

**Grade / Age:** 10 – 14 ages

**Topic:** geometry, **STEAM**

**Subject area:**

**Keywords:** projection plotting, proportionality calculations

**Single/ team work:** both

**Language:** (English or Local) English

**Duration:** 2 hours

**Description of the Task:**

Collect the characteristics of the Romanesque village church. Design a church, reduce its size proportionally. Draw the net on paper, cut it out and make the model.

Then make the model in GeoGebra too.

**Solutions of the Task:**

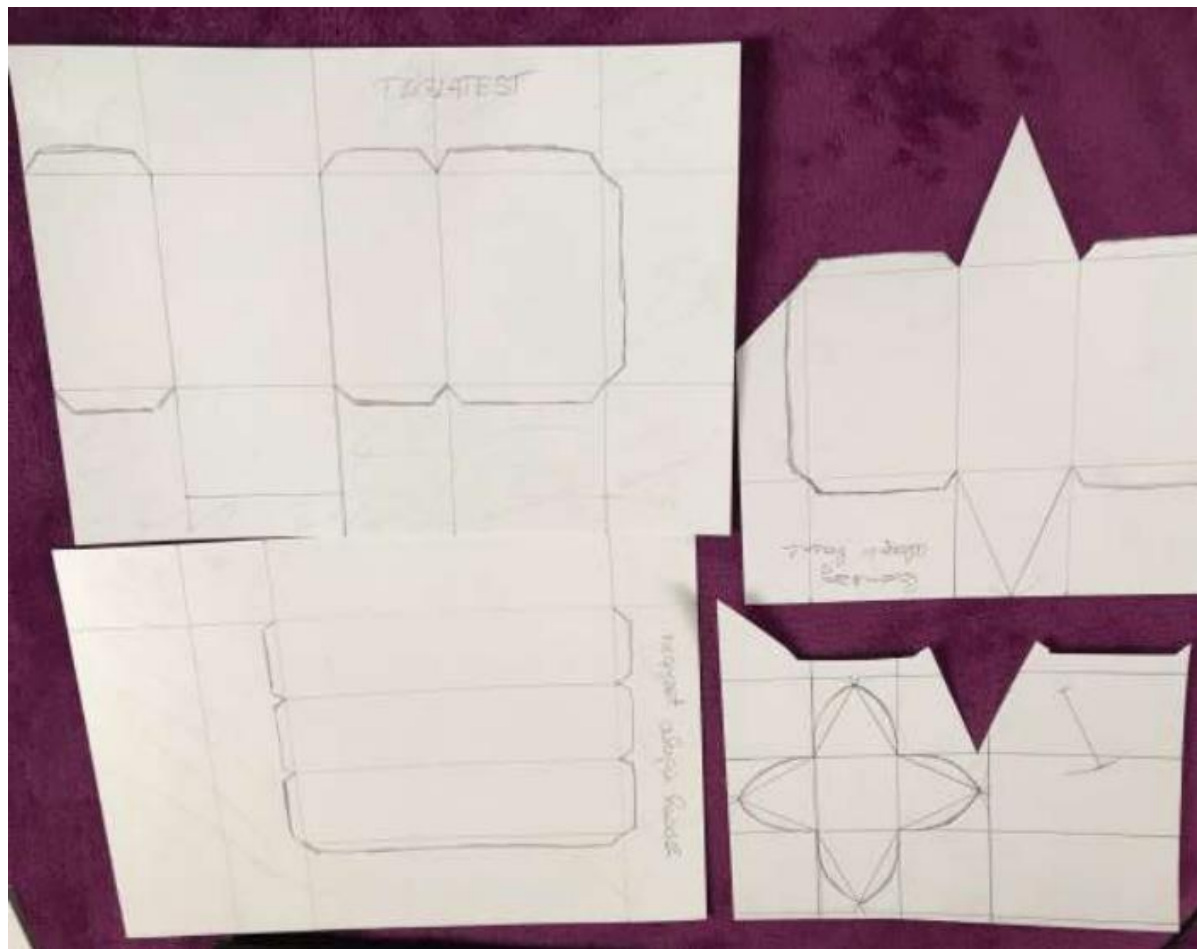
Purpose of the exercise: to get to know the building type, projection and model making.

Collect the characteristics of a Romanesque village church: on a notebook or on a Jamboard

Drawing a projection of the church, e.g. in Geogebra Classroom

Scaling - proportionality calculations

Making nets – editing



Making the model from paper:



Design and create a model in GeoGebra

<https://www.geogebra.org/classic/cczvrpcj>

Evaluation: presentation of the church using the lapbook or Jamboard - evaluation of the presentation

**Prior knowledge:**

proportional calculations, knowledge of prism, pyramid

**Comments:**

It developed the following competences:

Making a model, making a presentation, Recognising the stylistic features of a building from photos, floor plans, Making a projection drawing, Making a model from cardboard, Simplifying the form, Assessing yourself and each other

**Connection to other subjects/topics/areas:**

Building modelling (architecture, art history, visual communication, geometry) maths, drawing and media lessons