



TECHNIK
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UNIVERSITY OF
APPLIED SCIENCES

Custom textures reconstruction

Custom textures

- vaults' textures (2)
- arcs' textures (4)
- walls' textures (7)
- other elements' textures (2)
- columns' textures (6)
- windows' textures (3)
- doors' textures (2)
- fabrics' textures (3)

Custom textures

Division



- texture vault 1 (Anna)
- texture vault 2 (Anna)
- texture arc 1 (Anna)
- texture arc 2 (Anna)
- texture arc 3 (Anna)
- texture arc 4 (Anna)
- texture wall 1
- texture wall 2
- texture wall 3
- texture wall 4
- texture wall 5
- texture wall 6
- texture wall 7
- texture wall detail 1
- texture pendentive 1
- texture column 1 (Anna)
- texture column 2 (Anna)
- texture column 3 (Anna)
- texture column 4 (Anna)
- texture column 5 (Anna)
- texture column 6 (Anna)
- texture rose window 1
- texture window 1
- texture window 2
- texture door 1
- texture door 2
- texture fabric 1
- texture fabric 2
- texture fabric 3

SYAA textures

VAULTS' TEXTURES	texture vault 1 (Anna)
	texture vault 2 (Anna)
ARCS' TEXTURES	texture arc 1 (Anna)
	texture arc 2 (Anna)
	texture arc 3 (Anna)
	texture arc 4 (Anna)
WALLS' TEXTURES	texture wall 1
	texture wall 2
	texture wall 3
	texture wall 4
	texture wall 5
	texture wall 6
	texture wall 7
OTHER ELEMENTS' TEXTURES	texture wall detail 1
	texture pendentive 1
COLUMNS' TEXTURES	texture column 1 (Anna)
	texture column 2 (Anna)
	texture column 3 (Anna)
	texture column 4 (Anna)
	texture column 5 (Anna)
	texture column 6 (Anna)
WINDOWS' TEXTURES	texture rose window 1
	texture window 1
	texture window 2
DOORS' TEXTURES	texture door 1
	texture door 2
FABRICS' TEXTURES	texture fabric 1
	texture fabric 2
	texture fabric 3

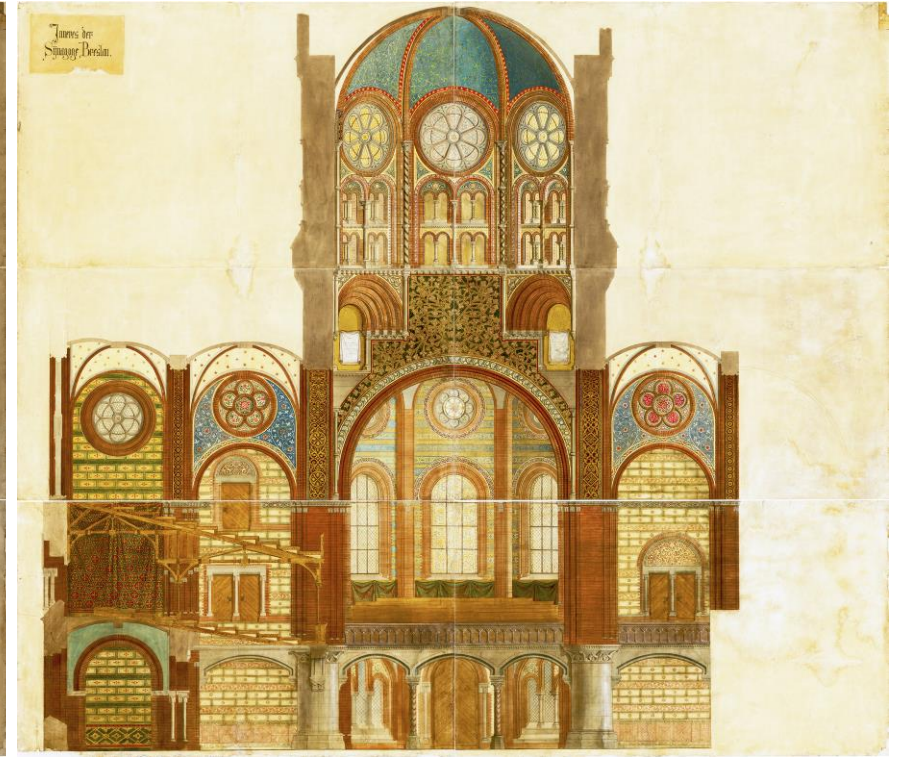


Colours of the source

Brightening and removing yellow tint from the original drawing



original drawing



drawing with changed colours

source: longitudinal section in colour from Stadtarchiv Hannover

Custom textures - workflow

pdf with workflow uploaded on seafile

Custom textures

- Make sure that your object is finished
- Make sure that your part of the synagogue / your object more or less matches the colourful section
 - if the differences are minor - a file is ready to be uploaded on seafile
 - if differences are bigger - first discuss it with Karolina (if you decide that it should be remodelled - remodel it first; if it should stay that way and the texture should be adjusted to our model - a file should be uploaded with an adnotation about this decision)
- Upload on seafile a .pln file with your object + an up-to-date .pln file with your whole part
- The texture for your element is redrawn and applied in Archicad
- Your element with the texture is uploaded back on seafile
- Upload textured element to your part of the synagogue

Problem with working with custom textures right now – most of the textures from colourful section are from CPMP (part of Igor, who doesn't work right now); there is no cooperation between modeller and a person who creates textures, encountered mistakes cannot be corrected etc.



Adjusting the drawing (source of textures) and the model

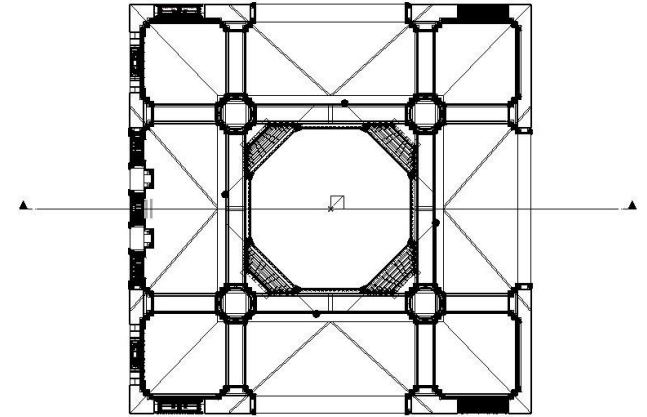
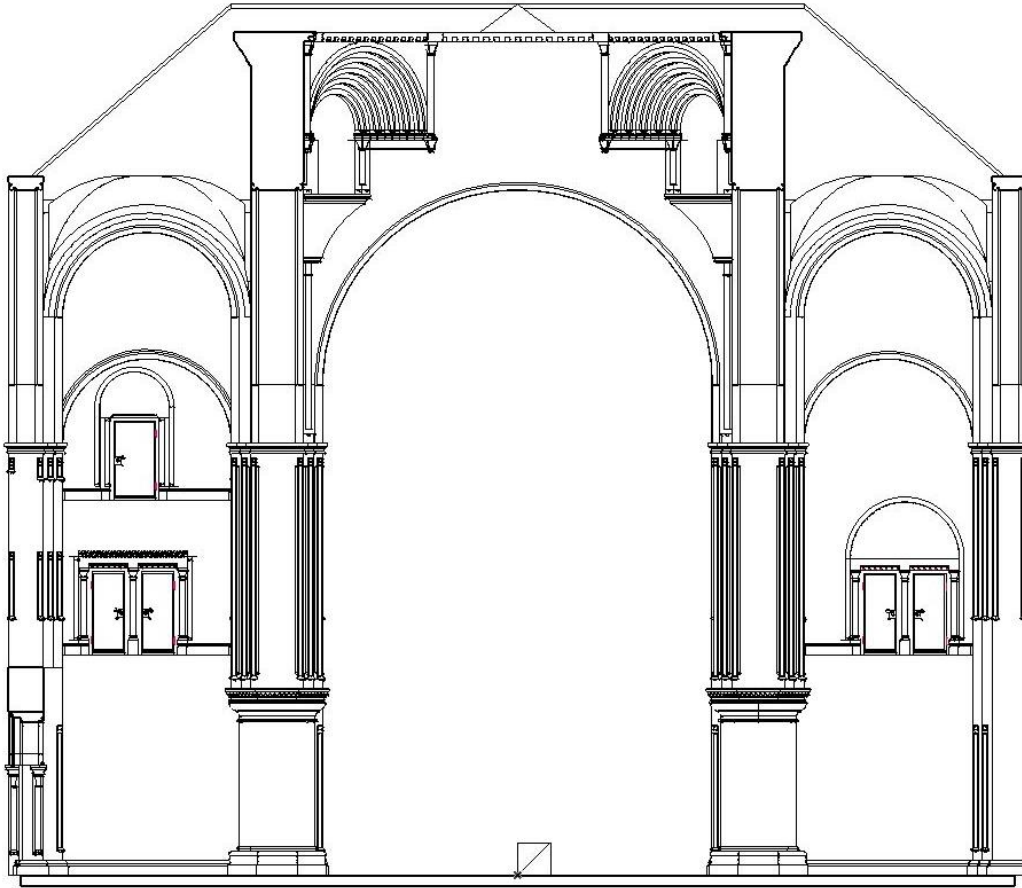
Choosing a sample

wall texture in CPMP



First step

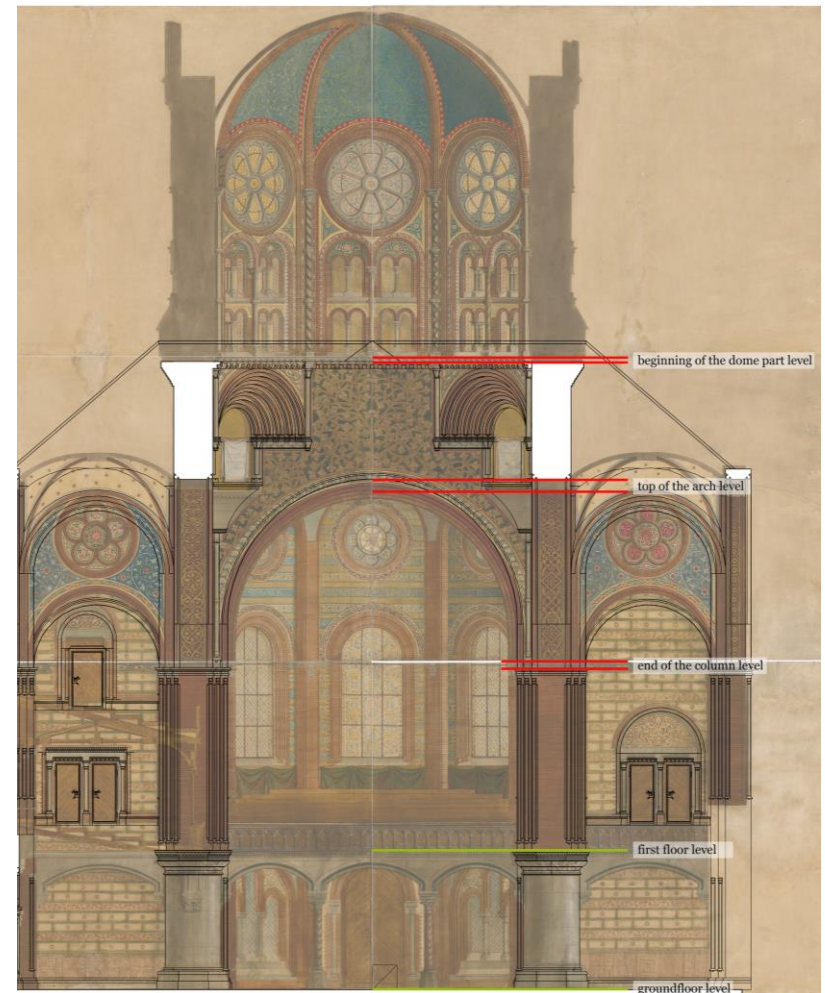
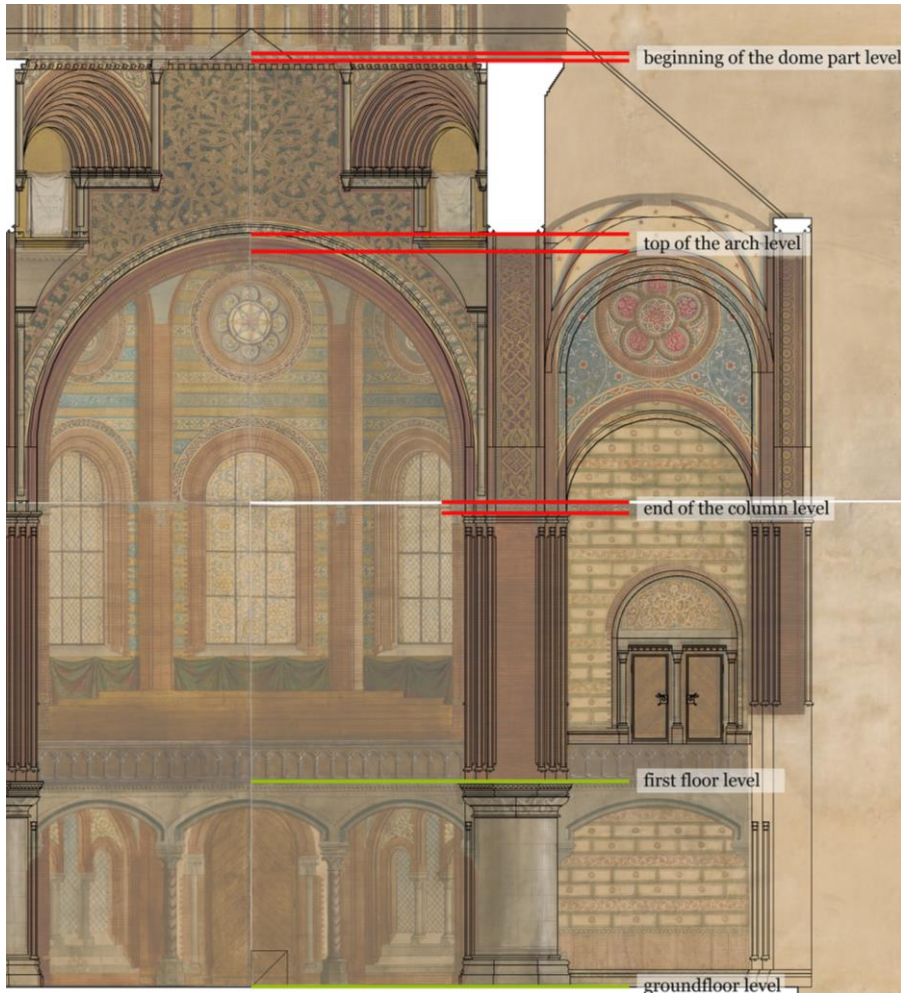
exporting a section of CPMP model from Archicad



aim: to confront the real dimensions and shape (in model) of the element that is supposed to be textured with the dimensions of the element on the source (colourful section from Hannover)

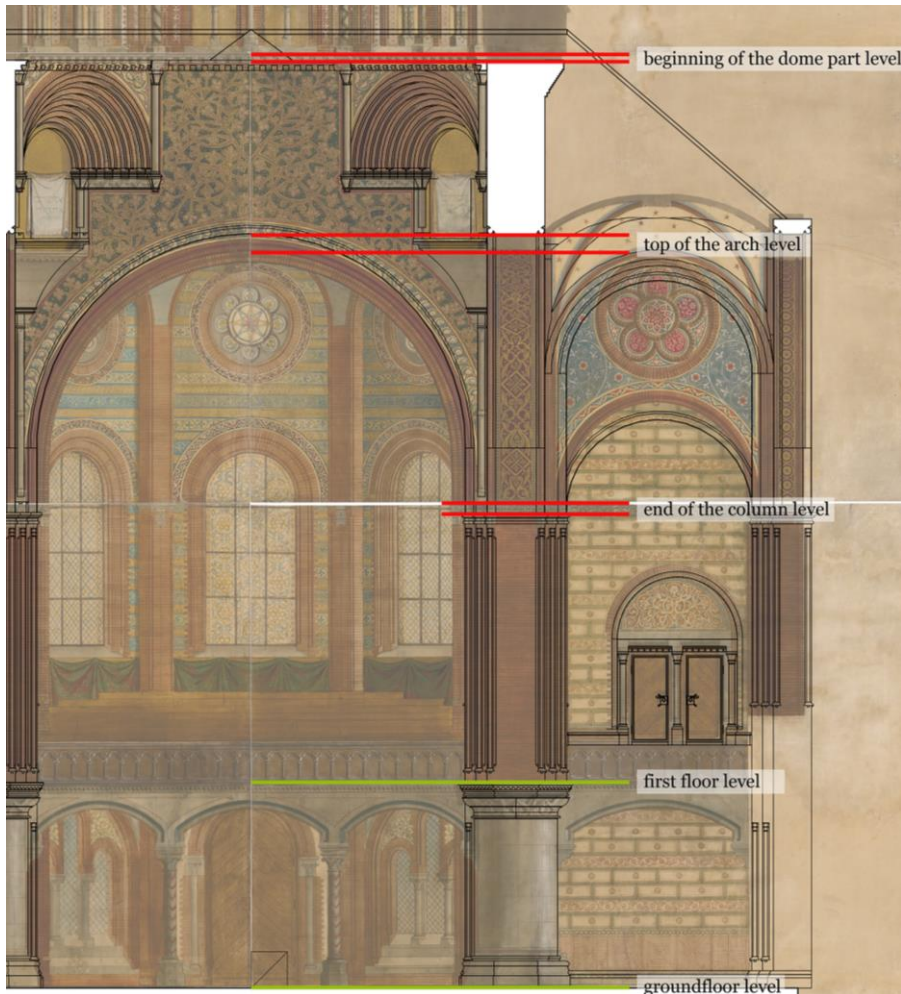
Second step

fitting section from model with colourful section (source for texturing)



Second step

fitting section from model with colourful section (source for texturing)

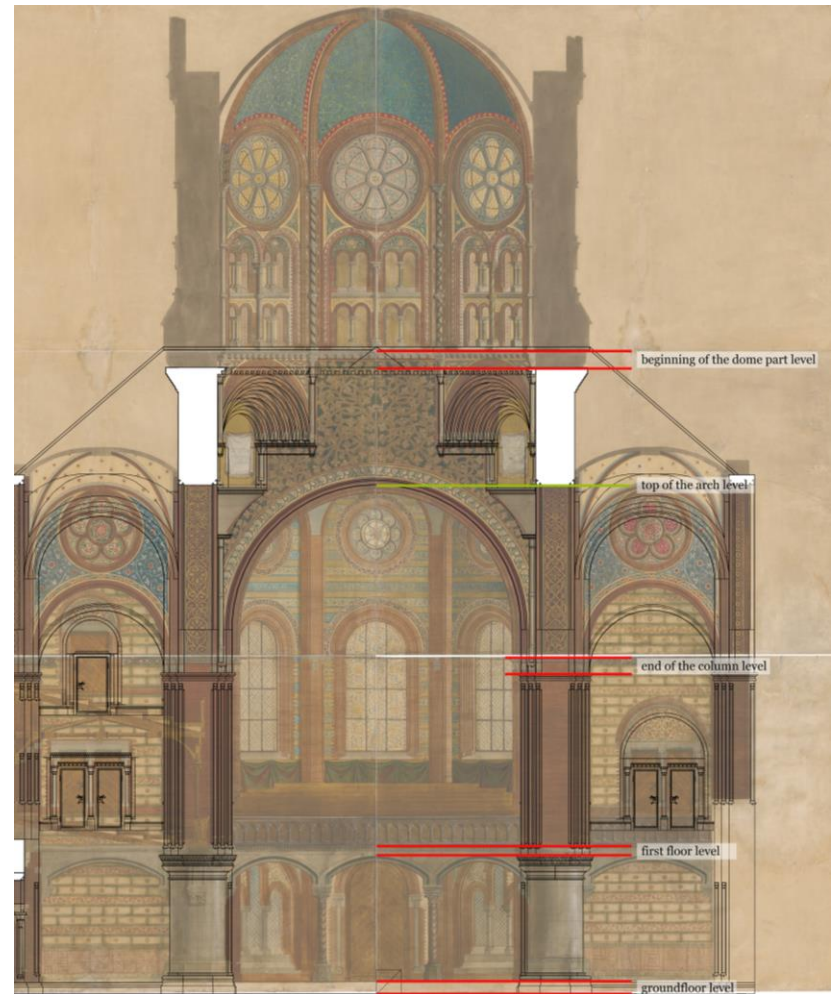
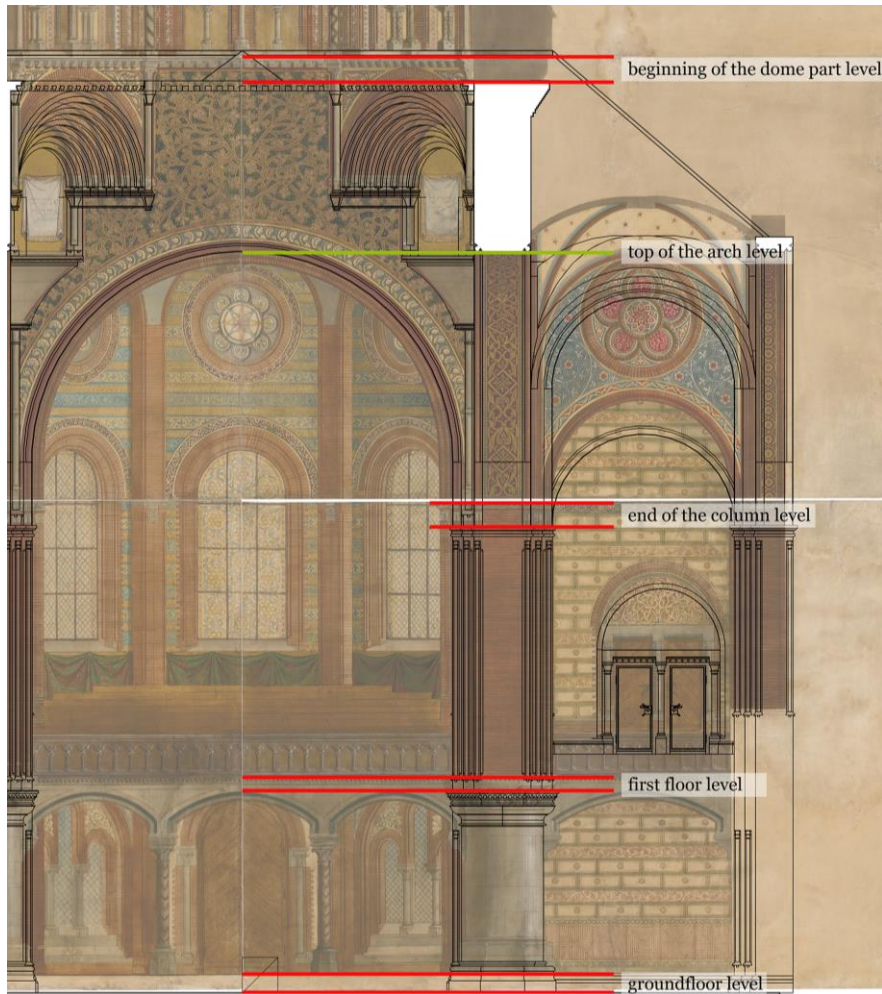


sections were fitted to each other starting from **ground floor level**

problem: section from model and colourful section doesn't exactly fit; chosen element (to texturize) has other geometry in model than in colourful section

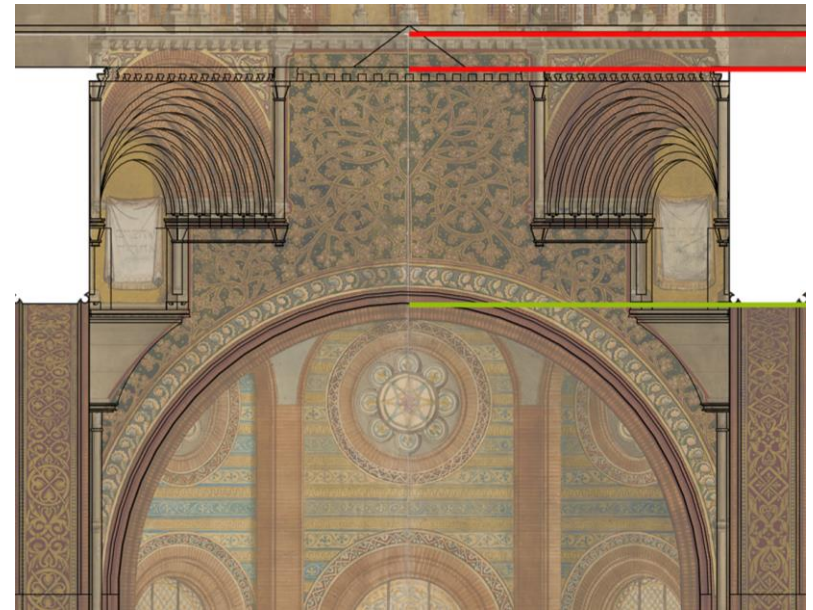
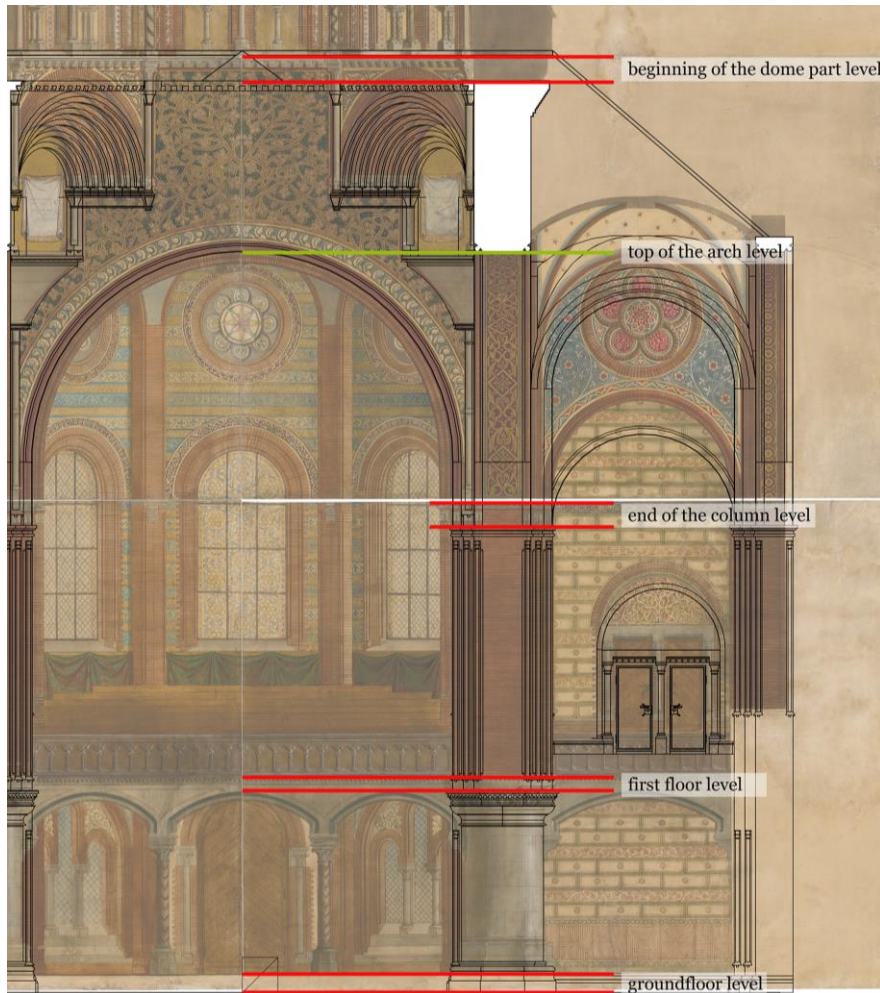
Second step

fitting section from model with colourful section (source for texturing) **no2**



Second step

fitting section from model with colourful section (source for texturing) **no2**

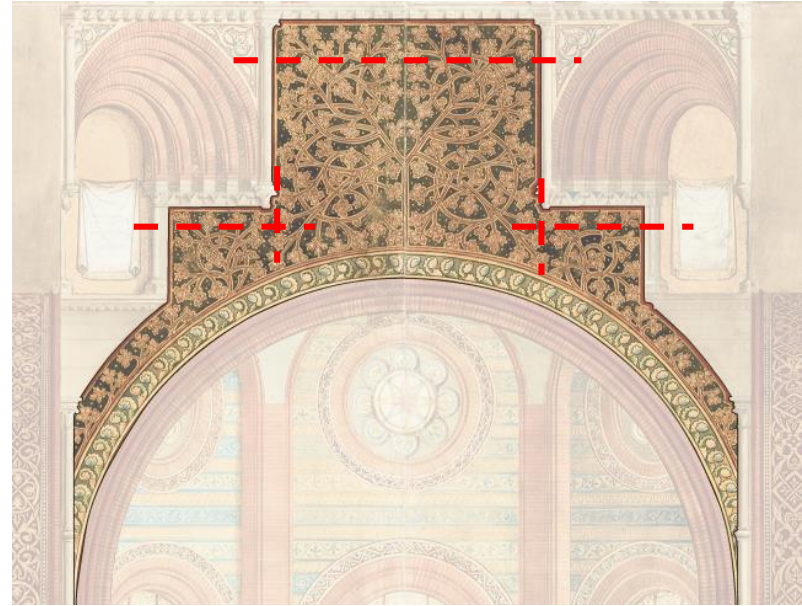


sections were fitted to each other starting from **top of the arch level** in order to fit only the element chosen to texturize, not the whole section

problem: still sections doesn't fit, chosen element is much shorter in model than in colourful section

Problem

how to make a texture for the element that doesn't exactly fit?



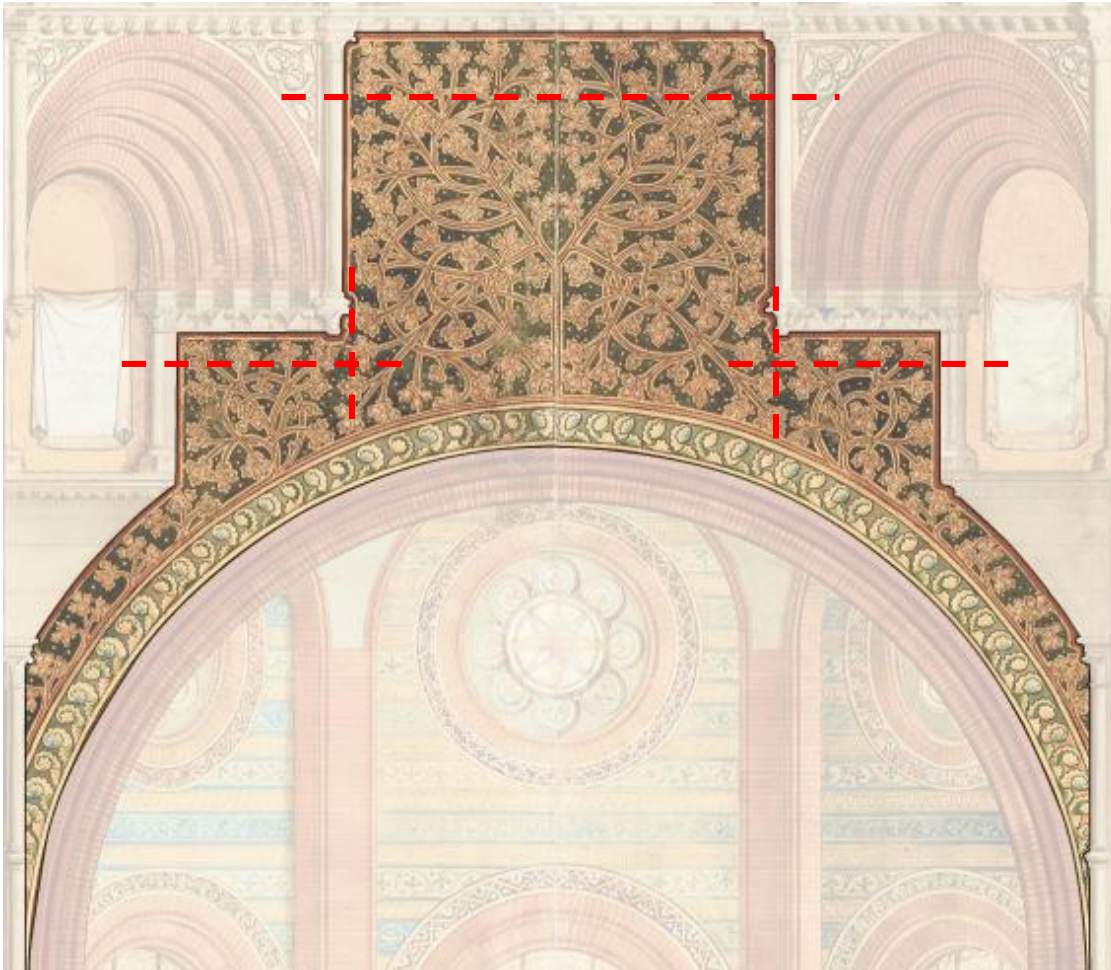
Possible solutions:

- cutting off part of the texture from the colourful section
(not the whole texture is on the element, but it is in correct proportions)
- changing the proportions of the texture
(the whole texture is on the element, but proportions are different)
- changing the geometry of the model
(the best for texturizing aspect but time-consuming and can cause confusion)

The problem will be probably repeated with many elements as model and section doesn't exactly fit to each other (differences in heights, differences in exact geometry etc.)

Solution no1

cutting off part of the texture from the colourful section



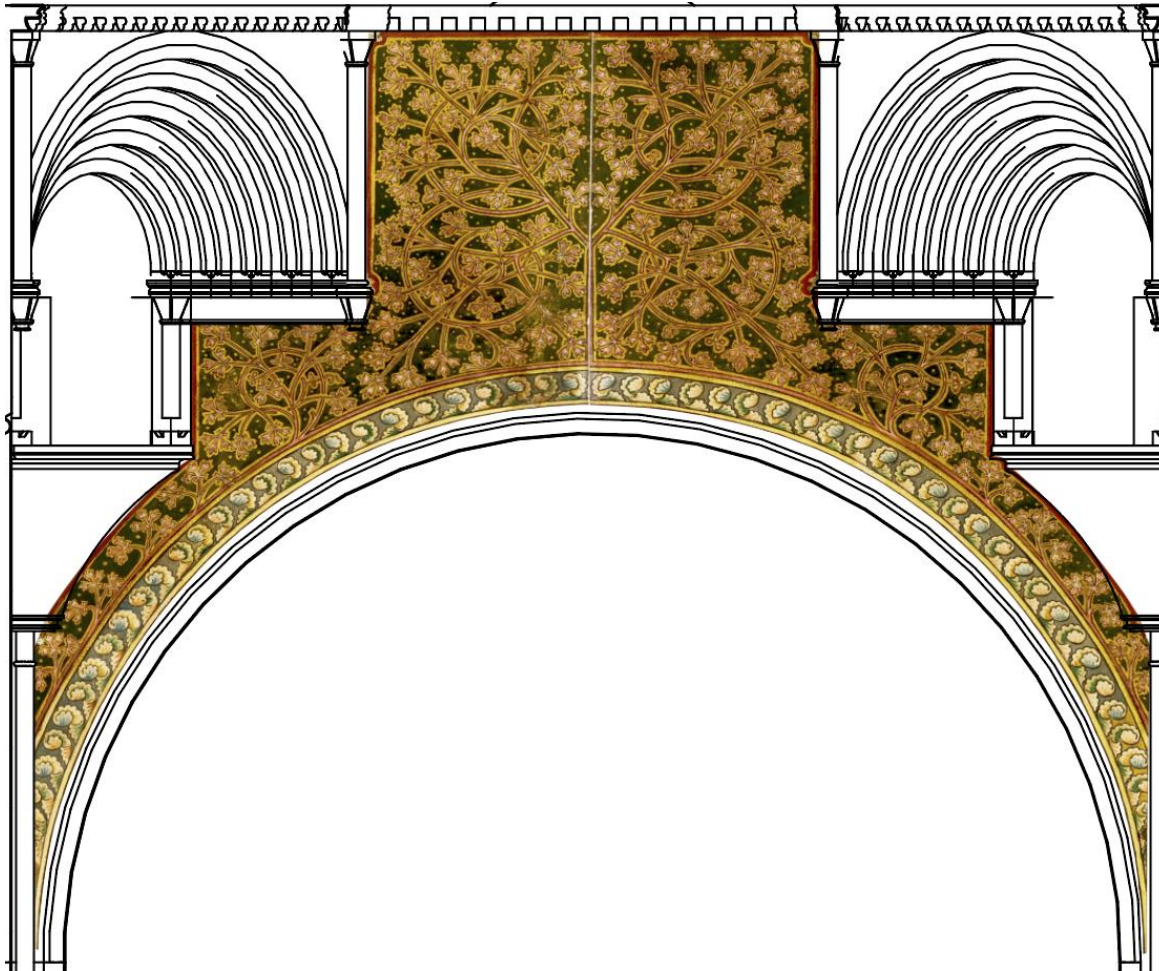
This solution seems to be the quickest and the easiest to make, but the result is that the exact appearance of the element wouldn't be illustrated in the final model.

When a part of the texture is cut off, **its composition is destroyed** – e.g. in this case we cut off the ending of the floral pattern and in our texturized element in model the branches wouldn't end with flowers, as it is on the original texture.

This solution lets **present the main idea of the texture**, the type of the pattern and colour scheme but is not the exact reflection of the texture presented in colourful section.

Solution no2

changing the proportion of the texture

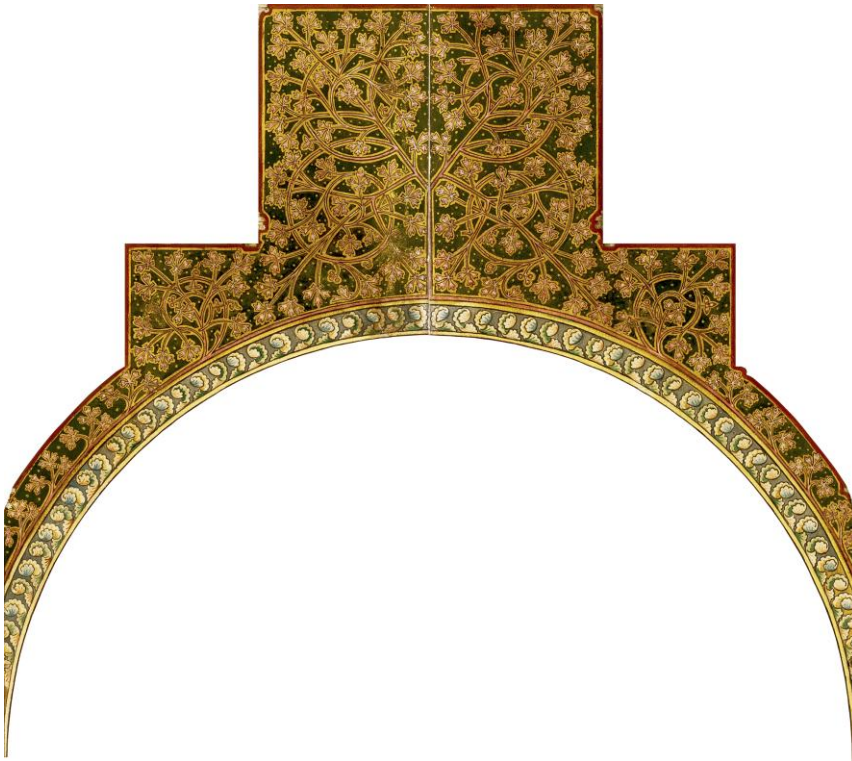


This solution needs warping the original texture (fragment of the colourful section) in Photoshop to adjust it to the size and proportions of modelled element.

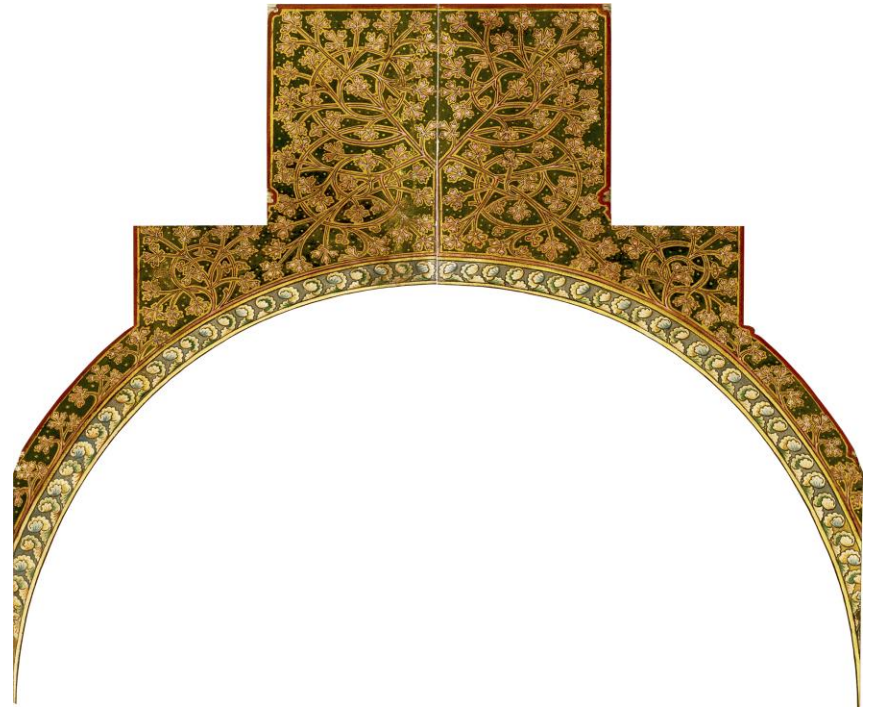
This solution lets **present the original composition**, but size and proportions of the elements of the texture are different.

Solution no2

comparison of the original and the texture with changed proportions



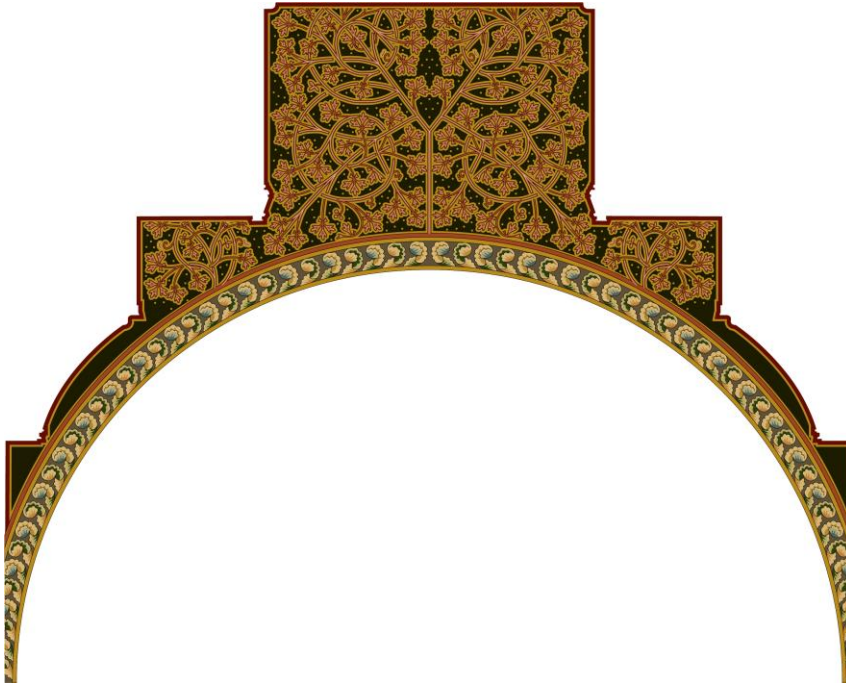
original texture



texture with changed proportions

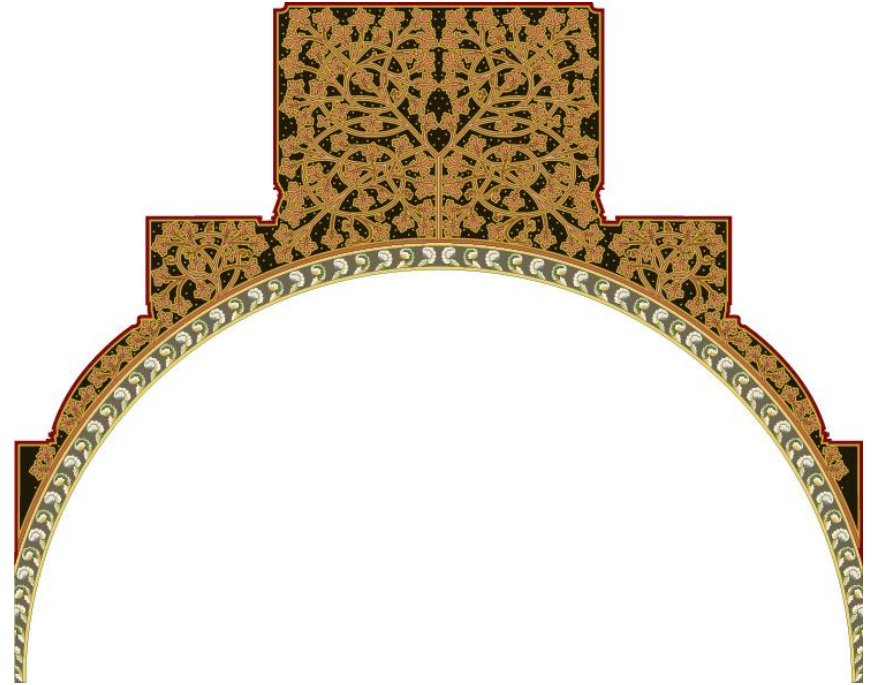
Solution no1 vs solution no2

comparison of the original and the texture with changed proportions



Solution 1

cutting off part of the texture from
colourful section, same proportions



Solution 2

changing proportions of the texture,
same composition

(differences in colours are not important in this case and are the result of attempts to find original colours of textures)

Redrawing texture (Solution 1)

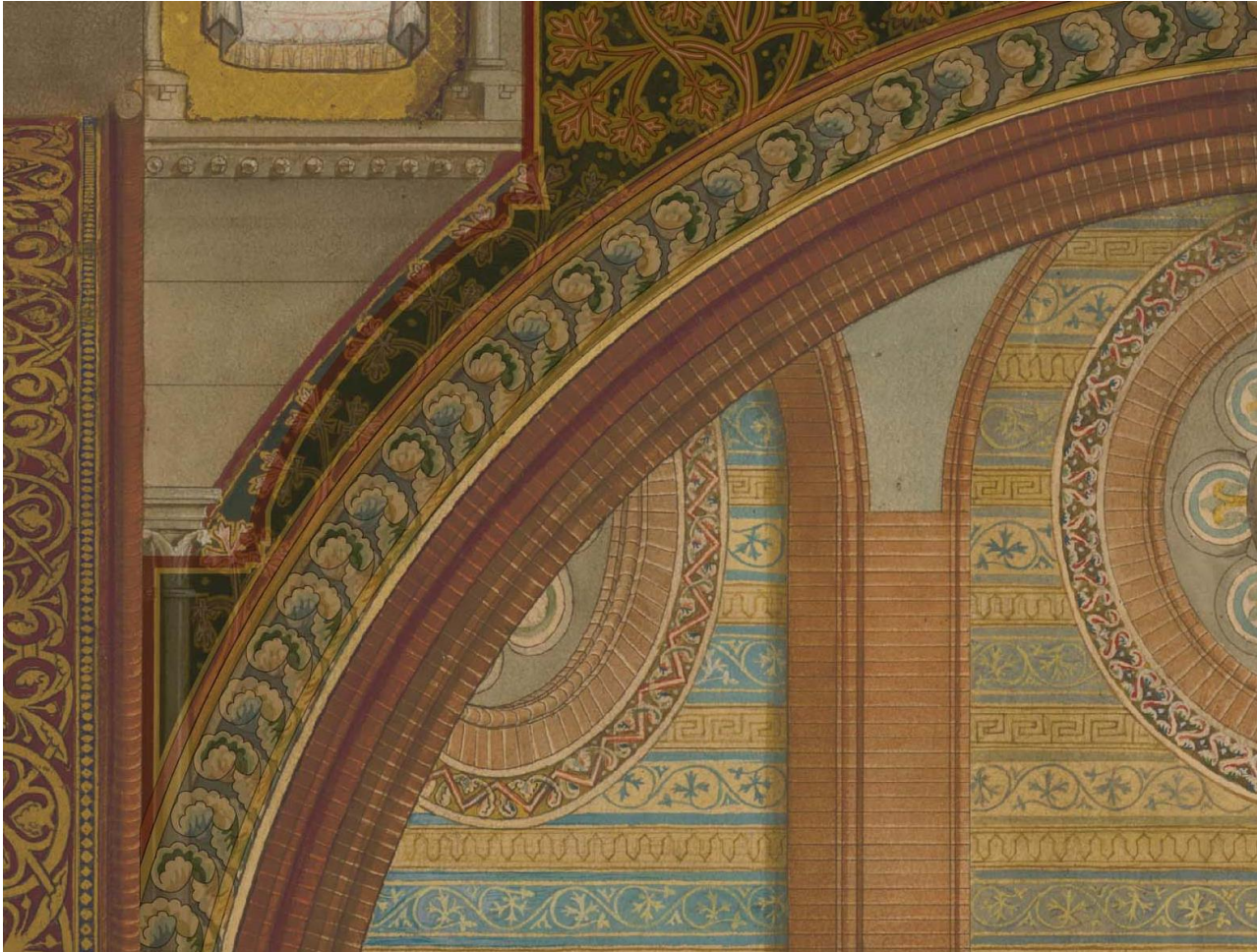
problems caused by differences between model and colourful section



problem: cutting off part of the pattern in the upper parts of the texture

Redrawing texture (Solution 1)

problems caused by differences between model and colourful section



problem: flower pattern doesn't match the shape under the pendentive (shape in model is much more irregular than in colourful section)