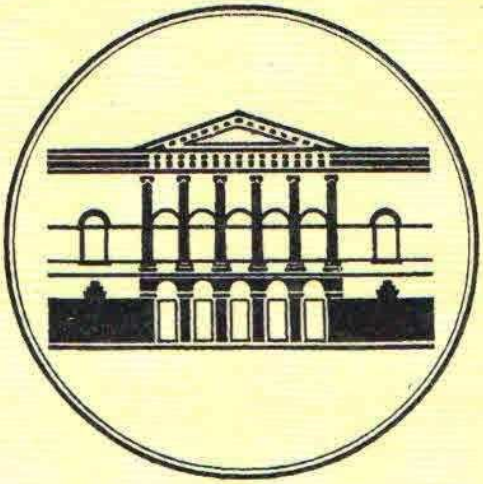
საქართველოს ეროვნული მუზეუმი

აკად. შალვა ამირანაშვილის სახელობის
ხელოვნების მუზეუმი



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Academician Shalva Amiranashvili
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CONTENTS

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An Oilery of Samtavisi Monastery

Keywords

Samtavisi Monastic Complex; Oilery of Samtavisi Monastery; Samtavisy Oilery; Arcaheology of Samtavisi; Ottoman pipes

Historical review

Oil is a vitally important fat for humans, it occupies a significant place in the food ration and represents one of the basic products for physical and mental development[1].

It is known that specific share of consumption of vegetable fats decreases from the south to the northern latitudes and they are replaced by animal fats. Vegetable and animal fats were equally used in the Transcaucasia. Vegetable oil was obtained in Georgia from almond, walnut, various grass seeds. Flax, hemp and sunflower were also used as raw material.

Oileries on the territory of Georgia are mainly known from the Southern region (Meskhet-Javakheti and Trialeti). So-called "sranotsi" spread to the south, in Armenia, are similar to them. The difference is only in raw material - in addition to flax, sesame oil was also extracted in Armenia [Molodini M. 1963, 111].

Screwed-press oileries go beyond the boundaries of the Transcaucasia. We find them in Asia Minor [PatonW.R, Myres.J.J. 1998. 209], Palestine [Dalman G. 1935], Albania [Nopcsa F. 1925], South Italy, Hungary, Algeria and Tunis. This type of press was also used as a tool of pressing oil, chacha and fruit here [Molodini M. 1963, 41].

There are frequent cases when remnants of oilery structure or instruments associated with technological procceses of oil extraction are discovered as a result of archaeological excavations. Millstone - stone used for pressing is mainly found during excavations because it is always made of strong species of stone (mainly from basalt) and it was seldom displaced due to its massive weight[2].

One of the most significant consumers of oil in the Christian world was the church. This predetermined dissemination of oileries in monastery household. Vegetable oil was used as vegetarian fat, as a lamp, as well as for lighting an icon-lamp sacrificing the soul. Therefore, discovery of millstones on the territory of monasteries is natural.

The monasterial oilery was discovered in Samtavisi (Georgia, Kaspi Municipality) (Tab.1) during archaeological excavations in 2007 (Tab.2) [Makharadze G. Berikashvili D. Lomtadze G. 2007]. It was located to the east of the cross-domed temple of the 11th century, in the household area of the complex [Berikashvili D. 2010, 99). This discovery made it clear that the monastery had its own oilery.

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[1] Oil is a Hebrew word. The root of its name is semitic. Initially, the word – sayt simultaneously meant a tree, fruit and oil. Later, fat was denominated by this word. The Greek name – elaia and the Latin – oleum from which all names of oil existing in the Western languages are derived also originate from the semitic term – ulu.

[2] Millstone is understood as the synonym of heaviness and massiveness in the historic-literary sources of the medieval period of Georgia ("Rusudaniani" – XIII century; "Dasturlamali" – XVIII century; "Sitkvis Kona" - XVIII century).

The results of excavations of the Oilery

The Georgian historical tradition associates establishment of Samtavisi monastery with the epoch of the Georgian king, Vakhtang Gorgasali and the activities of the Assyrian Fathers in Georgia, namely Isidor of Samtavisi (6th century) [Description of monuments of history and culture of Georgia, 1990. 191-197]. However, the golden age in the history of Samtavisi is the 11th century when cross-domed temple of Ascention was built here on the place of basilica church (1030-1050) (Tab.3).

In 2004-2014 a program was carried out on initiative of metropolitan Andrew (Gvazava) which implied archaeological excavations on the territory of the monastery. The bishop palace, household area, basilica church and the wine-cellar were excavated [Makharadze G; Berikashvili D; Lomtadze G; Gagoshidze G. 2014]. It can be said that the most significant information about the current household life, the developed crafts and economy was provided by excavations of the household area. In total 14 premises were studied on this area and one of them (No. 4), as already mentioned, represented an oilery structure. Like other premises of the household area it was built from limestone and it had a puddle floor. Debris of tiles gathered as a result of destruction of the roof were discovered on the floor. Remnants of oak column were preserved in the center of the premises and there were two large millstones nearby (Tab.4). Excavations in the south-west corner of the premises revealed a third, comparatively smaller millstone.

The first millstone (D-145 cm) which appeared to be the closest to the column fixed in the floor had a hole (D-15 cm) in the middle and a foundation cut as a quadrangle (26 X 26 cm) (Tab.5).

The second millstone was comparatively small and its diameter reached 140 cm. Similar to the first millstone, it also had a hole (D-28 cm) in the middle and a quadrangular foundation (28 X 30 cm). In addition, it was circumscribed by six notches for handholds around (Tab.6).

The third, the smallest millstone had a diameter of 115 cm (Tab.7). It also had a hole in the center (D – 18 cm) and a foundation cut in a rectangular form[3].

Other details of oilery equipment were not discovered in the premises No. 4. However, archaeological material was discovered which despite its fragmented nature still allows to define the basic forms and types of pottery.

The basic types of ceramics discovered in premises No. 4 of Samtavisi:

Type	Parametres	Description	Chronology	Table	Origin
Plate	DD-23 cm.	Reddish clay. covered with red engobe	16-17th cc	Tab.12.1	Georgia. Kartli
Plate	DD-29 cm.	Grey clay. Approximate high – 9 cm	16-17th cc	Tab.12.2	Georgia. Kartli
Plate	DD-24 cm.	Orange-red clay. Flat bottom	16-17th cc	Tab.13.1	Georgia. Kartli
Plate	-	Reddish clay. covered with red engobe	16-17th cc	Tab.13.2	Georgia. Kartli
Bowl	DD-17 cm.	Dark grey clay, flat bottom, high -17 cm	16-17th cc	Tab.14.1	Georgia. Kartli
Bowl	DD-20.5 cm.	Reddish clay. with flat bottom. high -7 cm	16-17th cc	Tab.14.2	Georgia. Kartli
Bowl	DD-18 cm.	Yellowish clay. high - 6 cm	16-17th cc	Tab.15.1	Georgia. Kartli
Bowl	DD-19 cm.	Brownish clay. Covered with dark red engobe. high - 7 cm	16-17th cc	Tab.15.2	Georgia. Kartli

[3] All three millstones have a cylindrical section. Accordingly, it was possible to calculate their weight: Weight (**Q**) = Volume (**V**) multiplied by specific weight of the substance (basalt) (**Ω** =2.5kg), i.e. **Q=V×Ω.** Therefore:

For the first millstone: **Q=V×Ω=3,14×145²/4×45×2,5= 1 856 kg**

For the second millstone: **Q=V×Ω=3,14×140²/4×40×2,5= 1 538 kg**

For the third millstone: **Q=V×Ω=3,14×115²/4×25×2,5= 648 kg**

Jug	H-35 cm.	Covered with white engobe, painted with red paint	16-17th cc	Tab.16	Georgia. Kartli
Jug	-	Fragment with handle, ligh brown clay	16-17th cc	Tab.17.1	Georgia. Kartli
Jug	-	Handle with insections	16-17th cc	Tab.17.2	Georgia. Kartli
Pipe	-	Reddish clay. Insectioned decorsation	16-18th cc	Tab.8.1	Ottoman. Turkey
Pipe	-	Reddish clay. Insectioned decorsation. Covered with red engobe	16-18th cc	Tab.8.2	Ottoman. Turkey
Pipe	-	Yellowish clay. Insectioned and relief decorsation	16-18th cc	Tab.8.3	Ottoman. Turkey

Stratigraphically, the discovered archaeological material belongs to the third and the second cultural layers of Samtavisi Monastery and dates back to XVI-XVII centuries [Makharadze G; Berikashvili D; Lomtadze G; Gagoshidze G. 2014]. Ceramic smoking pipes discovered here may also date back to the later period (XVIII century) (Tab.8).

The Reconstruction of the Oilery

The millstones discovered in Samtavisi have the strongest resemblance with the millstones found in Javakheti and Trialeti (the South Georgia)[4]. Besides, the archaeologically studied premises No. 4 resemble the oileries known from Javakheti by layout, size and equipment. Accordingly, considering these data it became possible to reconstruct the Samtavisi oilery and present the principle of its operation:

A "playground" (possibly, covered with stone slabs) with an oak column vertically fixed in the center was arranged in the middle of the premises. A millstone was located near the column and it had a handhold movingly fixed in a special hole. At the same time, this handhold was adjusted to the column so that the millstone rotated in the process of operation and squeezed the raw material necessary for obtaining oil (flax, hemp, walnut, sunflower) which finally took the form of a plastic mixture (Tab.9).

After the primary processing, the pressed plastic mixture was placed in the press where oil was extracted. This was a complicated and labour-extensive process which lasted for several hours and even days. During this process, the lever had to be pulled with such force that oil could be squeezed out from the raw material. It is known from ethnography that the lever of the press had a screwed rod in the end and the millstone adjusted to it pushed the lever down with its weight and pressed the raw material after rotation (Tab.10). The rotating millstone with notches discovered in the premises No. 4 of Samtavisi was used for pushing the lever down. In case of need, it was possible to add one more, comparatively small millstone which would increase the force of the lever. The third, small size millstone of Samtavisi was used in such special cases (Tab.11).

[4] A stone analogous to Samtavisi millstone is located on Samshvilde former city (Tetritskaro Municipality, South Georgia) whose archaeological excavations were started by Samshvilde archaeological expedition of the University of Georgia in 2014.

Conclusion

Samtavisi monastery had its own strong household in the medieval period where oil production occupied a significant place.

Archaeological material discovered in the oilery of the monastery represented the household items of people serving here.

Considering the historic-ethnographic data, stratigraphy and archaeological material the oilery of Samtavisi monastery dates back to XVI-XVII centuries.

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N
Samtavisi
Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Google earth

The View of the Monastic Oilery (Samtavisi)

Tab.3

Samtavisi cross-dome church. 11th century.

The Eastern facade of Samtavisi church

Tab.4

Samtavisi Oilery after excavations in 2008

The Gelaz from the Oilery of Samtavisi Monastery

The Gelaz. Samtavisi

Tab.7

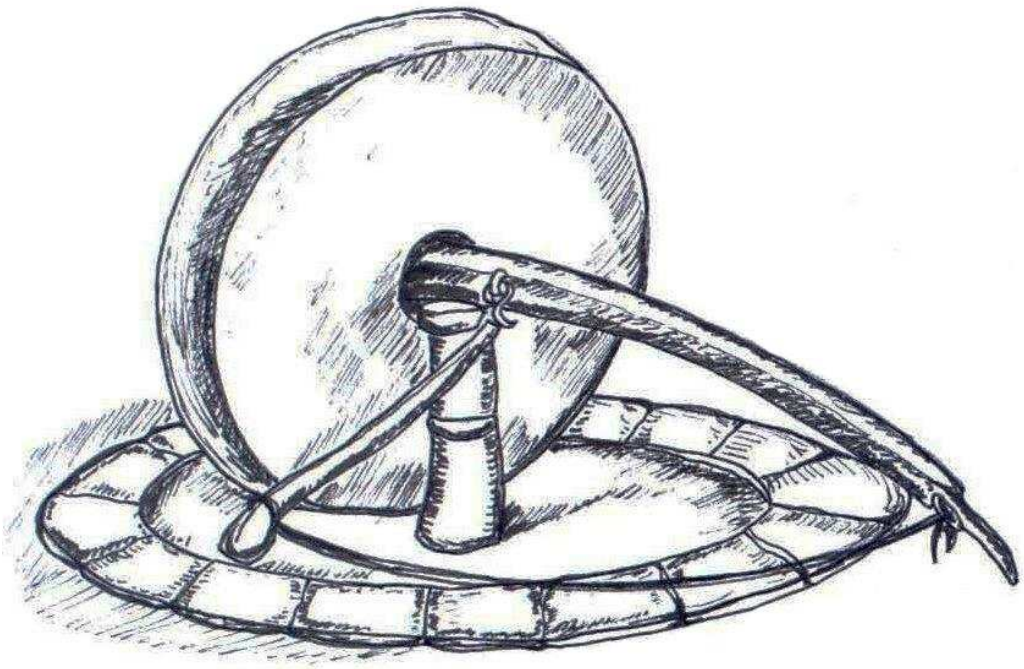
The Gelaz of the Oilery. Samtavisi

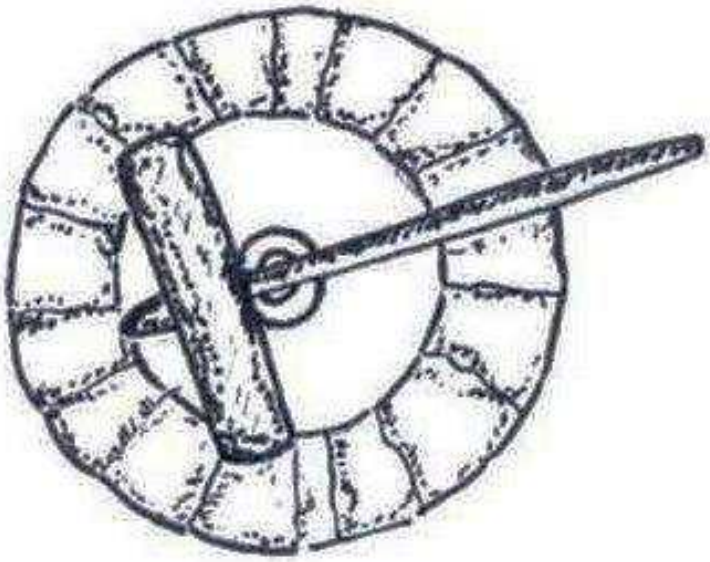
Tab.8

1

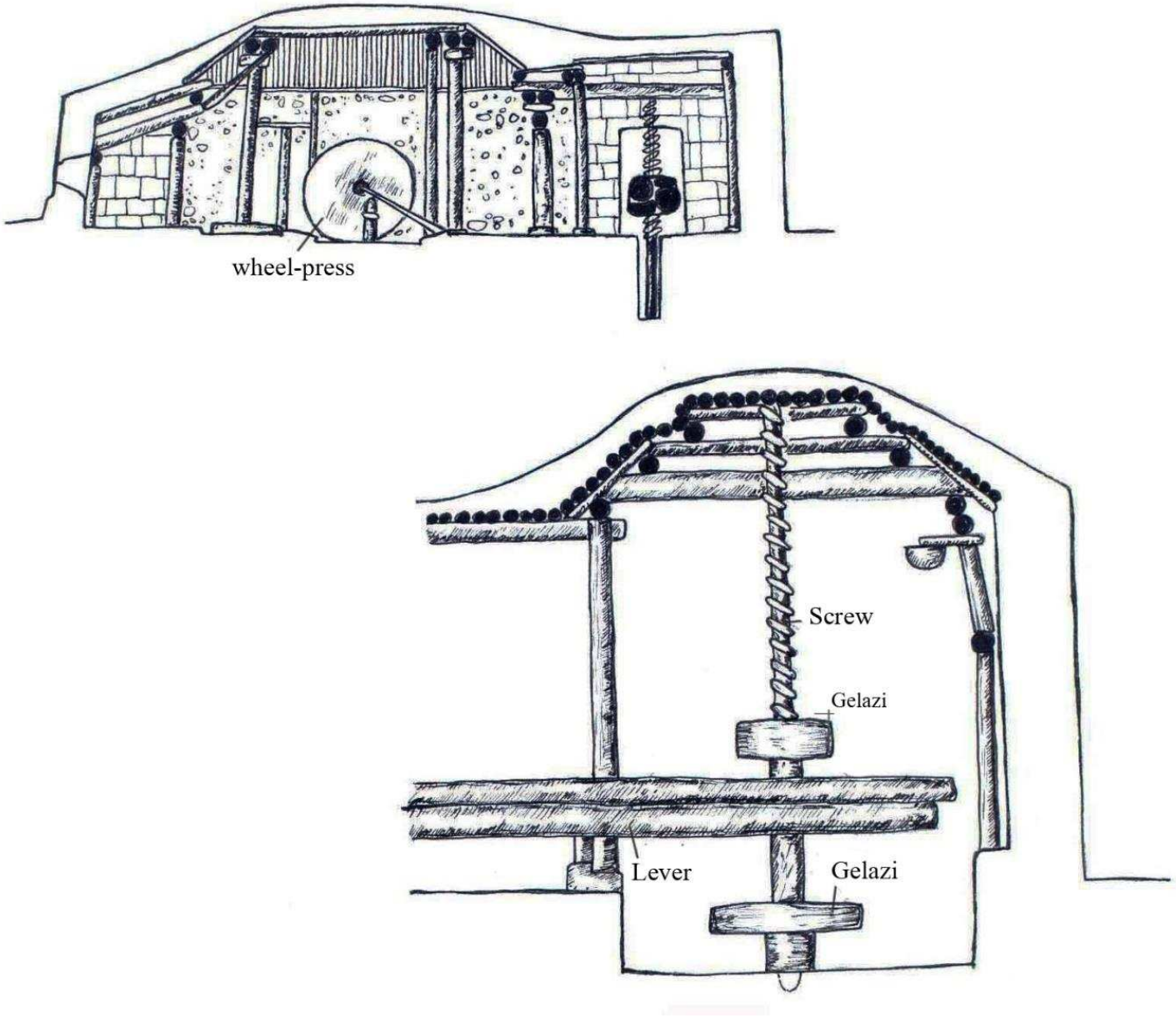
2

3

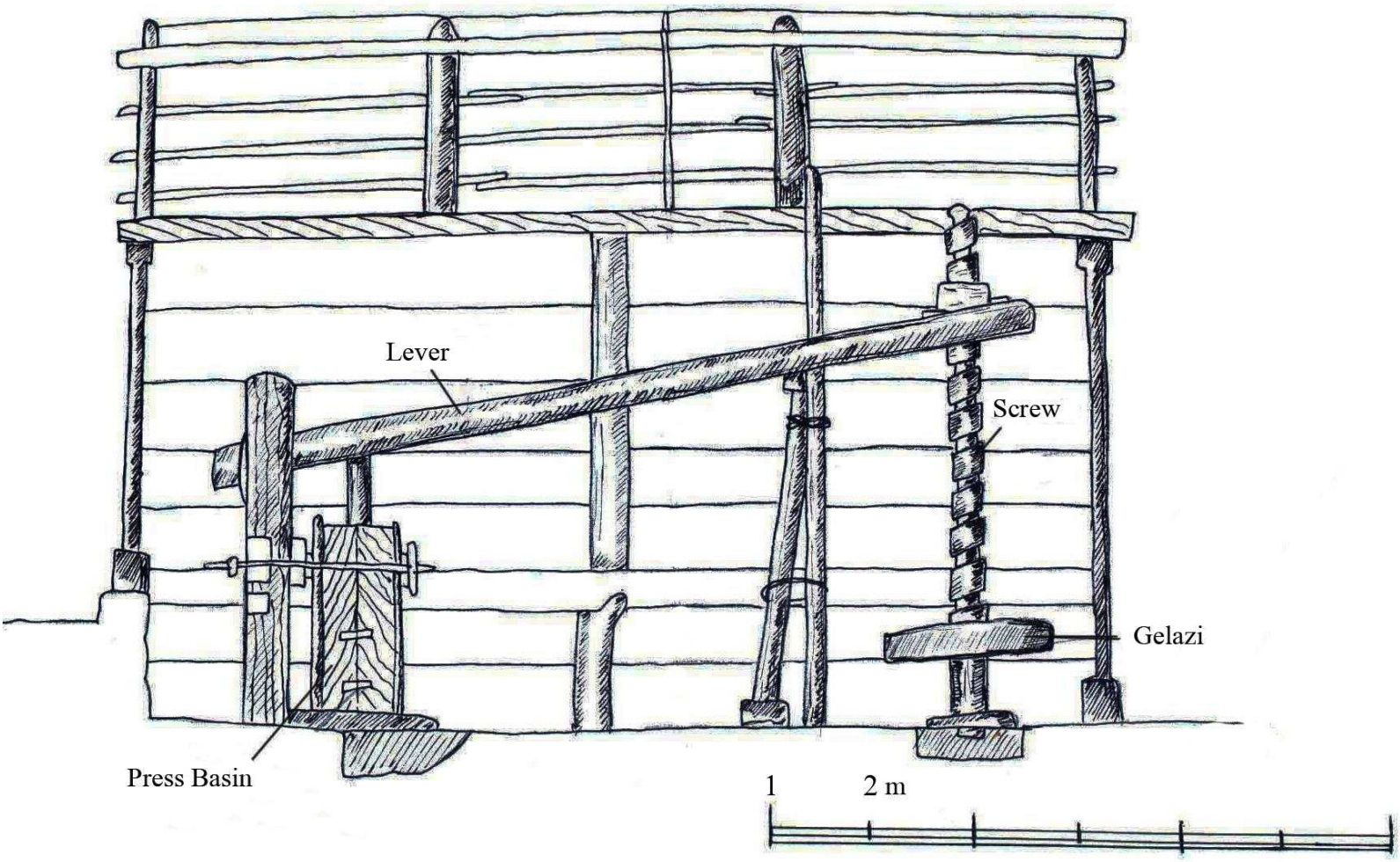




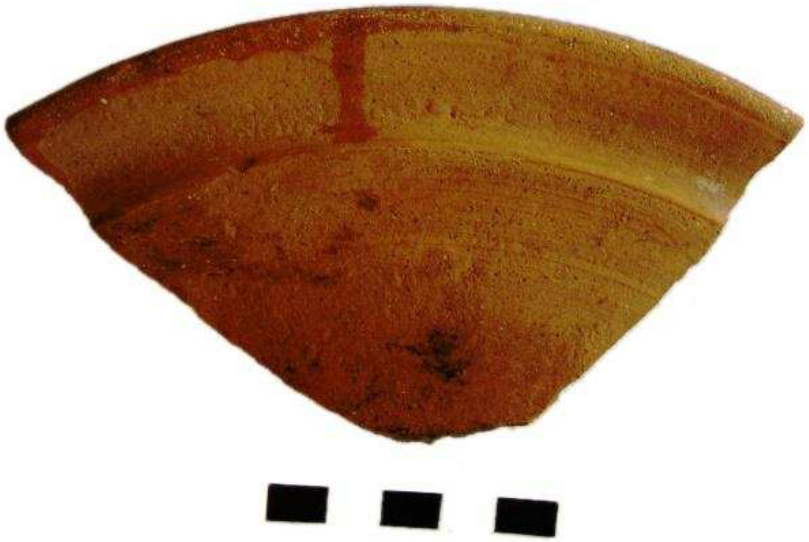
The Gelaz of Samtavisi Oilery (reconstruction)



The reconstruction of Samtavisi oilery and lever (by D. Berikashvili)



The reconstruction of Samtavisi Oilery (by D. Berikashvili)



1

2

The Fragments of the plates

Tab.13

1

2

The fragments of the plates with flat bottom

1

The fragments of clay bowls 2

Tab.15

1

2

The bowls from Samtavisi Oilery

Tab.16

The red painted Jug

1

2

The fragments of the jug handles