



# Medieval Armour from Cēsis Castle

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During archaeological excavations of Cēsis (*Wenden*) Castle in Latvia archaeologists have found around 1000 elements of late medieval plate armour, including sallets, breast and backplates, vambraces, gauntlets and shaffrons. It is believed to be one of the largest collections of medieval armour in the whole of Eastern Europe. The vast majority of the armour fragments was concentrated in the area of the western range and has been found during excavations in the period from 2002 to 2005. According to several 16<sup>th</sup> century sources and archaeological context, this part of the castle, including a room used for armour storage, collapsed during the 1577 siege, when defenders of the castle blew themselves up to avoid being taken prisoners by the Russian Tsar Ivan The Terrible.

A considerable part of the armour elements found among the rubble of the western range of Cēsis Castle is made in the late 15<sup>th</sup> and early 16<sup>th</sup> century. The parallels in the West-European material indicate that the armour elements found in Cēsis Castle were made in Augsburg, Nuremberg, Innsbruck and other major armour manufacturing centres in southern Germany.

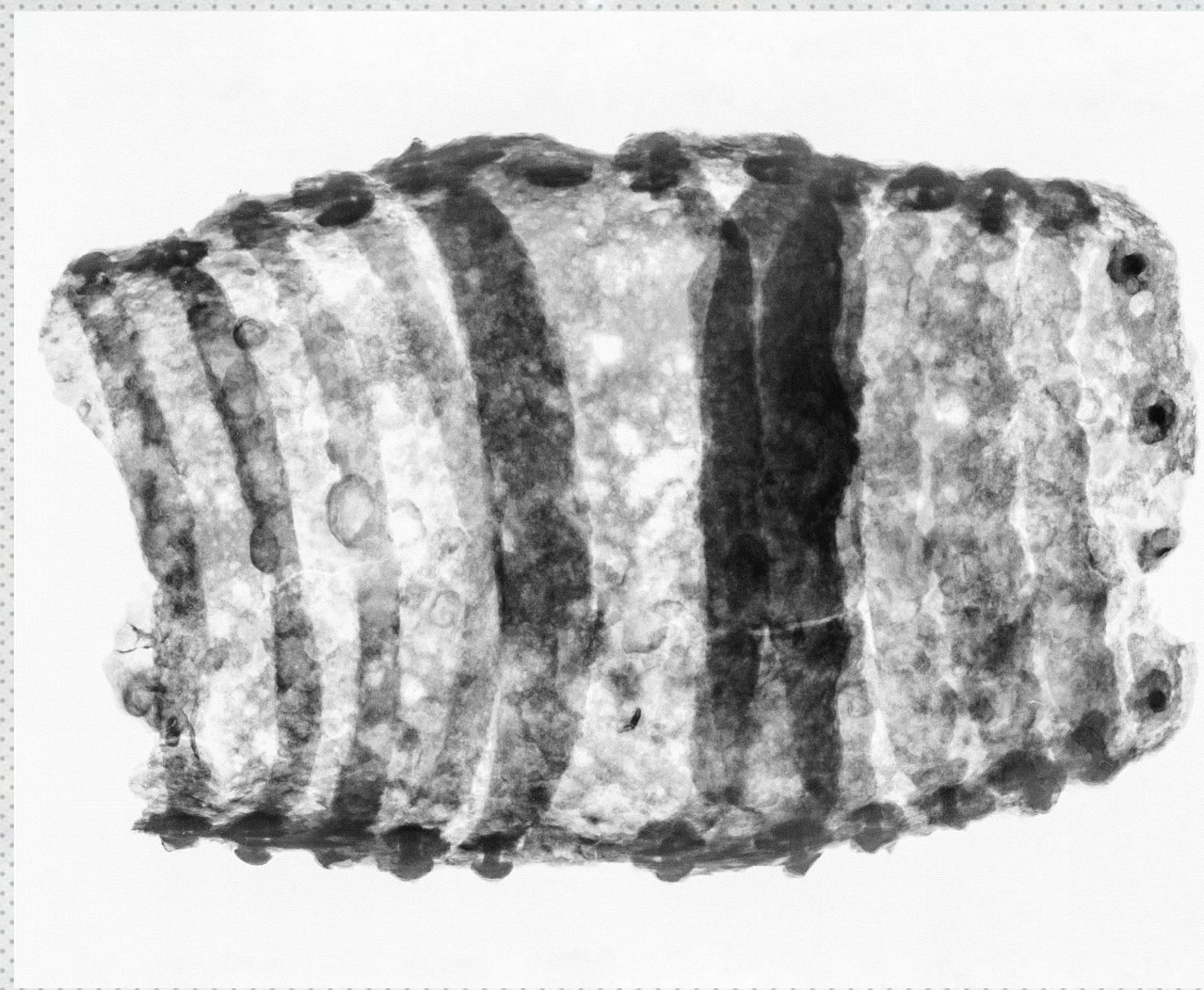
The mostly corroded elements of armour were brought to P. Gudynas Centre for Restoration and were conserved here from 2013 till now. Before conservation radiographs of all finds were made in order to evaluate the state of metal. The radiographs showed that the core of iron of all finds is heavily corroded except some areas; metal is porous and fragile, some of the finds are fragmented.



ill. 1. Excavations in the western range. Photo by Valda Rozenberga.



ill. 2. Gauntlet before conservation. Photo by Vilma Šileikienė.

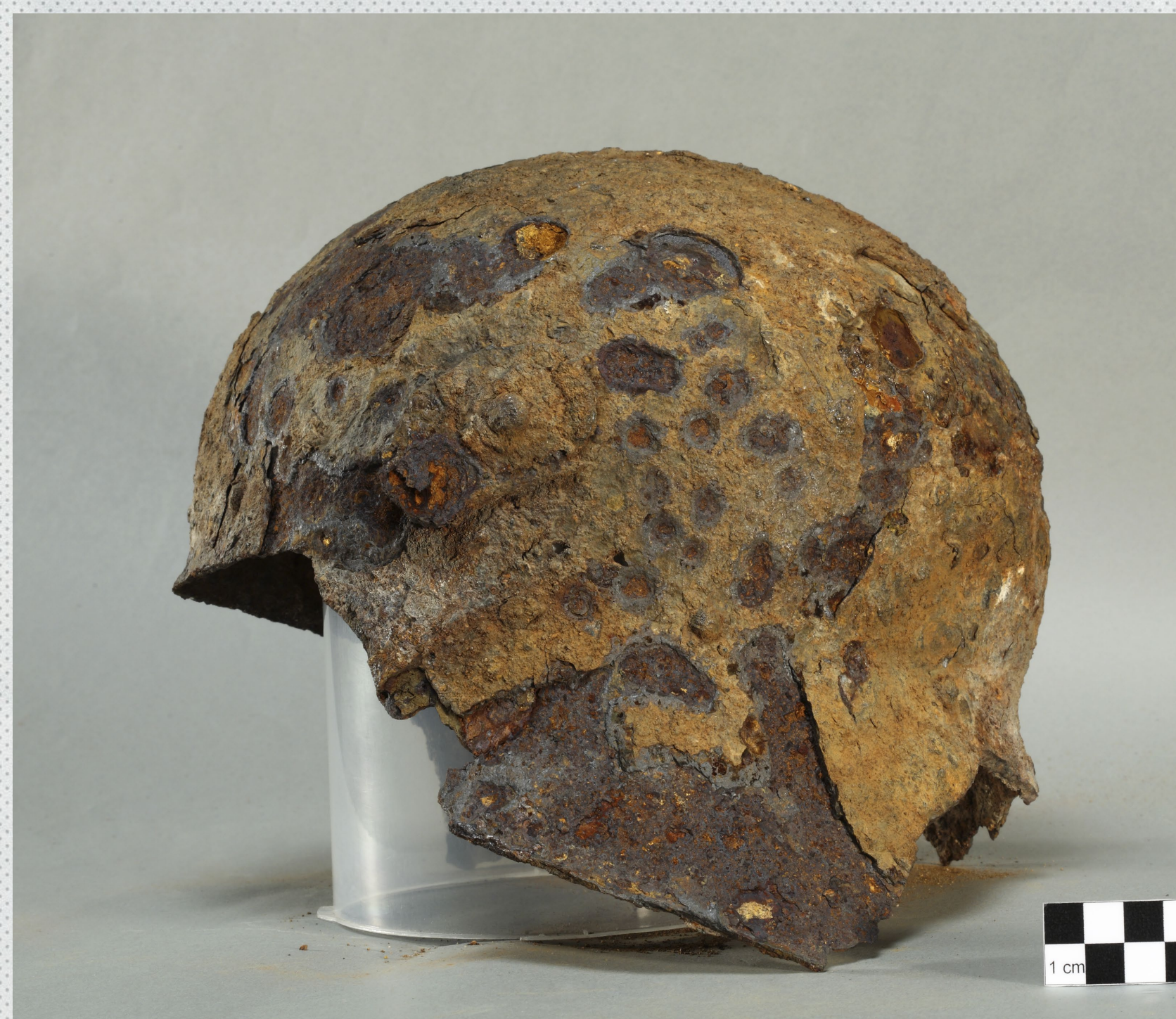


ill. 3. Radiograph of the gauntlet. Photo by Tomas Ručys.

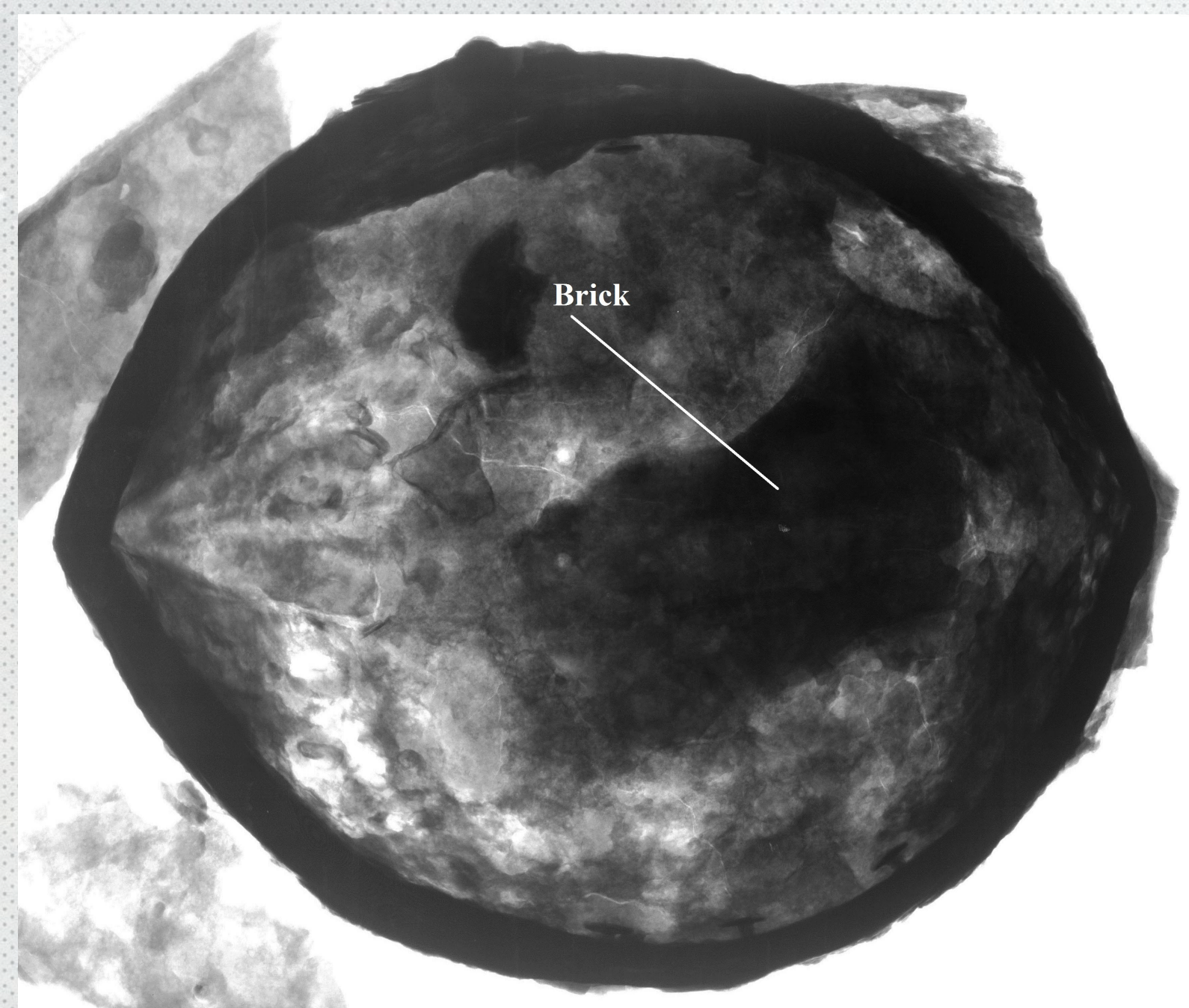
The parts of armour were cleaned mechanically using scalpels and hand-held electric motor with a different size and roughness of grading wheels, diamond and steel grinders. The most difficult part of the time-consuming cleaning process was taking off firmly adhered concretions from the surface of the metal. The radiographs were a huge aid in finds cleaning process. After the cleaning details were treated with rust binder – 5% tannin solution in ethanol. Very fragile details firstly were treated with tannin solution, consolidated and after that cleaned mechanically. The pieces of armour were dried with acetone and kept

with dried silica gel during all the cleaning process. After drying pieces of armour were consolidated with 3% solution of polybutylmethacrylate (PBMA) *Plexisol P550-40* (*Kremer pigmente*, Germany) in mixture of acetone and white spirit (2 : 1) by multiplex saturation. The reconstruction of the broken details was carried out by gluing of the broken fragments with PBMA glue in acetone, the joints were strengthened with silk gauze, and left small cracks were filled with pasta made of the same glue mixed with natural pigment burnt umber. After the consolidation the surface of the finds was covered with microcrystalline wax *Cosmolloid H 80*.

In order to maintain low RH level of environment for long-term keeping the artefacts were packed in well enclosed plastic boxes with desiccated silica gel inside. Small details were packed in polyethylene bags processed with volatile corrosion inhibitor (Premium Metal-Guard VCI bags, *Daubert Cromwell*, USA).



ill. 4. Sallet without back part before restoration. Photo by Vilma Šileikienė.



ill. 5. Radiograph of the sallet without back part. Photo by Tomáš Giližetdinov.



ill. 8. Gauntlet after conservation. Photo by Aivis Riekstins.



ill. 9. Vambrace after conservation. Photo by Aivis Riekstins.



ill. 10. Backplate after conservation. Photo by Aivis Riekstins.



ill. 11. Sallet after conservation. Photo by Aivis Riekstins.



ill. 6. Reconstruction of the sallet's back part. Photo by Milda Mikalauškienė.



ill. 7. Sallet after restoration. Photo by Aivis Riekstins.



ill. 12. Backplate after conservation. Photo by Aivis Riekstins.



ill. 13. Breastplate after conservation. Photo by Aivis Riekstins.