NORTH DAKOTA ATLAS

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ABSTRACT

The North Dakota Atlas is a collaborative project between the Departments of American Indian Studies, Anthropology, Biology, Communications, Computer Science, History, Integrated Studies, and Religious Studies seeking to create an online atlas. The purpose of the atlas is to engage an interdisciplinary group of students in experiential and collaborative learning to map demographic, economic, and social changes across the state. It will be an important resource for policy makers, community members, and K-12 colleagues and students. It will also expand students' education experiences with significant community engagement and impact. Finally, it will provide a tangible product for public consumption to increase participation of the public as informed citizens. The Computer Science aspect includes efficiently redesigning the templates to display the maps, information about the project, and a landing page with appealing graphics and design.

1. INTRODUCTION

These guidelines include complete descriptions of the fonts, color schemes, page designs, and related information for the design project of the North Dakota Atlas.

2. FONTS

All fonts must be large enough to read while also providing style the previous North Dakota Atlas page lacked. The new fonts to be included are Scriptina, Lato-Light, and Lato-Heavy. Scriptina is a cursive font that is readable, which is difficult to find. Lato-Light is the same as Lato-Heavy, except it is thinner. This font works well for larger text sizes. Lato-Heavy is the font used when the font must be smaller to improve readability.

The fonts on the map pages include Intergraph ISO and Tw Cen MT. For the final product, the Lato fonts should be replaced completely with Tw Cen MT to ensure consistency across the pages.

3. COLOR SCHEME

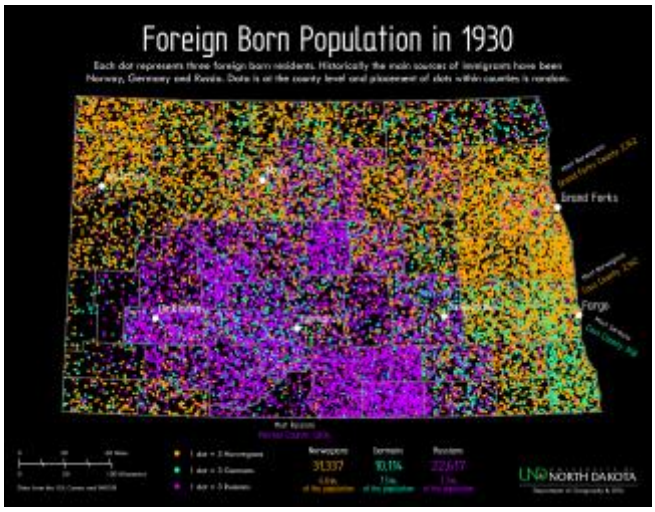
The color scheme for the North Dakota Atlas will be centered around the map graphics created by Peter Brandt, another student at the University of North Dakota of the Geography & Geographic Information Science Departments. The map graphics include neon shades of rusty yellow, turquoise green, and purple. To cool down the webpages, darker shades of these colors will be integrated into the backgrounds and extra elements (such as buttons, menus, etc) to tie together the graphics and web elements.

4. PICTURES AND GRAPHICS

The maps in the original North Dakota Atlas page were designed to display historical changes over time. These maps were created with multiple layers of shapefiles and had a zoom function, which slowed the page significantly. Also, there was a timeline with a drag bar that allowed the user to view the changes in North Dakota history over time for a specific topic.

In place of these maps, Peter Brandt designed static map graphics which take much less time to load. The dynamic maps will be replaced with these graphics and the timeline will be replaced with buttons. As the user hovers their mouse over the buttons, the graphic will be replaced with the graphic corresponding to that year, displaying the numbers and research the students have gathered.

1.1 Map graphic designed by Peter Brandt.



All pictures used in the redesigned of the Atlas page will be students work. The backgrounds on all pages will be the photography of students from University of North Dakota.

5. PAGE LAYOUT

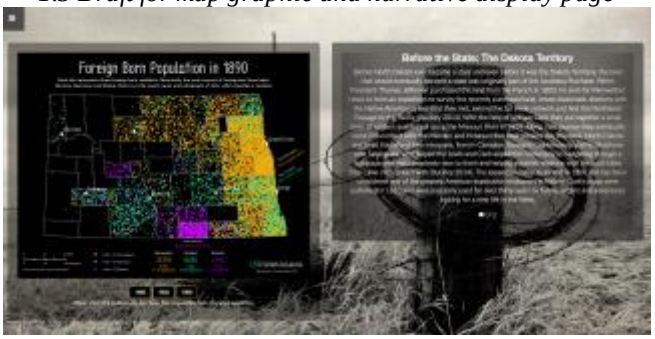
Four templates are required for the atlas project. The first template is a simple landing page. The background can have multiple pictures that display North Dakota seasons. Once the user has entered through the landing page, they will not see it again.

1.2 Draft landing page for North Dakota Atlas project

The second template is a layout to display the map graphics created by Peter Brandt. Space must be provided for the key at the bottom of the map as well as buttons to switch maps. As the user hovers over each button, the map graphic changes to the corresponding date. Similarly, a section needs to be provided for the narrative corresponding to the subject the maps will display. The narrative section should be placed in a carousel to prevent users having to scroll up and down the page to read about the history behind the map.

There will be a dropdown menu in the upper left corner to minimize space taken; the focus should be on the map and narrative. The menu will have options to see other maps with different topics or go to the home template. It is also important it is a dropdown because there is great potential for expansion on this project in the future. Further projects may be done that will be added to this website.

1.3 Draft for map graphic and narrative display page



The third template is a page to display information about the project, also known as the home template. This page will contain mostly text and descriptions of the history of the project. This page will have the same menu in the upper left corner to ease access to the maps or to the student information page.

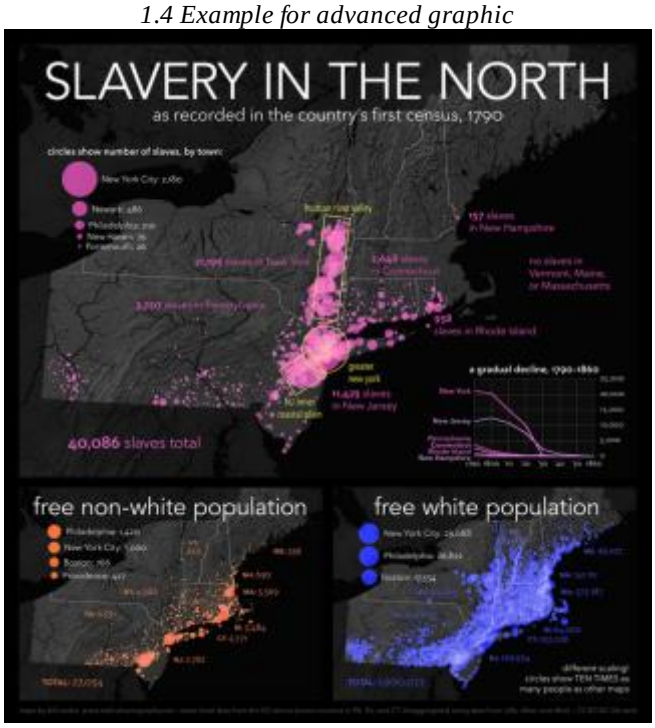
The final template is a page to display information about the students. This may include the research used to develop the maps, field trips taken, and presentations done on the selected topics. This page will also have a dropdown menu in the upper left corner to access the map pages or the home page.

6. LONG TERM GOALS

The main goal in the redesign of the North Dakota Atlas page is to make it more efficient, functional, and simple for users. It will be presented at a conference in New York in December 2016 to show the work of the students at the University of North Dakota. All of the pages should be fully functional and working by 1 November, 2016.

Once the web pages are up and functional, a more interactive map should be developed for each map topic by May 2016. This map will be designed in the same color scheme and pattern, only it will involve interactive javascript shapes that animate. These shapes will display more accurate sizes and numbers and allow descriptive information to be integrated into the graphic.

1.4 Example for advanced graphic



11. REFERENCES

[1] Rankin, Bill. "Radical Cartography." http://www.radicalcartography.net/.