



Unit 2

Virtual Model

LESSONS

Lesson 2.1. Shell

Lesson 2.2. Pieces

Lesson 2.3. Accessories

Lesson 2.4. Components

Lesson 2.5. Materials and textures

Lesson 2.6. Combinations and configurator



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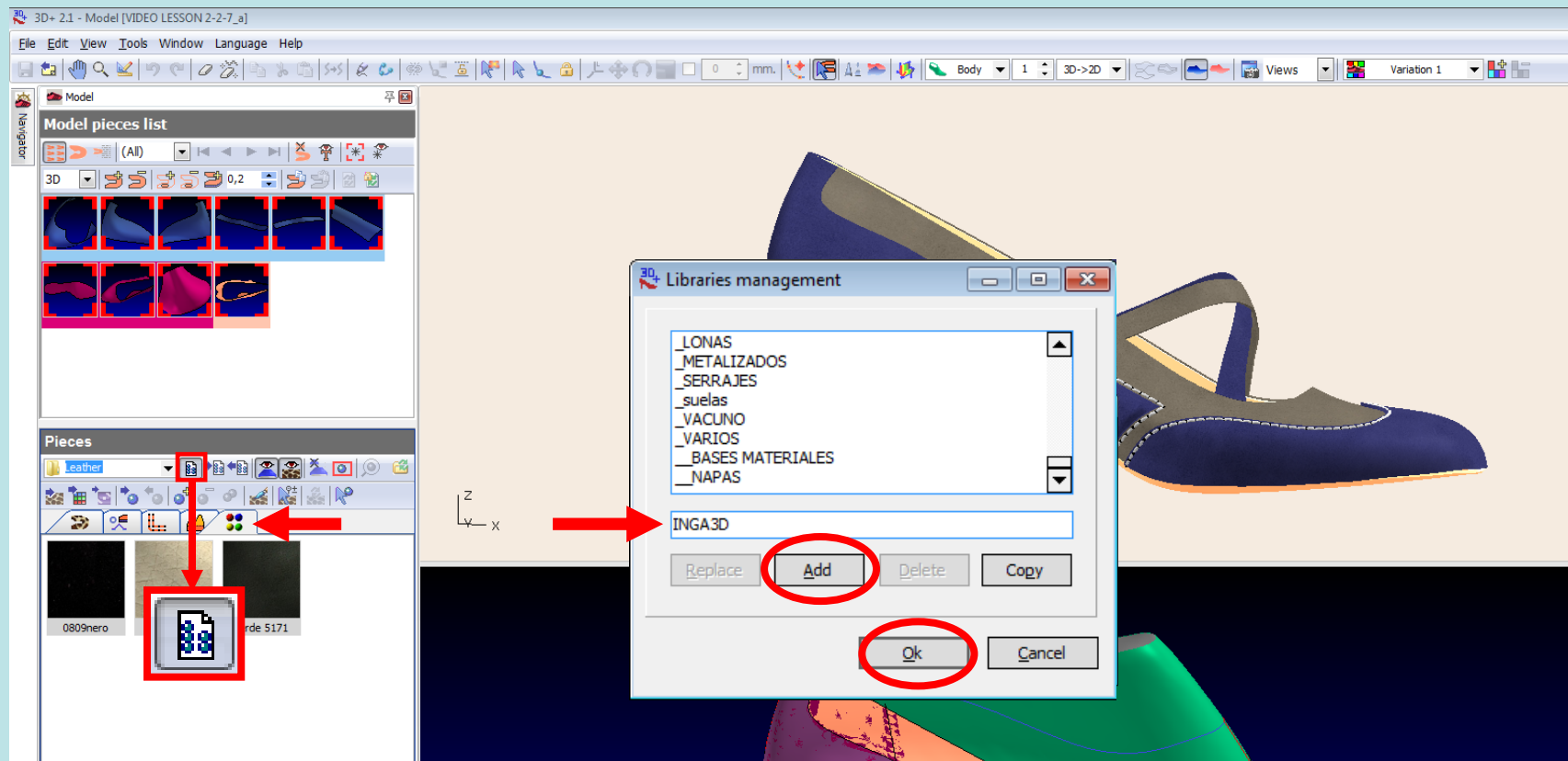
Virtual Model

LESSON 2.5 – MATERIALS AND TEXTURES

1. **Materials library**
2. Creating materials from pictures
3. Creating materials with render properties
4. Editing textures based on flattened surfaces
5. Editing textures based on curves

1. Materials library

To create a new materials library ('INGA 3D'), access the **'Materials'** tab from the **'Pieces'** window, and click on the **'Libraries management'** icon.





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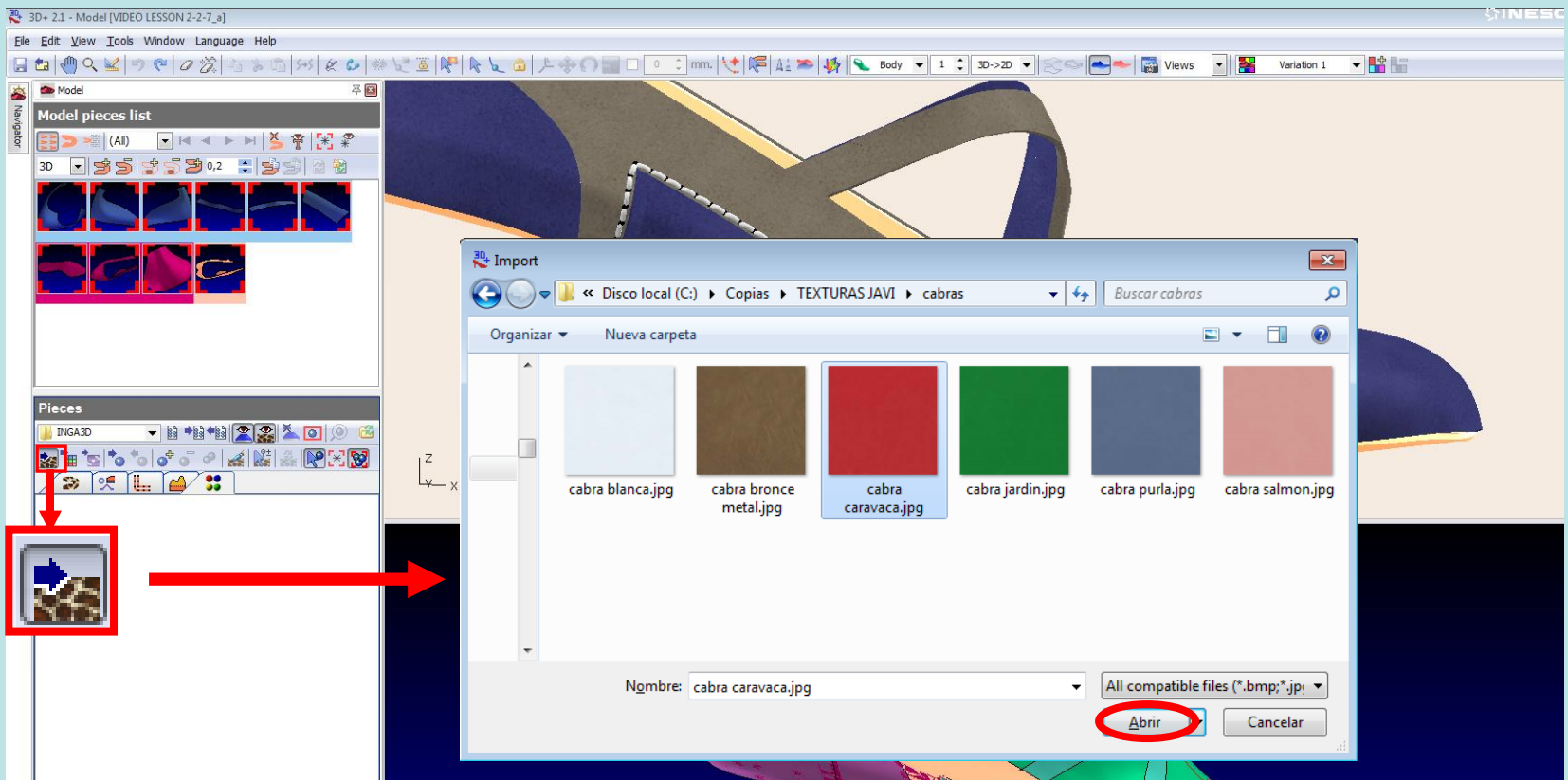
LESSON 2.5 – MATERIALS AND TEXTURES

1. Materials library
- 2. Creating materials from pictures**
3. Creating materials with render properties
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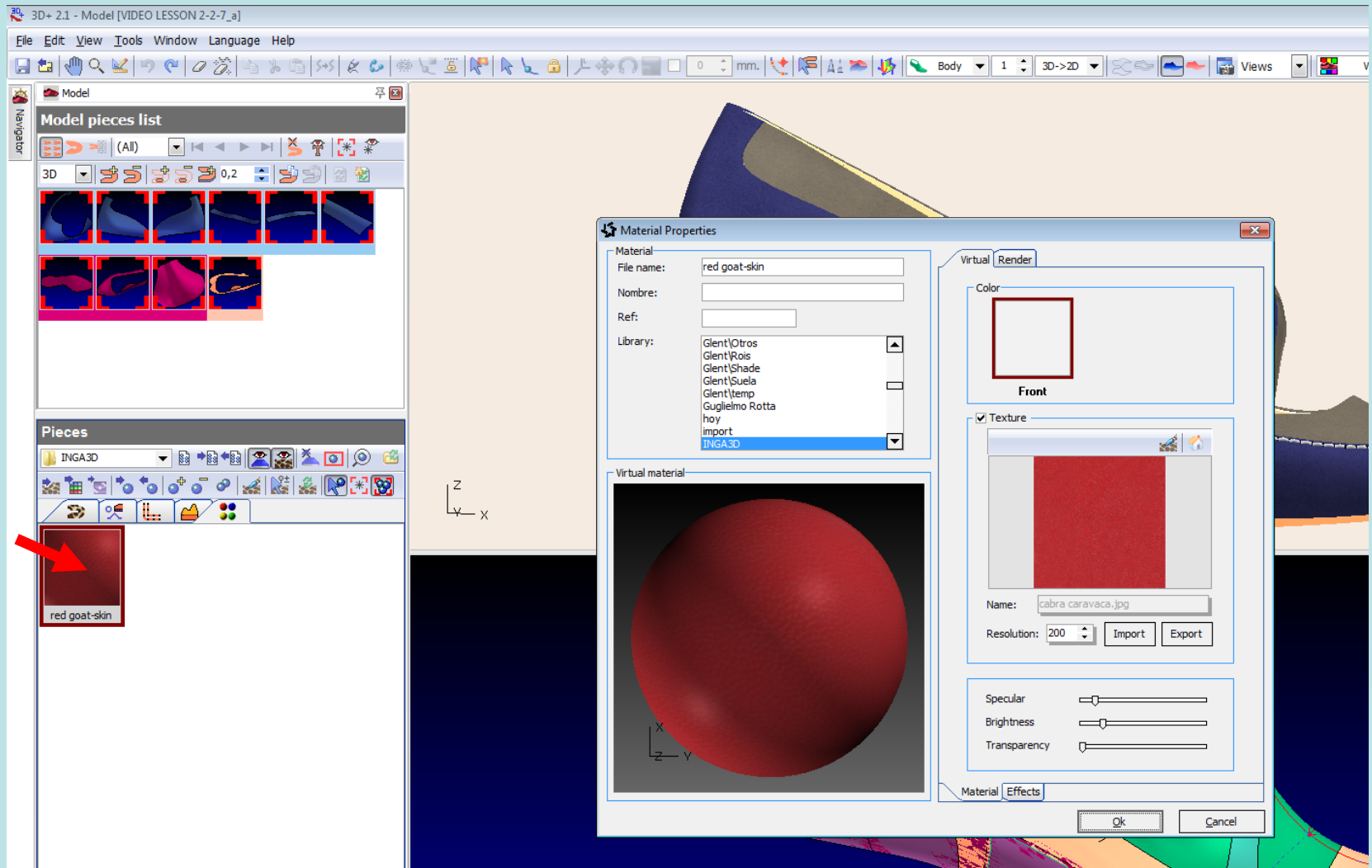
2. Creating materials from pictures

The materials library is fed with pictures obtained from real scanned materials or materials digitally created by some graphic software. It is recommended to work with files in '.jpg' format.

Using the '**Import textures**' option, new materials can be added to the library.



The material will appear in the left window inside the library. By double-clicking on it, the '**Material Properties**' dialogue box will be displayed, where you will be able to edit its colour, texture, brightness...





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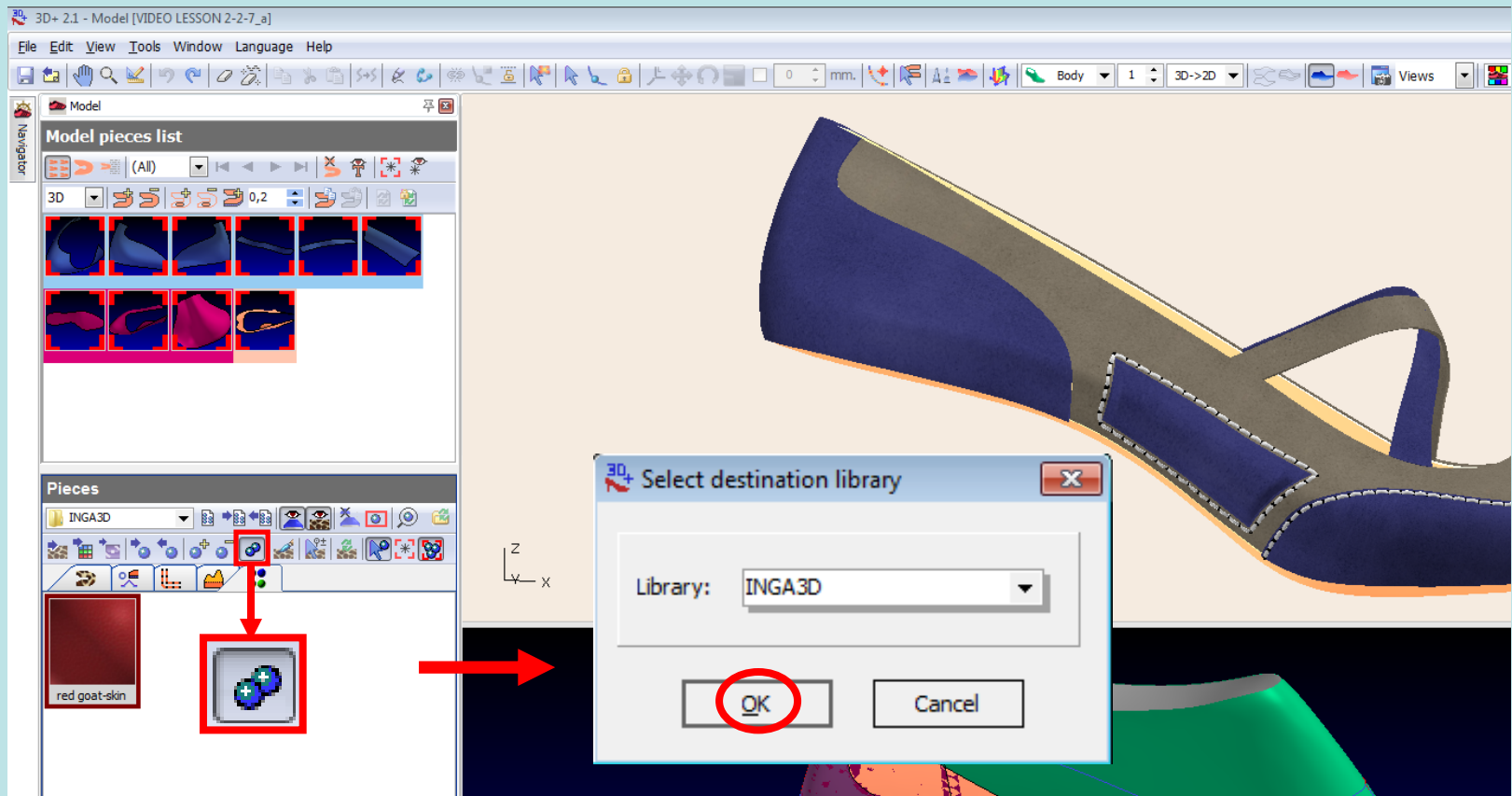
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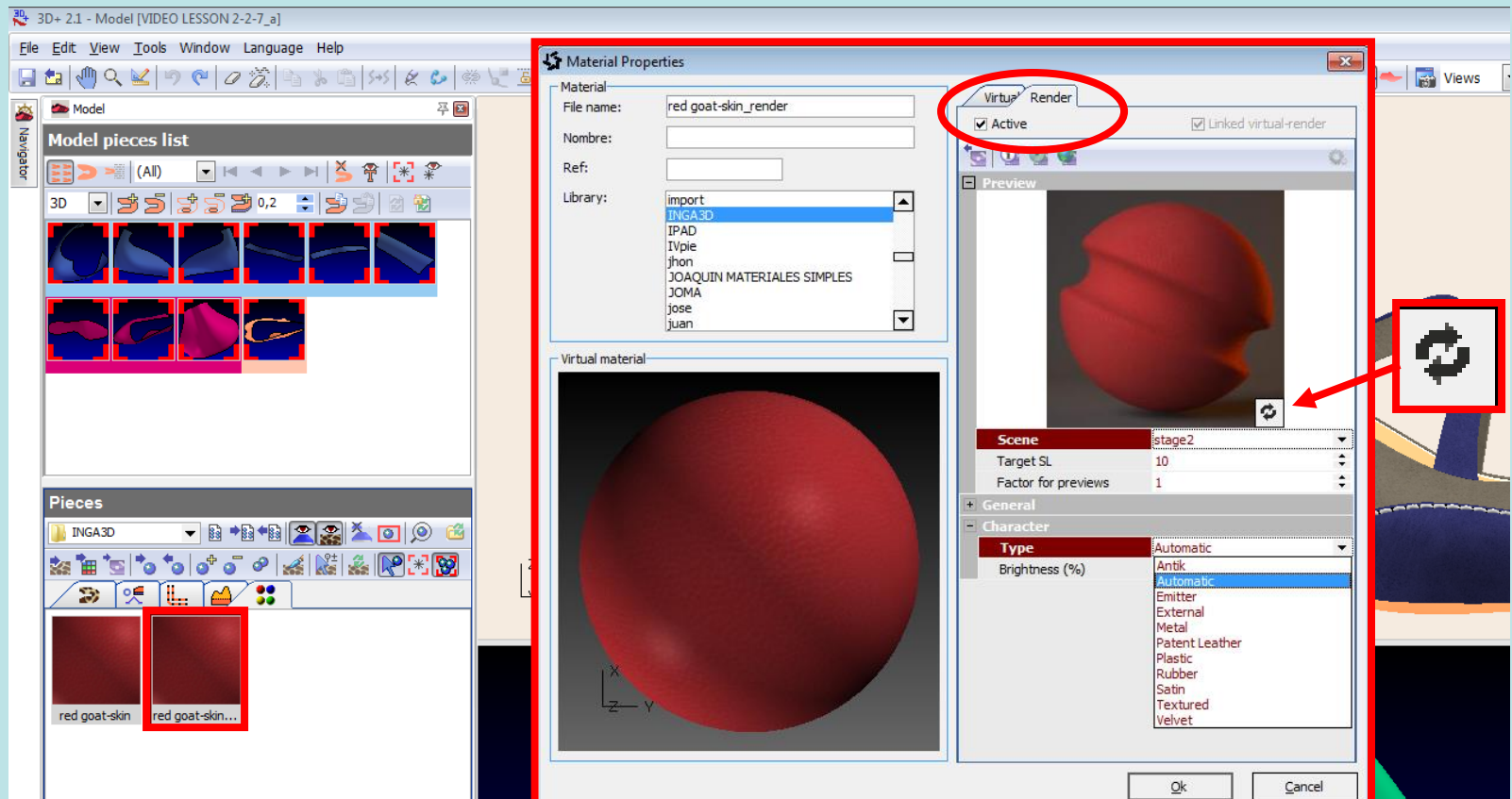
3. Creating materials with render properties

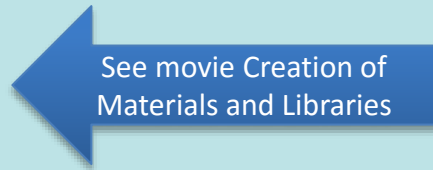
To create a new material with render properties, select the material to be employed as a basis and click on '**Duplicate material**'. In the dialogue box, indicate the library in which it is to be saved ('INGA 3D').



Double-click on the new copied material to edit its properties and rename it ('red goat-render'). In the '**Material Properties**' dialogue window, access the 'Render' tab and check the '**Active**' box to see edition options.

When pressing on the '**Actualize**' button, you can see how the rendered texture will look like. It is recommended to explore the numerous render options that the system provides to get realistic effects on the materials.







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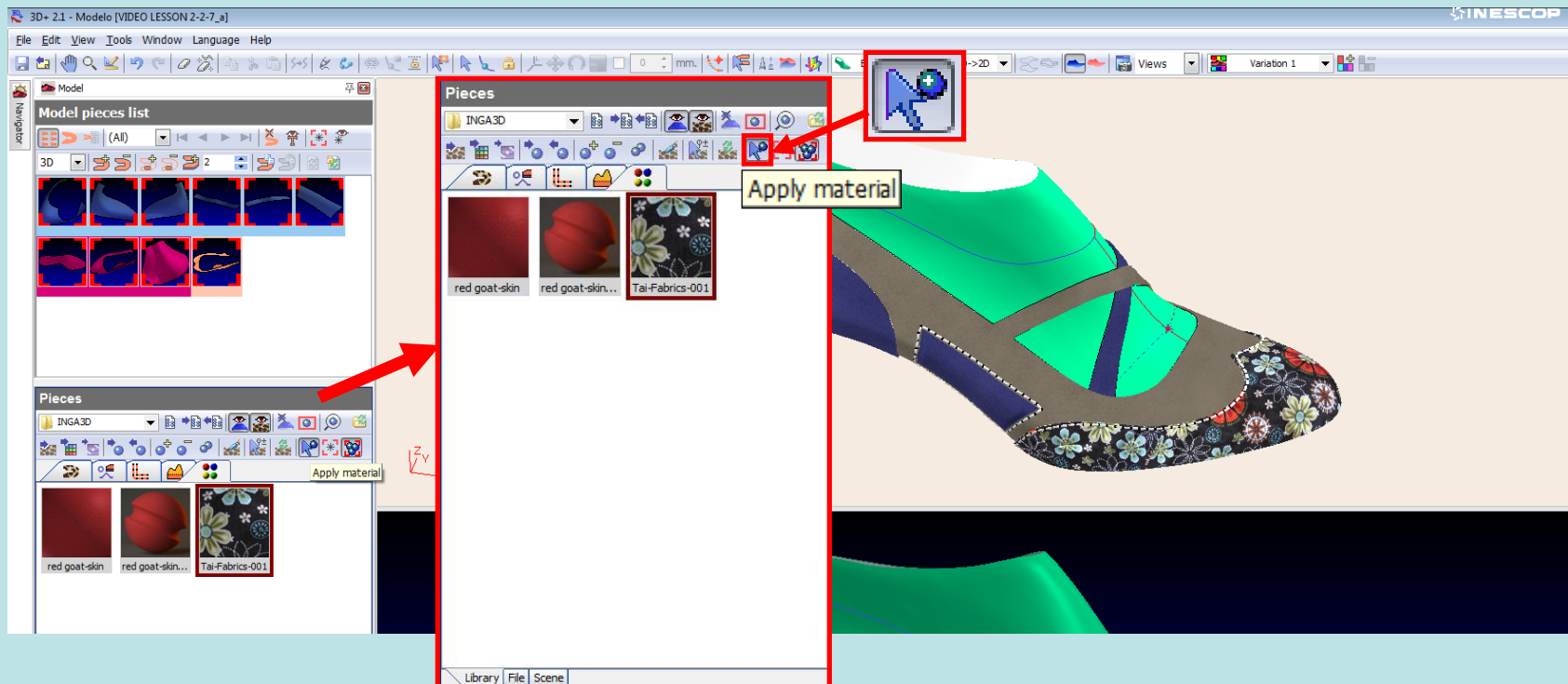
LESSON 2.5 – MATERIALS AND TEXTURES

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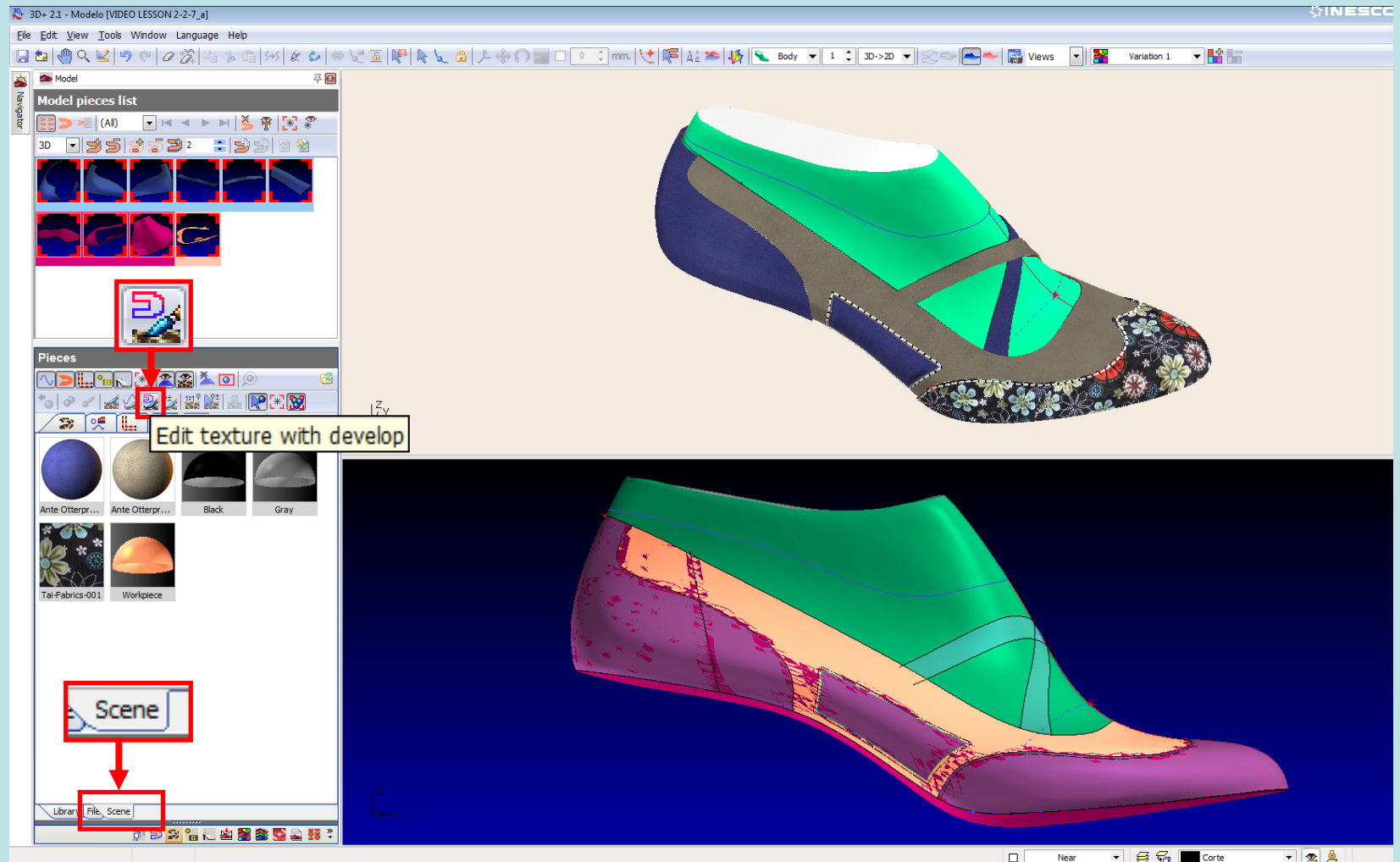
4. Editing textures based on flattened surfaces

On some occasions, when working with patterned materials, it is necessary to flatten the piece onto which the texture is going to be applied so that the texture fits suitably on the model.

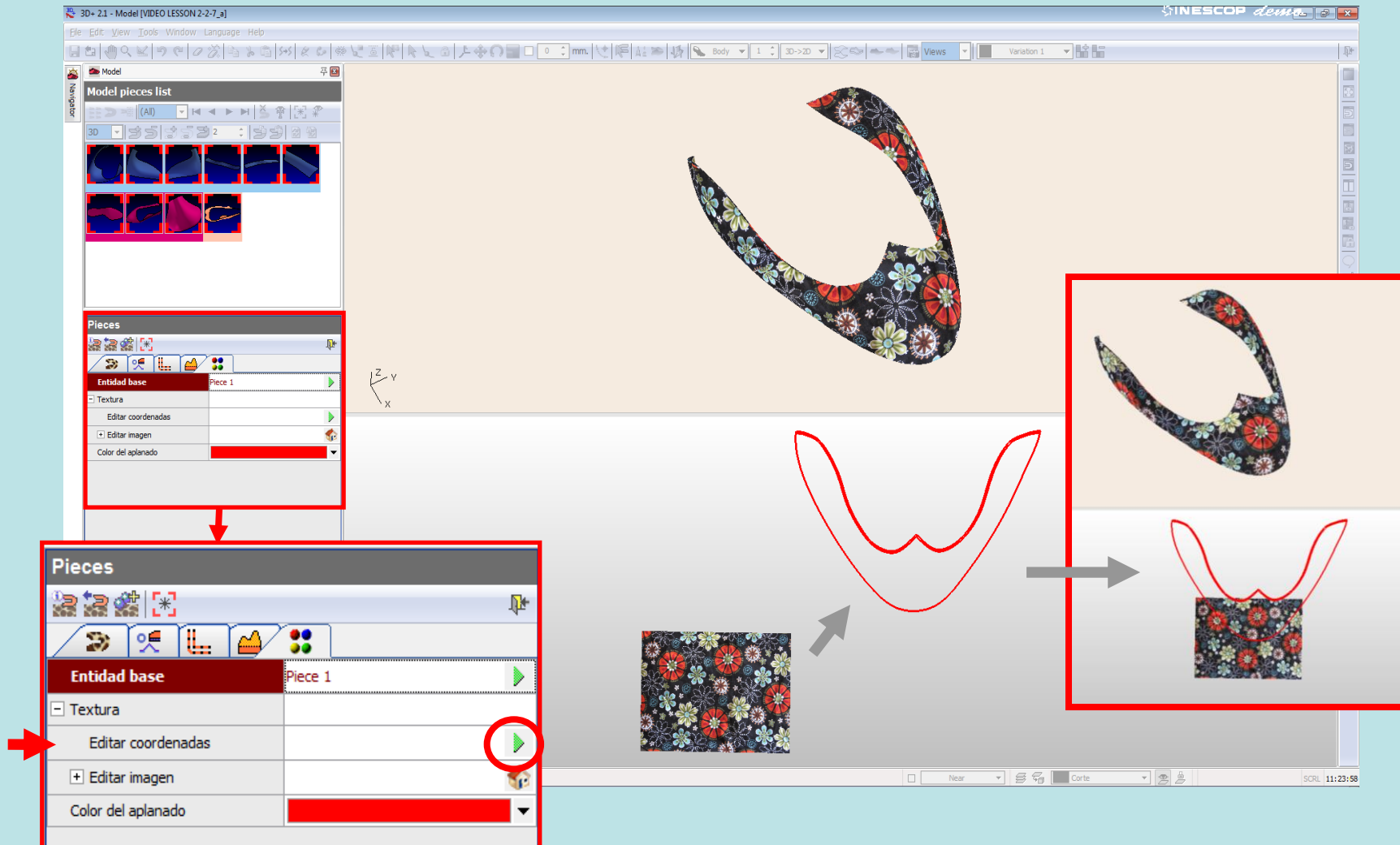
To edit material texture, the texture has to be previously applied to the piece, by selecting the material from the materials library, clicking the '**Apply material**' icon and selecting the piece with the left mouse button in the '**3D Virtual**' view.



After applying the texture to the piece, access the lower 'Scene' tab and press the 'Edit texture with develop' icon.



- **Change texture coordinates.** Press the 'play' icon in the 'Edit coordinates' box, and position the texture on the desired location on the piece using the 'CTRL/SHIFT+ left mouse button + drag' commands.



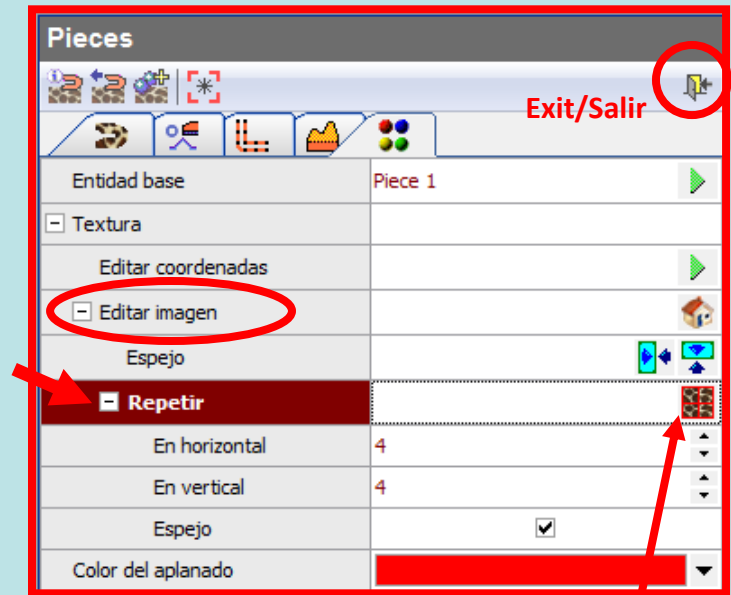
- **Edit texture image.** Press the 'Play' icon in the 'Edit image' box to display the options.

The '**Mirror**' option reflects the texture image vertically and/or horizontally.

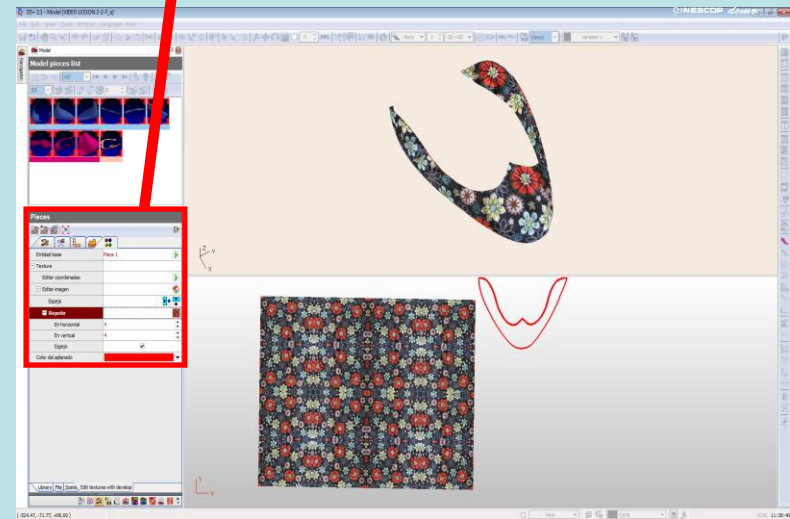
To create a **rapport**, enter the number of horizontal (4) and vertical (4), repetitions in the '**Repeat**' box, check the '**mirror**' box and click the '**Repeat**' icon.

Once you are done with material edition, press the '**Exit**' icon in the Pieces window.

NOTE: A copy of the material with the changes made in the '**Scene**' tab will be saved automatically.



Repeat





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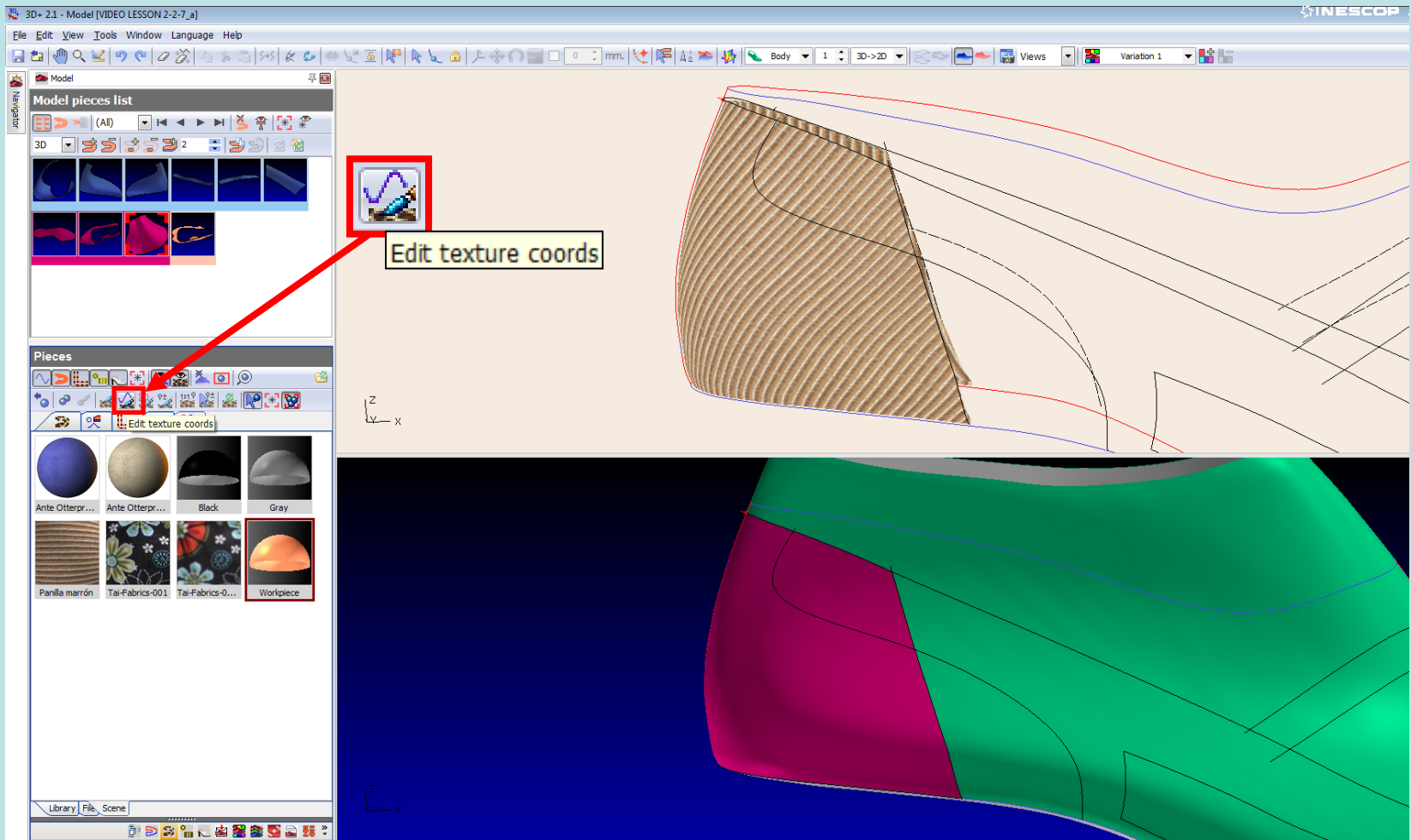
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LESSON 2.5 – MATERIALS AND TEXTURES

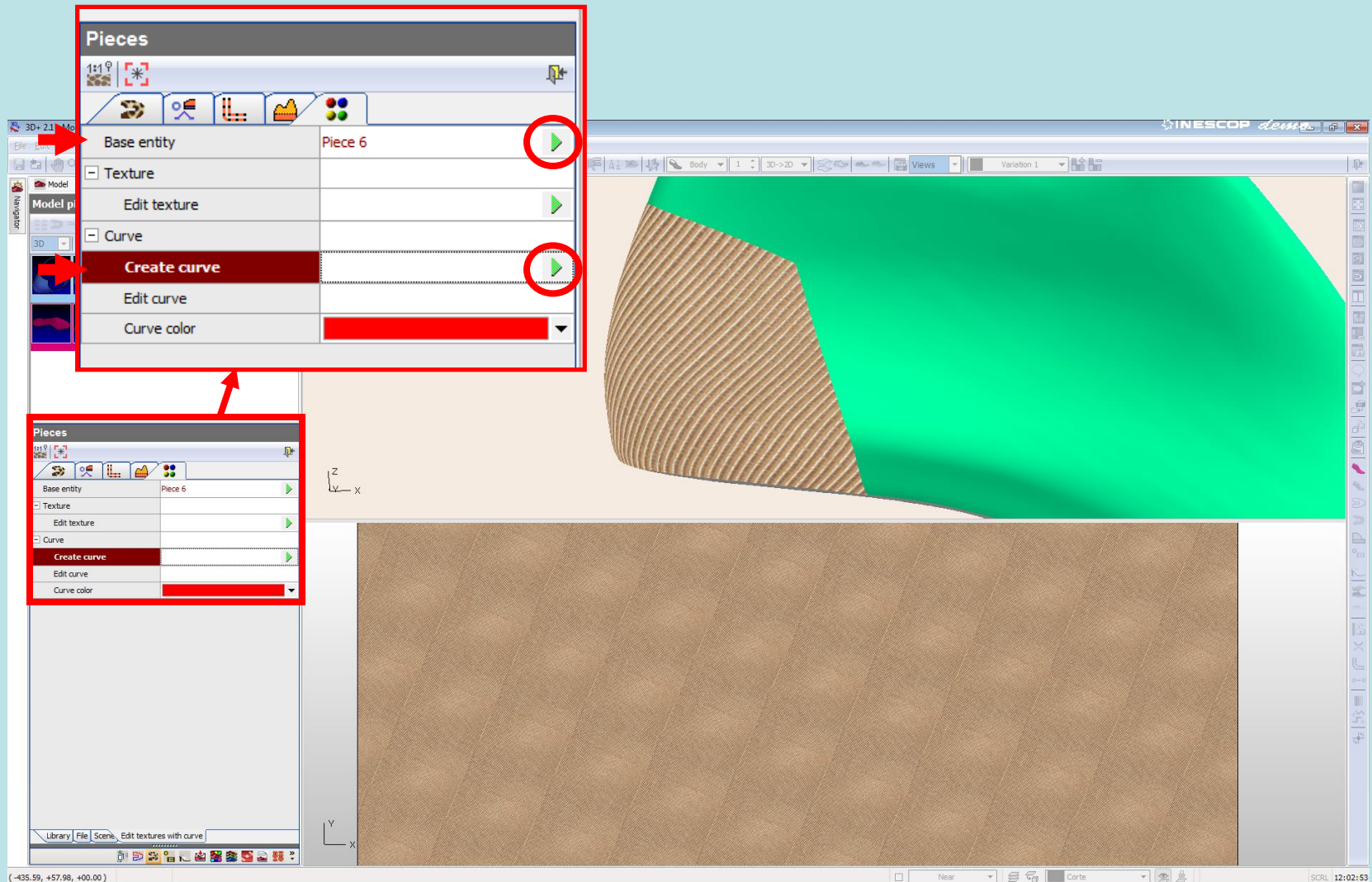
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5. Editing textures based on curves

To redirect the texture pattern/print/weave, press the **'Edit texture coords'** option.

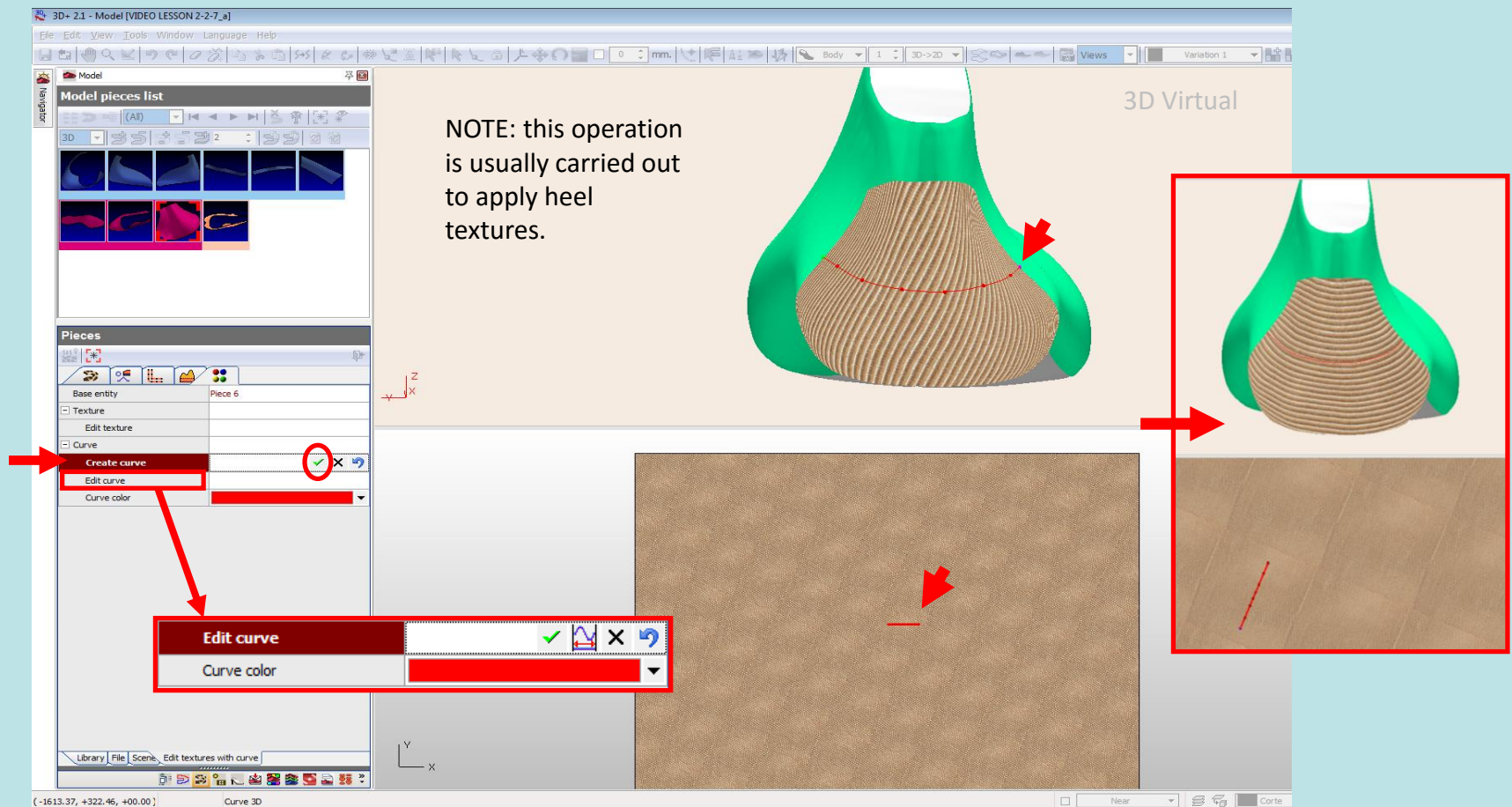


Press '**play**' in the '**Base entity**' box, click (in the '3D Virtual' view) on the piece where the material is to be edited, and create the curve defining the desired direction for the texture by pressing the '**play**' button in the '**Create curve**' box.



Trace the curve on the model by left clicking point by point in the “3D Virtual” view. Once the curve has been drawn, press the '**check/validate**' button.

Click '**Edit curve**' and, in the view where the modified texture is displayed, direct the curve using the 'Control/Shift + left mouse button' commands until the piece is adequately viewed, and then press '**check/validate**'. To quit the editor, click the '**Exit**' icon in the '**Pieces**' window.







PARTNERS



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