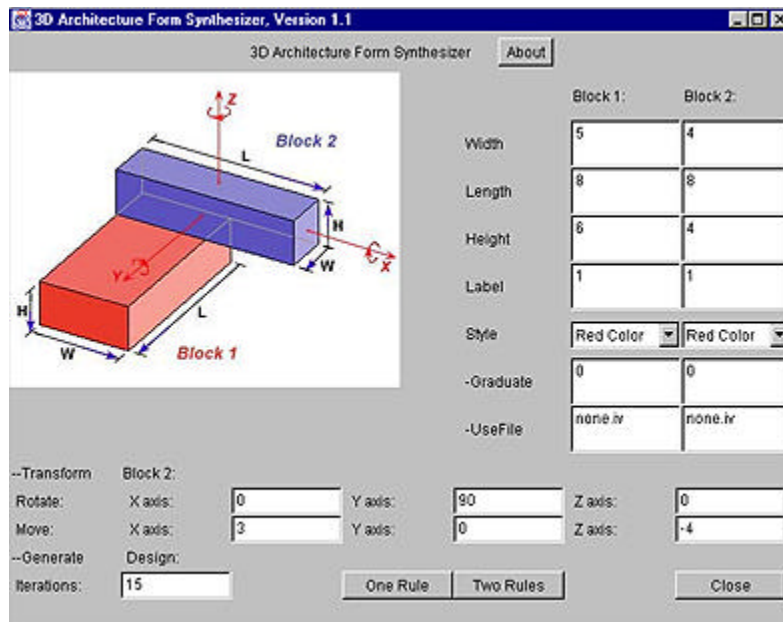


Shape Grammars for the 3D study of the townhouses clusters

I. Given proportions

We are going to give you a set of values to use in 3dshaper so that you won't have to experiment with different proportions, but rather with different labelings for this exercise.

The proportions are as follows:



| Block 1 | Block 2 |
|---------|---------|
| 5 | 4 |
| 8 | 8 |
| 6 | 4 |

| | x | y | z |
|---------------|---|----|----|
| Rotate | 0 | 90 | 0 |
| Move | 3 | 0 | -4 |

Note that **Block 1** is an oblong, so you can vary its label from values **1** through **8**.

Block 2, instead, is a pillar, so you can vary its label from **1** through **16**.

Every time you open a model in **3Space Assistant** remember to use **File/Save as** to store your design in a separate file, or else **3dShaper** will rewrite your new design on the same file and you will lose it.

Now play around with randomly chosen labeling values and generate a few models. See if you can relate the label position with the result you get, by

looking at the **rules.iv** file in **3Space Assistant** each time.

II. Importing your models in the site model

1. In 3Space Assistant, having your shape grammar model opened, choose **file/save as** and save your model as **.wrl 1.0 files**.

2. Download a **.max** version of the site model by clicking below:

[site3d_japan.max](#)

[site3d_boston.max](#)

3a. (for MIT students only) Now open the site model in 3dStudioMax by choosing **file/open**.

3b. (for Japan students only) If your version of 3DStudio doesn't support the **.max** file type, download the **.3ds** version below, and open or import it in 3DStudio:

[site3d_japan.3ds](#)

[site3d_boston.3ds](#)

4. To import the 3dshaper model, choose again **file/import**, but this time choose **VRML .wrl** as your file type.

5. In the **VRML import** dialog box uncheck all the options (**reset scene, turn to 3ds coordinates, create primitives**).




6. When the model comes in it is automatically selected and it is formed by different separate parts that are hard to move around. To overcome this difficulty, before clicking anywhere, go to **Goup/Group** and answer **OK** to the **Group** dialog box that will pop up. You can edit the name of the group here, to, for example, **Model 1**.

7. Note that the dimensions of the model that you import from **3dshaper** will be scaled to **1unit=1meter**, so to avoid having to rescale it in **3dMax**, make sure to use reasonable values in meters.

8. You can import as many different models as you wish from 3dshaper into this **3dmax** file. Remember to always turn them into groups as you import them.

9. To turn them on and off go to the top of the right side panel and click on the **Display** tab. With the arrow cursor click on the model you want to hide and then in the right side panel click on the **Hide Selected** button. To bring an object back, simply click on the **Unhide by Name** button and click on the name(s) of the object(s) you want to see in your screen.



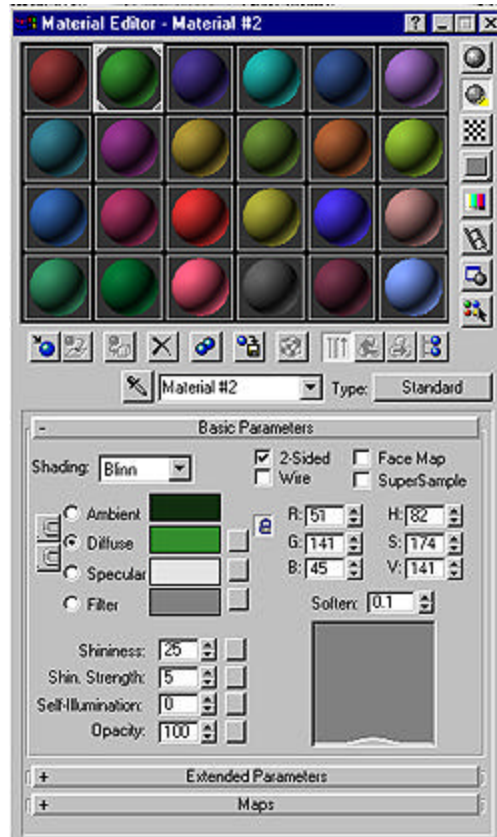
10. Now arrange your models on the site by using the buttons to **select** , **move** , **scale**  and **rotate** . Note that to do movements in different plans you just have to click on the screen of the desired plan.

11. To arrange your view in 3dStudioMax use the icons menu in the lower right corner of the screen. If you leave your cursor on top of each button it will tell you what the button does.


Note that the icon for **zoom to window** changes to a perspective view if your cursor is in the **Perspective** window. To make the image larger in that window simply select the perspective tool, click on the left mouse button and drag it up to get closer or down to get farther.

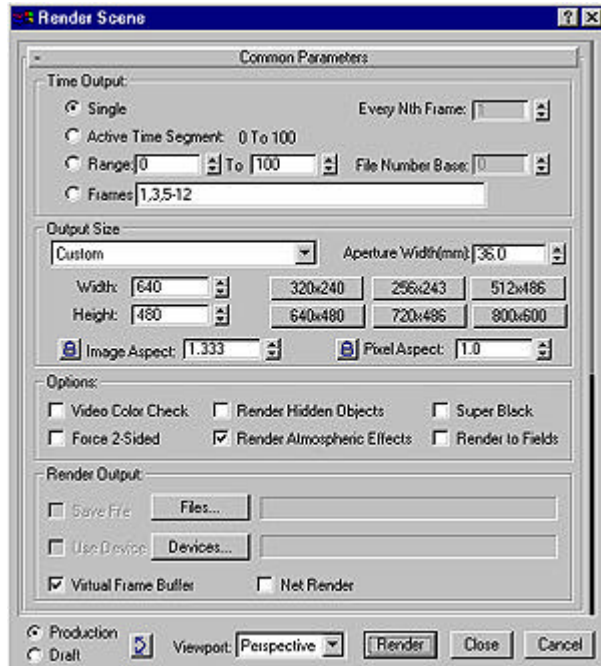


12. To change colors of the objects click on the **Materials** menu icon  in the top tool bar to open the **Materials Editor**:



From there, click on the desired material, drag and drop on top of the object you want to change the color. If some parts of your model are missing, try checking on the **2sided** box of the material you chose.

13. Finally, to turn this model into an image, first click on the view you want to render and then click on the **Render** menu icon  in the top tool bar, to open the **Render Scene** window:



From the **Render Scene** window, select the resolution you want to render and then on the **Render** button. In the rendered view, click on the disk button to save your image. Make sure that the **Viewport** field in the bottom of the window displays the name of the view you want to render (e.g. **Perspective**).

NOTES :

Also, remember to review the **Pin up 2** instructions to prepare your 4 400 wide by 600 high images (see **Calendar, Session 5 - Pin Up 2 Directions** for extra details).

Good luck!