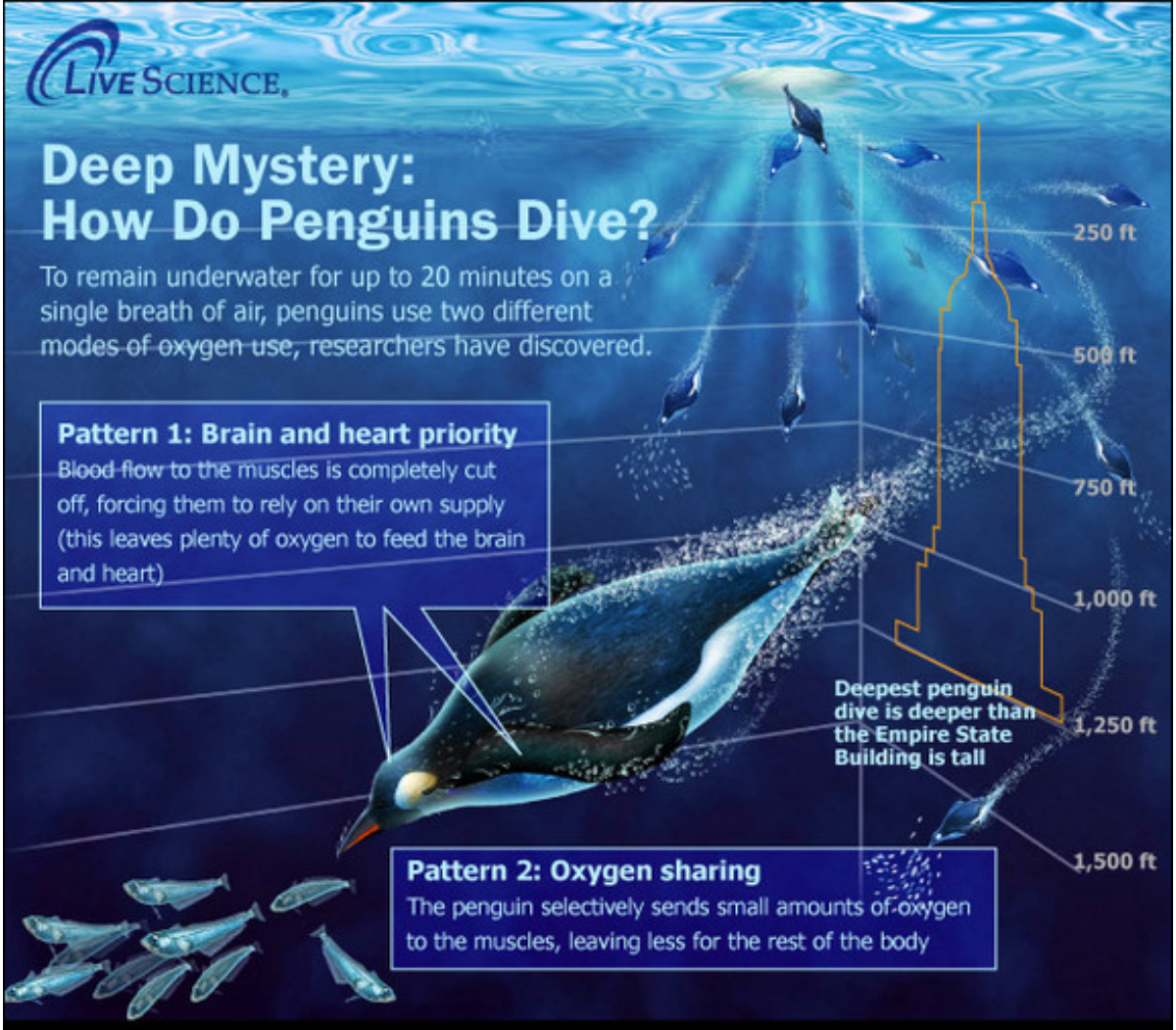

Deepest Divers

SOURCES: UNIVERSITY OF CALIFORNIA AT SAN DIEGO, NATIONAL SCIENCE FOUNDATION, MARINEBIO.NET, SCIENTIFIC AMERICAN, SOFTPEDIA
http://nsf.gov/news/news_images.jsp?cntn_id=108180&org=NSF
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http://www.scientificamerican.com/article.cfm?id=how-do-deep-diving-sea-cr
http://www.ftexploring.com/askdrg/askdrgalapagos2.html

ILLUSTRATION BY NICOLLE RAGER FULLER, NATIONAL SCIENCE FOUNDATION
GRAPHIC BY KARL TATE, LIVESCIENCE.COM

Mainah Folkers
10535845

Reading 1

Question 2

Consider Bertin's characterization of visual variables (position, size, shape, value, colour, orientation, and texture). Pick 2 of Bertin's visual variables, and discuss them in relation to your visualization.

- *Position:*
  The position in this visualisation is partly selective. The vertical position indicates to which depth a species can dive. But the horizontal position is actually unnecessary since it does not have a meaning to the reader.
  The position is not associative, because associative groups cannot be clearly distinguished.
  The position is quantitative, because the marks clearly represent a quantitative value of depth.
  The position in not clearly ordered, because there is no clear order from left to right. This could be achieved by ordering the species from top right corner to the bottom left corner.
  The length of the position is not sufficient in this case, because there is not a clear distinction between two depths of different species. Although it has been made clearer by the numeric labels and horizontal lines.
- *Shape:*
  The shape in this visualisation is selective, since it distinguishes between the different species.
  The shape is not associative, because associative groups cannot be clearly distinguished.
  The shape is not quantitative in any way.
  The shape is also not ordered in any way.
  The length of the shape is sufficient, since it lets us distinguish between the different species.

Question 3

Do you agree that visualization is a functional art? Explain.

I agree that visualization is a functional art, because of their aesthetic characteristics they can be considered an art. But because they can be seen as a technological tool for your brains to understand what patterns lie beyond data as well, I would agree that visualisation can be seen as functional art.

Question 4

Ask yourself what the designer is trying to convey and think of three to four possible tasks this visualization should help you with. Does the visualization achieve any of your tasks?

- *The visualisation presents the variable depth and species. This provides me with the proper data to understand something about deep diving marine species.*
- *The visualisation allows comparisons between the depths different species usually dive into the sea.*
- *The visualisation organizes the species only vertically and not very distinguishable by their position only. The horizontal lines and numeric labels facilitate the organisation, but horizontal organisation is not used to make the visualisation clearer.*
- *The visualisation does not make correlations evident, because there are no correlations shown between the presented variables depth and species.*