

## Maps Can Tell a Migration Story: An Interview with National Geographic Cartographers



National Geographic cartographers (mapmakers) face a complicated series of decisions before they are able to produce the final version of the maps the public sees. To illustrate this process, Xpeditions and the Geography Action! team interviewed members of this very talented team about their work making the maps for the [Geography Action!](#) project [Migration: The Human Journey](#). These maps can be seen online in the [Geography Action! Migration: The Human Journey Packet](#).

**Q: What are your first steps in making a map?**

**A:** *When we first decide to make a map we consider what type of information we have, what we are trying to show with the map (its purpose), and who the map is for (its audience). Once we have answered all of these questions we can choose a specific type of map to create.*

**Q: What types of maps did you make for the Migration: The Human Journey project?**

**A:** *All of the maps are thematic maps. The three smaller maps show the distribution of ancestry groups in Canada and the United States and the concentration of indigenous languages for Mexico. These three maps were made using census data supplied to us by the official government census-taking organizations in Canada, the United States, and Mexico.*

**Q: Why did you choose this type of thematic map over all the other options?**

**A:** *We decided to make this kind of map because displaying the information in a format that uses the area (as opposed to points or lines) was most appropriate. It also shows ancestry in a simple, easy to read format.*

**Q: What type of map did you make for Mexico?**

**A:** *We made a choropleth map that shows the concentration of speakers of indigenous languages. Once again we used census data provided to us by the census-taking organization in Mexico.*

**Q: When would you most likely choose to make a choropleth map?**

**A:** *You want to use choropleth maps when you're showing data in such a way that the information in one mapping unit can be related to the information in another. For example, a choropleth map showing the United States, Canada, and Mexico together wouldn't work because their mapping units (counties, Census Divisions, and municipios) are not the same.*

**Q: Why are the United States, Mexico, and Canada mapped separately?**

**A:** *We chose to map these three countries separately because of two reasons: 1) the data is different (ancestry for Canada and the U.S., and language data for Mexico), and 2) the mapping units—census divisions in Canada, counties in the U.S., and municipios in Mexico—are not interchangeable. While we tried to make sure that these minimum mapping units were similar, they are not interchangeable units of geography.*

**Q: The migration map is a different type of map than the others. What is it called?**

**A:** *It's a graduated symbol map.*

**Q: When would you most likely choose to make a graduated symbol map?**

**A:** *A graduated symbol map can be useful when you have data that can be directly compared from one area to another, but the data might not necessarily have anything to do with the geographical shape of the area in which it lies. Graduated symbols are also great because you can use them to catch the reader's attention with cleverly chosen symbols.*

**Q: How do you choose colors for the maps?**

**A:** *Choosing color for a map can be tricky. There are many things to plan for, such as color blindness, that you can use to help make decisions. ColorBrewer ([www.colorbrewer.org](http://www.colorbrewer.org)) is a good place to start when looking to use a simple or complex color scheme for a map.*

**Q: What makes a good map title?**

**A:** *Titles are best when they are simple and to the point. There's no need to make titles elaborate. If you have a simple title, that will help the reader get a feel for what to expect from the map. Then, you can make a finely detailed map to get your ideas across. Basically, titles need to be like the introductory paragraph to a well-written paper. If you don't get the reader's attention at the beginning, you'll have a hard time keeping their attention long enough to make your point.*

**Q: What key elements are essential to every map you make?**

**A:** *It's hard to describe what goes into making a great map, but you can feel it when it happens. Every map needs to have a good color scheme, a firm sense of subject versus background, tastefully applied text/fonts, and elegance. Too much information crammed onto a map can only make it look worse. Sometimes you can say more with less.*

**Q: What is your favorite part of being a cartographer for National Geographic?**

**A:** *Getting to work on a variety of maps is the best part of working at National Geographic. No two projects are ever the same, and it's nice to have something different challenging you every day when you get to your desk.*

**Q: What can students do to prepare themselves to become good cartographers?**

**A:** *Get excited about the world around you. If you find anything about politics, the environment, business, or history exciting, then you can get interested in seeing how those phenomena could be mapped out to show you patterns and stories behind the information that you may not have even known existed.*