

# Reconstructing the Anatomical Theatre in Uppsala

Part of Architectural Dissonances

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Photograph of the Gustavianum anatomical theatre interior, 17 January 1950, 'Anatomiska teatern 43, F:66', Uppsala county museum archive (accessed 31 August 2021).

*'The antiquarian just told me she thinks the anatomical theatre is the most beautiful space in Uppsala.'* As I walk through the door of the small sunlit office we have been let to use, Dr Christine Beese looks up from the piles of boxes that the building antiquarian has retrieved from the archive of the Uppsala county museum (Upplandsmuseet) for the two of us to look at.<sup>1</sup> This is the second day of our visit to Uppsala, and our last stop. It's Dr Beese's first time seeing the theatre, which, with its powerfully dramatic space proclaiming the prominent early knowledge production of the university, amply veiled in baroque mystique, is beloved. I myself have been a frequent visitor since childhood, when my mother, a medical scientist

and researcher at Uppsala University, would bring visiting international colleagues here. Since our arrival in Uppsala, Dr Beese and I have been met with nothing but enthusiasm and eagerness to help. My intention for this visit is to research the mid-1900s reconstruction of the theatre, first built in 1662–63. In writing this paper I reflect on the role of the theatre in Uppsala in the context of what were arguably Sweden's two most significant periods of nation-building: the peak of the Swedish Empire in the mid-1600s, and the construction of the Swedish welfare system and the 'almost mythical nationalist *and* Socialist concept of *folkhemmet*, or the people's home' in the early 1900s.<sup>2</sup>

## The Site

The city of Uppsala was the seat of the Swedish Crown until the Reformation, when the church and the university belonging to it were stripped of their economic basis and Stockholm was made the new capital. (The university was founded in 1477, making it one of the oldest universities in the world still in operation.) Uppsala retained some of its consequence even after this blow: as the seat of the Swedish Church remained in Uppsala, coronations were still held in the cathedral, and Uppsala castle was still in use by the Crown. The decision to join the Thirty Years' War was made here, a decision that proved crucial to the emergence of the brief and tumultuous Swedish Empire when Sweden controlled most of the territory around the Baltic Sea as well as colonies in North America, West Africa and the Caribbean. Sweden's new position as a great military power created a need for competent government officials and the Crown invested heavily in Uppsala University, which by then was practically inoperative.<sup>3</sup> In 1620 a building across the square from the medieval Uppsala cathedral which, prior to the Reformation, had been the property of the catholic church was donated to the university by the king, adapted to the needs of teaching and publishing and given the name 'Gustavianum'. Today it is the universities' oldest remaining building.<sup>4</sup> At around the same time, as a consequence of the Counter-Reformation the Swedish Church wished to educate clergy in order to maintain the status quo and the former privileges of the university were restored.<sup>5</sup>

## The Architect

The initiator, architect and master builder of the anatomical theatre housed in Gustavianum was Olof Rudbeck, anatomist, botanist, engineer and architect; historian, astronomer, linguist and singer. The son of a former Uppsala University professor turned bishop, he entered the university as a student and remained as professor of medicine until his retirement at age 61, ten years prior to his death in 1702 shortly after allegedly having led the efforts to extinguish the flames of the great fire of Uppsala (which destroyed most of his life's work) from the roof of his theatre. Already as a student he had gained the attention of Queen Kristina and her allies. The queen's interest in making Uppsala University an institution worthy of a great European power provided fertile ground for Rudbeck's ambition and productivity, and he was given positions within the university that for a period practically made him its autocrat.<sup>6</sup> Although he made many enemies over the course of his career, he seems always to have had enough confidence, persuasion and powerful allies to be able to avoid any significant trouble and to realise his own

projects.

## The Theatre

'It feels like a model of an anatomical theatre', Dr Beese says, when I ask for her first impressions. There are many ways in which this space can be read, as it spins a far-reaching web of relationships between its constellation of signifiers. Spatially very compact, it is filled with representational devices. The dramatic angle of the octagonal tiers produces a space where everyone present is placed in an intimate spatial and visual relationship to each other: up to 200 people or more sharing the same almost-vertical plane, like they would in a rolled-up painting. At the bottom centre of this flattened verticality with its controlled, carved ornaments of various classical orders painted in dark colours, condemned criminals were once dissected. Above the tiers floats a voluptuous dome flooded with light from a double clerestory. The architectural elements around the dome and windows are joyfully and organically ornamented. Thus, the duality of the theatre's upper and lower sections is striking: it may be that of heaven and earth, or that of paradise and purgatory.

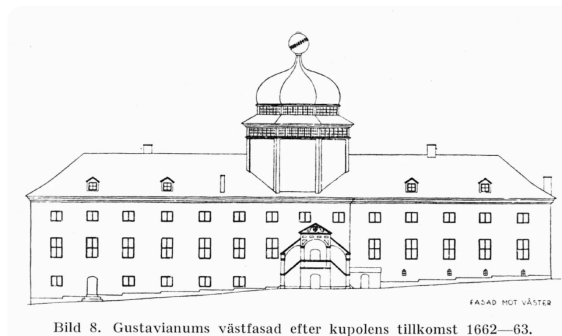


Bild 8. Gustavianums västfasad efter kupolens tillkomst 1662–63.

*Gustavianums västfasad efter kupolens tillkomst 1662–1663 (The West façade of Gustavianum after the addition of the cupola 1662–1663), in S. Lindqvist, O. Eklöf, N. Sundquist, Soluret på Gustavianum ('The sundial at Gustavianum'), Årsboken Uppland, Uppsala: Upplands forminnesförening, 1947, p. 19, fig. 8.*

This photograph is one of many held in the Uppsala county museum that document the 1950s restoration of the theatre. Its tiers had been ripped out in the mid-1800s, and at some point the space was bisected by a slab. The photographer is standing where the dissection table would have been with the camera lens pointed upwards at an angle towards a mocked-up section of the theatre's tiers. In the 1600s, both students and members of the ruling class would have observed the new empirical sciences defying the hegemony of the church by procuring knowledge of the inner workings of the body from up there. Temporarily stripped of both its base and the floor slab below it, one of the eight original dome-supporting columns appears to float next to the mocked-up tiers. In the top right corner of the photographic frame, a screen or sheet covers one of the eight walls where maps would have hung, displaying the conquest by knowledge of the territory of the world.

In 1946, a committee was appointed to oversee the restoration work that came to

span nine years. Besides such clues as were offered by the largely intact dome, columns and load-bearing walls, the committee had access to three sources of information on the theatre's original state. First, two pilasters remained from the original interior, which Rudbeck claimed to have carved and put in place himself. Of these today just one pilaster capital remains. Second, a printed woodcut of a section drawing of the theatre designed and drawn, by all accounts, by Rudbeck could (and still can) be found in remaining copies of his gigantic publication project of 1679–1702, commonly referred to as the *Atlantica*. Third, a transcript of a letter written by Rudbeck in 1685 in which he defends himself against accusations of having spent too much of the university's resources on the theatre's construction.

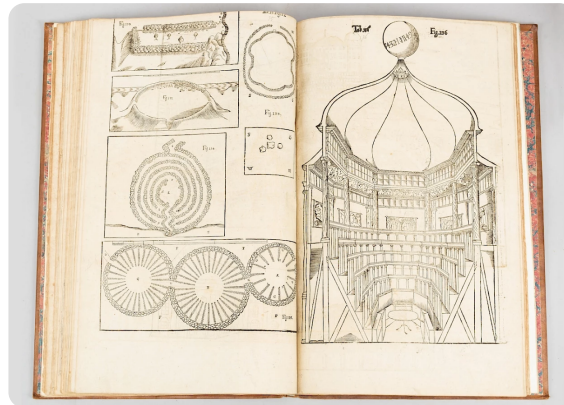
## The Capital

The surviving ionic pilaster capital is held in the Gustavianum archive. An enthusiastic and obliging museum curator greets us and shows us to the aged fragment. It is laid out on crumpled white tissue paper – that it presumably has been wrapped in – on a table in front of one of the large nineteenth-century windows that overlook the former gardens, designed by Rudbeck, of the Uppsala castle. I ask the curator about the challenge and opportunity of working on the new exhibition for Gustavianum, today the Uppsala University Museum. The museum is once again being renovated, the display of objects being remade. She lights up and laughs nervously. Looking at me over the hot pink reading glasses sitting at the tip of her nose she says, 'Well, this is the chance of a lifetime. It is really exciting, but I also worry about failing completely.'

The surviving capital seems smaller than the ones that have replaced it and it weighs next to nothing. Yellowed wood with a strongly contrasting grain shows through two layers of flaking grey paint. I'm guessing it is pine, ubiquitous and cheap, nothing fancy. The carving has a naive and rushed yet somehow unfazed quality to it. Its symmetries aren't symmetrical. They don't line up with each other. The minutes of the restoration committee meeting held in May 1953 report a 'lively discussion' among the professors about the proposed replacement capitals, which Hr Fåhræus finds too 'fine' to give the same 'rustic impression' as the original.<sup>7</sup> Hr Elmqvist points out that there is, however, a great similarity in terms of richness of detail. Hr Paulsson stresses that Rudbeck never aimed at any 'primitivity' in the sculpting of capitals. This architecture 'was intended for the upper classes, comparable to the interiors of a castle.' Indeed, at the height of the Swedish Empire the theatre provided the university with a space of its own in which the Crown and the aristocracy as well as its international guests could be entertained, so that it no longer had to wait for invitations to promote its work.

The Uppsala theatre was by no means the first of its kind. These early modern spaces for teaching anatomy had already been in use for almost a century at the universities of Padua and Leiden by the time Rudbeck built his. Regardless, his building of it helped to raise both interest in, and the quality of the teaching of, anatomy, as well as laying claim to Uppsala University's international significance as an institution for research in the new empirical sciences. Anatomic dissections were performed in the space, and they were public. They were, however, rare, and the space was primarily used for lectures.

As one of only a couple of students at the medical faculty of Uppsala University, still at the time an overwhelmingly theocratic, scholastic teaching institution without any international influence, Olof Rudbeck was the first Swede to make an internationally significant scientific discovery: the workings of the lymphatic system. His empirical work got the attention of both the Crown and the university leadership, and he received permission and funding to construct his anatomical theatre.<sup>8</sup> The theatre was built on top of the university building, spanning its full width and centred lengthwise, imposing symmetry.



Spread including section drawing of the anatomical theatre, Olof Rudbeck, *Atlantica/ Atland eller Manheim, Atlas*, vol. 5, 1698, fig. 136, <https://www.bukowskis.com/sv/auctions/E711/lots/1323313-rudbecks-atlantica-5-vol>.

Towering above the Uppsala roofscape, Rudbeck's zealous baroque dome, with its large and effectively superfluous sundial (there were plenty of clocks around to tell time), joined the previously uncontested steeples of the cathedral in the sky, challenging both the power and the paradigm of the church while giving the smallest faculty of the university – the medical – physical prominence over the others.

## The Section

Our expedition to Uppsala was initiated by a lunch, generously organised by Gustavianum, Uppsala University Museum, with representatives from Gustavianum and the university's library. Our hosts listened attentively to our ideas and expressed their gracious interest in the new points of view that Dr Beese and I might have to offer. At one point, Dr Beese raised the relevancy of Rudbeck's *Atlantica* in relation to the anatomical theatre, stating that the two projects ought to be read and discussed in light of each other. The uncomfortable shuffling-in-seats that occurred around the table in response to this remark is, in my experience, a common reaction to any mention of the *Atlantica*.

Much, if not all, of Rudbeck's extensive work as engineer and architect is included in the illustrated volume of this work, which remains a source of reference in relation to his scientific and technical undertakings. Written in both Swedish and Latin, the language of this lavish and lavishly illustrated publication is energetic, humorous and rushed, with sentences and thoughts frequently left unfinished. As the only

surviving image of the theatre in its original state, the fact that the section drawing inserted into the illustrated volume (where it shares a spread with plans and axonometric projections of other, archaeological, circular spaces of significance to Rudbeck's claims) doesn't show the situation of its entrance caused some headaches for the 1946 restoration committee.



*Islands president på besök i anatomiska teatern* (President of Iceland visiting the anatomical theatre), Gustavianum, Uppsala, 1954, <https://digitaltmuseum.se/011014029694/islands-president-pa-besok-i-anatomiska-teatern-gustavianum-uppsala-195>.

A few years after the theatre's original construction was completed, the *Codex Argenteus* (a sixth-century Italian evangeliary which constitutes the primary source of the Gothic language) and a copy of the Edda (the most expansive source of Norse mythology) were donated to Uppsala University by the vice chancellor, himself a patron of Rudbeck's. For Rudbeck, it was this addition to Uppsala's existing collection of classical texts, then regarded as original and absolute historical sources, that marked the beginning of his enormous and never-to-be-finished publishing project, of which the historian of science and professor emeritus at Uppsala University Gunnar Eriksson has written:

**[The Atlantica] should be classed as a historical work of extreme patriotism ... Although his [Rudbeck's] historical work, huge, chaotic, unfinished after three and one-half giant volumes, is mainly crowded with classical mythology, Edda poetry, and endless breakneck etymologies, it contains many scientific observations and remarks about the natural history of Sweden. In fact, Rudbeck maintains**

**that the countryside of Sweden with its mountains, forests, lakes and rivers is the firm basis for all his historical arguments ... my main issue is the history of 17th-century science. Its use in the *Atlantica* is, in my opinion, typical of what prevailed in a time of transition when philologists and historical scholars maintained close relations with scientists, and the two cultures were still not distinctly separated.<sup>9</sup>**

In the *Atlantica*, Rudbeck presents 102 congruences between Sweden and the mythological empire of Atlantis as described by Plato in his dialogues *Timaeus* and *Critias* before concluding that the capital of Atlantis must have been situated in Old (Gamla) Uppsala. This constitutes the framework and the *raison d'être* of all that ensues. Many of its (proto-)scientific methodologies may be seen to be early imperfect attempts at wielding what subsequently were developed into techniques in use today (such as the analysis of archaeological strata), all of whose results tend to prove Rudbeck's initial thesis. Eriksson observes that the *Atlantica* was not the first publication of its kind: other sixteenth- and seventeenth-century volumes claim exceptionalism for various European countries, and topography often plays a prominent part in their argumentation. The fact that territory could be so-defined, measured, mapped, and categorised allowed for previously unknown spatio-temporal relationships to be claimed.

In the second chapter of the *Atlantica* Rudbeck discusses 'the difference of peoples'. On the basis of criteria such as 'kinship, language, locality, customs, legislation, physiognomy, skin colour, ways of building, clothing, etc.', he concludes that 'from the oldest times the Swedes have been a homogenous people, identical through the ages, unlike almost all other European peoples.'<sup>10</sup> Rudbeck's development of an origin myth in order to claim exceptionalism for the Swedes (and for Uppsala in particular) was nothing new, but his locating this mythical origin as a lost, expansive and technologically advanced Atlantis was without precedent. For Rudbeck, Swedes were Atlanteans – one of the original and unaltered peoples from whom all other peoples, all knowledge and all culture, had descended.

When the period of Rudbeck's near-autocracy at Uppsala University came to an end in 1670, he retained his professorship in medicine but focused most of his attention on the *Atlantica* and his work in botany, including the ambitious production of full-scale woodcut representations of plant species. After his son, Olof Rudbeck the younger, succeeded him as professor of medicine, the next person to hold the chair was Carl von Linné, who also inherited and used the botanical garden set up and attentively cultivated by the Rudbecks, known today as the Linné garden (Linnéträdgården). At a young age, Linné was given room and board in the private home of Rudbeck the younger, who saw the promise of this student. In return, Linné worked with him and assisted in the education of his children.<sup>11</sup> As part of Linné's own *Systema Naturae* for naming and categorising forms of life, he ordered and hierarchised the human species into four 'varieties' connected to continents and



skin colour.<sup>12</sup>

## The Letter

*'Do you mind staying for just another minute? The archivist who helped you with the material wanted a quick word before you go, if you don't mind.'* With that the receptionist at the Uppland county archive (*länsarkivet*) left to fetch his colleague, who wanted to make sure we were aware that the substructure supporting the theatre tiers is original and who reminded me that the county museum holds the 1940s antiquarian survey of the theatre in its archive.

The county archive also holds a transcript of Rudbeck's 1685 letter in which he confidently defends himself against a committee of inquiry. In this letter he details the cost of each and every component part of the theatre's construction, claiming that if anything, the university owed him money and not the other way around. It was from this document that the 1950s restoration committee knew how many pilasters the original interior had, and of what order. Together with the section drawing of the theatre in the *Atlantica*, this letter helped them to approximate the original design of the theatre's entrance. Hr Fåhraeus, who, as we have seen, considered the new capitals too 'fine', also found the proposed tier formation presented at the May 1953 meeting unsatisfactory. In his opinion, the rings of the tiers ought to be pinched in a bit, making the part of the entrance with the stairs 'less open'.<sup>13</sup> Walking into the space today, the forced perspective that is produced by entering via a narrow cut-out of the tiers has a dramatic, imposing effect.

## The Committee

The chairman of the committee overseeing the restoration of the anatomical theatre was Nils von Hofsten, vice chancellor of Uppsala University 1943–47. A professor of zoology specialising in comparative anatomy, Von Hofsten was instrumental in popularising the new scientific field of genetics through his lectures at Uppsala as well as his multiple publications, one of which long remained the only Swedish course literature in the field.<sup>14</sup> From this he developed as his main focus the study of human genetics and eugenics. A member of the Swedish Association for Racial Hygiene (*Svenska sällskapet för rashygien*), he belonged to the network of people who successfully lobbied for the founding of SIRB, the Swedish State Institute for Race Biology,<sup>15</sup> 'with the purpose being to survey and classify the Swedish people according to their race', under the leadership of Herman Lundborg. According to Lundborg and his eugenic theories, the Nordic race was threatened by degeneration due to miscegenation and it was necessary to adopt a rational population policy in response. With the data produced by SIRB, Lundborg argued, 'informed decisions could be made on who was pure Nordic, true white, and who was not, and what strategies to take to encourage the former to reproduce and ensure that the latter did not.'<sup>16</sup>

The idea to restore the anatomical theatre originated in conjunction with the 1920 restoration of Gustavianum. At the time Von Hofsten was working as a conservator at the Museum of Zoology (*Riksarkivet*) which then inhabited the partially demolished theatre.<sup>17</sup>



In 1922 SIRB opened in Dekanhuset (the Dean's building) on the same square as the cathedral and Gustavianum. Von Hofsten was on the board of SIRB 1926–53; vice chairman 1933–45, and chairman 1945–53.<sup>18</sup>

In 1935 Gustavianum was listed as a landmark building of national historical and cultural significance and thenceforth protected by preservation laws. That same year, Von Hofsten became chairman of the Lärdomshistoriska samfundet in Uppsala, a society for the study of the history of scientific research. In 1937, the society commissioned a transcription of the original *Atlantica* in its entirety. This drastically increased the availability of Rudbeck's writings: as their sole source, the original volumes had been both difficult to get hold of and to decipher.

Ultimately, the fate of SIRB parallels that of the *Atlantica*. While the scientific validity of race biology and eugenics was soon called into question, Lundborg replaced and the institute eventually incorporated into Uppsala University under a new name, this is by no means to say that the ideas put forth and the structures put in place by SIRB have not had a lasting impact.<sup>19</sup>

## Reflections

In so-tracing the construction and reconstruction of the anatomical theatre in Uppsala, I have come to 'read' its architecture as a means of promoting, perpetuating and legitimising ideas and ideologies by connecting narratives of Swedish exceptionalism and racial 'purity' with rhetorics of empirical science, fuelling and fuelled by the nation-building projects that took place at the height of the Swedish Empire and during the construction of *folkhemmet*.

Crucially to this perspective, I understand the theatre and the *Atlantica* to be critically connected: both were used in the 1600s to promote Swedish prominence in scientific knowledge production, and by including the theatre in his *Atlantica*, Rudbeck was effectively situating it within his narrative of the 'purity' ('homogenous and identical through all ages') of the Swedish people. If the anatomical theatre constituted a spatially fixed, didactic tool for entertaining this worldview and the significance it dictated, the *Atlantica* provided a mobile vessel for the same. And whether or not Rudbeck himself believed in the connections he made (or just milked them for their entertainment value or their potential to please a nation-building Crown), legitimised by his empirical work the *Atlantica* was read and discussed within the European context, drawing the attention of the aristocracy and other leading figures, albeit opinions of its value varied – we know that Isaac Newton owned a copy.

In relying on the theatre's representation in the *Atlantica* during the process of its restoration, those responsible created new connections between them. The intricate spatial and social entanglement of the theatre with the State Institute for Race Biology (SIRB) in the 1900s leads me to suspect that the same ideology may have influenced the reconstruction of one and the founding of the other. Considering Von Hofsten's role at SIRB, I read his engagement in the restoration of the anatomical theatre and the republication of the *Atlantica* as likely motivated by a wish to

legitimise and popularise the ideas presented by the institute. And while I don't know for sure if it was Rudbeck that Lundborg had in mind when he argued that 'archaeological research and history had shown evidence of various exceptional qualities of the Nordic race',<sup>20</sup> it does seem likely that the *Atlantica* formed at least part of the basis for this statement.

Among the documentation of the theatre's restoration, the Uppsala county museum keeps photographs of its presentation to various guests while in process; once again providing a space to impress visitors.

Here the Icelandic president is gazing up into Rudbeck's dome during a state visit in 1954 while someone, presumably a representative of Uppsala University, gesticulates vividly beside him. The drawings produced for the restoration are piled up on the dissection table: at the top of the pile is a copy of the section drawing from the *Atlantica*.

1.

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2.

Henrik Björck, *Till frågan om folkhemmets rötter. En språklig historia*, Lychnos, 2000, pp. 139–70.

3.

'The history of Uppsala University – a brief summary', Uppsala University website, [uu.se/en](https://uu.se/en) (accessed 9 September 2021).

4.

'Gustavianum, Uppsala', Statens Fastighetsverk website, [sfv.se](https://sfv.se) (accessed 20 September 2021).

5.

'The history of Uppsala University – a brief summary', Uppsala University website, [uu.se/en](https://uu.se/en) (accessed 9 September 2021).

6.

Gunnar Eriksson, 'Olof (Olaus) Rudbeck', *Svenskt biografiskt lexikon*, Riksarkivet website, [sok.riksarkivet.se](https://sok.riksarkivet.se) (17 September 2021).

7.

Minutes of the restoration committee meeting of 4 May 1953, Uppsala county museum archive (accessed 31 August 2021).

8.

Gunnar Eriksson, 'Olof (Olaus) Rudbeck', *Svenskt biografiskt lexikon*, Riksarkivet website (accessed 17 September 2021).

9.

preface.

10.

Gunnar Eriksson, *The Atlantic Vision*, Canton, MA: Science History Publications, 1994, p. 13.

11.

Gunnar Eriksson, 'Carl Linné (von)', *Svenskt biografiskt lexikon*, Riksarkivet website, [sok.riksarkivet.se](https://sok.riksarkivet.se) (accessed 8 September 2021).

12.

Linda Andersson Burnett, Annika Windahl Pontén, 'Linnés förhållande till rasism är komplicerat', ('Linné's relationship to racism is complicated'), Uppsala University website, May 4 2021, [uu.se](https://uu.se) (accessed September 11 2021).

13.

Minutes of the restoration committee meeting of 4 May 1953, Uppsala county museum archive.

14.

Marianne Rasmuson, 'Nils G E Hofsten, von', *Svenskt biografiskt lexikon*, Riksarkivet website, [sok.riksarkivet.se](https://sok.riksarkivet.se) (accessed 15 September 2021).

15.

John Sjögren, 'Rektorn som var rasbiolog' ('The vice chancellor who was a race biologist'), *Uppsala Nya Tidning*, 29 October 2011, [unt.se](https://unt.se) (accessed 16 September 2021).

16.

Ulrika Kjellman, 'A Whiter Shade of Pale', *Scandinavian Journal of History*, vol. 38, no. 2, 2013, pp. 180–201.

17.

'Anatomiteatern invigs 31 maj', *Svenska Dagbladet*, 24 April 1955.

18.

Marianne Rasmuson, 'Nils G E Hofsten, von', *Svenskt biografiskt lexikon*, Riksarkivet website.

19.

Ulrika Kjellman, 'A Whiter Shade of Pale', *Scandinavian Journal of History*, vol. 38, no. 2, 2013, pp. 180–201.

20.

Herman Lundborg, *Svensk raskunskap*, Uppsala: Almqvist & Wiksell, 1927, p. 28 (trans. Ulrika Kjellman).

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