

THE UNIQUENESS OF COLLECTIONS OF OBSERVATORY PUBLICATIONS

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Abstract

Observatory publications comprise the work of local astronomers from observatories around the world and are traditionally exchanged between libraries.

Large collections of observatory publications seem to be rare; or at the least rarely digitally described or accessible on the Internet.

Notable examples to the contrary are the Woodman Astronomical Library at Wisconsin-Madison (1) and the Dudley Observatory in Loudonville, New York (2). Due to the irregularities in receiving material, the collections are generally often incomplete both with respect to the observatories included as well as volumes. In order to assess the unique properties of the collections, we summarize and compare observatories present in our own as well as the collections from the Woodman Library and the Dudley Observatory.

Background

The library at the university of Southern Denmark has recently acquired a large collection of observatory publications from the now discontinued, historical library collections from the Niels Bohr Institute at Copenhagen University. The material in the collection dates from a period of several centuries.

The material consists of tables of observations, bulletins, annual reports, circulars, newsletters, reprints etc. and has been collected for a period of more than hundred years at the observatory. The oldest material in the collection dates back to the 1700s. This collection is only registered on catalogue cards while holding lists from Woodman Library and Dudley Observatory are available on the Internet.

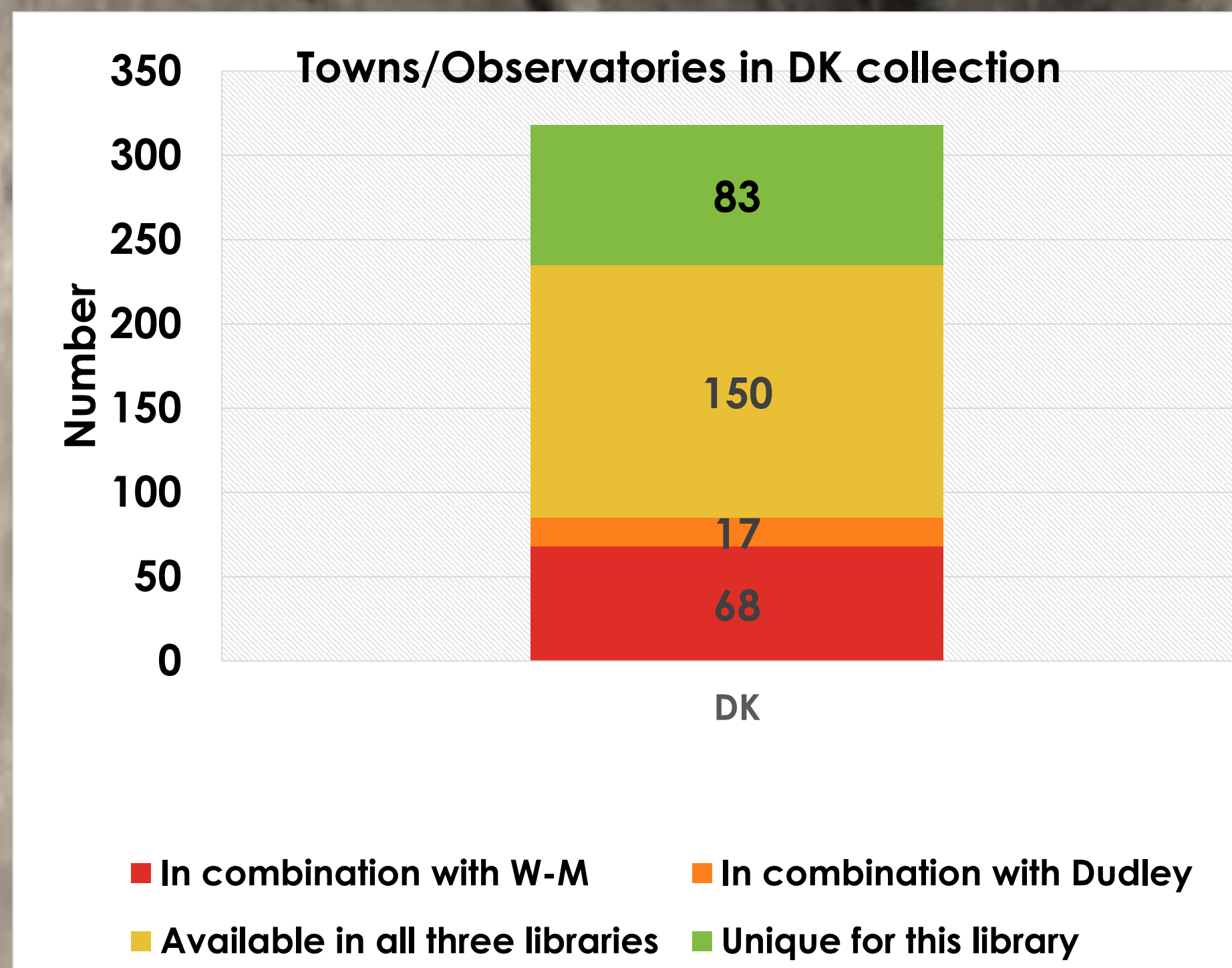
Method

To be considered an observatory publication a paper must base some or all of its conclusions on data from that observatory (3). In all three library collections the publications are registered under the town where the observatory is placed. For some of the largest towns more than one observatory are registered. The number and kind of publications from the individual observatory are vastly different from library to library. We count and compare only the number of towns/observatories in the present investigation.

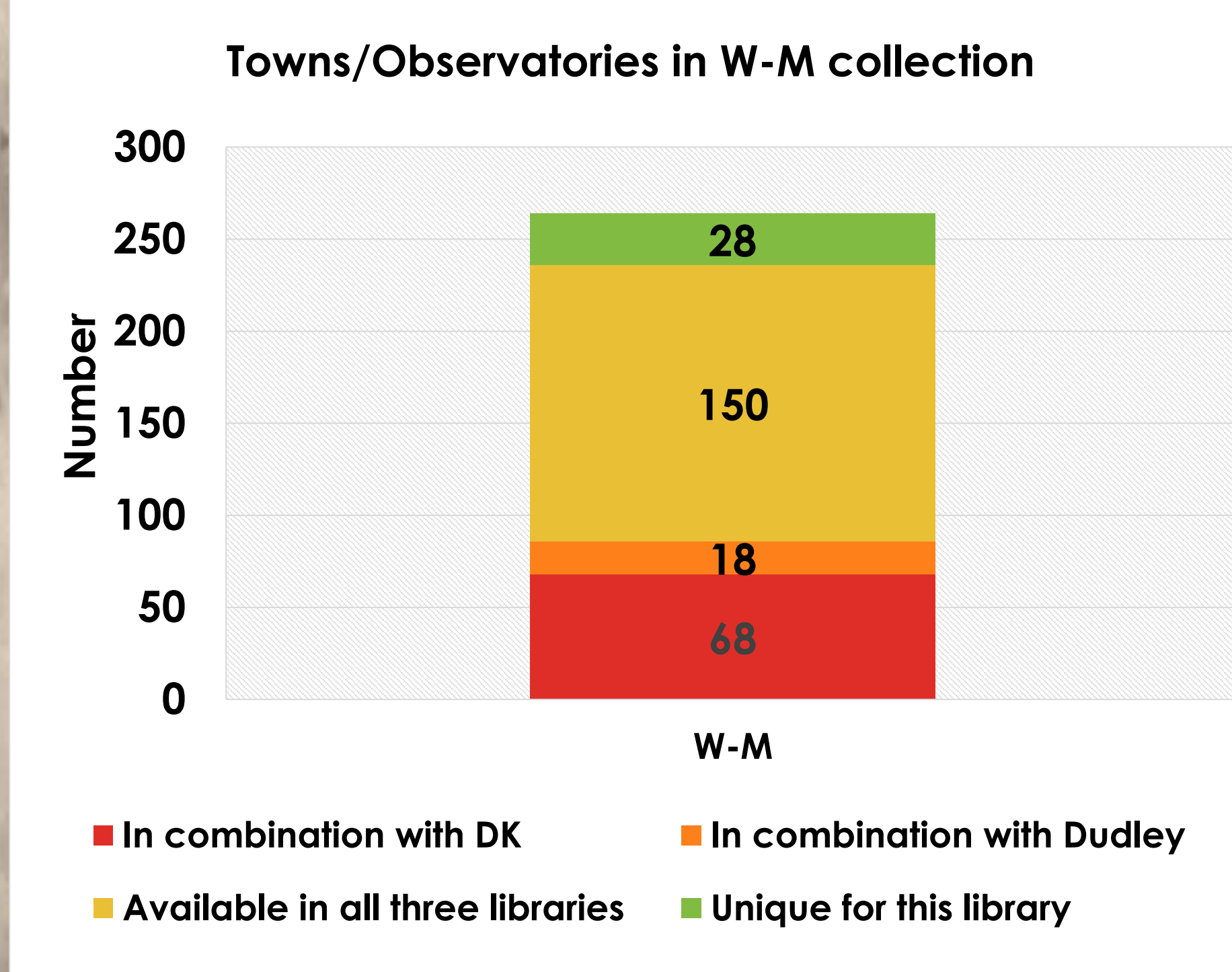
Towns/Observatories

Denmark(DK)	Wisconsin-Madison(W-M)	Dudley observatory (Dud)
319	264	252

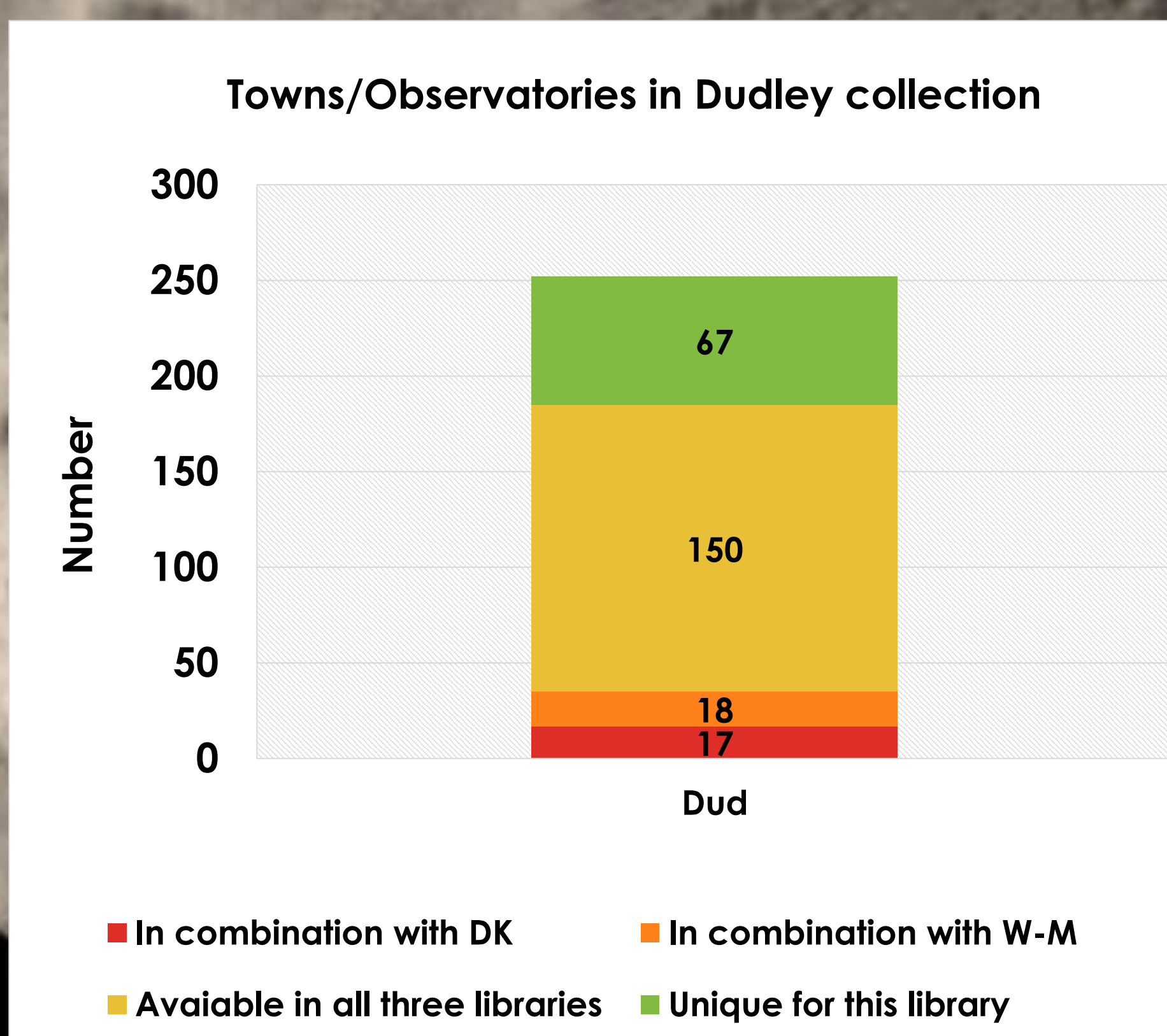
The total number of towns/observatories present in each library. In total 835 are present, It represents 411 different towns/observatories (49% of the total number)



Number of towns/observatories in the danish library collection. Only 83 (38%) are unique and can only be found in this collection.

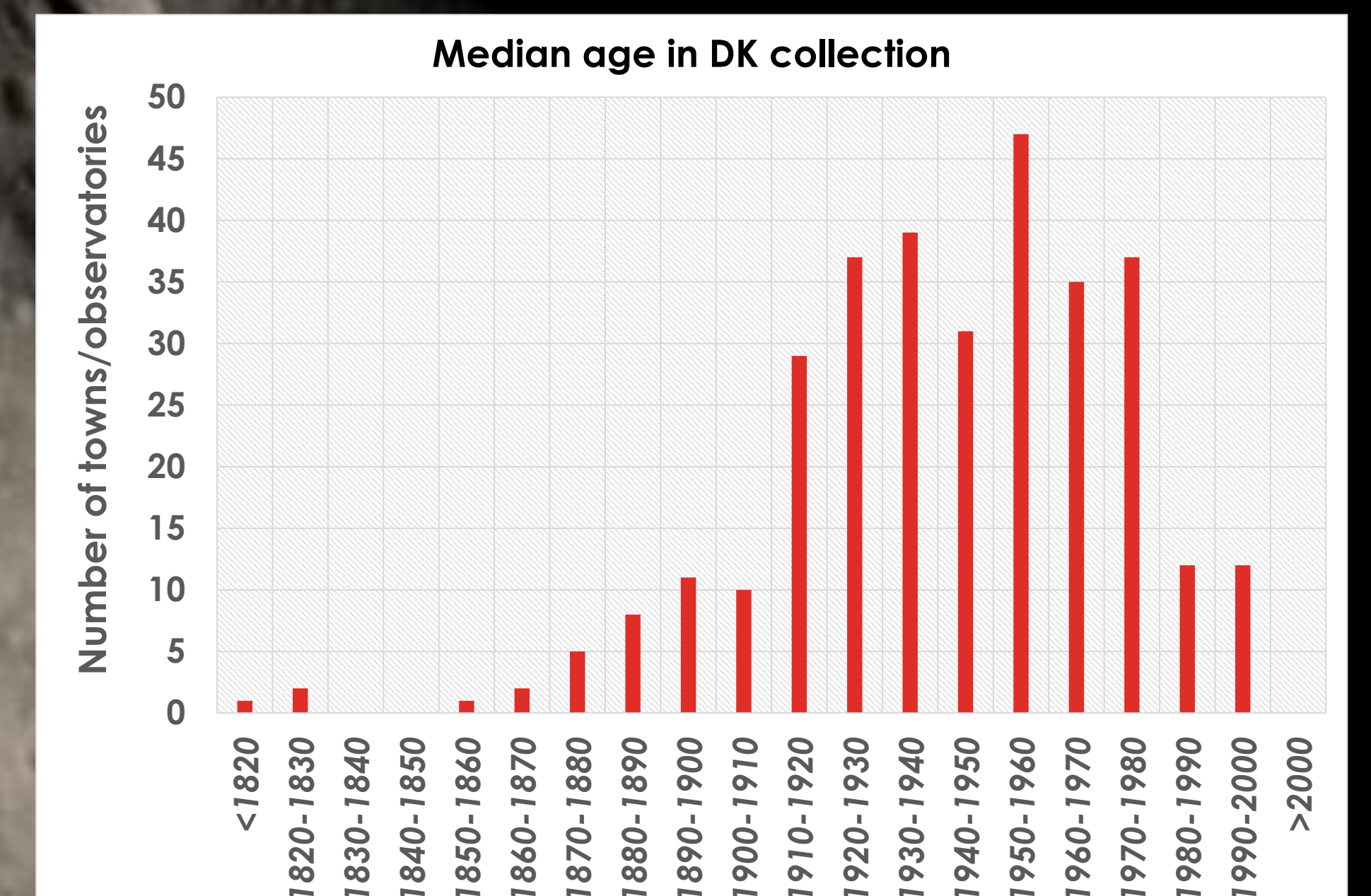


Number of towns/observatories in the collection at the library at Wisconsin- Madison university 28 (13%) are unique and ca only be found in this collection

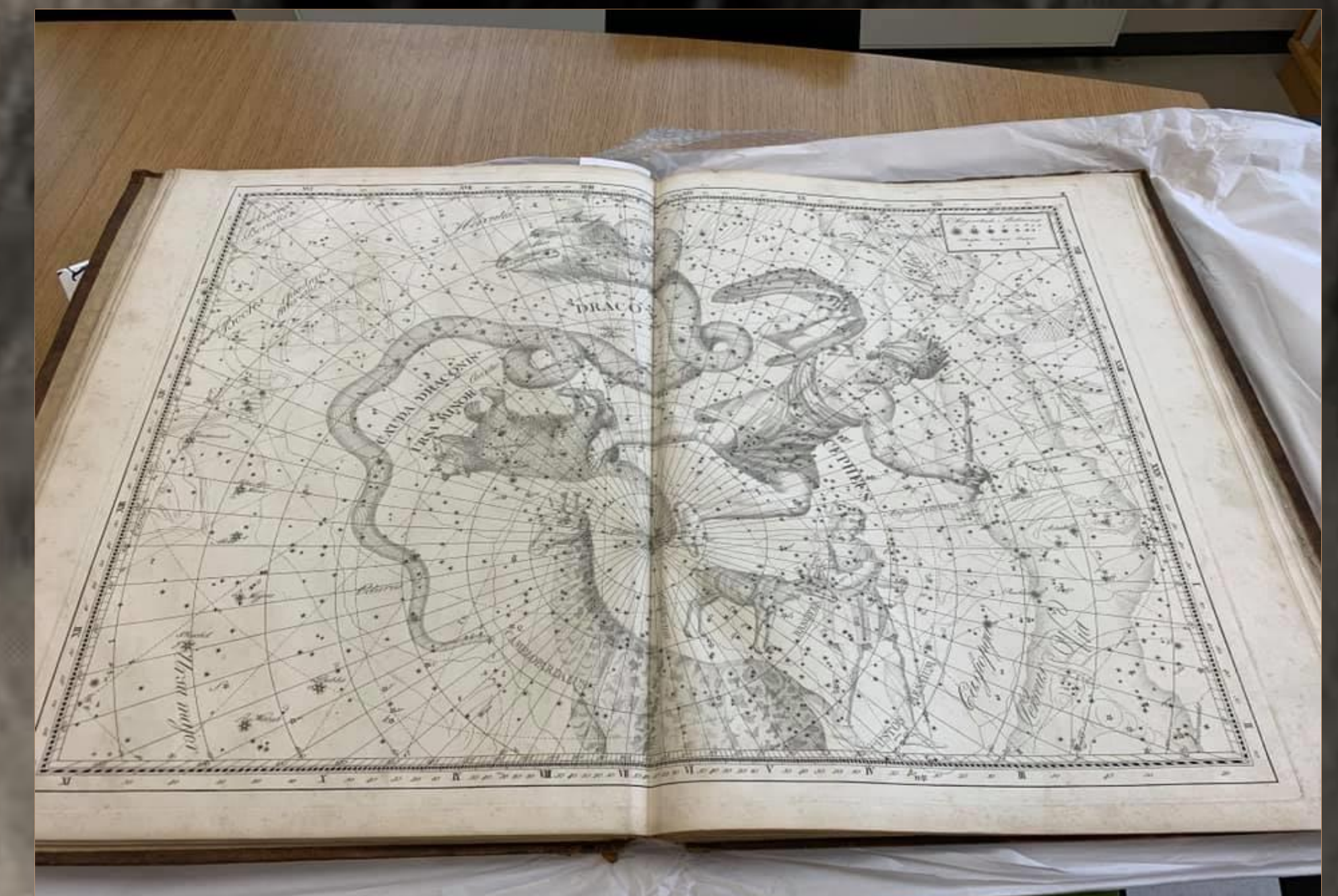


Number of towns/observatories in the collection in the library at the Dudley observatory. 67 (27%) are unique and can only be found in this collection

Age of publications.



The Danish collection: The graph illustrates the median value in the age range of the publications present in the various observatories.



The famous celestial atlas Bode's Uranographia from 1801 is now found in the danish observatory collection at SDU. It represents one of the last times constellation figures are depicted in an astronomical atlas.

Conclusion

Although we found a large overlap between the collections, a number of observatories were not present in all three collections. The danish collection represents the largest number of unique towns/observatories followed by the Dudley collection. The material received from the same observatories also turned out to be different in some cases. We encourage astronomers looking for different types of hard-to-find, rare material to be aware of and search at least one major library that possesses an observatory collection,

References

1. [Woodman Astronomical Library- University of Wisconsin-Madison](#)
2. [The Dudley Observatory, Loudonville N.Y. Collections-overview](#)
3. [D. Crabtree. A bibliometric analysis of observatory publications 2011-15. EPJ Webconferences 186, 05001 \(2018\)](#)