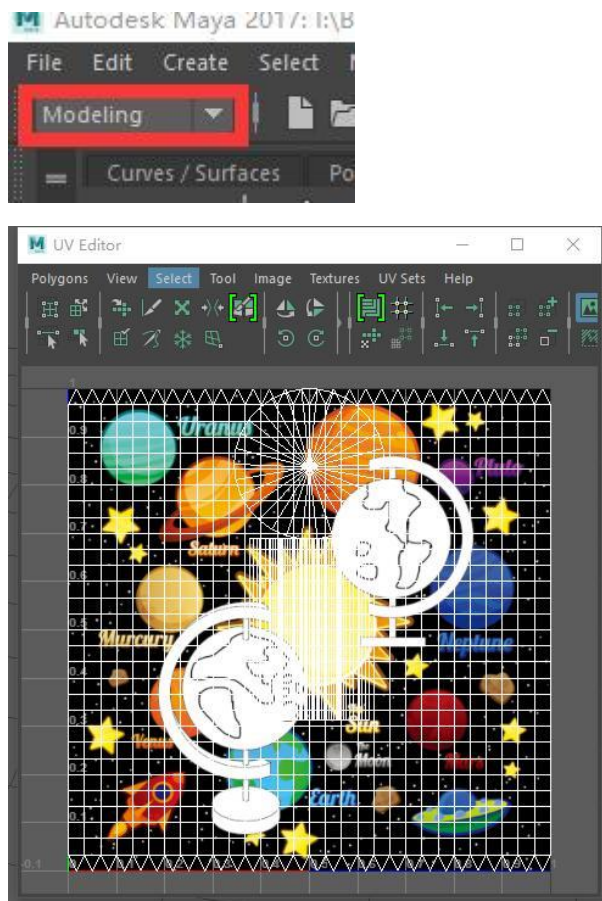


1.4.4 UV Matching Earth Part

Select all the models of the globe, in the "Modeling" mode in the upper left corner, select "UV" - "UV Editor" in the menu bar to open the UV editing panel.(this is Version above 2017 .Other versions of Maya are "Windows" - "UV Texture Editor") in the menu bar under "Polygons" mode, where the white wireframe is the UV of the currently selected object.

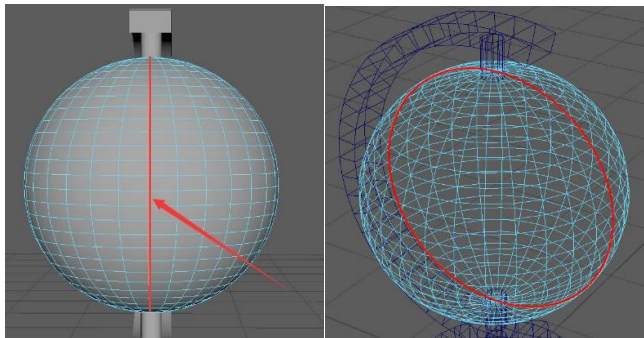


If the background of the panel does not show the texture background, click the texture icon above the panel.

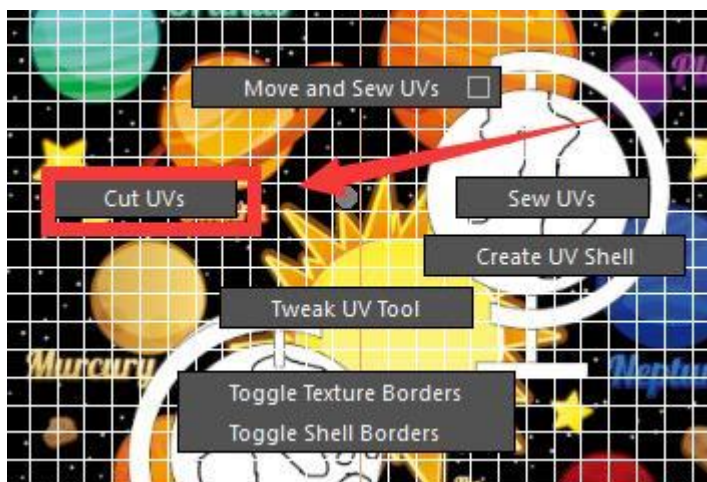


There are two parts of the earth model on the recognition map. Here, the UV of the earth is also divided into left and right sides.

Select the Earth object, enter the edge level(Press the right mouse button on the model and choose egde), from the side, find the earth's midline, double-click on one egde segment to select a continuous loop, hold the Shift key, and select the other half of the loop, you can get the loop through the earth, as shown in the figure.

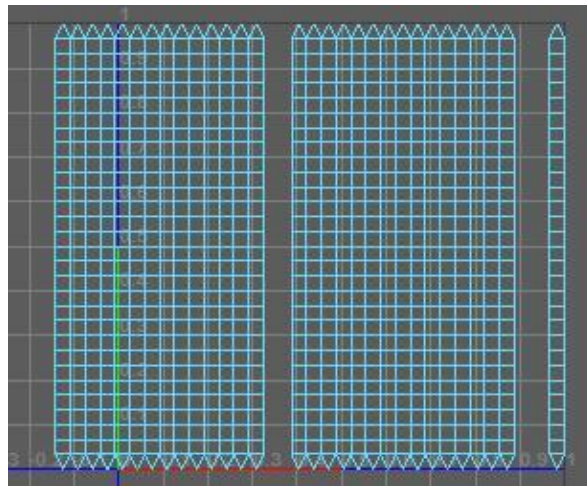


When this loop is selected, in the UV editor panel, press the Shift key, press the right mouse button, and select "Cut UVs" to cut the UV from the position of this edge.



Separate the two halves of the Earth's UV. In the UV editor, enter the UV level (Press the right mouse button on the UVs and choose

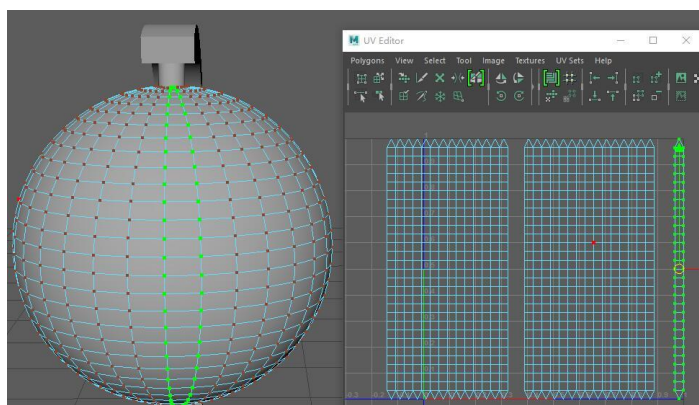
UV), first select a point on the UV, then press the Ctrl key on the keyboard, and then press the right-click to select "To Shell", then select all the UVs connected to the selected point. Press the "W" button to pull out the mobile tool and move it away. The two halves



of the Earth's UV are visible.

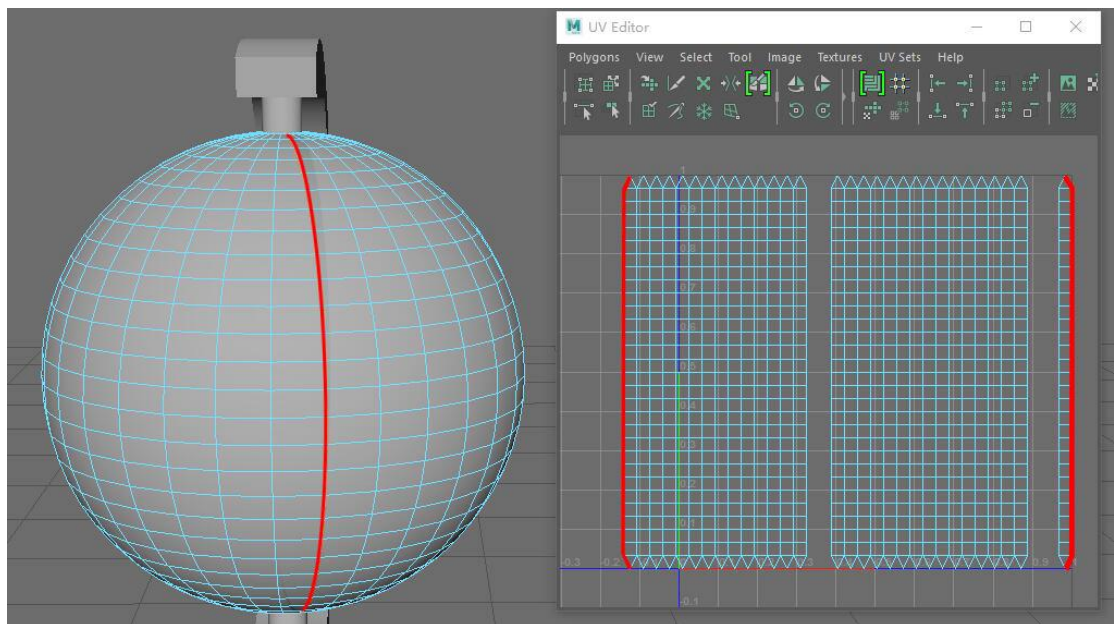
At the beginning of the model, the system has the default cutting mode, which results in the conflict between the cutting line of manual dividing the earth UV and the default cutting line of the system, and cuts out a part of half of the earth UV separately. It needs to be repaired.

Select this part of the UV, you can see its corresponding part in the model.

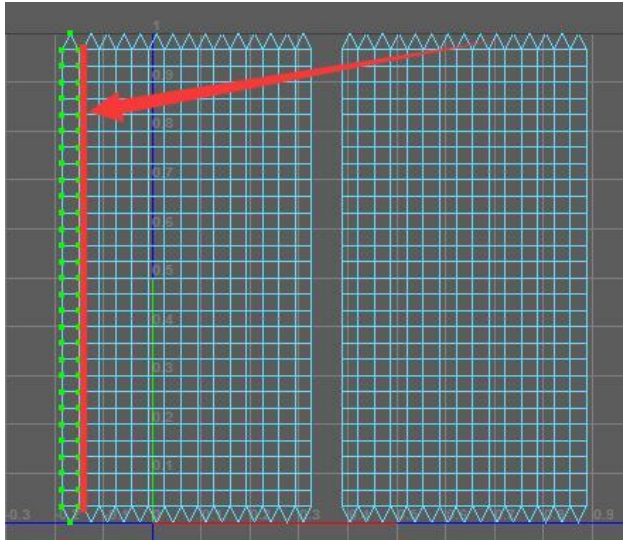


It can be seen that in the previous manual segmentation of the Earth's UV, the two hemispheres, the right side has a tangent when the system defaults to divide the UV, resulting in the emergence of redundant parts, now need to sew up the tangent.

Right-click "Edge" (Press the right mouse button on the UVs and choose Edge) in the UV editor and select this line on Earth. You can see the broken edges of the two parts in the UV editor.



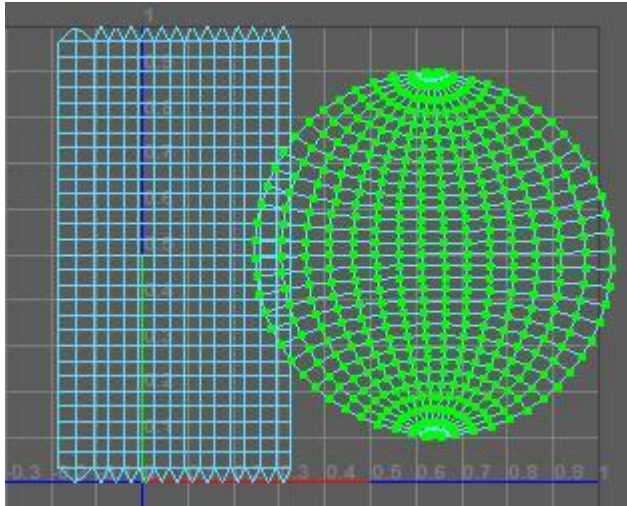
Now we need to sew this part according to two cut edges, enter the UV level, move small pieces of UV, align the cut edges.



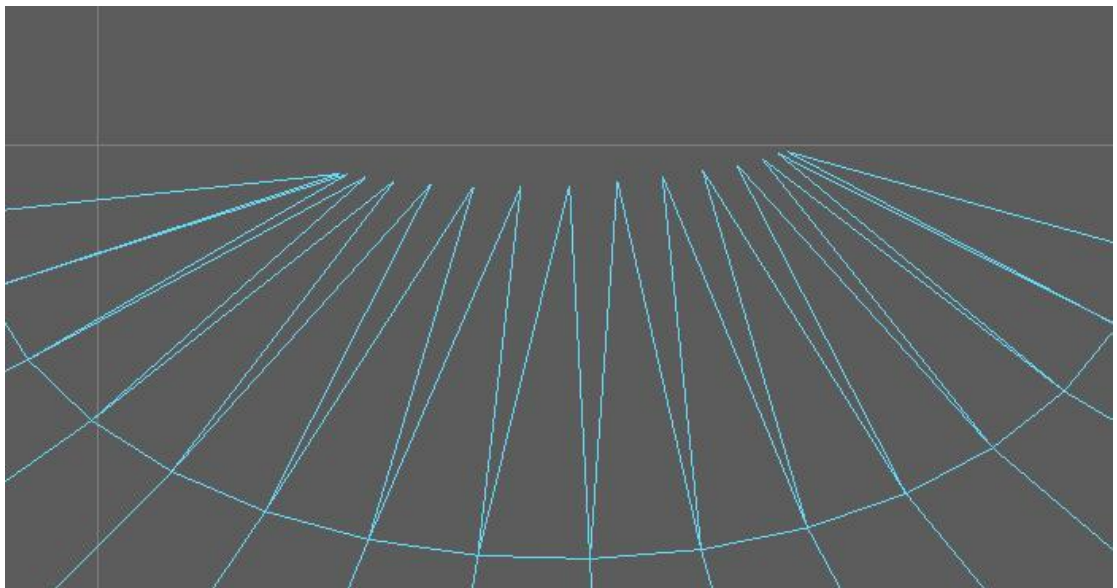
Enter the edge level, select the interrupted edge, press the Shift key, and right-click "Sew UVs" to connect the edges in the UV.

At this point, the Earth's UV is completely divided into two parts, the front and back hemispheres. You can select one of the UV points in any part, press the Ctrl key, and right-click "To Shell" to see if the currently connected UV has only two parts.

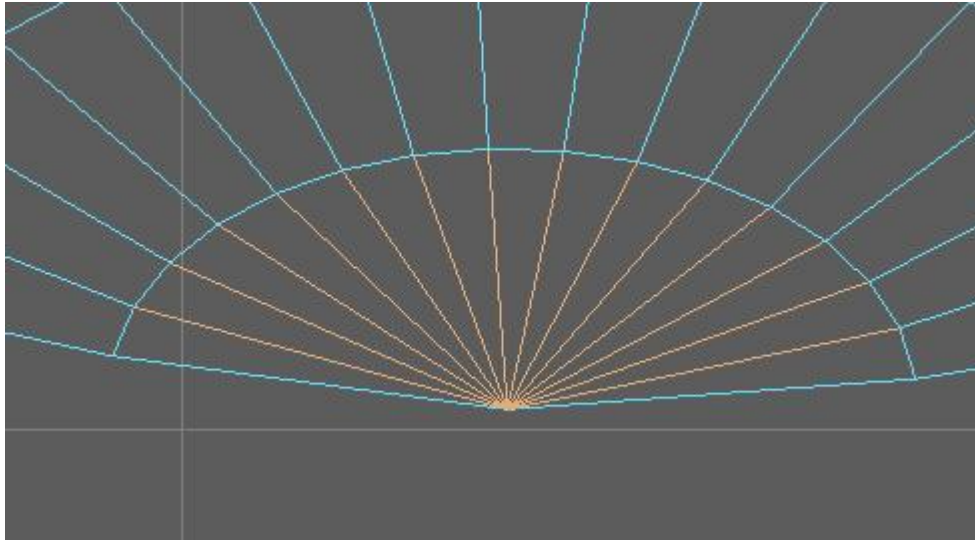
Now we need to turn the UV of these two hemispheres into a circle. Select one of the UVs, press the Shift key on the keyboard, and right-click Unfold to select the loose UV. At this point, the UV is close to a circle.



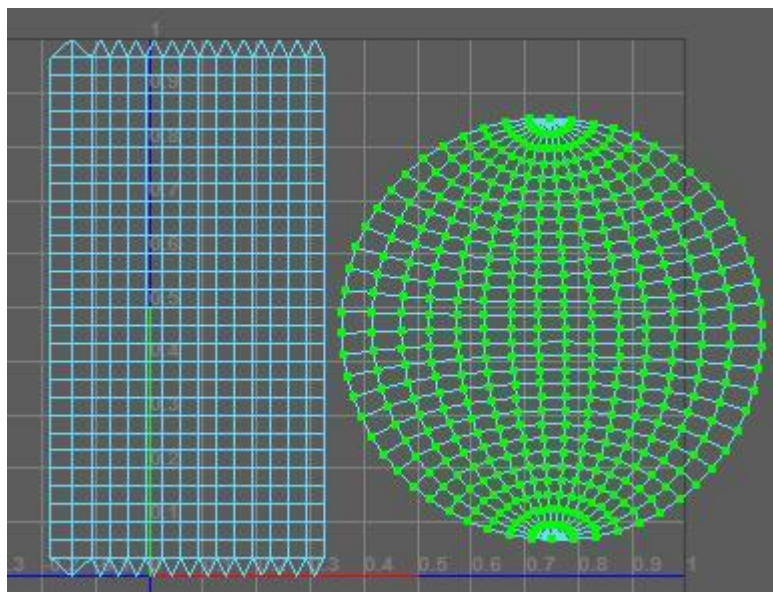
At this time, the circle is not very far, because some edges of the upper and lower parts of the circle are still not stitched together.



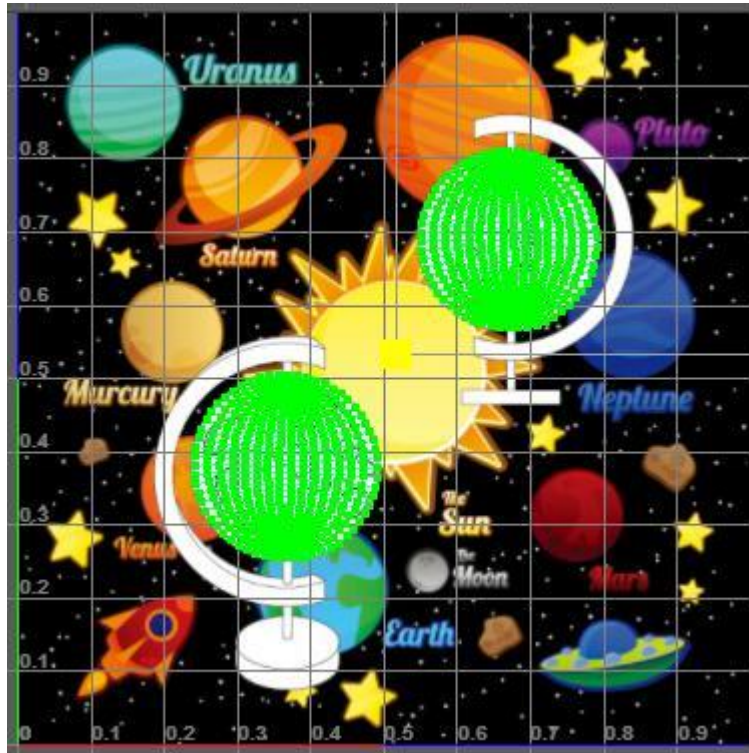
Enter the edge level, select these unstitched edges, and be careful not to select the edges associated with the other hemisphere's UV, and stitch them together.



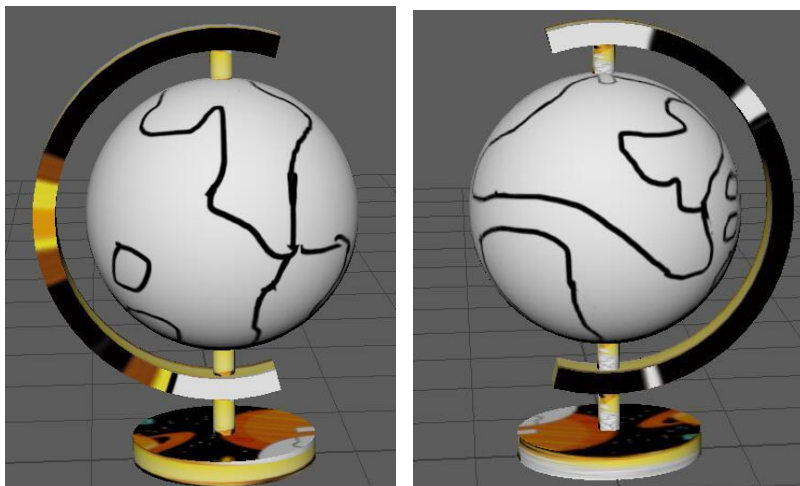
Enter the UV level, choose the whole UV again for loosening, the whole UV becomes very round.



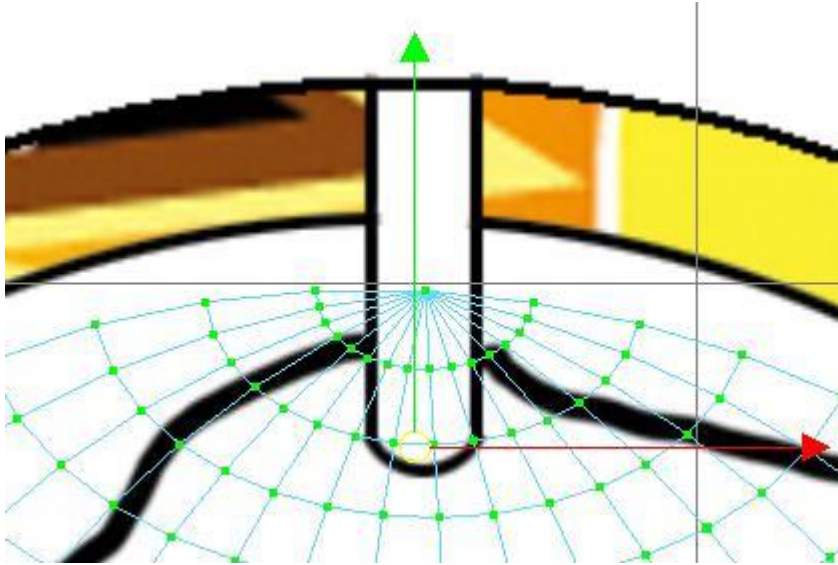
The other piece of UV is also operated on the same way, showing the map, and matching the two hemispheres'UV with the Earth on the recognition map by zooming and moving. The matching of UV and texture is shown in the figure.



The current texture of the model is shown as shown in the figure. At this time, the UV matching of the earth part is basically completed. Some UV points can be adjusted separately after enlargement to make the UV match the pattern better.



In the oblique part of the globe pattern, the Earth's UV and axis patterns are intersected, so the Earth's UV needs to avoid the axis part.



The position of the axis is avoided by cutting the edges of the UV and moving the UV points. The adjustment is shown in the following figure.

