

## **‘Reconstruction of the original state of the 1640 Ioannes Ruckers virginal in the Rijksmuseum Amsterdam’**

### **A project of:**

Giovanni Paolo Di Stefano (Rijksmuseum Amsterdam)

Paul van Duin (Rijksmuseum Amsterdam)

Manu Frederikx (Metropolitan Museum of Art, New York)

Tamar Hestrin-Grader (University of Leiden)



### **The Object**

The BK-KOG-595 muselaar virginal is one of the two surviving instruments from the year 1640 that were built in Ioannes Ruckers’s workshop in Antwerp. It belongs to the Koninklijk Oudheidkundig Genootschap which, in 1885, gave it on long term loan to the Rijksmuseum.

Like most instruments of its age, it was deliberately adapted multiple times in the first century or so of its existence, accommodating changes in musical and visual tastes (e.g. bass compass extended, exterior repainted). Eventually, it fell out of use, and further alterations, probably less deliberate, occurred (e.g. papers darkened, soundboard painting gone). It is no longer in playing condition, nor can it be returned to playing without compromising its preservation, both as a record of historical instrument building practice, and as an object of cultural heritage.

### **The Project**

Detailed technical analysis of the instrument, backed by thorough archival research, will lead to a deeper understanding of the object itself, and any conservation issues that may arise. A scrupulously accurate

replica-reconstruction, making use of the identical materials and working techniques wherever possible, will reveal further information about the instrument's construction and design. This fully functional musical instrument will then be a source of information and a means of research into the audible qualities of the instrument.

### **The Goals**

The Rijksmuseum's 1640IR project aims to give the original instrument new life, without compromising its preservation. The approach - that of building a replica - is not new; however, the project will take this approach to hitherto unattempted levels of analytical and reconstructive precision.

First, a detailed technical analysis into every aspect of construction, material, and technique, will allow the instrument to *teach*. Second, the construction of a replica-reconstruction of its original state, as faithfully and accurately built and decorated as possible, will allow the instrument to sing and step from its case by proxy, once again interacting with the public.

This newly built instrument will occupy a space *in-between*: both a working musical instrument and a museum object specimen, both a replica and an individual in its own right, both a manifestation of rigorous scientific research and a product of contemporary craftsmanship and art.

### **The Methodology**

The project, methodologically, can be considered to fall into three parts. First, the direct study of the instrument's materiality, supported by the study of parallel extant instruments where necessary. Second, the archival and historical research into the instrument's context and background. Third, the making of the replica-reconstruction instrument.

Due to the instrument's status as an object of cultural heritage, its physical preservation will be given priority. Non-invasive analytical techniques will be emphasized. Where direct non-destructive techniques cannot yield the information needed, preference will be given to the use of models, mock-ups, and experimental reconstructions. When neither of these approaches apply, direct sampling will be employed, when it is possible to do so without compromising the integrity of the object (e.g. stratigraphic sampling of exterior paint layers at the edge of existing damage to the surface decoration).

### **Technical Analysis**

The examinations aim to clarify questions of concept (design, scaling, etc.), method (process, tools, order of work, etc.), and material. Multiple techniques will be needed in order to understand the composition and structure of the many materials used on the instrument: wood (case, keys, soundboard, stand, etc.), metal (hinges, pins, strings, rose), leather (jack guides, key arcades), parchment (key arcades), glues, textiles (dampers, jackrail, keyrack), bone (key covers), pigments and media (decoration), paper (decoration) and so on.

The recent long-term loan of the 1640 Ioannes Ruckers harpsichord to the Rijksmuseum will enable the direct comparison of BK-KOG-595's closest parallel instrument *in situ*. As mentioned above, the 1640 harpsichord, in the ownership of a private German collector, is the only other surviving instrument made by Ioannes Ruckers in the year 1640.

The following is a provisional list of analytic techniques to be employed in the material study of the instrument. Further methods will be added as their usefulness and feasibility is determined. This work will build on the analyses that have already been performed on the instrument.

- CT scan
- XRF
- MA-XRF
- Micro-Raman Spectroscopy
- Dendrochronology
- Imaging in visible, IR, and UV (short and long wave) light
- Infrared Reflectography
- SEM-EDX
- Chromatography
- Stratigraphic analysis

Where the materials are too damaged or contaminated (or simply absent) to be analysed directly, mock-ups and reconstructions will be created and artificially aged (where possible) to determine their plausibility.

### **Archival and Historical Research**

The study of archives, historical treatises, parallel decorative traditions, and iconographical sources will be used to trace the development of the decorative style and origins of the decorative elements, as well as establishing a clearer understanding of the physical and intellectual context of the instrument, and filling some of the gaps in current knowledge about the supply chain used by the builders.

### **The Replica-Reconstruction**

The replica-reconstruction instrument will be not just a copy of the *form* of the instrument, but also, as far as is possible, a reconstruction of the process of its making. Thus it will be a form of research in itself (learning through doing), and an expression of the research (technical and historical) which will precede it.

Moreover, since it will aim at copying not the *current* form of the instrument, but its *original* state, it will reconstruct those elements, both decorative and structural, which have been lost, hidden, or altered over the centuries: the original compass, the string scaling, the bridge, the soundboard decoration and rose, the exterior decoration, the missing jackrail and harpichordium stop, etc.

The replica-reconstruction will increase the communicative value and visibility of the original object through several means:

- by illuminating the process of its making (a story which can be told both through the process and in articles, conferences, multimedia presentations, and exhibitions after the completion);
- by illuminating the process of aging (showing how the instrument has changed, contrasting the condition of the original - and reasons for its alteration - with the replica, putting the two objects in dialogue);
- by allowing the silenced musical instrument to sound again, by proxy, thus illuminating the process of its use, and engaging more senses than the visual alone.

### **Partners**

Rijksmuseum Amsterdam  
 The Metropolitan Museum of Art New York  
 University College Gent KASK & Conservatorium  
 Leiden University