



3D PRINT REPORT

SCHOOL	COUNTRY
Vocational technical high school Dr. Nikola Vasiliadi	Bulgaria
PROJECT NAME	Mentor
Fulling mill - Bara	Paolina Radeva
STUDENT NAMES	DATE
№1 Volen Tsonev №2 Stanimir Stefanov №3 Beatris Vateva №4 Ivona Gudova №5 Veselin Makaveev №6 Bozhidar Todorov №7 Stefan Genchev №8 Ivailo Ivanov №9 Georgi Dimitrov №10 Dominik Marinov	22.01.2024

A type of 3D printer	RAISE 3D Pro2
Used material	PLA
Filament diameter	1.75 mm
3D CAD program	Blender
SLICER programs for 3D	Ideamaker





SUBJECT OF MODELING ON THE TOPIC OF TRADITIONAL CRAFT AND CULTURAL HERITAGE

Bara, also called Valyavitsa, is a traditional facility for washing blankets, rugs, quilts and other fabrics.

For washing, the power of the cold water flowing from above is used without detergents, which preserves the colors of the fabrics and protects the environment. The fabrics are softened and a fluffy surface is obtained. Since the 1930s, they have also been used to wash carpets and duvets. It is a wooden trough in the form of an inverted truncated cone with overflows at the upper end, into which a powerful stream of water flows at a certain angle. From fast-flowing clear mountain rivers, water is taken to the bara through wooden channels.

Immediately before reaching the bara, the water passes through accelerators, which intensively rotate the water in the bara. The resulting upward, downward and centrifugal forces the water rotate the textile. The dust is washed away with the water through the overflows.

DESCRIBE THE WORK PROCESS

The work of creating the model included familiarization with the cultural heritage of the region. The students were impressed by the use of water power and its application in people's lives. Various mechanisms and devices were considered and it was decided to create a model of the bara. Several models were created. They were optimized for a 3D printer. A model of the bara and a dryer for the textiles has been prepared. The model is adapted to the relief of the place where the bara is built.





DESCRIBE ANY DELAYS AND/OR INCIDENTS

The work on the creation of the model is made outside school hours in the free time of the students, but on time and without incidents.

