

# The Schöner Sammelbund

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## Introduction

What is arguably one of the most important compilations of cartographic materials in the long history of mapping was discovered in 1901 by the Jesuit historian, Father Josef Fischer, in the library of Prince von Waldburg zu Wolfegg-Waldsee at the Castle of Wolfegg, in Württemberg, Germany. The volume, now known as the Schöner Sammelbund, was assembled sometime after 1516 and contained the only surviving copies of Martin Waldseemüller's 1507 *Universalis cosmographiae*, his 1516 *Carta Marina Navigatoria* and the first printed celestial globe gores by the mathematician, alchemist and globe-maker Johannes Schöner (1477-1547). Also originally included in the volume was a heavily annotated copy of a star chart of the Southern Hemisphere produced by Albrecht Dürer in 1515.

The Sammelbund was bound together by Schöner sometime after 1516 in a way that is not unique for the books that are known to have been part of his library. Schöner bound his copies of the 1482 Ulm and the 1513 Strassbourg editions of Ptolemy's *Geographia* in a way nearly identical to the Sammelbund. The volumes are bound with heavy wooden covers connected by leather backs showing blind printing. Schöner's *ex libris* is found glued to the inside cover of all three volumes. In the Sammelbund and in the 1513 Ptolemy, Schöner used parts of vellum globe gores cut into strips from his 1515 globes to protect the maps from being pierced with binding twine. He also annotated many of the maps in all of the volumes with a series of red lines that form a coordinate grid over portions of them. The volumes were likely bound around the same date but this must have been after the red lines had been drawn on them, as in their current state it would have been nearly impossible to draw the grids *in situ*.

How the Sammelbund arrived in the Castle in Baden-Württemberg, where Fischer found it, remains a mystery. It appears that upon Schöner's death in 1545 all of his papers and books passed into the hands of Georg Fugger (d. 1569) and upon his death to his son and great-grandson, Phillip Eduard (1546–1618) and Alfred (1624–82). The Emperor Ferdinand III of Austria purchased Fugger's entire library, containing more than 22,000

books and manuscripts, in 1653 for the Hofbibliothek in Vienna. The circumstances surrounding how and when the portfolio containing the 1507 and 1516 maps became separated from the bulk of Schöner's materials remain, however, unknown. Schöner produced some of the earliest globes that survive from the Renaissance, and the cartographic literature that remains in his collection of books and manuscripts in the National Library of Austria (ONB) reflects his interest in keeping current with the latest level of geographic knowledge. It is therefore no surprise that he should have wanted to obtain a copy of the 1507 and 1516 world maps. As far as we know Schöner's earliest purchase of a book on the subject of cartography seems to have been a copy of the 1482 Ulm edition of Ptolemy's *Geographia*. A note in Schöner's hand in his copy of that volume explains that he purchased it on 16 October 1507 for about two florins. The remains of Schöner's library are characterized by a great number of handwritten corrections and additions, most of which occur in the margins or on the backs of maps contained in the various editions of Ptolemy that he owned (see John Hessler, *The Naming of America*, 2007).

Schöner at the time was deeply immersed in the study of classical geography and astronomy, and in the dedicatory letter to his edition of Johannes Werner's *Canons*, for example, he points out that the study of both of these sciences could not go far without knowledge of the legacy of those who studied the subject before. Schöner calls for their works to be preserved, diligently studied, and expanded upon. He writes that the ancients must be held up as examples, but does not think their work is the final word in these sciences, and that it needs to be improved upon and updated through modern observations. He says that, "It is most useful that students of great men become accustomed to the proper practice of these arts [astronomy and cartography] through precepts as well as through examples." It is not therefore surprising, as is written on his bookplate, that Schöner should have preserved the contexts of the *Sammelbund* for the future.

In 1515 Schöner produced a globe that, unlike Waldseemüller's maps, clearly shows a passage around the coast of South America and into the Pacific Ocean before any was known. The globe, of which only two copies survive, may have been based on Waldseemüller's map and also on sources that are no longer extant but that Waldseemüller may also have had access to. Because Johann Schöner's 1515 globe depicts a passage around South America, many scholars have been led to speculate that Schöner used Waldseemüller's maps as a model, hypothesizing that the red grid lines

drawn by him on the 1507 and 1516 maps were used to rescale distances to the size of the globe gores. In Schöner's extant library there is a notebook of geographical information that forms a miscellany containing various notes on coordinates and technical information on maps (ONB, Handschriftensammlung, Codex 3505). In one section of the notebook, entitled the *Regionum Distantiae*, Schöner discusses methods for projecting flat maps onto globes, describing a gridding technique that he may have himself used in the creation of his globes (see Hessler, 2007).

Schöner studied theology and mathematics at Erfurt beginning sometime around 1494 and was called to fill the first position of professor of mathematics in Nuremburg at the gymnasium *Aegidianum* in 1526. He was an active astronomer and astrologer and many of his extant notebooks in the National Library of Austria are filled with astronomical tables and diagrams of horoscopes. While in Nuremburg he also published some of the most important texts of Renaissance astronomy by Regiomontanus and Bernard Walther. Near the end of his life in 1538 he became involved with the heliocentric theories of Copernicus through a young student named Georg Joachim Rheticus. Rheticus studied with Schöner for some time and was sent by him to visit Copernicus in an attempt to convince him to publish his heliocentric theories in Nuremburg. Although Copernicus would not publish the *De Revolutionibus* until 1543, Rheticus' description of his ideas was published in 1540 as the *Narratio Prima* and is dedicated to Schöner.

Because the Schöner Sammelbund contains the only surviving copies of two of Martin Waldseemüller's most important works and because of its association with the early globes of Johannes Schöner it is one of the most significant compilations of geographical information to survive from the early 16<sup>th</sup> century.

### **Description of Current Contents**

Several parts of the Schöner Sammelbund have been removed over the course of its life including; the 1507 *Universalis cosmographiae*, now in the Library of Congress; an annotated Dürer star chart from 1515, still at Wolfegg Castle; and a manuscript drawing by Schöner of sheet ten of the 1516 Carta Marina, still privately held by Jay Kislak.

**I. *Carta Marina Navigatoria Portugallen Navigationes Atque Tocius Cogniti Orbis Terre Maris.*** [Saint-Dié-desVosges, France?], 1516. Woodcut lettering on lower right gives attribution to Martin Waldseemüller (1470-1522?), “*Consumatum est in oppido S. Deodati compositione et digestionem Martini Vvaldseemuller Ilacomili....*”

The only surviving copy of the 1516 world map known as the *Carta Marina* by Martin Waldseemüller (ca. 1470–ca. 1522) consists of 12 woodcut sheets that are adorned with marginal ornamentation by an unknown artist. The printer, thought to be Johannes Gruninger, was based in Strassborg, and is also theorized by many scholars to have printed the 1507 map. The sheets fit together in three zones containing four plates each. The size of the single sheets including the white margin is 45.5 x 62 centimeters.

Martin Waldseemüller was born in Freiburg or nearby Wolfenweiler, somewhere around 1475, and died as one of the cathedral canons of St. Dié, probably at the beginning of 1522. Matthias Ringmann (1482–1511), an important member of Waldseemüller’s circle and his main collaborator, was born in the Alsace region of France around 1482, possibly studied astronomy and mathematics in Paris with Jacques Lefèvre d’Étapes, and appears to have had an intimate knowledge of ancient Greek. Waldseemüller and Ringmann collaborated on a number of projects that are considered groundbreaking in the history of cartography: the *Cosmographiae Introductio*, the 1507 *Universalis comsmographiae*, the first printed terrestrial globe gores in 1507, a Ptolemaic atlas printed in 1513 that is extensively corrected using Greek manuscripts and that is the first to explicitly draw a distinction between classical and modern cartography, a large wall map of Europe (now lost) in 1511, and possibly in the early planning for the *Carta Marina* in 1516. The exact chronology of Waldseemüller and Ringmann’s works is problematic in that they worked on several projects at once over a period of many years.

The 1516 *Carta Marina*, unlike the 1507 map, which is projected according to Ptolemy, was designed as a portolan chart showing rhumb and wind lines coming from a series of compass roses scattered about the map. The map was originally printed without a well defined coordinate grid in a form that has more in common to sailing charts than with other small scale cosmographies. The coordinate grid system that one now finds in the margins of each sheet of the map was added by Schöner at the same time he drew the series of red lines that cover each of the sheets. Interestingly, Schöner appears to have

laid the grid out in an evenly spaced fashion, not considering that the latitudinal and longitudinal spacings might vary. Schöner also appears to have added several place names to the map.

In the large text block on the bottom right sheet of the map Waldseemüller explains that this map was made using new sources and that it is in this respect unlike the 1507 map that was “printed in one-thousand copies.” It is not clear what Waldseemüller means here in that the 1516 map does not show what Waldseemüller describes as the “fourth part of the world” as an island, but rather as a small land mass much like on contemporary sailing charts like the Cantino and Caveri Planispheres. Waldseemüller may simply be telling us that this map is not based on the *Geographia* of Ptolemy but rather on newer information. Unlike the 1507 map Waldseemüller does cite several of his sources on the map itself including the accounts of Lodovico di Varthema and an Italian travel treatise entitled *Paesi novamente ritrovati*.

## II. 1515 Globe Gore Fragments

In 1902, the discoverer of the Sammelbund, Joseph Fischer, removed the 1507 and 1516 world maps in order to produce a facsimile of the maps and in doing so recovered from the gutter of the binding of the Sammelbund fragments of a set of globe gores that belong to Schöner’s 1515 globe. There are only two other surviving examples of this globe, one owned by the Historisches Museum in Frankfurt am Main, and the other by the Herzogin Anna Amalia Bibliothek, Stiftung Weimer Klassik. The gore fragments were trimmed and glued onto gore outlines by Fischer and then rebound into the Sammelbund when the 1507 and 1516 maps were replaced. The set of terrestrial fragments found in the Sammelbund constitutes slightly under 50% of the actual globe. Schöner’s 1515 globe depends heavily on the Waldseemüller’s 1507 *Universalis cosmographiae* for much of its geographical information and many of the legends that appear on the 1515 globe gores are small paraphrases from the larger 1507 map. The globe goes much farther, however, in its description of the New World, in that it actually shows a complete passage around South America into the Pacific Ocean. A more complete description of the geography found on the gores can be found in the companion

volume that Schöner wrote to accompany the globe, *Luculentissima quaedam terrae totius descriptio*.

The gores also contain images of sea monsters and mythological creatures that come from the *Hortus sanitatis* or *Ortus sanitatis*. This book is an anonymous late medieval illustrated encyclopedia of plants, animals and reptiles, first published in 1491 (see Chet van Duzer, Johannes Schöner's Globes of 1515, forthcoming).

### **III. Celestial Gores**

The celestial gores found in the Sammelbund form a complete set of Schöner's gores from 1517. The gores are the first known set of printed celestial gores and are a great improvement over other star charts of the period. Although Schöner's interest focused mostly on geography in the early period of his life we can still see in his extant manuscripts interest in the accurate determinations of stellar positions for the purpose of casting horoscopes. This interest is further established by the annotations that he made to the 1515 Stabius star chart by Albrecht Dürer that originally constituted part of the Sammelbund. The Dürer chart contains several well known errors that Schöner corrected both by annotating the chart itself and on his globe.

One of the most remarkable features of Schöner's celestial gores is the naming of several stars in minor constellations that were unnamed on celestial charts. For example, the stars in the constellation Coma Berenices were usually shown but went unnamed on charts until Schöner called it *Trica* on his globe gores. The 1517 globe called, *Solidi et sphaerici corporis sive globi astronomici canones usum et expeditam praxim ejusdem exprimentes*, was dedicated to the Bishop of Bamberg, Georg Schenk v. Limberg, as were many of Schöner's works and letters.