

## **Design Workshop 3**

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### **Problem 1 Design Critique**

The Confluence visualization has a very broad context and therefore it contains a lot of visual information all adjustable to the viewers criteria. Therefore a viewer can obtain a lot of consistencies with this specific visualization. The general context covers the difference between a movie rating from the normal audience and that from critics, plus the fact that the visualization is always showing the link between the budget and worldwide gross. Besides this broad context a viewer can adjust the visualization to obtain any consistency between all different ratings, agreement between critics and audience, and finally a viewer can resize every movie with a lot of different (some financial) characteristics.

While on the y-axis the scale is clearly (and appropriately) labeled, on the x-axis this is not the case. The author could easily put a labeling on the x-axis with the difference between audience rating and critics rating. In the current situation a viewer has to hover over the movies to determine the actual difference between those two ratings. Since at the outer left side of the visualization the difference between the ratings is almost the same as on the outer right side – though negative with respect to each other, the Lie Factor would be very close to 1 due to the very similar ratios. Although the Lie Factor is not very high, like I just indicated at the outer left boundary the data could be interpreted negatively with respect to the most outer right boundary, hence the data is varied.

In this visualization the Data-Ink ratio is actually quite low. In the graph you could say the ratio is high but on the other hand if a viewer looks clearly he can see that the author filled the background with a few thick colored lines to clarify the labels on the y-axis. If the author did not fill the background the Data-Ink ratio would be much higher. Meanwhile there is no case of extreme chart junk, since all the ink used does indeed visualize the data itself. One of the last of Tufte's visualization design principles, the data density increment, is definitely emphasized in this visualization. A quite large amount of data is visualized on a small graph.

In terms of the graphic design principles this visualization scores good. Although the two colors of the dots (purple, pink) could be chosen more counter wise, a viewer can still make a good distinction between the rating from the audience and that from the critics. Moreover the white shading in the background could easily be seen. The second discussed principle, repetition, is obvious. The author has repeatedly chosen to use a dot, resized or not, which makes this design very consistent. The alignment, as third, could be seen as relative to an imaginary x-axis but is in my opinion not explicitly present. Finally, the proximity is quite good at first glance, but if you resize the movies by – for example – the 'Opening Weekend Theater Count, it becomes quite a blur, something which you also good assign to the lack of contrast.

The visual encodings used in the visualization are obviously the position and placement of the dots which indicate the ratings of the movies, both from the audience and the critics. Besides that the size of the dots is varied if a viewer resizes to specific criteria which overall makes this encoding very appropriate for this visualization.

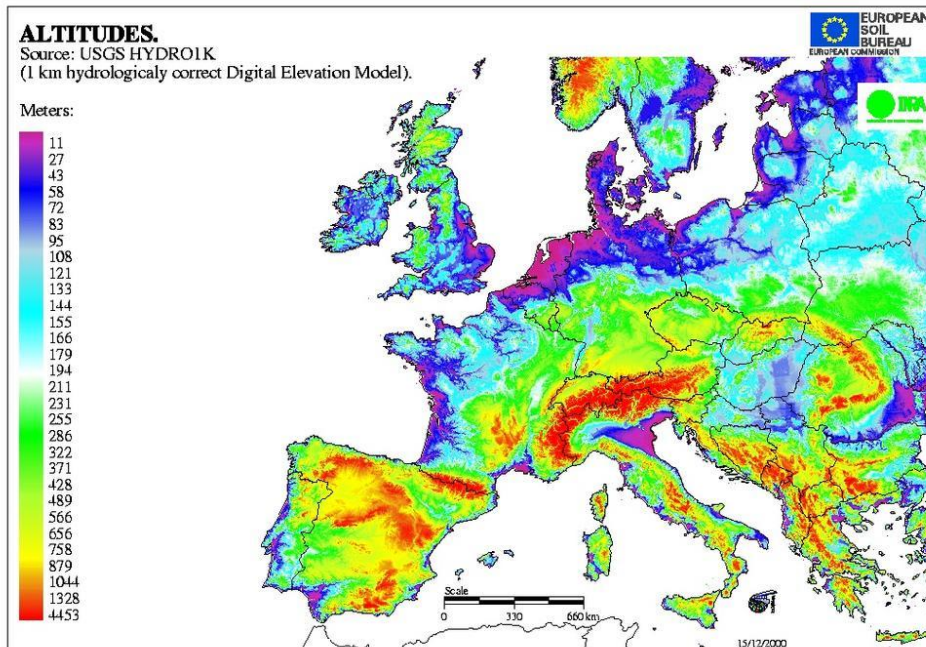
From an aesthetic view I would rate this a good visualization but I would definitely use a different color scheme due to the lack of contrast. The playfulness though is excellent and as the author already indicates you could spend a lot of time 'slicing and dicing' the visualized data. Conclusively I would say that the goal of the visualization, namely letting a user 'slice and dice' through all the information given, is definitely achieved.

### **Problem 2 Rainbow color map**

At the bottom of the next page you find enclosed a rainbow color map from which the intended objective is to display the different altitudes in Europe. For example the audience could be a fanatic skier who wants to know where the high leveled areas are in Europe to decide where to go skiing, since at great heights the probability for more snow is obviously greater. However, without the legend and/or title there is a chance a viewer has absolutely no

clue what this map is showing. For instance one could say that in the red area it's hotter than in the blue area, but then one could mistakenly see the purple area as a hot area too, simply because purple is almost a hue of the color red.

Only after clearly looking at the legend the viewer can take in the opinion that this map makes any sense, which at first glance is not the case. In my opinion the author does not have a good reason for choosing a rainbow color map to visualize the height levels in Europe. He or she could as well choose for a perceptual ordering with only two colors (for example from green to brown), which should have sufficient hues as well as sufficient gradients to visualize the height. Beneath the rainbow color map I have enclosed an alternative way to display the height where I intentionally cropped off the legend to show that the color consistency could be easily seen at first glance.



Sources: [Chapter 4. Choose Appropriate Visual Encodings](#)

