## Cooler Climes and Higher Ground

We are vanishing from the earth, yet I cannot think we are useless or else Usen [the "Great Giver"] would not have created us. He created all tribes of men and certainly had a righteous purpose in creating each. GERONIMO (1906)<sup>1</sup>

Hey gringo, gringa! Wake up.

Climate change has already made a desert of northern Mexico. And droughts in Baja California Sur, Chihuahua, and Coahuila are expected to lengthen and intensify. Twenty million Mexicans currently live in conditions of acute food insecurity. The hardships in these border regions have launched massive migration into the United States since 1982.<sup>2</sup> Things in Mexico can only get worse. A recent Whitehall security report made this prediction about the future of the region:

Increasing irregularities in the rainy season brought about by climate change will impact the groundwater level and have a disruptive effect on food production.... The disruption of cropland can result in undernourishment of the population, which increases susceptibility to infection, encourages displacement and ultimately could result in permanent migration.<sup>3</sup>

The aridity of Mexico's northern deserts has become so inhospitable to life that even the emblematic mesquite lizard has become a candidate for extinction; its fate is only a minuscule part of the same mass extinction event that now threatens all known life.<sup>4</sup> If you've visited Mexico more than once in the past 20 years, you've probably seen the change. The tropics are creeping irretrievably toward the poles as Texas and much of the Southwest also turns to desert.

Migration is the most common response of human populations to severe reductions in habitability, and the United States has never been immune to climate migrations. In the last century, several climate-induced migrations occurred across the Great Plains, and previously populated US centers have already returned to wilderness. (Strangely, collecting and visiting these ghost towns has become a leisure travel activity.) A similar pattern of outmigration is just beginning in California which now posts "deficit migration" statistics of about half a million people per year. Similar declines will soon encompass increasingly dry states like Texas. Metroplex areas like Dallas-Fort Worth, which have experienced decades of astronomical immigration, now have millions more people than can be supported by the radically declining water supply or the state's broken agricultural economy. Texas's current population far exceeds the state's carrying capacity. For Texans, water is now a more critical economic factor than oil.

In addition to drought, outmigration follows the destruction of coastal cities, as it did in New Orleans in 2005. More recently, Superstorm Sandy foreshadows similarly destructive events in the population centers of America's Eastern Seaboard. North Atlantic hurricane activity is increasing. Three once-in-a-century storms submerged portions of the Eastern Seaboard in just the first three years of the second decade of the 21st century. Much larger storms than Sandy are predicted. No one knows how much time we really have.

Still more troubling is the same combination of economic collapse and climate change caused by global warming that drove

massive migration from Mexico into the United States after 1980. This single migration has already changed the demographic composition of both Mexico and the United States. Population growth projections assume a predictable constancy described by the word "stationarity," which names a kind of statistical status quo. The regularity of the statistical universe is then used to plot curves and make predictions from them. For example, projections of steady growth predict that by 2050, one in three Americans will belong to the loose-fitting racial cluster called "Hispanic" or "Latino."

When less than 50% of the United States belongs to the descendants of Europeans, the myth of "la Reconquista" will become a palpable reality. As the baby boom generation disappears, it will leave many fewer descendants. Fewer people will celebrate Columbus Day, and, in all likelihood, the lively and engaging festival of Día de los Muertos will replace the candy, costumes and consumerism of Hallowe'en. The official language of the United States may well change to Spanish, bringing the country in line with many more of its North and South American neighbors. It is easy to see that Mexican migration has already guaranteed further social change throughout North America.

Economic collapse always accompanies climate change, and it is this powerful combination that drives migration. In the United States in coming decades, both processes will continue their downward spiral until the habitability of America's most densely populated areas is substantially reduced. The carrying capacities of California, the Southwest, the Great Plains, the Northeast and the Midwest will decline radically. This is not b.s. An exact figure for the number of Americans vulnerable to future climate migration is impossible (for me) to calculate, but—ultimately—such an exact number doesn't really matter. Many-upon-many people will find themselves without the necessities of life: food, water, power, security for their children, and hope for the future. In desperation, they will realize their vulnerability, and then they will begin to move very quickly. It will begin as a trickle, but it will quickly become a flood. Of this group, a significant portion will move many times. They

will go wherever they believe better lives are possible. At first, what constitutes a better life may be unclear to them. Gradually, however, their criteria will be reduced to a single, simple imperative: survival.

American Exodus claims that the movement of Mexicans since 1982 is simply the first stage of a climate migration that will eventually force Americans to leave their homes in the South and along America's coasts for the best climate refuge the continent offers: Canada.

There is probably very little that those in Canada and the United States can now do to prevent this process, but we can prepare for it, especially on a personal level. Collectively, although I believe the time to mitigate or delay humanity's suffering is past, we may still be able to limit its scope. To do this, we need a global mobilization on an order of magnitude never before imagined or attempted. As of yesterday, we need to dedicate ourselves—as an entire species—to the twin tasks of withdrawing atmospheric carbon and cooling our planetary home. Unfortunately, there is insufficient unified political will to accept this absolute necessity. My deepest fear is that it will require a major cataclysm—something much more powerful and destructive than Superstorm Sandy—before we accept what needs to be done. By that time, it could easily be too late.

In the meantime, it is very, very, very likely that a second stage of the ongoing Great Migration will occur. Certainly, climate change and economic collapse will drive outmigration from the continental United States into Canada. People will flee for their lives, just as 100,000 African Americans fled the south when the boll weevil changed Dixieland's cotton-economy. Just as with Mexican migration to the United States, the number of people in motion will be so large it will be impossible to stem the tide. America's northern border (along the 49th parallel) marks the longest unprotected international boundary in the world. Most of these 5,525 miles are unmarked and unpatrolled.

The legal framework that the United States have adopted to address climate disasters is a coal-burning antique "designed to repair and replace damaged infrastructure in a community's original loca-

tion."<sup>5</sup> Already, Alaskan towns like Kivalina, Koyukuk, Newtok, and Shishmaref highlight the inadequacies of such recovery laws and strategies. For the natives of these communities—as for many others—there will be no recovery in their place of origin. They must simply move out of the way of the rising sea. Soon, many more Americans will also have to move. Since it is very easy to come north from the continental United States, Canadians can reasonably expect company. A lot of it.

They should now choose how best to greet their neighbors when the cataclysm brings them to the doorstep of "the true north, strong and free."