The Multinational History of Strasbourg Astronomical Observatory
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THE CORONELLI GLOBE OF STRASBOURG OBSERVATORY

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Abstract. Strasbourg Observatory is hosting a damaged Coronelli 1693 celestial globe appearing in the 1920s for the first time in Observatory documents. This chapter [1] reviews Coronelli's activities and elaborates on the history and possible trajectory of that globe.

1. Sharing Office with a Coronelli Globe

A Coronelli celestial globe is discernable on a photograph from the 1920s (Fig. 1, reproduced from Esclangon 1926) showing the rotunda of the Big Dome of Strasbourg Observatory. The globe was still in the same area in the early 1980s: a kind of toy that every passer-by felt obliged to put the hands on and to rotate. By then, the upper part was already blackened by dust, dirt, finger grease and whatever had fallen on the globe over the years, making it impossible to decypher some texts and drawings from the Northern hemisphere (compare for instance Figs. 2 & 3). A large portion of the lower part had been torn off and bits were missing here and there (Figs. 4 & 5).

In order to protect the globe from further degradation, it was moved into my (locked) office when I arrived in early 1983 at Strasbourg Observatory. That large room (then basically unused) was located in the left wing when entering the rotunda. After renovation, that room became the Director's office when I took up duties as such in 1987 (with then the Observatory

[1] Reprinted from the book *The Multinational History of Strasbourg Astronomical Observatory* (Ed. A. Heck, © 2005 Springer, ISBN 1-4020-3643-4) and slightly edited the make the text self-standing in this reprint.

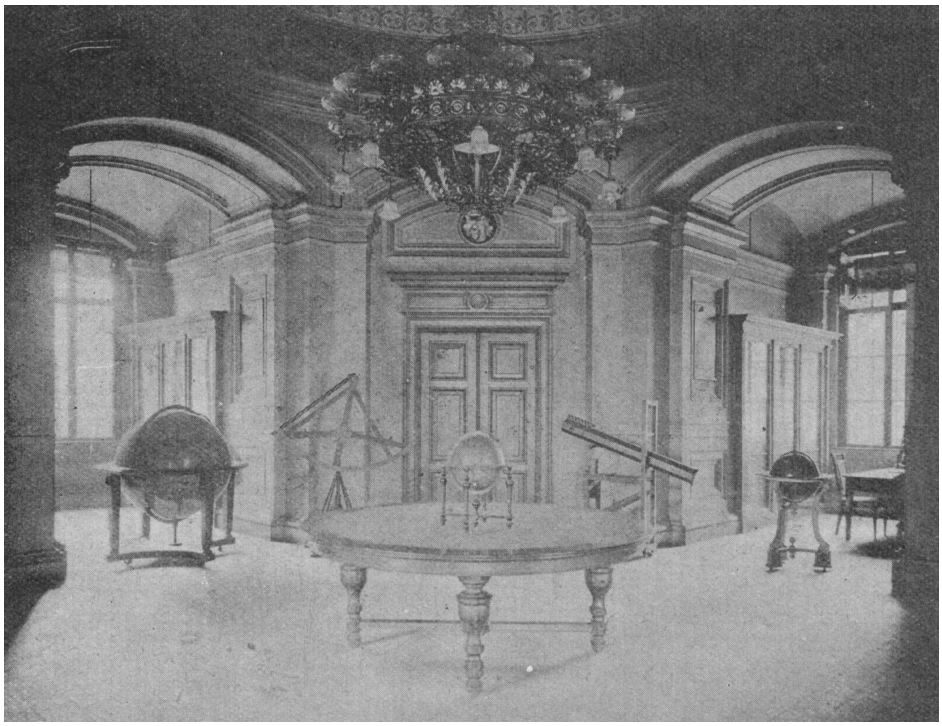

Figure 1. The *Rotonde*, circular hall of the Big Dome, in the 1920s (Esclangon 1926). The 1693 celestial globe of Vincenzo Coronelli (1650-1718) is visible on the left. (© Obs. Astron. Strasbourg)

Secretariat installed in the right wing, just across the rotunda in the old meeting room). At the time of writing these lines (early 2005), the globe is still in the Director's office and in the same conditions.

2. Coronelli's Globe Industry

Vincenzo Coronelli (Fig. 6) was born in Venice on 15 August 1650. At the age of 15, he entered the convent of the Minor Brothers of San Nicolò della Lattuca and, at 21, the great convent of Santa Maria Gloriosa dei Frari where he would established in 1685 an etching workshop very active in cartograhic production. Meanwhile he went first to Rome (Santo Bonaventura College) where he received his degree in theology.

His cartographic career really took off in 1678 when he went to Parma to build a couple of 175cm[2] globes for Duke Ranuccio Farnese. These drew the

[2]The sizes given in this chapter correspond to the diameters of the globes.

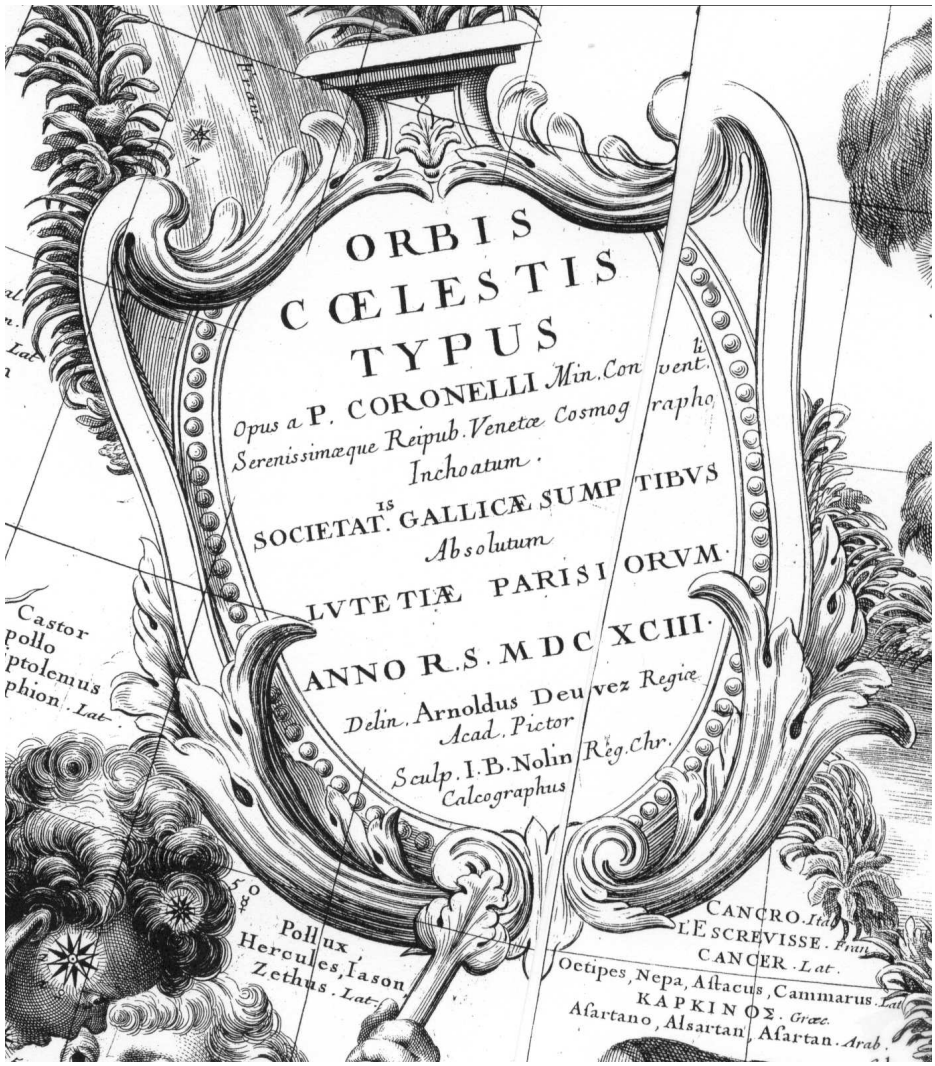

Figure 2. Cartouche (splitted over Northern Sectors 4 and 5) of the Coronelli 1693 Celestial Globe. Artists A. Deuvez and I.B. Nolin are associated to the work. (From the author's own prints obtained from the 1693 original plates; © Musée du Louvre)

attention of César Cardinal d'Estrées[3] who invited Coronelli to Paris. Thus, in 1681, Coronelli arrived in the French capital with the task of building two 384cm globes – one terrestrial, one celestial – for King Louis XIV. This was commissioned by d'Estrées, apparently following a suggestion by Jacques Borelly (unknown birthdate – 1689) from the recently created Academy of

[3]His brother, François-Annibal 1er d'Estrées, was French Ambassador in Rome.

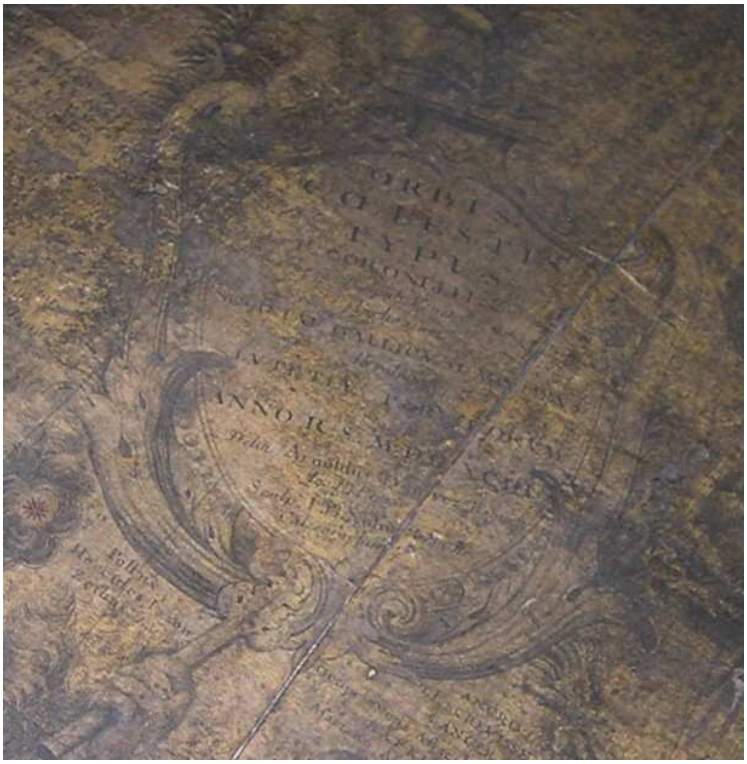

Figure 3. The same cartouche as the one depicted on Fig. 2, but barely decypherable on the Strasbourg Coronelli globe. (© A. Heck)

Sciences. Stars and planets were positioned at their locations corresponding to the birth of Louis XIV, which induced the popular comment that the globes reproduced the King's horoscope.

Those globes are currently located at the National Library of France. If they were exceptional for their size (about four meters) and for the wealth of information they carried for the time, that very size made them cumbersome, difficult to appreciate and almost impossible to read. This explains why they have been stored away in boxes for many, many years. The King had also to get the texts reproduced separately for the benefit of his guests.

Coronelli remained two years in Paris, then worked in various European places, including Paris again in August 1686 where he signed contracts with Jean-Baptiste Nolin (1657-1725) for etching (on copper) a 108cm celestial globe and other maps. In 1688, the globe saw a first release[4], with a second version in 1693. There were in total four editions for the terrestrial

[4]Together with a terrestrial globe etched in Venice. They were scaled-down versions of the globes for Louis XIV.

Figure 4. A large fragment is missing from the Strasbourg Coronelli globe: the fish representing the constellation *Doradus* in the lower part of Southern Sector 3, perhaps simply removed for a silly joke. (© A. Heck)

globe and six for the celestial one (two in Paris and four in Venice). They largely replaced in European libraries the smaller and older globes by Dutch Cartographer Willem Janszoon Blaeu (1571-1638).

The Strasbourg globe has been made with plates of the 1693 series as

Figure 5. View of the Northern part of the Strasbourg Coronelli globe showing missing bits. (© A. Heck)

Figure 6. Vincenzo Coronelli (1650-1718).

indicated by the cartouches displayed in Figs. 2 & 3. Coronelli's name and affiliation are followed by his title as *Cosmographer of the Republic of Venice* bestowed on 12 March 1685 by the Senate of the *Serenissima*. Etcher Nolin is also mentioned as well as Painter Arnould de Vuez (1644-1720), whose name was spelled there as Deuvez.

In 1684, Coronelli had founded in Venice what was perhaps the very first geographical society, the *Accademia Cosmographica degli Argonauti*. The purpose was before all to ensure a large distribution of his globes, maps and atlases. Pelletier & Roger (1993) list some of the eighty-four members of the society who were based in Paris (almost as many as in Venice), including Astronomer Jean-Dominique Cassini. The society was dissolved at the death of its founder.

Coronelli returned to Venice in 1705 where he stayed then permanently and died in 1718. Pelletier & Roger (1993) comment that excessiveness – be it for the size of globes[5] or the number of volumes published – was a constant feature of Coronelli's projects. This even led him to some difficulties with his religious order, especially about the induced expenses.

Coronelli's initiation to astronomy dated back to his first religious years. Colbert also requested him to test astronomical refractors.

3. More (but not everything yet) on the Strasbourg Globe

A question *not* to be asked is how many Coronelli globes have been produced since, just I did myself in the 1980s, prints from the original plates etched by Nolin can be ordered from the French Réunion des Musées Nationaux (RMN) [National Museums]. I have seen some of those prints, roughly colored, hanging in fast-food places.

A simple search through the web reveals a booming industry of Coronelli-labeled items, the authenticity of which is dubious (copies) and the exactitude of which has to be questioned. For unscrupulous merchants and unaware customers, Coronelli maps and globes, likewise Blaeu's ones, are nothing more than old-looking cartographic material. Away from all this, it is however interesting to attempt determining the trajectory of a specific genuine globe.

Figs. 2 & 7 have been reproduced from my own collection of prints obtained in the early 1980s from RMN's chalcographic workshop. The 26 original copper plates (12 Northern sectors, 12 Southern sectors and two polar caps) of the 1693 edition are stored there and were used for the printing. Fig. 7 in particular gives an idea of the fine etching work.

An idea of the magnificence of the original globes is for instance given by the two (celestial and terrestrial) exposed at the Palais des Beaux-Arts in Lille (Fig. 8), masterfully restored (Pelletier & Roger 1993). Note that here the axes are horizontal. The mountings as well as the stands were made along the wishes of the customers. As to the spheres, they were made of plaster covered by printed canvas.

[5]In 1708, he considered building globes four times bigger than those for Louis XIV.

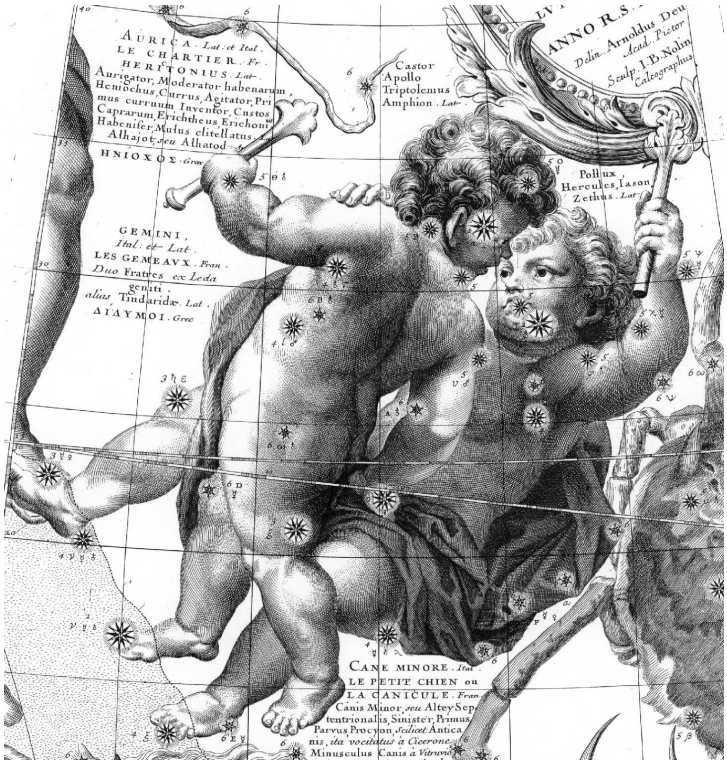

Figure 7. The Gemini Constellation on the Coronelli 1693 Celestial Globe, located near the cartouche described on Figs. 2 & 3. (From the author's prints by the 1693 original plates; © Musée du Louvre)

So far the history of the Strasbourg celestial globe or its trajectory through the centuries could not be traced. It is not mentioned in the (apparently exhaustive) *Inventar* of the first German period of the observatory (see Heck 2005). The fact that it appears first in a picture taken at the beginning of the 1920s could let one believe that it was brought by the French team just after WWI, but this is not certain at all. The globe might as well have been in the area beforehand. Some unsubstantiated rumors speak of a donation by a local scholar.

Another 1693 celestial globe (Fig. 9), with a mounting similar (although not fully identical) to the Strasbourg one, belongs to the Société Industrielle de Mulhouse (SIM) as a 1961 donation from a local wealthy family. It is in a quite good shape, with colors well visible. It underwent a restoration in 1982/83.

An investigation carried out in collaboration with SIM's David Carita revealed that the globe was acquired by the donator towards the end of

Figure 8. Restored celestial (foreground) and terrestrial Coronelli globes from the Palais des Beaux-Arts in Lille. Note that here the axes are horizontal. (Picture A. Heck, by permission; © Palais des Beaux-Arts, Lille)

1928 from a gentleman called Frédéric Rossel who happened to advertize early that year (Rossel 1928) he had a Coronelli globe and several sets of prints that could be mounted in the same way as his own globe. Given the geographical proximity of Mulhouse and Strasbourg, was this pointing at a common origin for the two globes?

On the Strasbourg globe, the inclination of the polar axis can be adjusted at the local latitude by moving a supporting bronze circle on which the following inscription has been carved: *faict par Gatellier fabricateur des instrumens de mathematique 1697 Paris* [made by Gatellier manufacturer of instruments for mathematics 1697 Paris][6].

That mention indicates that the globe, in spite of being of the 1693 version, was probably not released before 1697-98, but it definitely dates back to the end of the 17^{th} century. Duprat's (1970) list includes the globe,

[6]The French spelling would be today: *fait par Gatellier fabricant d'instruments pour les mathématiques.*

Figure 9. The celestial globe from the *Société Industrielle de Mulhouse (SIM)* as displayed at the BUSIM library. (Picture A. Heck, by permission; © SIM, Mulhouse)

but without more details than its size and manufacturing date. No additional information could be found in the archives of the Département des Cartes et Plans at the Bibliothèque Nationale de France, nor from the local museums.

So the search for the successive owners/holders of the Strasbourg globe continues ...

Acknowledgments

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