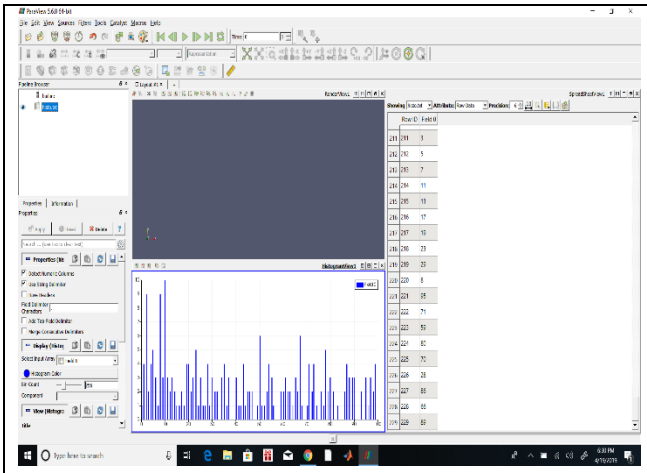
ASSIGNMENT 3

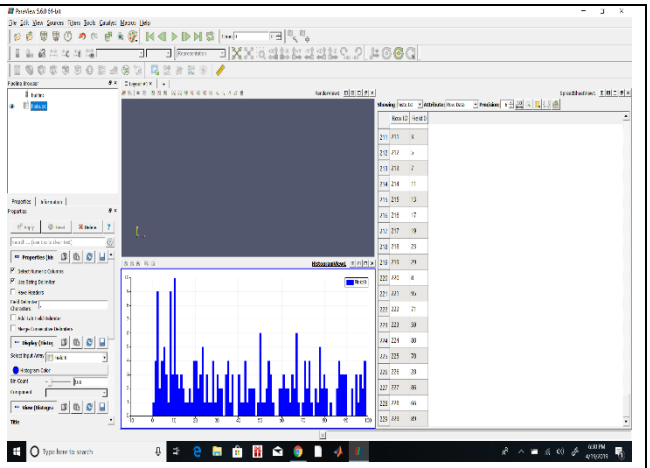
Part 1: Loading Simple Data

What is the problem of this histogram?

- The problem of the histogram was that the bin size of the histogram was set to 256.
- We only had values ranging from 0-99 and so setting the bin size to 100. Gave us better results.



Bin size = 256



Bin size = 100

Which number occurred the most frequently and how many times did it occur?

- We can see that the number 10 occurred the maximum number of times, which is 10 times.

How many numbers were never used by the class?

- 14 numbers were never used.

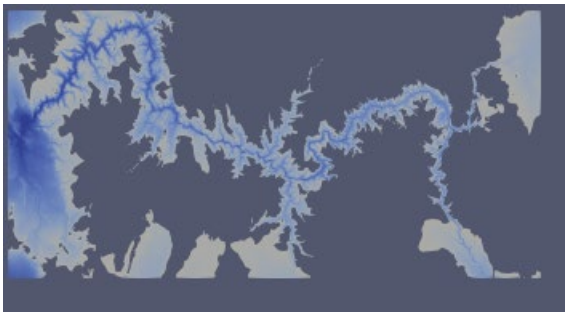
Part 2: Visualizing a 2D image

What threshold did you use for capturing the riverbed?

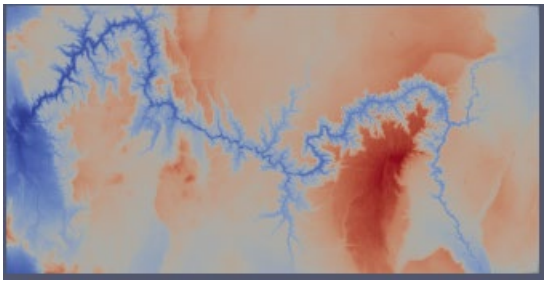
- The maximum threshold, I set is 98

Experiment with other thresholds and explain what features you may or may not have missed with this approach.

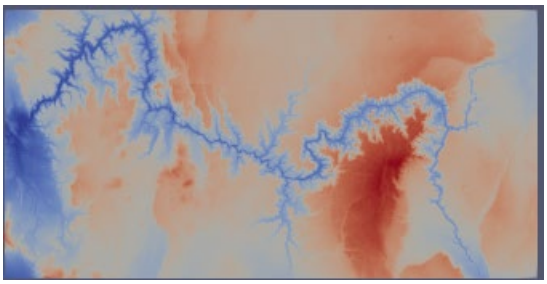
- When the threshold is set to 98, only the blue outline of the river bed is really visible, along with the part surrounding the river.



- When it is set to 187, the different color intensities from the river to the land are visible



- When I set it to 200, I did not see much difference between the visual produced when the maximum was set to 187



- When set to 50, I could only see the blue for the river, no other visualization for the river banks or the land.

Using the Information panel, report the number of pixels in this image

- X range : 0 to 4096
- Y range: 0 to 2048
- Z range: 0 to 0

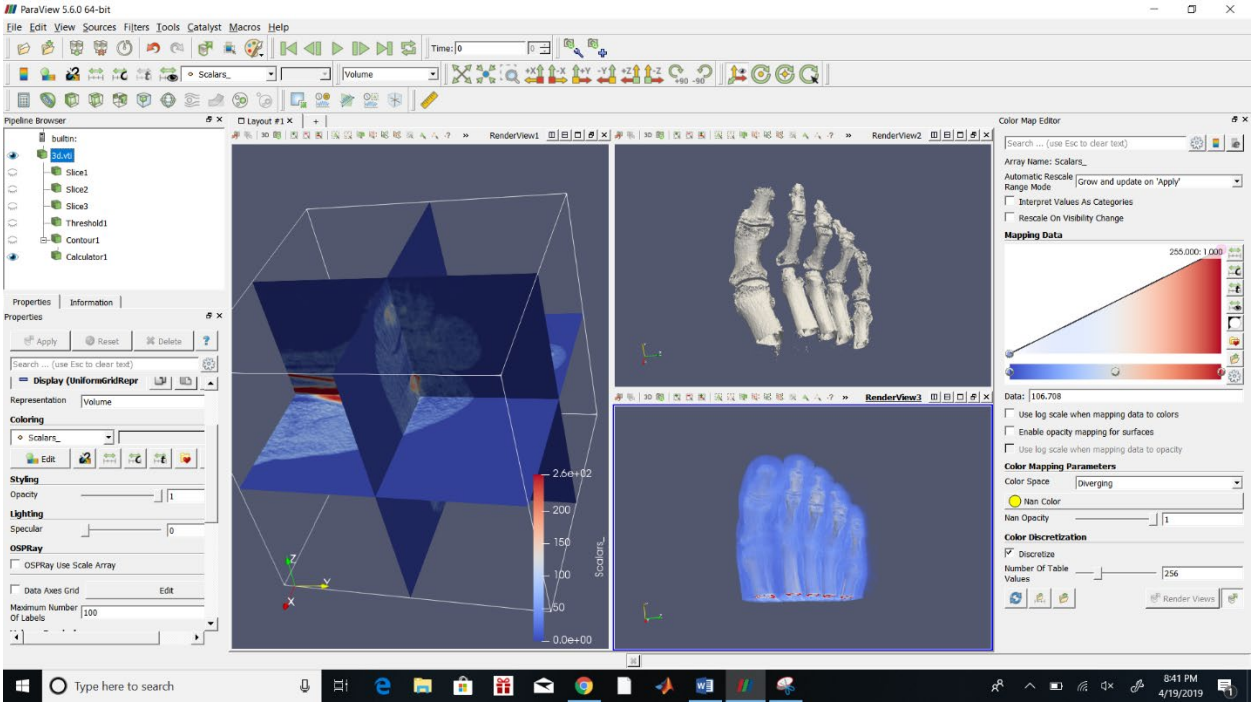
Part 3: Visualizing 3D Image

What is the dataset representing?

The data represents a bone structure.

Explore different values for creating the isosurface

			
Value = 50	Value = 100	Value = 125	Value = 150


ParaView 5.6.0 64-bit
File Edit View Sources Filters Tools Catalyst Macros Help
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Slice2
Slice3
Threshold1
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OSPRay Use Scale Array
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Maximum Number Of Labels
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150
100
50
0.0e+00
Scalars_
Color Map Editor
Array Name: Scalars_
Automatic Rescale Range Mode
Grow and update on 'Apply'
Interpret Values As Categories
Rescale On Visibility Change
Mapping Data
255.000: 1.000
Data: 106.708
Use log scale when mapping data to colors
Enable opacity mapping for surfaces
Use log scale when mapping data to opacity
Color Mapping Parameters
Color Space
Diverging
Nan Color
Nan Opacity
Color Discretization
Discretize
Number Of Table Values
256
Render Views
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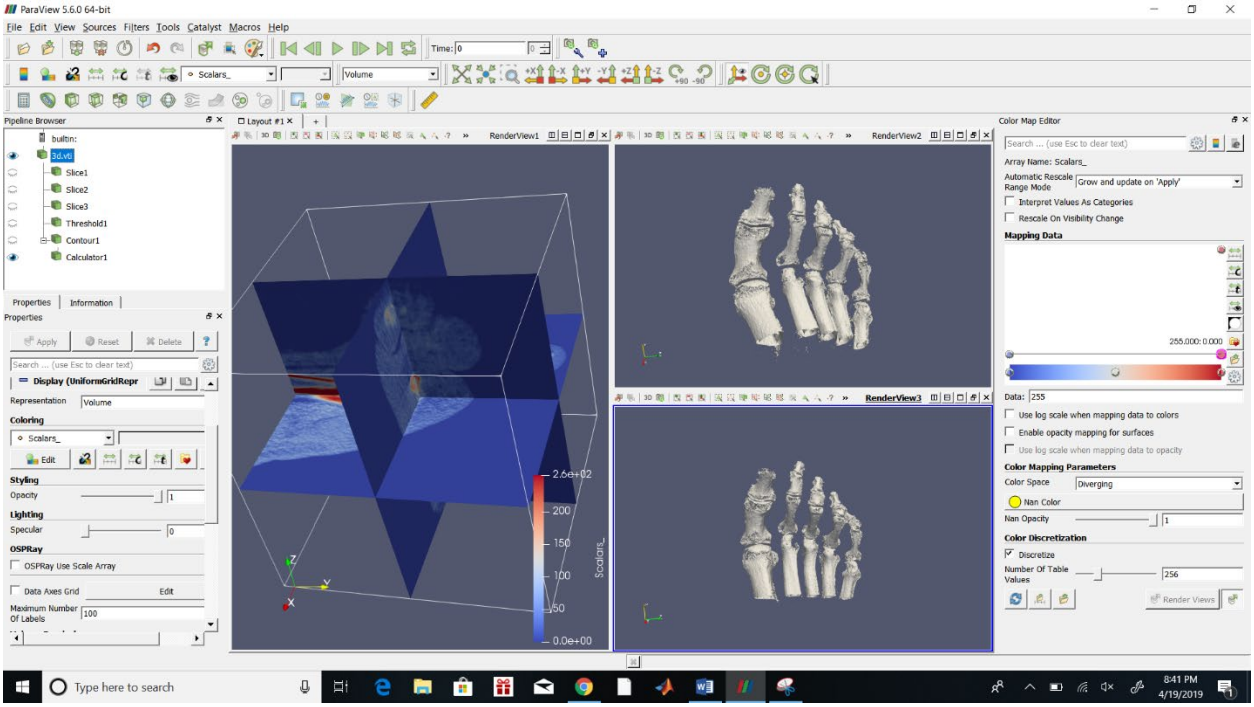
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