Portraits of Wind

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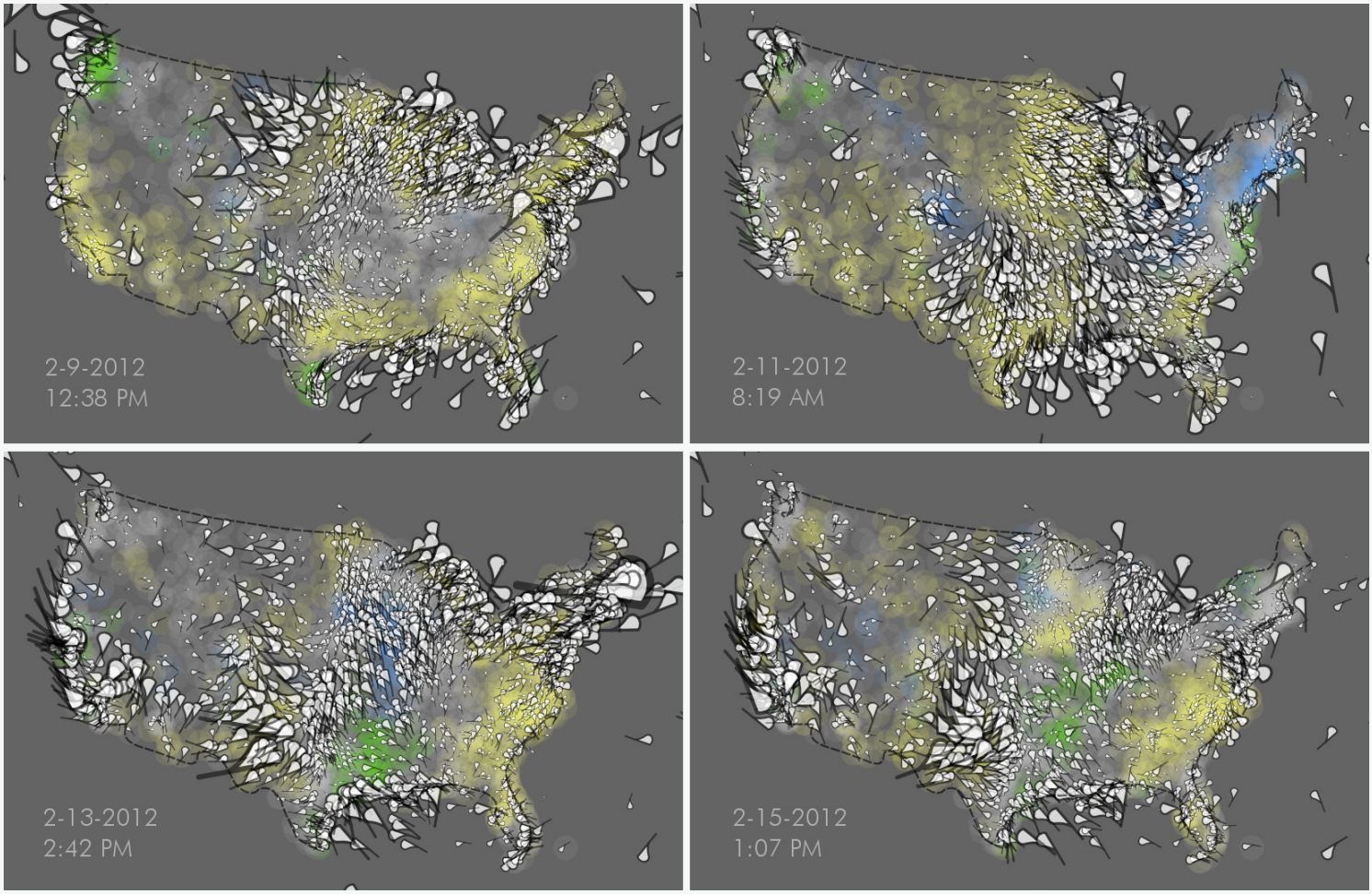

A map, by definition, is a representation, an artistic likeness. My approach to map-making over the years has shifted from detailed representations of an area towards suggestive and artistic representations of space and information. I have become focused on the idea of abstracting the real world, using minimal data sets, colors, and text, enabling me to create unique and compelling visualizations.

Weather has captivated me for as long as I can remember. Weather maps have provided me with a way to understand my environment, and to see the effects of, and patterns in, precipitation, temperature, and wind. In grade school, I can distinctly remember being glued to local television and radio programs with just the first mention of severe weather. With both my fear and excitement piqued, I found myself trying to consume as much information as possible about impending storms. Elements of weather have been monitored, constantly, for many years. The amount

of data collected and distributed to the public in recent years is astounding, and for me, totally inspiring. With this particular project, I set out with a plan to map the wind, searching for comprehensive data sets that included weather station location, wind speed, and wind direction. I was thrilled when I stumbled upon the Current Observations XML feed from the National Weather Service, which provided me with thousands of observations from around the country, including wind data and much more.

I can't deny that the actual process of pulling these wind data points into a map was a rather time-consuming labor of love. Though it required a series of steps to manipulate and visualize this XML feed, I love the general simplicity of the idea of taking one data set and building a map that helps us understand our world just a bit better. I parsed and compiled individual XML files into one large CSV, opened it in Quantum GIS, and got to mapmaking. After drawing and discarding roughly 20 iterations of SVG symbols representing wind—ranging from spirals to raindrops—I finally created a simple icon that I felt expressed the movement and strength of wind without overwhelming the viewer. The CSV file gave me latitude and longitude values to place my wind points on the map. Fields for wind direction and speed allowed me to rotate and size the icons. Because many of the icons overlap when mapped at this scale, applying some translucence to the icons gives the visualization depth and a temporary, natural feel.

Satisfied with this cartographic foundation, I felt it could use some color, something subtle to contribute a little more to the story. I noticed that the Current Observations data also included a field for weather type, which I reorganized into five general categories: sunshine, clouds, fair weather, rain, and snow. I symbolized the original wind locations as a separate layer of large circles, colored by category, and pushed them to the back of the map with higher transparency to give a very subtle suggestion of weather conditions around the country.

With my minimalist approach, I felt this was all the maps needed. Stamp each one with the date and time of observation, and let them speak for themselves. The twisting patterns of wind and the splotches of bright colors together give a sense of kinetic energy, sometimes ordered, sometimes chaotic.

Visual Fields focuses on the appreciation of cartographic aesthetics and design, featuring examples of inspirational, beautiful, and intriguing work. Suggestions of works that will help enhance the appreciation and understanding of the cartographic arts are welcomed, and should be directed to the section editor, Laura McCormick: laura@xnrproductions.com