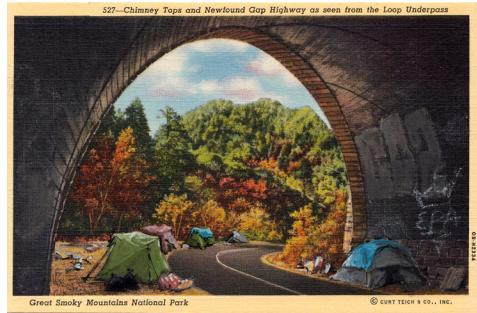


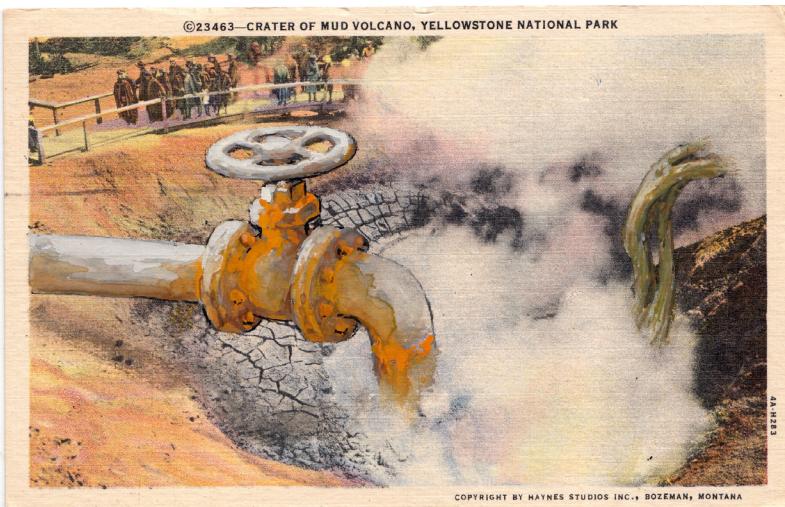
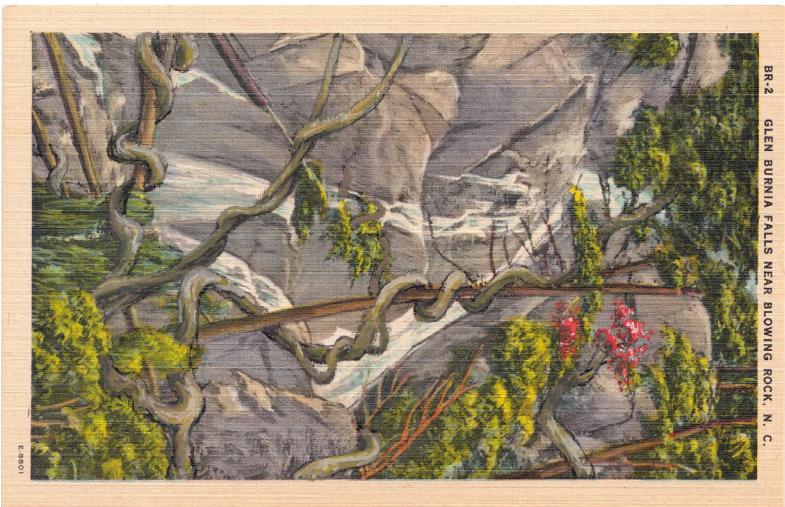
SCIENCE FOR THE PEOPLE



A PEOPLE'S GREEN NEW DEAL

A JUST TRANSITION IN APPALACHIA • A CLIMATE STRIKE-INSPIRED UNION DRIVE • INTERVIEWS WITH DINA GILIO-WHITAKER AND SAM ANDERSON • NO COUNTRY FOR CLIMATE REFUGEES
MOBILITY JUSTICE AND THE GREEN NEW DEAL • ¿GREEN NEW DEAL DESDE ARRIBA O DESDE ABAJO? • A NEW VISION FOR AMERICAN AGRICULTURE • ATLAS FOR A GREEN NEW DEAL

DAVID OPDYKE'S DOMINION: UNVEILING THE ROOTS OF CRISIS

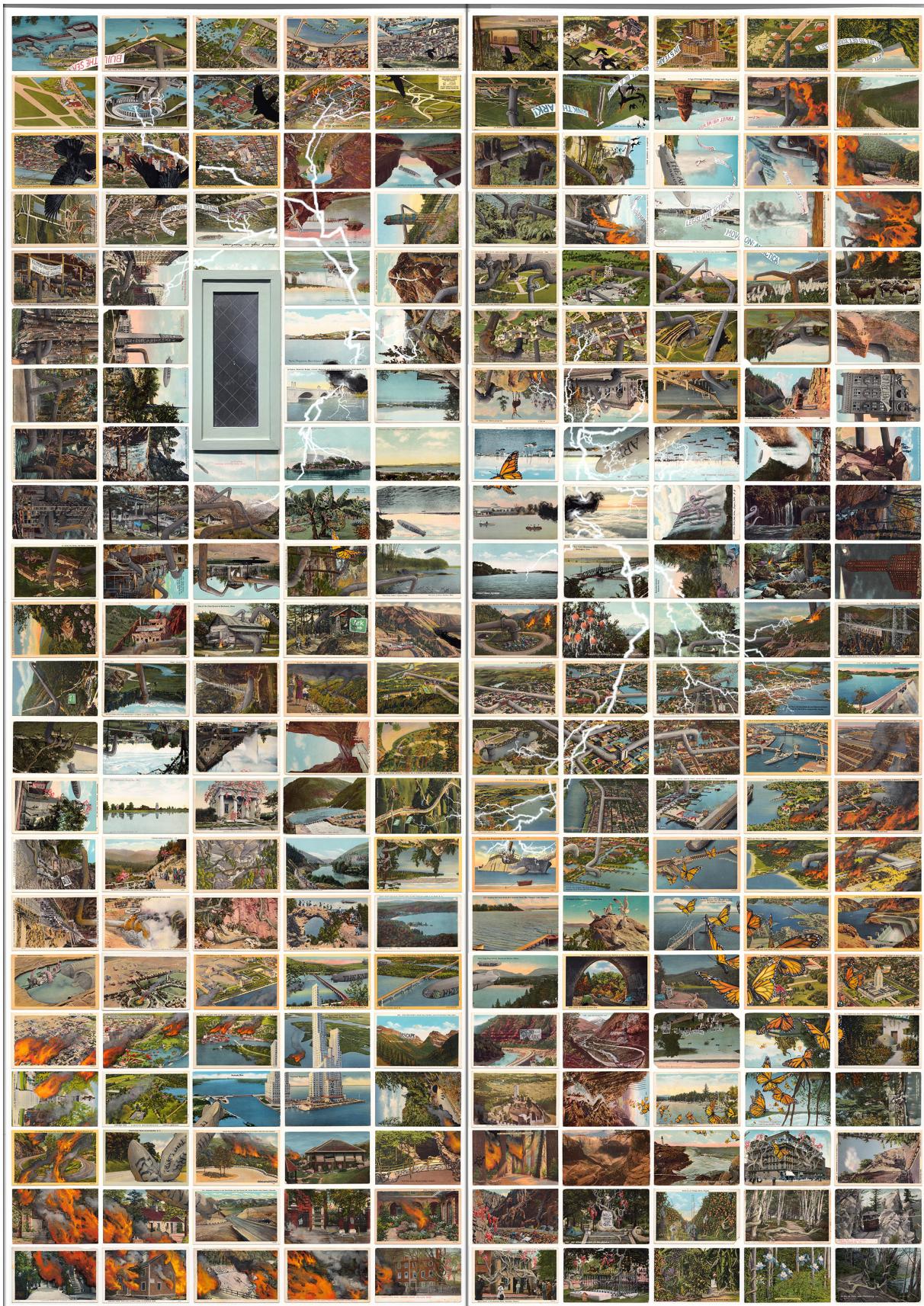


The antique postcards pretend to show a more innocent, pre-crisis America. But Capitalism is baked into those old-timey pictures. We live—and have lived from the beginning—in an economic system that places profit above all other values. Externalities like the harmful effects of diesel pollution or the warming of the oceans don't fit into anyone's balance sheet so they don't count.

If US policy served the people, there would be real costs for polluters and real regulation of public resources. There would be a progressive tax structure, labor protections, a living wage, publicly funded health care and public health, investments in infrastructure, public transit, classification of the internet as a public utility, on and on and on. Topics like these have always been connected in the way I think about the world, but not always in the forefront of my work. It's only in the last two to three years that I decided to dispense with any aesthetic detachment or abstraction when it comes to climate change. I'm all in.

I won't make claims about representing a movement. I'm just punching a hole in the notion that climate change is a coastal problem, or an issue for "someone else" to worry about. There's no point in lecturing people to change their behavior so a city eight hundred miles away won't flood. But when a farm in the next county fails because of a ten-year drought, when weird insects chew up all the trees in your backyard, climate change becomes less abstract, less distant. It shifts into a local, personal concern, which is what people really care about.

- David Opdyke



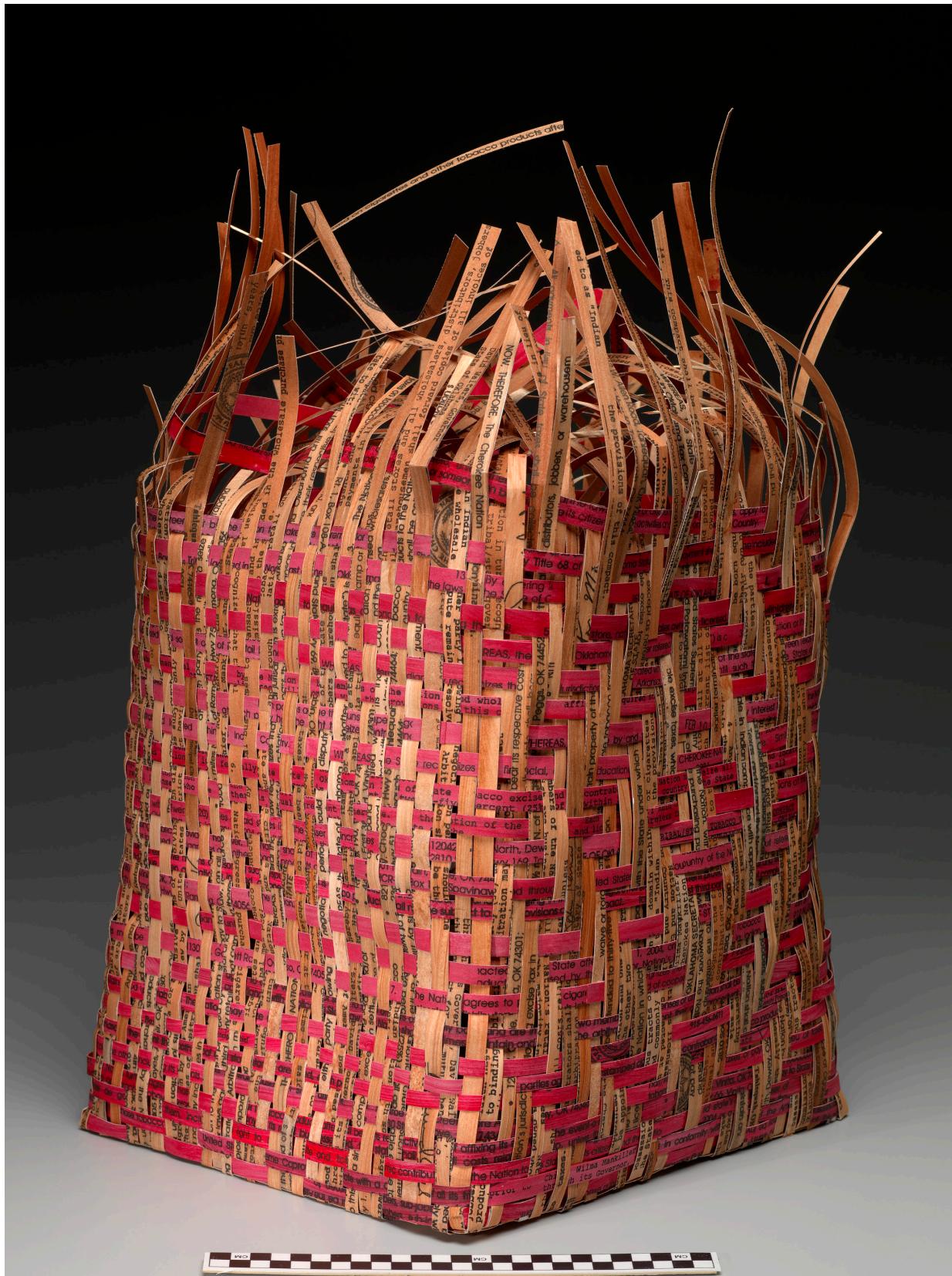
THREE BASKETS BY SHAN GOSHORN: A TIMELESS MESHWORK OF FUTURITY AND REMEMBRANCE



SHAN GOSHORN STUDIO



SHAN GOSHORN STUDIO



NATIONAL MUSEUM OF THE AMERICAN INDIAN

page 29

Foundation

Shan Goshorn

2015

6" X 6" X 11.25"

Arches watercolor paper splints printed with archival inks, acrylic paint

The administration of the tribal hospital in Cherokee, North Carolina, wrote the Cherokee Guiding Principles, a governing document based on traditional Cherokee values which are implemented into daily patient care by the hospital staff. I have reprinted this document on the horizontal pale blue splints and combined it with a contemporary writing by a member of the Cherokee Nation (rust splints) who has recounted what it means to live life as a Cherokee. His thoughts were written in the Cherokee syllabary but printed using a recently developed Cherokee computer font, demonstrating how the tribe adapts to modern methods while still retaining legacy.

This piece is representative of the way that culture adapts and changes but can still remain relevant based on the traditional values of our ancestors. The pattern is a traditional one called "Fishbone" but I am interpreting it to represent the forward movement of Indian people.

page 30

Shrouded in Grey

Shan Goshorn

2015

Approx 11.25" x 7.75" x 8"

Arches watercolor paper splints printed with archival inks, acrylic paint, artificial sinew

Genocide. It is a horrible word that sums up the most inhumane of actions. And it is a word rarely associated with the atrocities that happened in America.

Raphael Lemkin was a brilliant Jewish attorney who escaped the Polish Nazi regime to the United States. In 1943 he coined the term "Genocide" from the Greek word genos (family, tribe, race) and -cide (Latin for killing); his United Nations-approved definition was outlined by his eight key techniques required to achieve genocide, which included attacks on the social, cultural, economic, biological, physical (subpoints here include endangering health and mass killing), religious, and moral characteristics of a people.

US government sanctioned actions involving the American Indian horrifically achieved each of these points. Massacres are remembered as battles, prisons are called forts and the routine denial of native language, religion, citizenship, and

even food (to those sequestered in forts or on reservations) was the accepted solution to the "Indian problem" for decades. This single weave basket combines Lemkin's definition with three documents that support this claim: The Indian Removal Act of 1830 (displacement from homelands), The Medicine Lodge Treaty (land loss) and names of children on the Carlisle Indian Boarding School student roster (removal of children from their homes in order to force government approved ideas on them).

The title references the burial shroud, serving as a testament to the extraordinary amount of lives lost as a result of military murders. It also speaks to the fact that this is clearly a black and white issue not to be clouded in political rhetoric. There can be no argument that there was a genocide in this country as surely as there was one in Europe. And we cannot turn a blind eye to the fact that other Indigenous people around the world are still suffering from these forms of persecution.

True healing cannot take place until this atrocity is openly acknowledged.

page 31

Pieced Treaties; Spider's Web Treaty Basket

Shan Goshorn

2008

20" x 20" x 28"

Paper splints, commercial inks, acrylic paint

Woven in the traditional Cherokee basket pattern called Spider's Web, this is the first basket that I ever wove, the result of an idea to illustrate the tangled rewriting of the Oklahoma and Cherokee Nation Tobacco Compact. Many non-Indian businesses felt that tribal sovereignty gave Indians an unfair advantage in regard to the sale of tobacco products (no state tax on tribal land) and were lobbying to completely do away with Native sovereignty. The original Tobacco compact was active from 1993 to 2003; during that decade much in the tobacco world changed. The revised compact was very complicated and the compromises unsatisfying; both the State of Oklahoma and the Cherokee Nation felt the compact was being interpreted incorrectly by the other party. Immediately after the rewriting they were (and still were when this basket was made) in arbitration trying to sort it out.

This basket is woven with sliced reproductions of this compact; it was left deliberately unfinished as negotiations appear to be ongoing.

Text by Shan Goshorn.

AN ATLAS FOR THE GREEN NEW DEAL

BILLY FLEMING, RICHARD WELLER, XAN LILLEHEI, ANDREA MCCULLOUGH,
ZACHARY HAMMAKER, XUANANG LI, NICHOLAS JABS, ANNA DARLING, QI
WANG, AO ZHANG, RACHEL CREAGER, JA BILLINGSLEY

This Atlas was conceived in response to three overlapping crises. First, excess carbon in the atmosphere is changing the world's climate. Second, given the dire circumstances our planet now faces, we have reached the limits of what an incrementalist approach can offer in terms of climate action. Third, the US population is expected to grow by at least one hundred million people this century.¹ We are plunging, headlong, into a climate crisis—one that will require us to reimagine how and where we live.

Taking on these challenges requires that we ask some big and unsettling questions. What will be lost—economically, culturally, psychologically—if the climate crisis continues unabated? How can we begin to think about investments in the built environment as a catalyst for the broader aims of decarbonization, adaptation, and social justice at a meaningful scale?

The Green New Deal does not pretend to have all the answers, but it is a bold and necessary start. Because it connects social and environmental movements, and because it recalls the ambitious spirit of the original New Deal, the Green New Deal is the only set of ideas on the table that is scaled to the challenges we face. Perhaps most importantly, this atlas also serves as a critique of the

certainty often ascribed to models of the future. One method of bringing that critical view of certainty to light involves manipulating the data and geographic projections that appear throughout the Atlas. By stretching the projection horizontally, the maps appear less familiar and precise, and by pixelating the data they literally remove some of the feigned precision from our spatial, climate, and demographic models. And while we would have preferred to build an atlas that included more than the forty-eight coterminous states, too many gaps in government and other third-party sources excluded Alaska, Hawaii, and the territories—gaps we could not make up for in a center operating on a shoestring.²

PERHAPS MOST
IMPORTANTLY, THIS
ATLAS ALSO SERVES
AS A CRITIQUE OF THE
CERTAINTY OFTEN
ASCRIBED TO MODELS
OF THE FUTURE

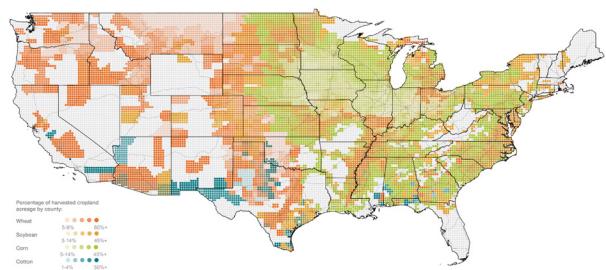
Environmental history is replete with predictions of a population bomb (Paul Ehrlich's *The Population*

Bomb in 1968 and The Club of Rome's *The Limits to Growth* in 1972, among others), imminent ecological collapse (Jared Diamond's *Collapse* and David Wallace-Well's *Uninhabitable Earth*, among others), and other dystopic, unrealized futures. The future is not certain. It's fuzzy, and our maps should be, too.

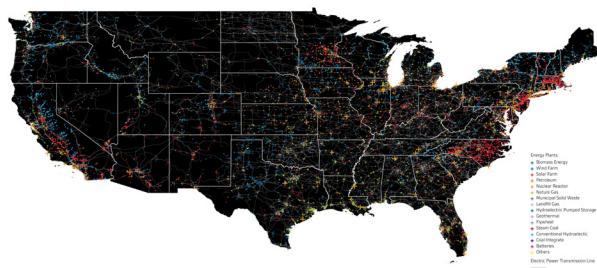


Right now, the Green New Deal is embryonic, represented only in the most abstract set of goals outlined in H.R. 109 and the climate plans of the 2020 Democratic presidential primary field. Its outline of a sustainable future needs to be filled in. It needs to be developed, debated, and designed. To that end, this Atlas for a Green New Deal brings together a vast and disparate array of information in the form of maps and datascapes; tools to help us understand the spatial consequences of climate change, not so that we may be frightened by them, but so that we may be mobilized around a response to them.

AN ATLAS FOR THE GREEN NEW DEAL



1. Primary Crop Lands: The four most common subsets of US crops are wheat, corn, soybeans, and cotton. Wheat, the most common crop by land area, predominates in the western half of the country.



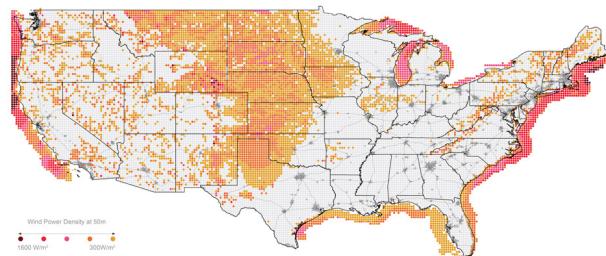
2. Energy Infrastructure: Transmission lines connect the US, forming corridors that pulse in every direction across the continent. Energy plants are present across the US, with a heavy concentration on the East Coast; this concentration diffuses toward the Great Lakes and Texas Triangle megaregions. Further west, infrastructure is minimal, with the exception of the energy-dense West Coast.



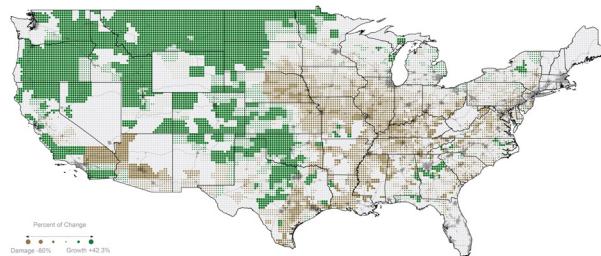
3 & 4. Climate Out-Migration & Climate In-Migration:

Sea level rise is expected to radically reshape the physical and social geography of the coastal US. These maps draw on models developed by the sociologist and demographer Mathew Hauer, the first scholar to assess the number of structures—and therefore people—that can be expected to be inundated by sea level rise over the course of the twenty-first century. Pink-white lines highlight out-migration from counties most affected by sea level rise for landlocked destinations, while green-white lines highlight in-migration to landlocked counties receiving the most migrants from coastal origins.

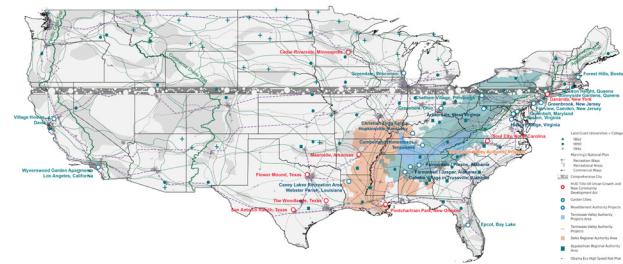




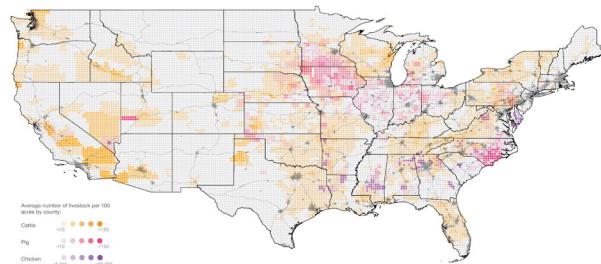
5. Wind Power Potential: Wind production is most viable offshore (near the Atlantic Coast, Pacific Coast, and Great Lakes megaregions) with some potential viability in the inland US. Pockets of good potential wind energy also occur along the Appalachian Mountains and west of the Rockies.



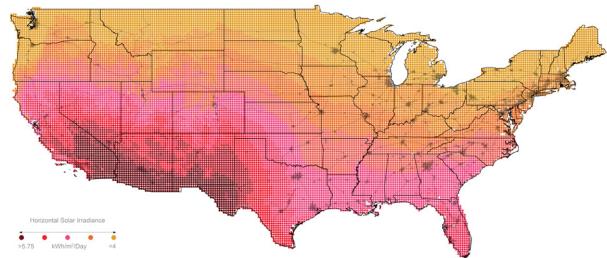
6. Agricultural Damages: Accounting for estimated effects on crop growth of CO₂ fertilization and altered precipitation patterns, national crop yields will be reduced by 9.1 percent to 12.1 percent per degree Celsius increase in global mean surface temperature.



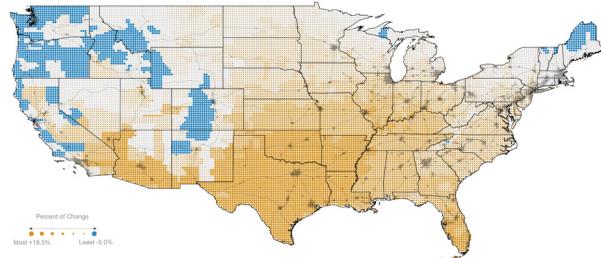
7. History of Big Ideas: This map shows a range of visionary large-scale planning initiatives, some realized, some not. Variously inspiring and cautionary, these big ideas serve as speculative precedents for current debates about national-scale planning and investment in relation to the climate crisis and a Green New Deal.



8. Meat Production Lands: Over half of US agricultural cash receipts come from livestock and poultry. While all meat production requires large amounts of land and water and emits greenhouse gases, beef production is particularly environmentally detrimental, requiring approximately seven times more land and emitting seven times more greenhouse gases than chicken production. Per pound, beef requires 1,799 gallons of water, pork requires 575 gallons, and chicken requires 470 gallons.



9. Solar Power Potential: To maximize energy output, solar farms must be placed where there are long, sunny days. In the US, the areas with the most hours of sunlight a day are along the border with Mexico. While the raw land area with sufficiently high sun exists to install millions of solar arrays, this land is sparsely populated by humans—though rich in biodiversity.



10. Climate Change and Energy Demand: For every degree Celsius of global mean surface temperature increase, electricity demand will rise by roughly 5.3 percent. Rising cooling demand on hot days will more than offset falling heating demand on cool days. This trend is most evident in the South, particularly in Texas, where increasing annual temperatures will result in a 20 percent increase in energy use.

A RESPONSE TO “AN ATLAS FOR THE GREEN NEW DEAL”

ANDRES CHANG

What is there to learn from Fleming et al.’s “An Atlas for the Green New Deal”? Maybe that Americans have a taste for beef and that Montana is filling up with wheat. Maybe that windmills will tower above the Great Lakes and that Los Angeles County will be hemmed to the coast by solar arrays. While the first section of the project, “Inventory,” sheds light on a variety of human, economic, and environmental dynamics of today, the following sections explore what more than 400 million US inhabitants could face in another eighty years. An uncritical interpretation of these later portraits would equate them to a roadmap, but they actually bear none of that certainty. And that’s exactly the point. Rather than plowing forward as if the answers could be determined on the basis of ever-improved computation, Fleming’s team has chosen to properly recognize the lived dimension of our society in crisis without detracting from the value of the model as one tool among many needed to construct a more just future. To that end, the Atlas can be understood as a crucial knowledge foundation that will contribute to the development of any effective Green New Deal.

Yet, if the Atlas is a puzzle, the pieces don’t quite fit. Patterns of in-migration to regions increasingly reliant on AC at full blast clash with climate goals, “megaregions” like

the Arizona Sun Corridor grow in the face of failing agricultural yields. There is insight to be drawn from each map on its own, but even more to be gained from their combination. New questions and tensions arise.

THE ATLAS CAN BE
UNDERSTOOD AS A
CRUCIAL KNOWLEDGE
FOUNDATION THAT WILL
CONTRIBUTE TO THE
DEVELOPMENT OF ANY
EFFECTIVE GREEN
NEW DEAL.

It is better to accept the Atlas than to resolve it as an entirety because it is among the gaps and imbrications that living processes thrive. In the words of Andreas Weber, we must not understand our world as “the unfolding of an organic machine, but rather as the natural history of freedom, autonomy and agency.”³ From soil productivity to income distribution, the Atlas is chock full of critical information. Crucially, it has been developed as an open access resource and can be leveraged to deepen community

participation in decisions that will affect us for generations. As such, the Atlas recognizes that “answers” to our crisis will not arise through the encoding of relationships; they will emerge through people’s engagement, improved access to unfinished knowledge, and drawing knowledge from outside the model to reflexively understand what may be seen by peering in.



Notes

1. Sandra L. Colby and Jennifer M. Ortman, *Projections of the Size and Composition of the US Population: 2014 to 2060*, United States Census Bureau Report Number P25-1143, March 3, 2015.
2. The Ian L. McHarg Center in the Weitzman School of Design.
3. Andreas Weber, *Enlivenment: Toward a Poetics for the Anthropocene* (Cambridge, Mass.: MIT Press, 2019).

GEMA RUPEREZ'S STICKY WALL CORNER: THE FRUITS OF OUR LABOR





Sticky Wall Corner

2014

Medidas variables (Variable dimensions)

Adoquines de caramelos ensamblados con calor
(Heat-fused caramel bars)

«El significado del mundo es la separación entre las representaciones y las perturbaciones»

-Koldo Mitxelena

Sticky Wall Corner nace de la idea de utilizar el adoquín de caramelo como elemento de construcción. Su tamaño y forma semejante a la de un ladrillo permite crear por yuxtaposición simulacros arquitectónicos, como en este caso un muro que alude a la estructura básica de la casa.

En el contexto social que nos encontramos, esta obra reflexiona sobre lo no habitable y la atracción de las apariencias como cimiento efímero. Por ello la presentación y representación de unas paredes comestibles. Muros que por dulces que sean no pierden su condición de límite, en este caso incrementada por la sensación repulsiva de su aspecto pegajoso.

Como consecuencia del vertiginoso desarrollo técnico-científico disponemos hoy de una multitud de materiales, algunos de ellos aparentemente sin tradición artística, y que en su día vinieron a ampliar las posibilidades de investigación plástica. A estos nuevos materiales dentro del arte hay que añadir la infiltración en la iconografía contemporánea de objetos que pertenecen a la vida cotidiana.

Además es interesante el empleo del caramelo como materia prima, porque al otorgarle esta nueva función constructiva se convierte en un objeto con independencia y solidez propia que sirve para la creación de un nuevo objeto con otras denotaciones y connotaciones.

El mundo moderno, dice el psicólogo Gérard Wajcman, «ha inventado la destrucción sin ruina».

“The meaning of the world is the separation between representations and perturbations”

-Koldo Mitxelena

Sticky Wall Corner emerged from the idea of using the *adoquín* as a construction material.¹ Its size and brick-like form lend itself to the creation of architectural simulacra, in this case a wall that alludes to the basic structure of a house.

In the social context we find ourselves in, this piece reflects on the uninhabitable and on the allure of appearances, an ephemeral foundation. A presentation and representation of edible walls. Walls that, sweet as they may be, do not betray their limiting condition—a tension amplified by their repulsive stickiness.

Because of dizzying techno-scientific development, we find ourselves building from a plethora of materials, with and without artistic tradition, continuously expanding the potential of sculptural research. To these new art materials, we must add the contemporary iconography of objects pertaining to everyday life.

By accepting its new constructive function, the caramel is transformed into an object with its own solidity and independence that subsequently produces another, new object with other denotations and connotations.

According to psychologist Gérard Wajcman, “the modern world has invented destruction without ruin.”

¹Adoquines are a traditional Spanish candy consisting of caramel bricks that can weigh up to a pound.

Photos and original text in Spanish by Gema Ruperez.
Translation by Andres Chang.