



# HOW FOOD MOVES

EDIBLE LOGISTICS

Rowan University Art Gallery

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Exhibition Curated by Daniel Tucker

Booklet by Megan Bucknum Ferrigno

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# INTRODUCTION

BY DANIEL TUCKER

Food moves through complex patterns of circulation in between the point of origin, “the farm,” and its point of consumption, “the plate.” Increasingly contemporary artists are grappling with the complexity of this movement through research-based and participatory initiatives and projects. This exhibition, *How Food Moves: Edible Logistics*, aims to highlight a range of these works, as well as present newly commissioned projects by artists working in the region who can explore the specificity of Philadelphia and southern New Jersey

In the gallery, each piece is an artist’s unique perspective of and reaction to the current food supply chains that bring food from the fields to our plates. These supply chains range in length, from two rungs between an agricultural producer and consumer, to chains that can span thousands of miles and include many companies and individuals. This companion booklet serves to provide exhibition visitors with a general overview of food supply chains, and is organized by typical supply chain steps. The booklet was written by Megan Bucknum, part-time faculty member of Rowan University’s Department of Geography, Planning and Sustainability.

To exemplify the overview of each supply chain step, this booklet presents a scenario of a New Jersey-grown blueberry making its way from a blueberry bush in Hammonton, NJ to a blueberry pie enjoyed in Glassboro, NJ; and showcases a “geographic perspective” of the spatial and cultural themes associated with food supply chains.

Sometimes you have to let your curiosity about all those fields, shipping containers, warehouses, barges, cans in the grocery store aisle and the people that work in/with them take hold. This exhibition and accompanying publication are intended to embody the intersection of different forms of research and knowledge. While the fields of geography and art are significantly different, they both value embodied approaches to learning. Throughout this booklet you read about an approach to geographic education that values connecting with the world outside the classroom. In the back of the booklet you can read about artist contributions to the exhibit that relate to each step on the supply chain.

# THE FOOD SUPPLY CHAIN

5 STEPS IN THE LIFE OF A BLUEBERRY  
(THAT APPLY TO MOST OTHER FOOD ITEMS)



The following graphic illustrates a broad overview of a conventional food supply chain. Each stage along this chain includes people, organizations and actions that help transform and move food from a field to our plates. The exact steps are determined by what the specific agricultural product requires to meet the needs of the end user (the eater). Each supply chain is constantly creating a story of this food movement, but there is variance among the degree of transparency shared with the eater. Some chains share, and sometimes include, their stories with the eater and other chains keep their stories among the supply chain actors, excluding the eater. This booklet aims to share some of these stories.

\*It should be noted that the scope of this booklet does not include supply network specificity of different agricultural products and was developed with a heavy emphasis on produce supply chains.

# PRODUCTION

## OVERVIEW

Agricultural production is the act, and art, of growing, cultivating and breeding natural organisms into nutritious substances that can be consumed by people and/or animals. There are 3.2 million farmers that produce agricultural products (food, fuel and fiber) on a combined ~915 million acres.<sup>1</sup> Each state in the US is host to farms and/or ranches which, in addition to their related industries, contribute 4.5% of the US GDP.<sup>2</sup> The top five agricultural commodities produced in the US (according to sales) are cattle and calves, corn for grain (not sweet corn), milk, soybeans, broilers (chicken for meat).<sup>3</sup>

According to the Farm Labor Survey of the National Agricultural Statistics Service hired farmworkers (including agricultural service workers) make up a third of all those working on farms; the other two-thirds are self-employed farm operators and their family members. The majority of hired farmworkers are found on the nation's largest farms, with sales over \$500,000 per year. The size and ownership structure of American farms vary widely, but as of 2015 almost ninety percent of all US farms are classified as small farms (gross revenue is less than \$350,000), accounting for roughly 48% of all US farmland.<sup>4</sup> In the state of New Jersey, approximately 720,000 acres are considered farmland included within the 9,100 farms in the state in 2015.<sup>5</sup> Food and agriculture account for the state's third largest industry, generating \$1.02B in sales in 2014. New Jersey is ranked third in the nation as a producer of cranberries and bell peppers, fourth for spinach and peaches and fifth for blueberries and cucumbers.



## GEOGRAPHIC PERSPECTIVE

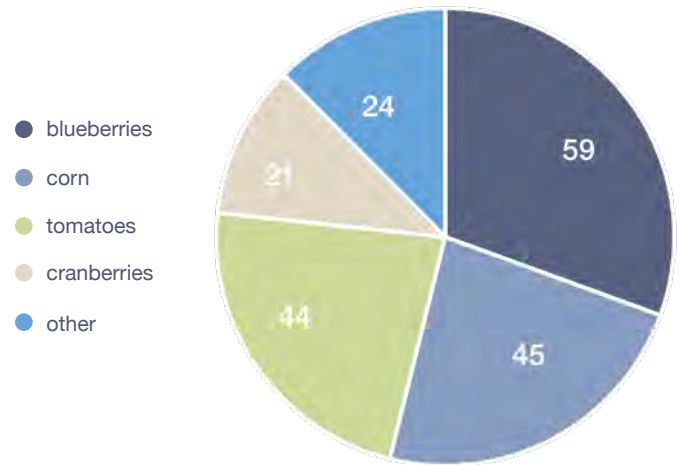
A total of 53 students from two geography sections were surveyed on their knowledge of both New Jersey cash crop production and national blueberry production. Each survey was conducted using a weighted scale. No student among those surveyed claimed to have direct knowledge of New Jersey’s actual agricultural production, and many stated that their votes were based on what they have seen growing around our state and what they have heard about farming in New Jersey.

According to the USDA the top six blueberry producers in the United States are Washington State, Georgia, Michigan, Oregon, New Jersey and California. Conversely, the predictions of Rowan students gave 135 weighted votes to New Jersey, which ranked it 80 well ahead of second place, which was shared by California and Pennsylvania’s 55 votes. Florida followed distantly at 35 votes and the expanded top five was completed by Delaware, Virginia and New York at 25 votes.

Among these student predictions, there was an emphasis for the Mid-Atlantic region, particularly New Jersey. This “neighborhood effect” is common in mental mapping exercises. Results in an exercise such as this can be skewed towards areas close to where the survey took place and may be a result of confirmation bias. California was the only state other than New Jersey correctly identified by Rowan students as a top blueberry producer.

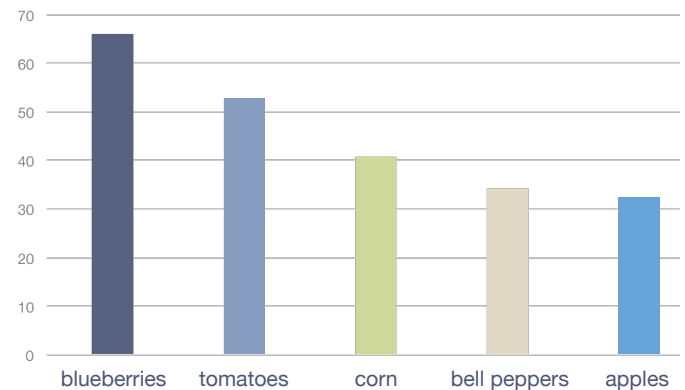
## NJ TOP GROSSING CROPS

According to Rowan Students  
*weighted votes*



## NJ TOP GROSSING CROPS

According to the USDA  
*in millions*

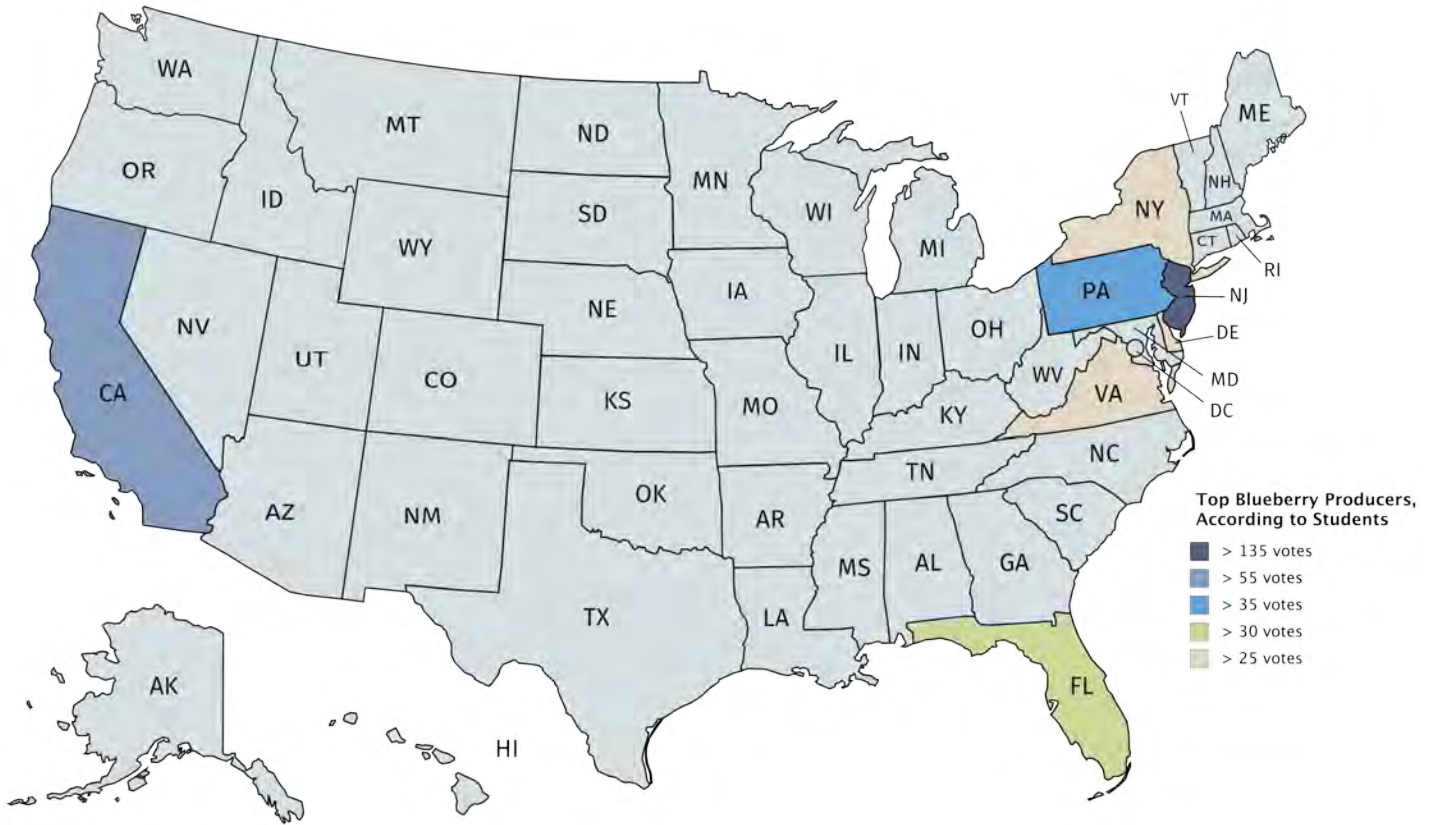


## BLUEBERRY STORY

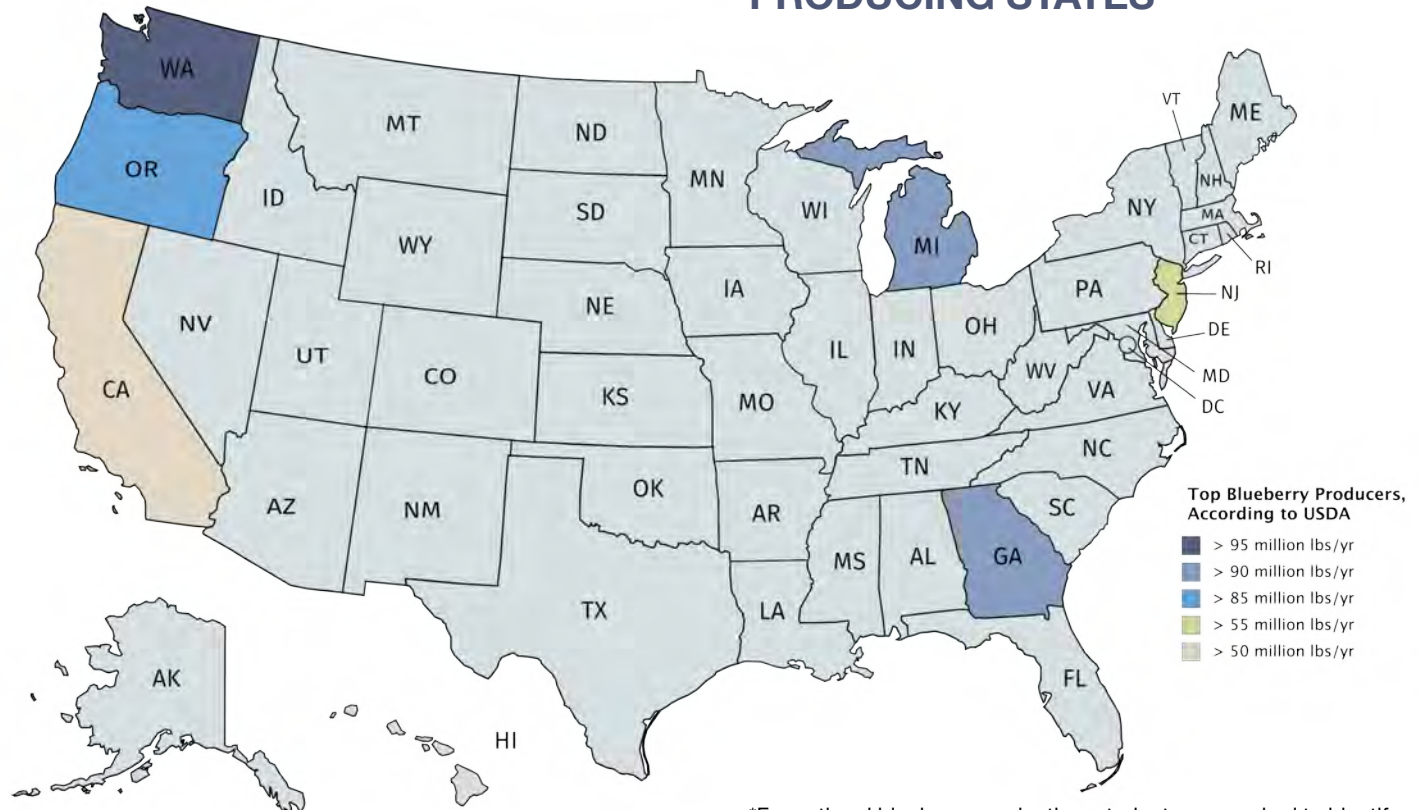
Blueberries grow on bushes and can be either wild or cultivated (tamed). Before the early 20th century, one could only find wild blueberries, until a New Jersey woman named Elizabeth Coleman White began a partnership with the USDA to try and tame the wild blueberry bush so it could be grown as a crop.<sup>6</sup> By 1916, these experiments were successful, resulting in berries that could be grown larger with more taste and size consistency. Today, blueberries are the highest grossing produce item grown within the State of New Jersey with the total value of the crop being \$79.5M in 2014.<sup>7</sup> The sandy and acidic soils of South Jersey’s expansive coastal plain produce the perfect blueberry conditions.<sup>8</sup> Blueberries are one of only three commercial crops – in addition to concord grapes and cranberries – that are native to North America and grown in the U.S. today.

- 1 (USDA, Census of Agriculture, 2016)
- 2 (USDA, Economic Research Service, 2017)
- 3 (USDA, Economic Research Service, 2017)
- 4 (USDA, Economic Research Service, 2016)
- 5 (State of New Jersey Department of Agriculture, n.d.)
- 6 (Charles, 2015)
- 7 (USDA, National Agricultural Statistics Service, 2016)
- 8 (Pistone, 2016)

## STUDENT PERCEPTION OF TOP BLUEBERRY PRODUCING STATES



## ACTUAL TOP BLUEBERRY PRODUCING STATES



\*For national blueberry production, students were asked to identify the top five states where blueberries were produced by volume (tonnage). In each case a first place vote was worth five points, a second place vote was worth 4 points, and so forth.



# POST-HARVEST HANDLING + PROCESSING

## OVERVIEW

Following the harvest of an agricultural product (either food or animal), there is a series of steps that are necessary to prepare the product for either shipment or storage. Depending on the product, this stage can also include food processing which “transforms raw agricultural materials into products for immediate or final consumption.”<sup>9</sup> There are food processing businesses and plants throughout the country, but the three states that have the highest concentration of food manufacturing plants are (in order) California, New York and Texas.<sup>10</sup>

Fresh produce is typically cooled, washed and packed in preparation to sell directly to a customer (at a farm stand or farmers market) or for shipment to a distributor or wholesaler. Produce can also be processed into freshly cut pieces, frozen or made into juices or sauces. A large percentage of produce that is grown for the processing market is contracted by food processing businesses, with contracts or arrangements established with farmers well in advance of harvesting.

Harvesting the produce for the processing market is highly mechanized, but much of the more “fragile” produce items grown for the fresh, whole market need to be harvested and packed by hand. Much of this laborious work is done by migrant workers, many of whom are sponsored through the H-2A temporary agricultural workers visa. Of the 611,912 temporary worker visas issued in 2012, 65,345 were given for agricultural workers.<sup>11</sup>

## BLUEBERRY STORY

When purchasing fresh, whole blueberries, appearance and quality are on the forefront of most consumers’ minds. To ensure a high-quality product, it’s imperative to follow proper post-harvest handling practices. Because blueberries are harvested and handled during hot and humid weather, quick cooling is necessary to maintain the firmness of the berry and should be done within four hours of harvest. Depending on the type of market, blueberries will either be backed into clear, vented, plastic clamshell containers or paper pint containers; sent to a facility that will freeze the berries or process the berries into juice or sauce that can be used in a variety of fruit-based products (jams, jellies, etc.)

## GEOGRAPHIC PERSPECTIVE

For this step of the food supply chain, two sections of geography classes participated in a simulated blueberry picking experiment and were asked to make sensory descriptions of what they experienced. The simulation consisted of different stimuli to imitate the sensory experience of picking blueberries: video of both an aerial video of blueberry bushes and a family picking blueberries (sight), ambient nature soundscape (hearing), blueberry tea in a jar (smell) and blueberries (touch and taste). Approximately 50 students participated in this experiment and were given about 5 minutes to draft their sensory observations on a piece of paper. Both classes then used a free polling software to document their observations per sense. The following infographic on the next page captures the combined word clouds that were generated in each class.

9 (USDA, Economic Research Service, 2016)

10 (USDA, Economic Research Service, 2017)

11 (Wilson, J.H., 2013)

**SIMULATED BLUEBERRY PICKING**  
SENSORY DESCRIPTIONS



blue  
**fresh**  
colorful  
small pretty  
**round**  
**plump** indigo



squishy  
**wet**  
soft  
**cold**  
smooth  
**bouncy**  
round



windy  
**rustling**  
peaceful birds  
insects tranquil  
**nature**  
soothing  
calming



fresh  
**strong**  
fruity  
relaxing  
sweet  
**natural**



bitter  
delicious  
**explosive**  
juicy sour fresh  
sweet  
**tart**



# DISTRIBUTION

## OVERVIEW

Distribution refers to the movement of product from the post-harvest stage to sales channels. This is the supply chain stage where food typically meets the world of freight, or the transport of goods in bulk by truck, train, ship, or aircraft. Within the Greater Philadelphia area, an estimated 40M tons of food-related goods are moved within, out of and into the region; representing 13% of total regional freight movements.<sup>12</sup> This transport can be done directly by an agricultural producer, but often is done by a third party wholesaler responsible for the aggregation, marketing and delivery of product into sales outlets. A wholesaler may or may not own or physically handle the products.

Wholesalers can be broadly categorized into the following:

### Specialty Distributors

Wholesalers that only move a specific product set; e.g. produce

### Full-service Distributors

Small to mid-sized wholesalers that offer a wide range of food products

### Broadline Distributors

Larger corporate entities that offer a broad range of food/nonfood products

### Self-distributing Manufacturing

Manufacturing companies with vertically integrated distribution

### Brokers and Agents

Individuals, representing other individuals or businesses, who sell or buy product for a commission and do not typically physically handle or take ownership of said products

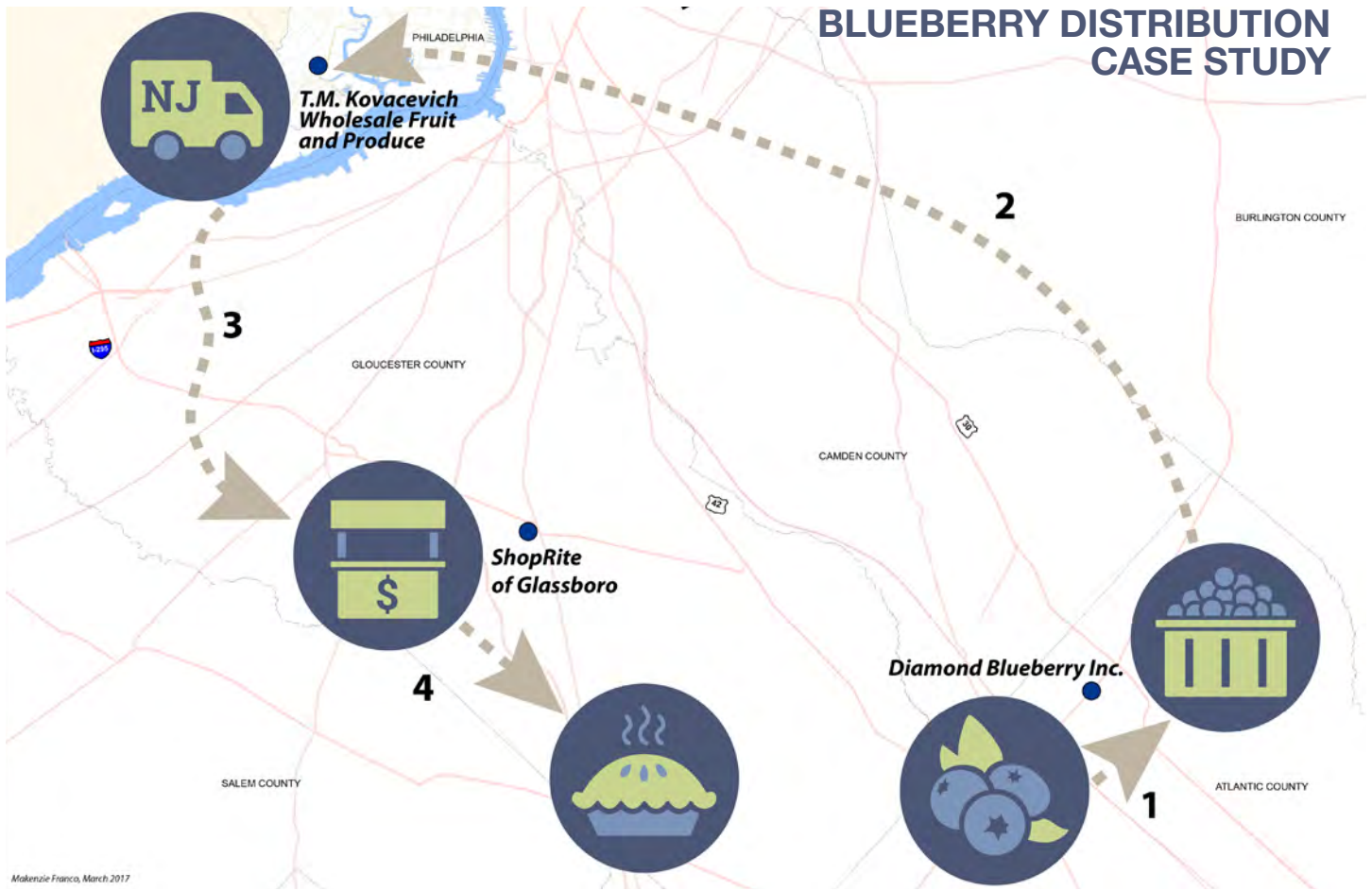
Due to consolidation in the grocery and food service industries, many of these distributors are very large players with significant buying power. Two of the largest foodservice distribution companies, Sysco and US Foods, employ 51,700 and 25,000 people respectively. According to the International Foodservice Distribution Association, 25 million cases of food products are delivered everyday by these two large companies, as well as many other smaller distribution companies, many of whom operate regionally and are family run businesses.<sup>13</sup>

## BLUEBERRY STORY

After the blueberries are properly harvest, cooled and packed for the type of customer for whom they are destined, the time comes to move this product from the farm to the next buyer along the food supply chain; either to a sales outlet or processor, or to a middleman who will eventually transport the product to a sales outlet. Depending on the scale of the blueberry farm, the farmer could deliver the berries directly to a sales outlet, work with a third party logistics provider to move this product or they could deliver to a wholesaler's warehouse. Alternatively, a wholesaler may also pick up the blueberries at the farm and then either deliver it directly to a sales outlet or bring it back to their warehouse for shipment in the near future.



## BLUEBERRY DISTRIBUTION CASE STUDY



Makenzie Franco, March 2017

### GEOGRAPHIC PERSPECTIVE

To understand a typical pattern of movement that blueberries can take within New Jersey, an interview was conducted with Michael Miduski, the produce manager of the ShopRite in Glassboro, NJ.<sup>14</sup> The produce manager revealed that they often purchase from a 900-acre Diamond Blueberry Inc. on Pleasant Mills Rd in Hammonton, NJ.<sup>15</sup> This family owned farm cools and packs the berries on site before they are picked up by or delivered to T. M. Kovacevich Wholesale Fruit and Produce company located within the Philadelphia Wholesale Produce Market on Essington Ave in South Philadelphia. This market is one of many Terminal Markets in the country, which are central sites for aggregation and trading of commodities – most typically agricultural and food products – that are often located in a metropolitan area and close to a transportation hub. Once at the wholesale market the blueberries will be kept at a cool temperature (the whole building is

refrigerated) until it is time for them to be included within a produce order that the wholesaler receives from their customers (a sales outlet). T. M. Kovacevich Wholesale Fruit and Produce then typically ships the berries (and the rest of the order) to the ShopRite on William Dalton Drive in Glassboro, New Jersey.

Depending on the size of the order, and other logistical considerations, the wholesaler (or another broker) may arrange the sale and transport directly from Diamond Blueberry Inc. to the Glassboro ShopRite. The following map illustrates this product movement from a spatial perspective and each destination is marked by a graphic representing a step within the supply chain.

12 (Delaware Valley Regional Planning Commission, 2010)  
 13 (Institutional Foodservice Distribution Association, 2017)  
 14 (Miduski, 2017)  
 15 (Pistone, 2016)



# SALES OUTLETS

## OVERVIEW

The term sales outlet describes the point of sale where the end user purchases the agricultural or food product. More simply put, sales outlets can be supermarkets, grocery stores, restaurants, institutions (schools, universities and hospitals), farmers markets, or farm stands. The Economic Research Services branch of the USDA analyzing consumption patterns in the US, citing that in 2014 food and beverage consumer spending (including businesses and government entities) was equal to \$1.46 trillion.<sup>16</sup> This statistic is further classified into money spent for food to be eaten at home and food to be eaten away from home, which provides more insight into consumer spending patterns. During 2014, consumer spending between these two classification was relatively similar with consumers spending \$727B on food purchased at food retailers (like grocery stores) and \$731B for of food at food service providers (like restaurants).<sup>17</sup>

It has been documented by the Labor Center at UC Berkeley that wages for grocery workers have been steadily declining and a recent report by the Restaurant Opportunities Center on Philadelphia’s restaurant industry revealed that despite a boom in business and increased profit despite the great recession, “62.1% of Philadelphia restaurant workers fall below the poverty line for a family of three.”<sup>18 19</sup>

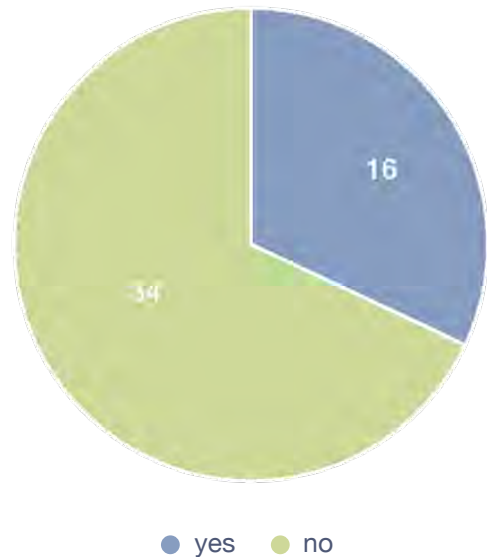
While the majority of food is purchased through more traditional wholesale channels, there is a growing spending increase through direct-to-consumer and smaller, source-identified supply chains; channels that maintain the identity of the producer throughout the chain. In 2008, these alternative sales outlets like farmers markets,

farm stands and smaller regional food distributors collectively grossed \$4.8B.<sup>20</sup> New Jersey has its fair share of opportunities to spend your food dollars at a more regionally focused sales outlet with over 120 farmers markets, countless roadside markets, as well as pick your own farms. To search for a local food business near your home, visit the Jersey Fresh website ([www.jerseyfresh.nj.gov](http://www.jerseyfresh.nj.gov)).

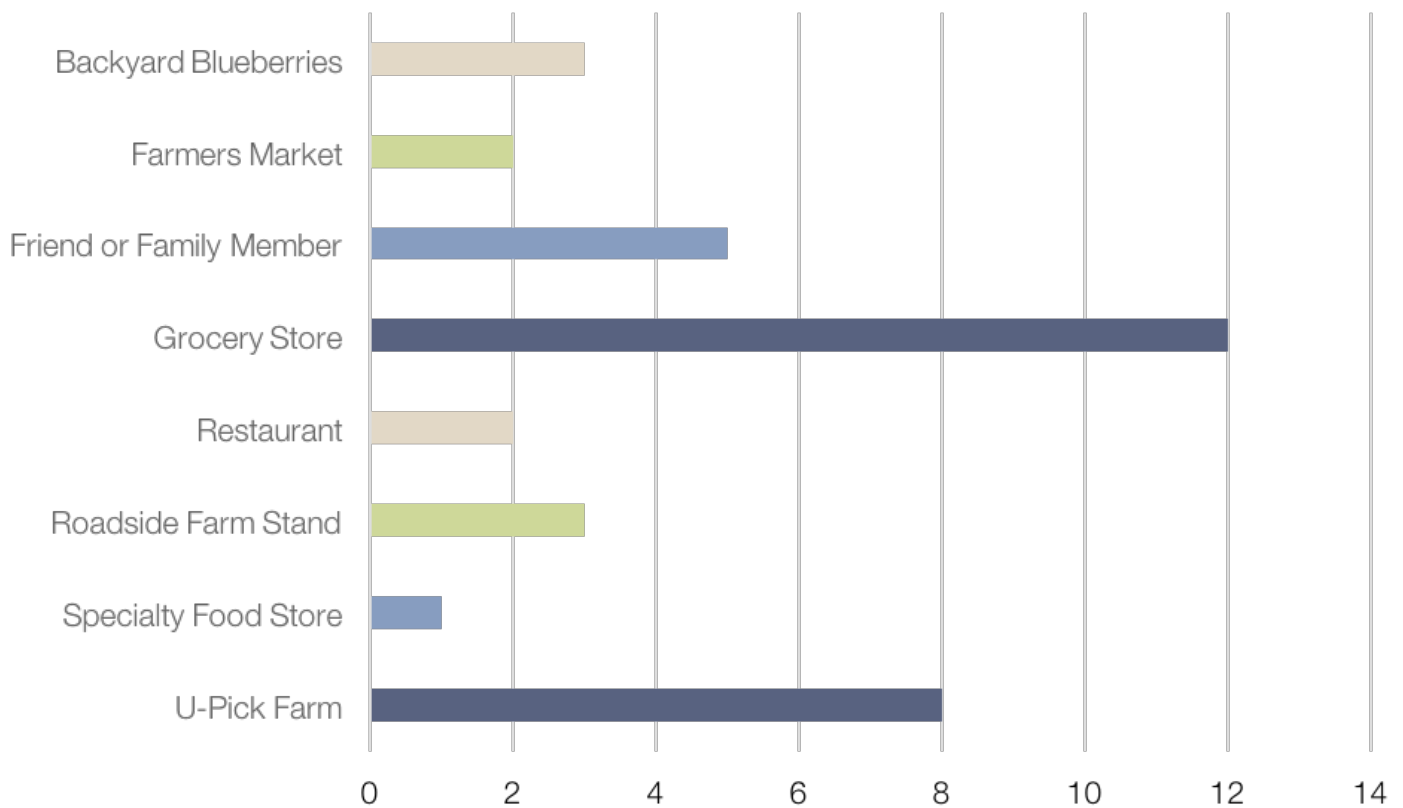
## GEOGRAPHIC PERSPECTIVE

For many conventional food supply chains, the sales outlet provides the first opportunity for a consumer to interact with the agricultural product. Some alternative sales outlets, like U-Pick farms, invite the consumer to create their own supply chain. To understand more about the culture of picking your own blueberries in the State of New Jersey, two sections of geography classes were asked to respond to the question “have you ever picked fresh blueberries in New Jersey?”. Out of the 50 students surveyed, only 32% of students had ever picked fresh blueberries within the state.

**HAVE YOU EVER PICKED BLUEBERRIES IN NJ?**  
Student Responses



## POINT OF SALE FOR “MEMORIES IN BLUE” ACTIVITY



To better understand the spatial distribution of the student’s harvesting experiences, the 16 students who had picked fresh blueberries were asked which county in the state they had picked. Many students were not sure of the county location for the farm they visited, but students who did know this county information mentioned Atlantic, Cumberland, Salem, Monmouth and Sussex.

In addition to asking about picking blueberries, students were asked to describe in detail a “blueberry experience” they have had in their life. Selected memories are presented within the “Memories in Blue” graphic in the consumption section of this booklet. Included in the students’ memory descriptions were the point of sale from which they picked, purchased, or were given blueberries.

### BLUEBERRY STORY

Once delivered at the sales outlet, these blueberries will either be sold directly to consumer or be made into a dish that a consumer will eat. At this stage of the supply chain, marketing and quality maintenance of the berries is of the utmost importance. Marketing studies have suggested that consumers are very interested in learning the story of the food they eat, whether they purchase food at traditional or more alternative food retailers. To support this marketing, there is a federal and state imposed assessment tax on blueberries (~0.6% on each pound). Revenues generated by this tax contribute to the marketing of blueberries, as well as research regarding the cultivation and management of the blueberry bushes.<sup>21</sup>

16 (USDA, Economic Research Service, 2016)

17 (USDA, Economic Research Service, 2016)

18 (Saru Jayaraman, Food Labor Research Center, 2014)

19 (Stephen Herzenberg, Restaurant Opportunities Center, 2012)

20 (Low & Vogel, 2011)

21 (Pistone, 2016)



# CONSUMPTION

## OVERVIEW

The consumption step of the food supply chain is the most inclusive, and arguably the most “fun” stage of a conventional food supply chain. Consumption refers to the eating or drinking of an agricultural or food product, which is typically preceded by the act of preparing (or cooking) food. The methods and rituals by which food is cooked and eaten can reveal the cultural geography of both the food item and the eater.

Although the act of eating is typically one that brings people and cultures together, there are many people within the US who are considered food insecure; not having consistent access to adequate food due to a limitation of money or other resources. Food insecurity exists in every county within the country,<sup>22</sup> including the NJ counties of Burlington, Camden, Gloucester and Salem where 13.1% of people experience food insecurity.<sup>23</sup>

## GEOGRAPHIC PERSPECTIVE

With each meal that a person consumes, their personal food history is being silently written. This narrative can divulge a great deal of information about the person’s background and yet seldom are eaters directly asked to reveal this food narrative, but when encouraged, food-based memories can be recounted with an abundance of details.

On February 16, 2017 two sections of geography classes were asked to recount a memory of eating blueberries. Selected “memories in blue” are quoted. The following graphic illustrates these memories.



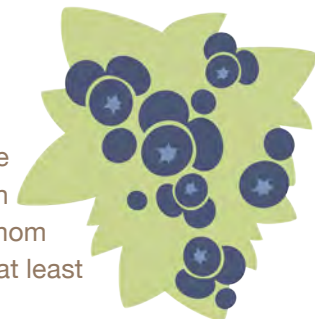
“Blueberry pancakes are a specialty of my dad’s and even now, away at school, they remind me of home and summer.”

“My family and I have always vacationed in Ocean City and on the way there we always stop at the same farmstand. My mom buys blueberries, from the same couple who has been working there for as long as I can remember, and we eat the berries on the beach.”



“When I was younger, I picked blueberries at Mood’s Farm in Mullica Hill with my grandmother and parents. Instead of putting them all in a basket, I ate them all and got sick...but still wanted to eat some more.”

“We have 6 or 7 blueberry bushes in our backyard planted by my great-grandfather. Every summer we have bowls full of berries and when the blueberries are ripe, my mom incorporates the berries into at least one meal every day.”



## BLUEBERRY STORY

After being purchased at a sales outlet, the consumer can either eat these berries fresh on their own, make them into a blueberry-based product – like a pie, jam or crisp – or add them to a fresh garden or fruit salad. Any of these blueberry dishes can be enjoyed alone, with friends or among other blueberry enthusiasts at a blueberry festival like the Annual Whitesbog Blueberry Festival – the same location where the wild blueberry plant was first tamed – or the Red White and Blueberry Festival in Hammonton, NJ.

22 (Feeding America, 2017)

23 (Food Bank of South Jersey, 2016)

# EXHIBITION PROJECT TIE-INS

## PRODUCTION

### Claire Pentecost

The photo series, *ExpoChacra, Agricultural Trade Show, Argentina* (2005) was made at an agricultural trade fair in Argentina, where farm machinery is the most eye-catching display, baffling and almost fantastical to the outsider, perhaps anxiety producing to the farmer who can never quite afford the equipment that ensures success. But the exhibits also reflect the role of auto manufacturers, tire companies and banks as much as they do the businesses of seeds, chemicals and products marketed to the agricultural sector alone. In this photo series, industrial agriculture, a product of the U.S., is only partly about supplying food. For a long time it has been structured to meet the problem of excess capital accumulation. So it's a "capital-intensive" system—meaning you have to sink a lot of capital into it to make it work. Lots of expensive and complex machinery, brand name chemical herbicides, pesticides, fungicides, fertilizers, and recently, patented seeds. This also allows the banking and finance sectors to have a piece since no farmer, large or small, handles this kind of operation without extensive loans.

Claire Pentecost's work engages collaboration, research, teaching, writing, lecturing, drawing, installation and photography in an ongoing interrogation of the institutional structures that organize knowledge. Her projects often address the contested boundary between the natural and the artificial, focusing in recent years on food, agriculture and bio-engineering. She has collaborated with Critical Art Ensemble and the late Beatriz daCosta, and since 2006 she has worked with Brian Holmes, 16 Beaver and many others organizing a series of seminars to articulate the interlocking scales of our existence in the logic of globalization. In the Midwest, she collaborates with Compass, initiating a series of public hearings on the activities of the Monsanto Corporation. Recently Pentecost has exhibited at DOCUMENTA(13), Whitechapel Gallery, and the 13th Istanbul Biennial. She is represented by Higher Pictures, New York, and is Professor and Chair of the Department of Photography at the School of the Art Institute of Chicago.

### Kristen Neville Taylor

Taylor's installation is inspired by the Leonard Cohen song "Suzanne" in which Cohen sings "and she feeds you tea and oranges that come all the way from China." She explains that "it is a line that I have often associated with the market place and the movement of food but also romance and the exoticification of other cultures." The installation features a globe depicting routes of oranges and actual oranges in the space each outfitted with a QR code sticker in place of its company sticker that links viewers to Nina Simone singing "Suzanne", recent articles about migrant movements and their effect on the orange economy, folk tales, and artworks that take oranges as a point of departure. The oranges are available for viewers to take.

Kristen Neville Taylor is an artist living and working in Philadelphia where she graduated with an MFA in Glass from the Tyler School of Art. Taylor's work has been shown at Bunker Hull, Little Berlin, and Vox Populi

galleries in Philadelphia, Richard Stockton Art Gallery in New Jersey, and as a part of Expo Chicago. As a curator, she has organized several exhibitions including Landscape Techne at Little Berlin, The Usable Earth at the Esther Klein Gallery, and most recently she co-curated Middle of Nowhere in the Pine Barrens. Taylor is the recipient of the Laurie Wagman Prize in Glass, the Jack Malis Scholarship, and a 2017 Vermont Studio Center Fellowship. Taylor's work is concerned with culture and mass memory and the systems and events that shape these.

**Cynthia Main**

Main's work includes traditional techniques that are used to readdress storage as one of the current dilemmas of localizing production. Handcrafted barrels are created on an off-grid homestead, and used to store, transport, and prolong the harvest. The work is made of Missouri Quarter-Sawn Oak, and Philadelphia manufactured steel.

Cynthia Main is a multidisciplinary artist whose work focuses on relating to land as part of an integral view

of a more sustainable society. Cynthia's strong background in woodworking and traditional craft surfaces in most of her projects, work that often blurs the line between public and private practice. Projects include collaborative off-grid immersions, homesteading projects, performance collaborations and appropriate technology projects in Chicago, North Carolina and Missouri. She currently lives at Sandhill Farm, an intentional community and organic farm near Rutledge, Missouri.

**DISTRIBUTION**

**Ryan Griffis and Sarah Ross**

*Between the Bottomlands & the World* (2015) explores Beardstown, IL, a rural Midwestern town of 6,000 people—a place of global exchange and international mobility, inscribed by post-NAFTA (North American Free Trade Agreement) realities. It consists of a series of videos, photographs, exhibitions and narrative writing.

The video series tells a story of Beardstown in three acts. Act One: Submerging Land, portrays a landscape massively engineered to redirect water for the production of commodity crops. Act Two: Granular Space, is a meditation on the movement and scale of the international grain trade—from one seed to millions of bushels, moved from field, to elevator, to barge, to ocean going vessel. Act Three: Moving Flesh, chronicles how and why so many people from around the world have come to Beardstown, a formerly all-white, Sundown town of 6,000 people. Moving Flesh is based on the research, analysis and fieldwork of Faranak Miraftab in her book "Global Heartland: Displaced Labor, Transnational Lives, and Local Placemaking."

Ryan and Sarah both work collaboratively with Compass and together as Regional Relationships; both projects explore the social and economic landscapes of the Midwest.

Ryan Griffis is an artist currently teaching in the School of Art + Design at the University of Illinois, Urbana-Champaign. Under the name Temporary Travel Office, Ryan has created work and publications that attempt to use tourism as an opportunity for critical public encounters. The Temporary Travel Office has created work for venues such as the MAK Center for Art and Architecture, Los Angeles Contemporary Exhi-

bitions, SPACES Gallery, Los Angeles County Museum of Art, Links Hall, PS122, LA Freewaves, and the Finger Lakes Environmental Film Festival. His writing on media, art, and culture has appeared in international print and online journals and in the edited volumes *Cities and Inequalities* (Routledge, 2015) and *Support Networks* (Chicago Social Practice History Series, SAIC/University of Chicago Press, 2014). More recently, his work is employing the form of documentary images and writing to address regional political ecologies and extractive agriculture.

Sarah Ross is an artist who works in sculpture, video and photo and teaches at The School of the Art Institute Chicago. Her projects use narrative and the body to address spatial concerns as they relate to access, class, anxiety and activism. Sarah also works collaboratively with Chicago Justice Torture Memorials and she co-founded the Prison and Neighborhood Arts Project; both are large scale cultural projects that work with survivors of police torture and currently incarcerated people. She has co-curated exhibitions at SPACES Gallery, Cleveland, Sea and Space Explorations, Los Angeles, and PS122, New York. Sarah is the recipient of grants from the Propeller Fund, Graham Foundation, University of California Institute for Research in the Arts and the Illinois Art Council. Some of her work has been exhibited in venues such as the Armory, Pasadena, CA; Gallery 727, Los Angeles; PS122, New York; Roots and Culture Gallery, Chicago; Pinkard Gallery, Baltimore; META Cultural Foundation, Romania and the Canadian Center for Architecture, Montreal.

## Candice Smith with Freedom Arts

Students from Freedom Prep Charter School in Camden NJ are developing work about the movement of food at their school and in their community. As teaching artist Candice Smith explains, “They are discussing what it meant that Camden is a ‘food desert.’ Students shared their opinions and experiences, and they began some preliminary brainstorming about what a project—in response to that—might be.

Freedom Arts is an after-school art initiative led by teaching artist, Candice Smith. Meeting twice a week at Freedom Prep Middle School in Camden, New Jersey,

participating students explore how art has the power to address issues and communicate ideas. Through discussion, action research and various modes of creation, students begin to think through and deal with their own experiences. Part art education and part participatory art project, the goal of Freedom Arts is to energize young people to believe in their own potential as catalysts for community change. In addition to being a teacher, Smith is currently pursuing an MFA in Community Practice from Moore College of Art & Design.

## SALES OUTLETS

### Amber Art & Design Collective

Growing out of a collaborative exhibition between Asian Arts Initiative and artists Ernel Martinez and Keir Johnston of Amber Art & Design, *Corner Store: Takeout Stories*, explores the contemporary sociological and psychological intersections between pan-ethnic Black and Asian communities in Philadelphia and how our relationships are shaped based on which side/s of the counter we may stand.

Amber Art & Design consists of 5 international artists based in Philadelphia. The Amber team has been working in the public art sphere for the past 10 years primarily within marginalized communities with little or no

access to art. Formed in 2011 with a common goal to create meaningful public art that is transcendent, Ernel Martinez, Keir Johnston, Charles Barbin, Willis “Nomo” Humphries and Linda Fernandez joined to create a platform for social practice within communities. These artists have been collaborating and creating art that delves into stories, histories and circumstances that have impacted communities of color but are often missing from mainstream historical reference and media representation. These bodies of works address issues of structural inequity and seek to give a voice to under-represented communities who are lacking in resources.

### Philly Stake

Philly Stake was a locally sourced, recurring dinner where money was raised for creative and relevant community engaged projects. This exhibition shows the history and scope of the project in which micro grants raised at each dinner came directly from the donations of the attendees who pay a sliding scale to enjoy a locally sourced dinner as well as to witness the presentations of local projects. The main criteria used to select grants was that they aim to contribute to the well being of Philadelphia's neighborhoods through community arts, urban agriculture, social services and activist work. The dinners, cooked from seasonal ingredients sourced from local farms and purveyors, were held in different locations throughout Philadelphia's neighborhoods at community centers, gardens, churches and cultural institutions every three to four months. The group was a collective of volunteers and is not a formal organization nor non-profit. Since the first event on

September 19, 2010, Philly Stake granted \$21,500 to 24 projects over the course of 14 events.

Philly Stake is part of an international network of meal-based micro-granting organizations initiated by the Chicago artist collective Incubate in 2007. To date, there are nearly 50 projects in cities large and small around the globe. Responding to an open call process in 2010 by Theresa Rose and Kate Strathmann, a collective of volunteers formed and organized what became the first of 14 Stake dinners. Through funding raised at the dinner events, Philly Stake supports creative, grassroots projects that benefit communities within the city of Philadelphia. Its members are: Mira Sophia Adornetto, Eric Blasco, Emma Jacobs, Mallary Johnson, Hannah de Keijzer, Albert Lee, Brett Mapp, Theresa Rose, Ruth Scott Blackson, Kate Strathmann, Phaedra Tinder, Annemarie Vaeni, and Jonathan Wallis.

## Otabenga Jones & Associates

*The People's Plate* documents a collaborative art project and public health program addressing the ongoing crisis of obesity and its related risks. In addition to these posters, the project included a public mural at the Lawndale Art Center in Houston and launch a series of adjacent programs, kicking off a year-long commitment to health education. Inspired by the Black Panther Free Breakfast for School Children Program, which saw the Panthers cooking and serving breakfast to poor inner city children, *The People's Plate* aims to provide

at-risk community members with a set of tools that encourage self-sufficiency and empowerment in maintaining their own health through food choices while building community.

Otabenga Jones & Associates is a Houston-based educational art organization founded in 2002 by artist and educator Otabenga Jones in collaboration with members Dawolu Jabari Anderson, Jamal Cyrus, Kenya Evans and Robert A. Pruitt, among others.

## OTHER CONNECTIONS & FUTURE DIRECTIONS: MONEY AND WATER

### Stephanie Rothenberg

*Reversal of Fortune: The Garden of Virtual Kinship* is a garden whose lifeline directly correlates to monetary exchanges between the developed and developing world. Aiming to explore the question, what it means to be charitable through the click of a button, the project examines the cultural phenomena of online crowdfunded charity, or microfinance, through philanthropic social media websites. The funding is intended to finance small-scale "entrepreneurial" goals. Examples of these pursuits include small retail businesses, local agriculture and farming, transportation and health needs. But contradictions abound within this economic model. What goes unseen are the exorbitant interest rates and fees, borrowers must pay. *The Garden of Virtual Kinship* makes this controversial economic circuit visible. The live garden takes the form of a global map with the plants residing in small containers within a dot matrix grid. Each plant correlates to a borrower on the social media websites requesting funding. An overhead computerized watering system (CNC) is connected to the Internet. The amount of water the plants receive is dependent on investment information data collected from the websites. Successful entrepreneurial ventures trigger appropriate nourishment while failed ventures may lead to dying plants. Yet the plants that do receive water, only receive a few drops. The majority of the wa-

ter is pumped into a second tank, symbolizing the high fees and interest rates microfinance borrowers pay.

Stephanie Rothenberg is an artist using performance, installation and networked media to create provocative public interactions. Her work moves between real and virtual spaces investigating the power dynamics of techno utopias, global economics and outsourced labor. She has exhibited throughout the US and internationally in venues including Eyebeam in NYC, Massachusetts Museum of Contemporary Art (MASS MoCA) in North Adams, MA, the Sundance Film Festival in Park City, Utah, House of Electronic Arts in Basel, Switzerland, LABoral in Gijon, Spain, Transmediale in Berlin and ZKM Center for Art & Media in Karlsruhe, Germany. She is a recipient of numerous awards, most recently from the Harpo Foundation and Creative Capital. Residencies include the Lower Manhattan Cultural Council Workspace, Eyebeam Art and Technology and the Santa Fe Art Institute. Her work is in the collection of the Whitney Museum of American Art and has been widely reviewed including Artforum, Artnet, The Brooklyn Rail and Hyperallergic. She is Associate Professor and Director of Graduate Studies in the Department of Art at SUNY Buffalo where she teaches courses in design and emerging technologies.



## Brian Holmes

*Living Rivers Online Atlas* is devoted to the Mississippi and Great Lakes watersheds. It shows these fluid ecosystems as they are inhabited by a multitude of creatures, and as they are radically altered by human enterprise. Everywhere the circulation of organic compounds through the land, the water and the air has been transformed. Natural landscapes (biomes) give way to artificially conditioned territories (anthromes). Conflicts rage over the proper management and care of these changing territories (wars). Artists, scientists, philosophers and mystics seek new paths for the future (visions). The top four categories unfurl the major themes. The checkbox opens up specific features. The text changes as you access different parts. Zoom in close to explore the rivers and valleys: a spyglass will appear. Zoom out again to get a bigger picture. Click on the icons to find out about particular sites. Everything on the map is an arrow pointing to reality. As this work was being carried out, a chant arose from the Standing Rock Sioux Reservation in North Dakota: "Water is life!"

But it's obvious not everyone sees it that way. Let's open our senses to the metabolism of living rivers. This work was developed as part of a group project on industrialized agriculture, "The Earth Will Not Abide," with support from Humanities Without Walls and in dialogue with Alejandro Meitin, Duskin Drum, Ryan Griffis, Sarah Lewison, Claire Pentecost and Sarah Ross.

Brian Holmes is an art and cultural critic with a PhD in Romance Languages. He has a longstanding interest in neoliberal globalization and a taste for on-the-ground intervention. From 1990 to 2009 he lived in Paris, collaborated with political art groups such as Ne Pas Plier, Bureau d'Etudes, Public Netbase, Hackitectura, Makrolab and others, and published in journals such as *Multitudes*, *Springerin*, and *Brumaria*. With Claire Pentecost and the 16 Beaver Group he co-organized the Continental Drift seminars from 2005 to 2009, with variations up to the present. His essays revolve around art, free cooperation, the network society, political economy and grassroots resistance.

## ABOUT THE CURATOR

**Daniel Tucker** works as an artist, writer and organizer developing documentaries, publications and events inspired by his interest in social movements and the people and places from which they emerge. His long-term curiosity about food systems has included co-authoring the book *Farm Together Now* with Amy Franceschini (Chronicle Books, 2010), which was named Best Food Book of the Year by Michael Pollan in *Grist*, and organizing the *Moving Units: Where Food & Economy Converge* event series at the Kentucky Museum of Art & Craft (2015). Tucker recently completed the feature-length video essay *Future Perfect: Time Capsules in Reagan Country* and curated the traveling exhibition and event series *Organize Your Own: The Politics and Poetics of Self-Determination Movements*. He is an Assistant Professor and founding Graduate Program Director in Social and Studio Practices at Moore College of Art & Design in Philadelphia. [miscprojects.com](http://miscprojects.com)

## ABOUT THE CONTRIBUTING RESEARCHERS

**Megan Bucknum Ferrigno** is faculty with the Department of Geography, Planning and Sustainability where she currently teaches planning courses, including food systems planning. As a consultant, she has worked on food projects throughout the country and has held staff positions at New Venture Advisors LLC, Philly Cow-Share, The Food Trust, Fair Food Philadelphia and the Wallace Center at Winrock International, as well as assisting with the University of Vermont's inaugural Food Hub Management Certificate course. She has been a contributing author to the planning guide, *Building Successful Food Hubs*, the recent *Healthy Food in Small Stores* report, and the book *Reclaiming Our Food: How the Grassroots Food Movement is Changing the Way We Eat*.

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