18. 20′; II 6 (8). – Matr. Tüb. 1, 346. Matr. Freib. 1, 391. – ADB 32, 467 f. Thomme Universität 364. – Vgl. Mieg, Médecins de Mulhouse 75 ff. 103 (5).

20. Johannes Caspar Sperberseckger, ex ducatu Wirtenbergensi – 1 lb 12 ß 6 [d][1]
[1] Gilt für Nr. 20–22.
In Tübingen: 1564 1. XII. (Jo. C. a Sperberseck); 1573 3. XII.
Matr. Tüb. 1, 453. 529.

21. Johannes Wolffgangius a Stangheim, Wirttenbergensis

22. Georgius Hofensteg Augustanus
Vgl. u. Nr. 91.

23. Philippus Flickinger Bernensis – 6 ß
= Ph. Flückiger. – 1574 S Wittenberg.
Alb. Viteberg. 2, 249b. – Vgl. HBLS 3, 178.

the B level) and wonder what education books are doing there. Actually, this classification is a gold mine for the early history of universities, and it includes many sixteenth-century matriculation lists. One such list is for the University of Basel, and there under the students who matriculated in 1569/70 was the answer: Erasmus Oswald Schreckenfuchs was simply the *nom de plume* of Johannes Oswald Schreckenfuchs.

Armed with this and similar bits of information I was able to match up about thirty names of documented owners with those on my list of potential owners. Of course, not all of the potential owners would have been actual owners. Furthermore, some may have owned the book without ever recording their names, and other names may have been removed when the books were repaired or rebound. Making a rough estimate for such contingencies, I believe that probably sixty percent of the copies are still extant, a surprisingly high rate of survival. This would put the first edition at between four and five hundred copies, and the second at around five hundred copies.

As I studied the patterns of ownership and survival, I realized that Copernicus' book was seen as important quite early on. I became curious about how generally libraries would have tried to acquire the book. My reading in Widener gradually informed me that in sixteenth-century England there were seven libraries of more than a thousand volumes. Unrivaled at the time was the collection owned by the Elizabethan magus John Dee, which in 1570 numbered no fewer than 2,500 printed books. A new catalog of his library by Julian Roberts and Andrew G. Watson was printed by the Bibliographical Society in 1990, and it reveals that he had not one but two copies of *De revolutionibus*. Apparently he rather rarely put his name in his books, and no identifiable copies have turned up in my census.

An even larger library was eventually owned by John, Lord Lumley, whose collection became one of the foundations of the British Library. The printed catalog (edited by Sears Jayne and Francis R. Johnson), found in the B (for Bibliography) section of Widener, doesn't list it, but the British Library does have a copy with his name inscribed. Henry Fitzalan, the twelfth earl of Arundel, had formed a large library, which he bequeathed to Lumley. The British Library copy includes Arundel's signature, and a second copy with Arundel's autograph has turned up in the Glasgow University Library, so there is a good possibility that Lumley had two copies despite the absence of the title in his library list.

Sir Thomas Knyvett, a Norfolk gentleman of the late sixteenth century, formed another large sixteenth-century English library. Again the Widener B section has the printed record (edited by David McKittrick), and again a *De revolutionibus* was among his holdings. Several hundred of his fourteen hundred books found their way to the collection that became the largest gift to the Cambridge University Library, but none of the CUL's copies of *De revolutionibus* came from Knyvett, and his copy doesn't seem to be in any of the Cambridge colleges either. Its whereabouts, if it survives, is still a mystery. A fourth library of major proportions, largely of law books and manuscripts, was formed by Sir Edward Coke. I had to go north to the Law School Library for the printed record of his holdings, which (not too surprisingly) didn't include Copernicus.

Number five, the second or third largest collection at the time of John Dee, was owned by John Rainolds, President of Corpus Christi, Oxford. The *De revolutionibus* is conspicuous by its absence in his list of books in his library, although Corpus

Christi obtained a second edition while he was president. Vying for second place was the collection of Andrew Perne, Master of Peterhouse in Cambridge and Dean of Ely Cathedral; his library included Copernicus' book, as I know because I found the copy, still preserved at Peterhouse. Finally, the seventh large library belonged to Sir Edward Derring. Again Widener's B section provided the list, which fails to show an entry for Copernicus. Thus, according to this tally, there were six copies in seven major sixteenth-century English libraries (counting the Arundel-Lumley collections together).

Copernicus' book "was and is an all-time worst seller," declared Arthur Koestler in his *The Sleepwalkers* (London, 1959). Clearly the raw facts from the world's largest university library can be forged into a lucid insight that refutes the best-selling novelist. Detective work in libraries scattered around the globe, but most especially in the Harvard College Library, has shown how very wrong Koestler was.

Of course, if disproving Koestler were the sole game, that could have been done very elegantly and simply from the holdings of Houghton Library. Widener's next-door-neighbor has not only two copies of the first edition of *De revolutionibus,* but the second and third as well. Surely all-time worst sellers never go into subsequent editions. But Houghton's treasury is still more interesting. Particularly rich in early book catalogues, it contains a 1595 publisher's list from Heinrich Petri, the printer of the 1566 edition of Copernicus. Heinrich Petri's brochure shows *De revolutionibus* still in print, twenty-nine years after he had republished it. Copernicus' book has been crossed out, however, suggesting that the supply had finally run out. If the first edition of 1543 had stayed in print a comparable period, then the second edition was presumably timed to meet an on-going demand for what was already seen as a classic work. By themselves, these are mere facts. In context, they become historical facts. Indeed, historical facts such as these put to lie Koestler's dramatic but rash claim that Copernicus had written "the book nobody read."