UNIVERSITY OF APPLIED SCIENCES POTSDAM
DEPARTMENT OF METAL CONSERVATION

The four baroque Lead Statues from Lerchenborg Slot in Denmark

State of Condition and Concept for Preservation in an Open-air Area

Diploma Thesis 2013 – Caroline Arndt

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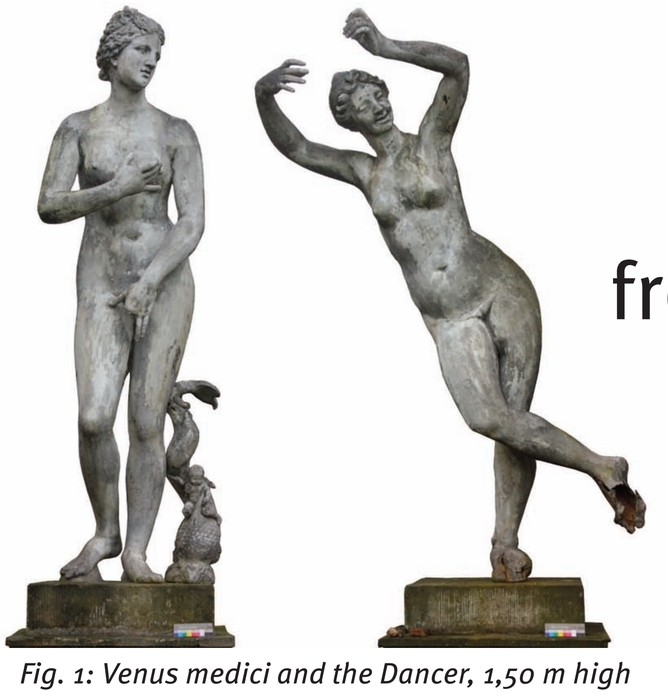

Fig. 1: Venus medici and the Dancer, 1,50 m high

Fig. 2: Diana and Apollo, 1,50 m high

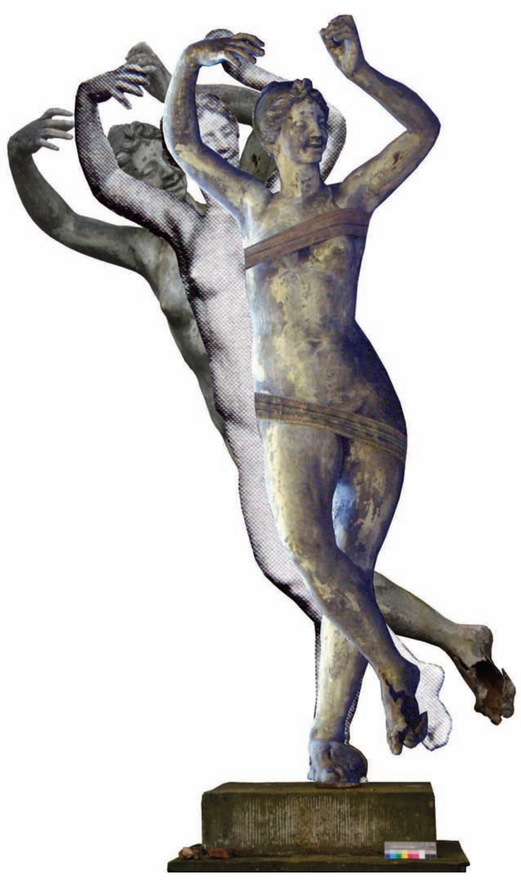

Fig. 3: The photomontage shows the deformation of the Dancer in 1930 (middle), in 2012 (rearmost) and after reshaping (foremost)

Location and Provenance

The four lead statues (fig. 1, 2) are from the baroque garden of *Lerchenborg Slot* in *Denmark*. The statues could probably be dated to 1672-77 and thus appox. 70 years earlier than *Lerchenborg Slot*. It can be assumed that the statues were originally displayed in the garden of *Charlottenborg* in Copenhagen and were bought second-hand by the owner of *Lerchenborg*. The statues came originally from *Holland*. This could be proved by comparing the statues with the lead statues from *Schloss Herrenhausen* in *Germany*.

Aim of the Thesis

The first aim was to range the four statues concerning their provenance and manufacturing technology so that they could again be noticed as valuable and interesting objects. Furthermore a concept for the conservation and restoration should be developed, that makes it as well possible to conservate the statues at their original installation site as to keep the original substance as far as possible, in order to keep the object also as art technological monument.

Reshaping

The *Dancer* is the most damaged statue since it inclined 20 degree to the right site and thus is endangered in its stability. That's why the *Dancer* was chosen to examine examplary the condition of the inner support of the statues. But before the opening of the left leg for the investigation it was necessary to reshape this deformation (fig. 3).

Manufacturing Technology

The statues were manufactured in one for lead casting *modified indirect lost-wax process*. The reinforcing irons and the plaster core stay inside the sculpture, in order to stabilize the lead skin. Core and irons support the lead skin, which can't carry its own weight. The manufacturing was simplified by casting in several pieces (fig. 4).
The investigation of the Dancer proved that the core consists of plaster, that there exist welding seams in the area of the thighs and shows that the reinforing irons in the legs only extend up to the hip (fig. 5).

State of Condition

The most seroius damages of the statues are the deformation of the *Dancer* and large cracks at the legs of the Dancer, Diana and Apollo. The deformation was caused by a fault in manufacturing. The iron was too short and the torso inclined from the piont, where the iron ends (fig. 5). The cracks were causes by frost wegding of the core material. Altogether the 340 years old lead statues are in a comparative good condition.

Concept of Conservation

It is recommended to insert new internal armatures in the statue of the *Dancer* (fig. 6). Even though this is a drastic intervention in the original material, it allows to rebuild the stability of the statue in the long term. In contrast the other three lead statues can be conservated with core and reinforceing irons. In addition it is possible to keep three of the four statues including the core and thereby also as complete art technological monument.

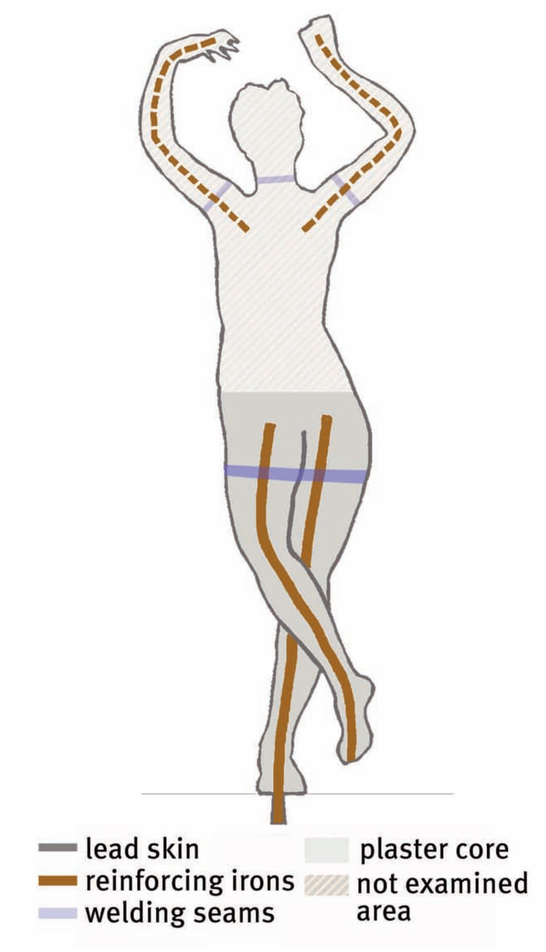

Fig. 4: Shematic structure according to the investigations. The torso of the statue was not yet examined.

Fig. 5: The open left leg of the Dancer mainly without plaster core: the iron extends only up to the hip and is in a good condition. The thigh has a joining seam.

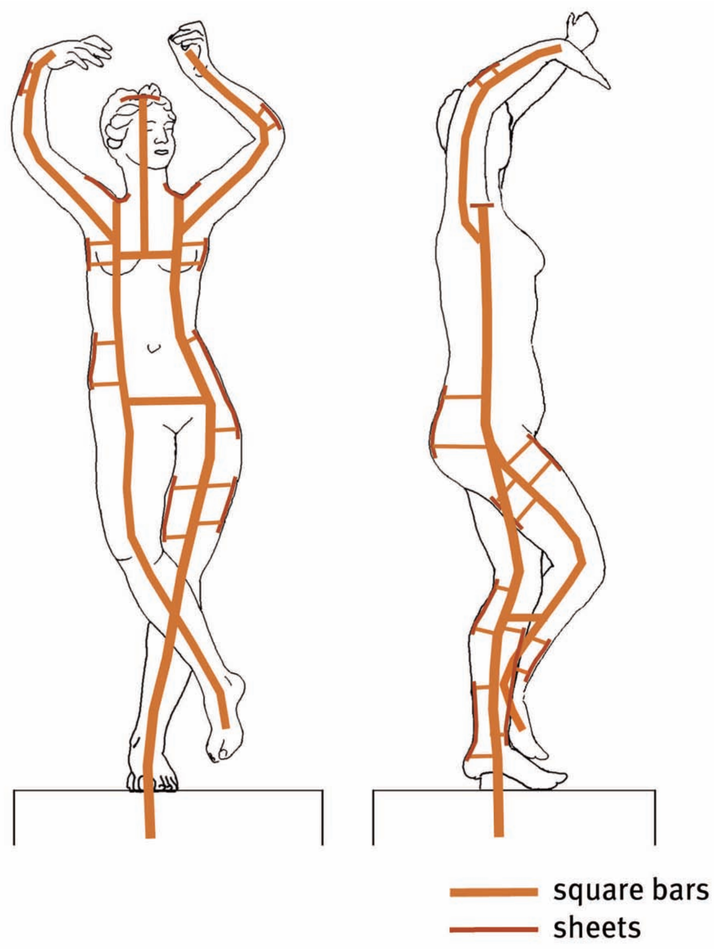

Fig. 6: Illustration of the construction and possible position of the new internal armatures