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Les deux cadrans solaires pour Henriette Catharina

Fig. 2: The young princess Henriette Catharina
Photo: KsDW, Bildarchiv, Aufnahme: Heinz
Fräßdorf

Two sundials for the charming Dutch princess
Henriette Catharina von Anhalt-Dessau in
Oranienbaum castle in East Germany!



Fig. 3: Princess Henriette Catharina
with three of her all together ten children [Photo:
Marie-Luise Werwick]



The Dutch princess Henriette Catharina of Anhalt-Dessau from Den Haag, wife of Johann Georg von Anhalt-Dessau, has built Oranienbaum castle and parks in the years 1683-1685 and enlarged the entire complex until 1698.

When I started my research I assumed that the pair of two sundials, a really rare **sundial couple**, was designed and put up around 1685 or some years later on the South- and North- facing walls of the so called two “**Kavalierhäuser**”. Unfortunately not single written evidence has come upon us about its installation.



Fig. 4: The sundial for the South side of the building.

Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf

The photo of the south facing, more than 300 years old sundial was taken in 2005, when they had decided to replace this sundial, painted on a sheet of lead by a copy, again to be painted on lead. If we look at the beautiful design of the sundial, one construction detail is quickly obvious: All seems to have been cut very close on the right and left frame of the construction.

We can easily see the hour lines from 7 to 12 to 6, which means an Azimuth of about $+15^\circ$. The sundial is calculated for apparent local time with Italic and Babylonian hours. Sunrise, sunset, day- and night hours are indicated. As decoration we see the sun on top and a flying female figure with two green garlands.



Fig. 5: Recalculation of the south side sundial by **Joan Serra**

Calculation-picture: Joan Serra

Joan Serra from Mallorca has kindly recalculated both sundials for me several years ago, when I was thinking of writing two articles about these two sundials for a German and a Spanish language sundial magazine. We can see that there had been only slight mistakes for the afternoon lines for example and the zodiacal hyperbolas, which certainly did not disturb the princess when she passed by in the court and compared the shadow-indication with the indication of her wrist-watch chronometer ☺

Fig. 6: The location of the two sundials in front of the two “Kavalierhäuser”

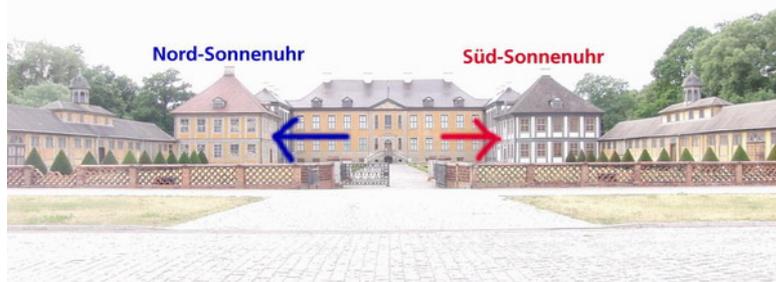




Fig. 7: The north facing sundial of Oranienbaum **Kavalierhaus**

If we walk to the “**Kavalierhaus**” at the opposite wing of the castle we can see the North facing “husband” of this very unusual sundial couple and immediately we will start to smile as we all know: The sun certainly has no chance to indicate all these carefully provided hour lines, the Italic and Babylonian hours. But it mirrors the men’s reality: Day and night they are thinking of their beloved women...

If we have a closer look to this sundial we see that the decorative sun is now placed on the ground and the imaginary “Victoria” is coming out of a construction which might be something like a shell and also this Victoria carries two green garlands in her hands. We see a mirrored construction of the South facing sundial with the already known details of the hours from 7 to 12 to 6 et cetera...

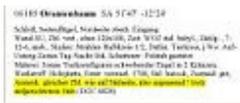


Fig. 8: DGC catalogue text about this north facing sundial.

I smiled about the very strict two last lines of the text within the description of this sundial in the German DGC- sundial-catalogue, which informs the reader “*Anmerk: gleiches Zbl. wie auf Südseite, also unpassend ! trotz aufgerichtetem Stab (DGC6828)*” which means: **Remark: Same clock face as on South side, therefore inappropriate! Despite of the erected rod (DGC 6828)**

Let me show to you also for this sundial face the **recalculation of Joan Serra!**



Fig. 9: The recalculation of the north facing sundial by **Joan Serra**
Calculation picture: Joan Serra

Joan Serra writes in his (translated) notes which he added to his calculations: “*In fact, the Northern sundial is exactly a continuation up of the hour lines of the Southern sundial and the hours pass to the contrary side. So if the wall was transparent, an observer located in front of the North face would see tomorrow’s hours and later in the same sector which would be in the Southern dial.*”

Joan Serra had imagined that these two sundials were built for the front and for the back side of a single building and not for two different buildings, facing to each other.

[“En realidad, un reloj de sol Septentrional, es exactamente una prolongación hacia arriba de las líneas horarias de un reloj Meridional y los números de las horas pasan al lado contrario de modo

que si la pared fuera transparente, un observador situado en la cara Norte vería las horas de mañana y tarde en el mismo sector que estarían en el Meridional.”]

Here is a comparison of five pictures which show how this house and the sundial looked like before the restoration was started in 2006.



Fig. 10: Look at the building on the left side!
Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf



Fig. 11: The building with the red container in front of it.
Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf



Fig. 12: The **Kavalierhaus** before the restoration of the sundial in 2006.
Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf



Fig. 13: The **North** facing sundial before the restoration.
Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf



Fig. 14: The upper detail of the North-facing sundial before restoration.
Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf

I am happy that they have – after a careful examination – decided that this sundial could be restored while the South facing sundial was in such a bad condition with at least four over paintings of the original, that they thought it would be necessary to order a copy and to keep the original sundial in the storage.

They took an easily to be remembered date to celebrate the inauguration of the new painted South-sundial: 07-07-07 !!



Fig. 15: Unveiling of the new built image of the presumed originally some 320 years old sundial. Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf

As you remember I chose **the south facing sundial** to play the role of the **woman** within this sundial couple in my Oranienbaum-story and I must confess: At a first quick look at this new painted version I had the imagination of women who went to a surgical beauty surgery ... and often the lifting procedure leads to a dramatically changed face ...

Look here how the lady looked like before:



Fig. 16: The status in 2006. Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf

... And after the general lifting surgery...



Fig. 17:

I have asked the well known Dutch gnomonist **Fer J. de Vries** whether there might be a similar looking, about 300 years old sundial somewhere in the Netherlands, as I assumed, Princess Henriette Catharina probably had asked besides the Dutch architect for her intended castle also a Dutch gnomonist to build this sundial couple. He answered very friendly that there would be a meeting of the Dutch sundial society within several days and that he would put my question to the attending Zonnewijzerkring members. I was very happy about this kind support.



Fig. 18: Email Fer J. de Vries

However Fer de Vries reported soon afterwards that the members of the Dutch sundial society were not interested in my historical question.

Mo 21.03.2011 16:54

ferdevries@onsneteindhoven.nl

Reinhold,

At our Saturday meeting in Utrecht nobody wanted to take the chance to look at the sundial in details.

I myself am not so good in historical facts so I also don't take the chance for historical research but I have another remark.

Looking at the patterns I get the idea that the signs of the zodiac calendar aren't well placed.

On the south facing dial, starting at the right side of the photo, just below the equinox line, I see the sign Taurus and just above the equinox line the sign Aries.

The sequence there is

Aries

Taurus

Gemini

Cancer

That sounds correct but Aries should be below the equinox line. It is the first sign of spring.

The sequence continues at the left top of the photo.

Leo

Virgo

Libra etc.

But Leo is a sign in summer and here the sign is at the winter side of the sundial.

Continuing we see the sign of Capricornia down at the summer side of the dial but it belongs to the winter.

I can't imagine that in the past the signs were placed like this.

Went something wrong when the dial was once restored?

Best wishes, Fer.

Soon after I had received this email I got the ordered book, written by **Katharina Bechler: Schloss Oranienbaum**, a dissertation which had been published in 2002.



Fig. 19: Katharina Bechler: Schloss Oranienbaum, mdv 2002. Photo: K. B. And on page 39 and 40 I was a little bit shocked as I could read there, that the two sundials obviously were put up probably in 1782 to the two houses, which would mean that the assumed more than 300 years old sundials would have become 100 years younger than I had previously thought. And what was the worst of it: This would have meant that the sundial was neither ordered by **Henriette Catharina** nor constructed by an assumed **Dutch gnomonist** as the

attached two “Kavalierhäuser” were erected in the local style and had no longer a connection with the previous Dutch architecture style of the castle. I confess: I was frustrated as my nicely assumed **Princess-Henriette-story** suddenly had melted away. And for a moment I felt very much like the German film title by Alexander Kluge “**Die Artisten in der Zirkuskuppel: ratlos**” – the artists in the circus cupola: helpless”

However **my big hope was**: If I go to **Oranienbaum castle** personally and ask the experts there directly and not just via Emails and paper-letters and reading books and magazines I might get a different answer.

On May 27 and 28 I finally visited the **Oranienbaum Castle** and the very friendly and very cooperative archivist and Dipl. Librarian **Ute Winkelmann** had arranged a rare meeting on the Friday afternoon with the chief restorer of the world heritage “**Wörlitzer Gartenreich**” and its castles, Herr **Robert Hartmann**. He opened friendly the iron gate of the depot and soon after I stood in front of the original South facing sundial, painted on lead.



Fig. 20: Original South facing sundial in the depot.



Fig. 21: Detail of the original South facing sundial in the depot.



Fig. 22: Second detail of the original South facing sundial in the depot.

On the table in front of the sundial there was also the pole style construction – a version which was taken from the previously hanging sundial and there were two yellow triangles indicating the calculated values for a correct installation of the sundial-copy, probably provided by two DGC-members who had blamed about the missing calculation, but came along with their proposals after all was painted already...



Fig. 23: The triangle-construction-details lying in front of the South sundial in the depot.

From Herr **Hartmann** I got to know that these “Kavalierhäuser” really had been ordered and erected during the life-time of **Henriette Catharina** and I also got a splendid explanation for the idea of the **North facing sundial**: In Baroque era **symmetry** was a very important part of all architectural constructions. So: If there was a sundial on the South facing building, there ought to be also a sundial on the North facing building on the other side of the castle court and therefore also not a new construction of this sundial with the few possible sun-shining hours between 3:30 and 6:00 p.m., but the mirrored imagination of the South facing sundial and all the prepared imaginary lines were **pure and fascinating imagination** which never became reality with a real shadow movement.

What a wonderful, what a rare invention! I do not know any further similar invention from Baroque era.

I have to insert here a little remark: After I got to know about the intended restoration I had proposed to a person of the Oranienbaum castle via Email to contact Dr. Richter, a good gnomonist and sophisticated sundial calculator, living in Radebeul, whom I had connected already in the past with another restoration at **Gamig**. But at Gamig the stone mason who had done a splendid restoration of the sundial ruined by a big flood was wise and accepted my proposal and his support, whereas the board of Oranienbaum castle thought this would not be necessary and just to copy the lines of the old sundial construction would be also enough as to take the holes of the pole style mounting and thus getting good values for the intended new sundial-copy...



Fig. 24: The former pole style construction.

So the restorer just focussed to the technical part of repainting this sundial: What kind of Expositresin-colour and new Polyurethan- colours were necessary, how to fix the gold bronze exactly on the lead etc.



Fig. 25: Angela Günther painting the new sundial. Photo: A. G.



Fig. 26: Angela Günther painting the new sundial. Photo: A. G.

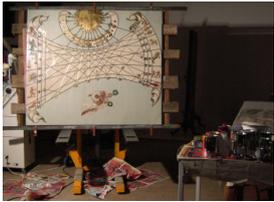


Fig. 27: In Angela Günther's studio. Photo: Angela Günther

What I really do not understand was, why **Angela Günther**, the local restorer, was asked to build a “new look” of the decorative details and elements of this 300 years old original sundial and not trying to find a good copy solution of this “Victoria” figure, but also of the forms of the zodiacal figures as well as its order. If one compares the remaining traces of the original sundial with what was finally painted ...



Fig. 28:



Fig. 29:

... Also if one judges mildly one can hardly say that this was a good idea and a good result.

When I stood in front of the sundial, the sun was shining only for a short while, but judging from the few photos I could take of the pale shadow, I easily could see that this new built sundial copy is not indicating the time correctly, which is really both a shame and a pity. Since 2007, when the new sundial was picturesquely unveiled at this memorable 07th 07th 07 – I have shown the inauguration picture to you before – obviously nobody blamed about the incorrect time-indication... and also I did not, as I wanted to behave myself as a modest guest.

Looking back more than 300 years during which these sundials now exist, it is so good that the curious **North facing sundial** was not repainted but could be restored and fixed for the next 20 years as **Angela Günther** wrote in her restoration report.



Fig. 30:



Fig. 31:



Fig. 32:

Photo: U. Winkelmann

Considering the result of all:

1. Henriette Catharina, who has ordered this sundial couple, must have been a very cultured and energetic person, who did not only inspire the architect Cornelis Ryckwart, but also the possibly Dutch gnomonist who has invented and constructed this sundial couple.
2. Oranienbaum Castle is getting back at least part of its former charming atmosphere after having been ruined a lot by its common users.
3. This baroque sundial couple is a very rare and splendid sundial idea!
4. It would be great if the managing board of the castle would think about a necessary correction of the new built sundial copy before the Dutch queen Beatrix will visit the castle of her royal ancestors next year.



Fig. 33: Oranienbaum Castle.

Photo: KsDW, Bildarchiv, Aufnahme: Heinz Fräßdorf



Post scriptum:

You know already my custom which I had installed in 2008, when I brought a chocolate box in memory of the South American gnomonist **Buenaventura Suarez**, who had produced drink-chocolate in the remote Jesuit missions of nowadays Paraguay of 18th century.

But this time I have a second little present for you, which has something to do with sundials: A copy of the famous “**Potsdamer Dreispitz**” a sundial invention of **Professor Liebscher** from Potsdam. He has kindly calculated the sundial for the **CCS/SAF- office in Beethoven-street in Paris** and additionally for the home of our President **Philippe Sauvageot** as well as for the homes of my dear French friends François Pineau and Joël Robic.



Fig. 34: “Potsdamer Dreispitz”- link at www.tadip.de > “Links”

You will easily find Prof. Liebscher’s sundial links at www.ta-dip.de , where you also can find a link about the **Oranienbaum Castle sundial** couple as well as another link about a little **photo booklet** about the same theme.

Thank you very much for having listened to me!
And now the chocolate-box!

