

FEAST FOR TINY FARMERS

Courtney Ignace and Siena Mckim
(also known as Ento-Mouth)

Intergrative Project

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Siena Mckim and Courtney Ignace at *Eat a Bug*.

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INTRODUCTION

Friends often joke that they will have eaten 7-10 spiders in their sleep the past year. But to propose they eat a spider on purpose seems profane. For many, interest in insects plateaus after childhood. We are taught that insects are dirty, that they defile food and bring disease. Pantry moths, cockroaches, and spiders take the bulk of the blame as pests that invade our domesticity. But not all insects are seen as bad for our food. Honey bees have been and continue to be seen as harbingers of goodness given the honey they provide to us. But there is so much more in the world of bugs beyond bees and spiders; good and bad. Insects are the most diverse group of fauna on our planet and there is a lot more nuance to their roles in our lives and our food. For example, ants may be a common household 'pest', but in gardens they aerate the soil, increasing the oxygen flow to roots and improving the health of the plants. How can we reframe our view of insects to bring light to all the positive that they bring? Insects are an essential building block of our food system and we need to honor that if we are to survive as a living planet.

Feast for Tiny Farmers is our answer to this issue. *Feast for Tiny Farmers* is a culinary abstraction of the ways in which insects contribute to our food system and by extension how they care for us. This project is a collaboration created by Siena McKim and Courtney Ignace, who worked under the collective title *Ento-Mouth*. *Feast for Tiny Farmers* consists of four distinct serving stations. At each station, the visitor acts as an insect would toward our food system; pollinating flowers, aerating soil, decomposing plant matter, or eating insects that would otherwise harm our foods. Through these acts of play, users are encouraged to re-spark their innate childhood curiosity, leading to a sense of whimsy rather than disgust or fear surrounding



Illustration by Siena McKim.

insects. This experience not only encourages curiosity but also encourages a reciprocation of care. Our ultimate aim is to represent positive ways in which insect's care for us and inspire our users to care.

BUGS AND THE ENVIRONMENT

One of the main goals of the project is to show to the public the diverse ways insects help us grow food and what local insects do these things. Therefore, we will be discussing the four main categories in which insects benefit our food systems: soil aeration, pollination, decomposition, and herbivore management. As well as the unique insects that play these roles.

Ceramic sculpture of a blue orchard bee; part of our final presentation.



POLLINATION

Pollination is the process in which pollen is transferred from the male genitalia of flowers via pollinators like bees, birds, bats, and beetles, to the female genitalia or flowers where the fertilized egg then develops. The most widely understood pollination process occurs with flowering plants (A.K.A. angiosperms). These flowering plants rely on pollinators, like honey bees. But Honey bees (*Apis mellifera*) are just a fraction of the 4,000 native bee species that live in the US and honey bees are indigenous to Europe and Africa¹. We know them well because American farmers heavily rely on them for their pollinating skills and their production of honey². However, the real champions when it comes to pollinating crops include these native bees: orchard mason bees, *Osmia lignaria*, bumble bees, *Bombus*, and leafcutter bees, *Megachilidae*. These native bees can pollinate during times of the year that honeybees can't. They generally work quicker, and more hours throughout the day. The number of visits throughout the day can determine a plants fruit size and its seed set³. Therefore, these bees make fruit more valuable to farmers.

¹ Charles Whitefield, Thrice Out of Africa: Ancient and Recent Expansions of the Honey Bee, *Apis mellifera*. (Washington D.C.: Science Vol. 314, no. 579, 2006 October), 642-645

² M.D Levin, Value of Bee Pollination to U.S. Agriculture (Annapolis MD: Bulletin of the Entomological Society of America Vol. 29, no. 4, 1983, December), 50-51

³ Lucas Garibaldi, Wild Pollinators Enhance Fruit Set of Crops Regardless of Honey Bee Abundance. (Washington D.C.: Science 29 Vol. 339, no. 6127, 2013), 1608-1611

SOIL AERATION

As ants, mole crickets, termites, and similar creatures burrow through the soil looking for food, they move minerals and nutrients from one soil layer to the next. In doing so they add air to the soil. This process helps plants to better absorb nutrients and air through their roots. This process encourages positive growth and supports the growth of fruits, especially those that we eat. Creatures that aerate soil also fortify the soil by leaving behind nutritious microorganisms in their excrement. Not only do these creatures move nutrients but they also actively bring new nutrients to the soil⁴. The process of soil aeration is crucial for modern mass agriculture operations as the strains of crops in modern industrial agriculture are often of a monoculture. This means that there's little to no biodiversity in the crops being grown and the soil is depleted of nutrients quickly. In addition to monocultures, the overuse of pesticides in the fields means a scarcity of bad and good insects. Many industrial operations will till the soil in order to accomplish the tasks ants, termites, mole crickets, and other such creatures would otherwise do naturally, more effectively, and for free.



Illustration of a darkling beetle by Siena McKim.

DECOMPOSITION

When organisms die their bodies get recycled, making way for new life to grow. Insects work alongside bacteria and fungi to decompose the dead and return the nutrients in their bodies to the soil. Many insects eat and then excrete decomposing matter. In doing so they further process the matter into nutrients that plants can absorb. The material that is produced by this process is known as 'humus'. darkling beetles (*Tenebrionidae* family), flies, and carrion beetles (*Silphidae* family) are a few examples of the insects that do this⁵. The humus that these creatures help to produce can go towards nurturing the plants that we humans eventually eat from.



Illustration of an ant by Siena McKim.

⁴ Bruyn de Lobry, The Role of Termites and Ants in Soil Modification - A Review (Australia: Australian Journal of Soil Research 28(1), 1990), 55 - 9

⁵ Bernd Heinrich, Life Everlasting (New York NY: Houghton Mifflin Harcourt Publishing Company, 2012)

PREDATION

Insects do not always appear to be helping us grow food. In fact, potato bugs (Colorado potato beetle, *Leptinotarsa decemlineata*) and palm weevils (South American palm weevil, *Rhynchophorus palmarum*) are named after the crops they cause ruin to. But for every negative insect, there are multiple good insects that can counter their effects. The bad insects are predated by other insects like wasps, assassin bugs, and prey mantis. One of the most feared insects to humans is, in fact, our ally: parasitoid wasps including those within the families *Ichneumonidae* and *Braconidae*. These wasps lay their eggs inside of the bodies of their hosts, like the *Manduca sexta*, or green hornworm caterpillars, and aphids. The eggs hatch into larvae which kill and eat the host. The process of this predation feeds the predators' babies and keeps our crops clean. These bad insects, like palm weevils and witchetty grubs, despite causing harm to our crops, can still feed us by donating their bodies.



Illustration of a parasitoid wasp by Siena McKim.



Siena's ceramic sculpture of a greenhorn worm caterpillar; featured as part of the final presentation.

EATING BUGS

In 2013 the UN's FAO published a report encouraging the world to embrace the practice of eating bugs. Citing the fact that the world's population is due to reach 9 Billion by 2050, they stated that food production will need to double in order to feed 9 billion. The FAO proposed bugs as a viable solution to this issue.

The prospect of eating bugs in the industrialized world has not been up for discussion in popular culture before this report. This report opened the flood-gates for entomophagy (the practice of eating bugs; Pronounced: en-toe-MOF-a-gee) as a food trend and business opportunity. According to the UN's 2013 report, westerners do not eat insects for a number of reasons; notably larger insects tend to live in warmer climates and are present throughout the year while smaller bugs survive in colder climates. Bugs are also more predictable to harvest, plentiful, and remain present year-round in the tropics. The opposite is true for more temperate climates where western cultures originate. These generalizations are just that and should not be taken as fact. No one can give a "right" answer to why westerners generally avoid entomophagy but these ideas may help explain it.

Other reasons why Americans are not already eating insects could be psychological ones. Antonio Damasio, a neurologist, and philosopher, famously wrote "We shall not eat what we don't want to become" This food boundary threatens our concept of what being a human is and ultimately discourages the consumption of insects. The fear of eating insects continues to grow. Many nations and communities that traditionally consume insects have lost this practice due to colonial influence. The abandoning of entomophagy has meant for many cultures the loss of local ecological knowledge, native flavors, and richness of culture. In Sanambele, Malaysia, grasshoppers were the main source of zinc and seasonal protein in the diet of children up until the last century. Western agricultural pressures caused farmers in the area to switch to growing cotton with pesticides instead of edible organic crops. For fear of ingesting pesticides, children are now taught that grasshoppers are not safe to eat anymore. The absence of edible grasshoppers has caused serious youth malnutrition in the area and overall economic instability. Similar issues have arisen in non-developing countries too such as Japan



An entomophagist holds up a live *Tenebrio* larva.

⁶ Arnold van Huis, *Edible Insects*

⁷ A.R Damasio, *Descartes' Error: Emotion, Reason, and The Human Brain*. (New York, NY: HarperPerennial, 1994)

when unregulated insecticides were sprayed in paddy fields after WWII preventing the consumption of rice grasshoppers. Our fear of bugs has not only caused the consumption of insects to decrease in certain communities but has also ignited an insecticide movement that has consequently cause health and economic strife around the world. Despite this anti-bug movement, there are glimmers of hope for the revival of entomophagy as the edible bug market continues to grow.

In Thailand, one of the most coveted street snacks is the giant water beetle, and in China, there are entire markets devoted to edible bugs. Could we bring that kind of widespread acceptance of entomophagy to the U.S.? A study published by Nordic Food Labs looked at the way insects have been marketed to the western world. The three largest marketing categories for edible insects are their sustainability benefits, health benefits, and flavor. Flavor it seems has been the most successful marketing approach to get westerners to buy and eat bugs. In our own work, we've observed the power of flavor in convincing people to eat bugs and we have taken this factor into account heavily.

Overall, there are many elements to consider when it comes to the decision of growing bugs, eating bugs and marketing bugs. We have found that art can be a comfortable mediator between insects and visitors openness to eating insects.

ARTISTIC INFLUENCES

For as much as we've been looking at insects, we've also been looking at artists whose work involved food. Our project seeks to maintain a connection to environmentalism, food, art, and insects. That's a lot of broad topics to fit into one show. Marija Vogelzang's *Faked Meat* and Domestic Godless' "Aquatic Duck" are two such examples that tie edible food, art, and environmentalism together in such a way that we were able to inform our movement forward by their work.

In *Faked Meat* Vogelzang creates a series of fake meats. The animals from which these meats supposedly come from are also fake. The mythology Vogelzang creates to explain these animals and the flavors of their meats serve to undermine the way similar vegetarian 'meats' are marketed. The mythology surrounding vegetarian 'meats' is that the product is meant to be mimicking 'real meat'. By creating meats that come from fake animals Voglezang frees the meats from any expectation of flavor. Instead of being seen as a copy and therefore "less

than” real meat, Faked Meat can stand on its own, without assumptions or stigma.



above: The aquatic rabbit⁸
below: A poster describing Vogelzang’s Ponti.⁹

In the Domestic Godless’ Future Feasting meal the Irish artist collective creates a gastronomic reality in which we would utilize edible invasive species’ as a means of getting rid of them. They propose we eat the invasive rabbit as an aquatic rabbit, in that it would be cross-bred with a duck. Stephen Brandes writes on the question of actually breeding a rabbit and a duck: “it’s a ridiculous idea (but the point is, it could be brilliant - both in terms of gastronomic

value and one less burden on the farmer and horticulturist).” In Domestic Godless’s “Aquatic Rabbit” there’s a mythology that surrounds the food. This mythology proposes an unreal solution to a real problem. In fact, both artists propose an unreal solution to a real problem and in doingso open their piece up to the conversation of sustainability. These propositions in their absurdity also suggest the absurdity inherent in how we talk about food and sustainability. Vogelzang seeks to lessen the stigma around vegetarian meats, and the Domestic Godless seeks to educate and inspire their diners of the edible invasive pests around them, and the ones that don’t exist.

Both Vogelzang’s *Faked Meat* and Domestic Godless’ “Aquatic Rabbit” influenced our piece by inspiring us to focus on creating a symbolic narrative that could accompany our food.



⁸ The Domestic Godless. “FUTURE FEASTING: Invasive Pests with The Domestic Godless.” The Domestic Godless. Accessed December 07, 2018.

⁹ Vogelzang, Marije. “Faked Meat.” Marije Vogelzang. Accessed December 07, 2018.

METHODOLOGIES

Before we began our project we were both actively exploring similar topics the summer before. Siena was in central New Mexico on the Sevilleta National Wildlife Refuge studying insect diversity. This experience gave new insights into what insects are and what crucial roles they play in their ecosystems. At the end of her time on the refuge she created large plushies of different insects on the refuge, and learned how to ease people's perceptions of insects and combat insect stereotypes. Courtney spent the summer in Ireland creating art that dealt with themes of mutual care through food and through words. She also worked with Tunde Wey serving and selling meals in a way analogous to the racialized wealth disparity in Washtenaw county where they were serving. These experiences brought Courtney into the project thinking about mutual care and conceptual serving methods; both of which made their way into the final presentation of our project.

Much of the research for this project was collected from experimentation. We have tried out different dishes on classmates and housemates. The bulk of our hands-on research took place as we created and showed two experimental events of our work in informal settings: *Eat a Bug* and *Circle of Giving*. Each iteration has informed the final presentation of the project and taught us about how people react to insects in their food and what ways we can better facilitate these interactions.

⁶ Arnold van Huis Edible Insects - Future prospects for food and feed security. FAO Forestry Paper. Rome 2013

⁷ Damasio, A.R. Descartes' error: Emotion, reason, and the human brain. New York, NY: HarperPerennial.

⁸ Looy, Heather. How Then Shall We Eat Insects?. Springer Science+Business Media Dordrecht 2013. Print

⁹ Mitsuhashi, Jun. Insects as traditional foods in Japan Ecology of Food and Nutrition 36(2-4):187-199 · September 1997.

Right: An early experimentation with cold-oil spherification.



EAT A BUG. OCTOBER 26TH, 2018.

Eat A Bug was a public-intervention food cart service in which we served bug-based treats to passers-by. Together we adapted an old cart Courtney had into a cart suitable for our purposes. We added wheels, handles, new paneling, and chartreuse paint (Chartreuse became one of the signature colors of our project). As we did this we were posting images of our process on our Instagram (@entomouthproject). Siena worked on advertising for our event in other ways and designed a visual identity for Ento-mouth while Courtney made the baked goods we would give away and managed the instagram account. While preparing we also continued researching entomophagy and the environmental impact of the food system. We wanted to share the information we had gathered with the public in a way that would take the pressure off of us having to repeat ourselves too much. Together we wrote and designed a pamphlet to give out to our visitors as they stopped by.

Promotional material for *Eat a Bug*.



Feast for Tiny Farmers

Finally, the day of the event came. The event was supposed to be on the University's Diag but because we had not received prior permission to have a booth set up we were asked to leave by the Diag's event coordinator. We moved to a corner of the sidewalk at the intersection of State St. and E. William St. Although the weather was overcast and slightly rainy we managed to attract quite a few people to the cart. Despite our success in attracting people the conversations we had were shallow and did not result in 'change' as we had imagined. It appeared that instead of self-managed curiosity or a desire to change their habits people only tried eating the bugs because friends egged them on. We had planned to have an in-depth dialogue with each person on their history with entomophagy and their relationship with the food system. The majority of people, however, were far too busy to stop to chat and it seemed that we were as well. People poured in at an unpredictable rate so that one conversation may have lasted 10 minutes, and another only 2. On top of this, people were not sure how to have a conversation about eating bugs as it seemed such a novel concept. Many of our conversations consisted of convincing people that bugs were even edible at all. The majority of our interactions became instructional and lecture-like rather than a productive dialogue. However poor most of our interactions went, we did have 2 or 3 good dialogues with truly interested participants. However, those participants who were willing to invest time and emotional energy into talking about eating bugs certainly did not need to hear our briefly-researched logic on the subject, they were environmental studies majors and the like- they were already doing the best they could for the sake of the earth.

We went into this iteration hoping to intervene in the public; a "boots on the ground" intervention to get the word out about insects and talk about individuals relationship the food system. Ultimately, the conversations we had were not the ones we had hoped for and the event was cut short due to an issue no one had



Top: Courtney smiles next to freshly-baked cricket-chip cookies and ant-lemon bars. Bottom: The food cart in the process of being painted.

anticipated. We were only stationed at the corner for an hour before a Washtenaw County Health Inspector asked us to leave because we did not have a food license. Ironically, talking with the inspector was perhaps the longest, most productive dialogue we had.

After counting our losses we decided we would rather not have people pressured into eating the bugs by their friends. The choice to eat should be a personal one, one that is made by one's self. Our logic concluded that a choice made without peer pressure is a more powerful and more lasting choice. We also decided to avoid telling people how to think/feel about eating bugs. If this project was supposed to be 'art' then it should be more subjective than our first iteration had been.

We learned from this iteration that we wanted to create a slower paced interaction between us and the visitors by controlling the setting. The food cart randomly stationed on a street corner seemed too open and chaotic a space for productive dialogue or self-reflection to take place. We also did not want to rely so much on an educational pamphlet to communicate the message we were trying to get at.



Interested passers-by approach the cart as Siena and Courtney explain the benefits of entomophagy to others.

THE CIRCLE OF GIVING. NOVEMBER 19TH, 2018.

The *Circle of Giving* was an installation that took place inside our senior studio space. The installation allowed one visitor in the space at a time. That visitor would crawl through a curtained tunnel. The tunnel had mealworm-shaped plush sculptures protruding from the walls so that the visitor had no choice but to brush against them as they crawled. The end of the tunnel there was a small peep-hole, which if looked into would reveal a single mealworm on a pedestal. Then the visitor would exit the tunnel to the right, stand, and be presented with the choice to eat a mealworm and olive tapenade puff pastry with goat cheese. This pastry was something we felt was more appropriate than the sweets we had been presenting in our previous piece. We believe human health is an important part of ecological sustainability. For this reason, we thought a savory pastry would be more in line with our values. Finally, the visitor could choose to fill out a comment card answering one of two questions we had provided.

In the process of conceiving this piece, we were excited to make something that felt more like 'art'. We wanted to construct a space that people could be immersed in, isolated from peer pressures and steeped in a bug's perspective. Given



A visitor crawls through the plush environment of *The Circle of Giving*.

the drawn-out nature of the process of our last iteration, it felt right to draw up the plan in one night and build the space in less than a week.

In this iteration, we were able to create a more immersive environment. The space was physically engaging in a way that had not been possible with a food cart. Visitors entered the space crawling on their hands and knees through a curtained tunnel decorated with mealworm plushies. This kind of movement made many of our guests feel like they were an insect themselves. We only allowed one person at a time in the space so that they would not feel peer-pressured to eat the insect-based food. The name, *Circle of Giving*, comes from the idea that there is a cycle of giving that occurs between insects and humans when we eat farmed insects. In this installation, the visitors eat cultivated mealworms in a pastry and then compost the scraps into a bin that houses other mealworms from the same colony of the bugs they just ate. This creates a *Circle of Giving*; when we eat the bugs we also feed their brethren and eventually those brethren feed their bodies to us.

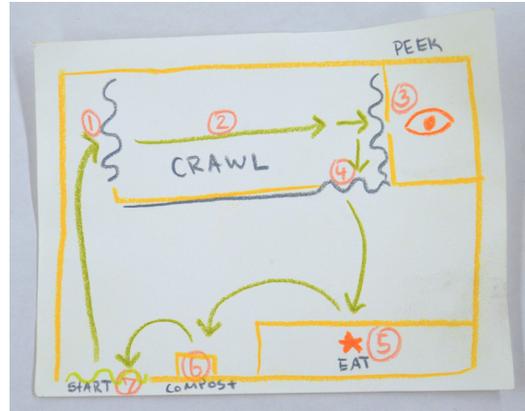
In this iteration, we chose to focus on the cycle an edible mealworm goes through and how that can be seen as a metaphor for the human food cycle. This was a marked change in focus from our *Eat A Bug* iteration in which we emphasized personal actions one could take to reduce their carbon footprint. In the *Circle of Giving* the visitor first crawls through the space just like a larval mealworm squirms through the soil in their first stages of life. Then, after the visitor stands and eats the mealworm pastry they are able to deposit their scraps into a bin that feeds other mealworms. This idea that as the mealworms grow they are fed by the scraps of the mealworms who came before them was central to the piece. This central aspect, however, ended up being a major weak point for us. Visitors complained that being made to feel like a mealworm and to be faced with live mealworms only made them want to eat bugs less. The empathy that they gained from this experience served to deter rather than encourage entomophagy.



The mealworm pastries and accompanying display.

Feast for Tiny Farmers

This feedback taught us we had to pull back even farther from the “eating bugs” part of our piece. There will be people disgusted by the idea of eating insects who would attend our final show, that is a fact that we had to deal with. We decided that it is not our task to change their repulsion. However, what we can do is offer a new perspective on bugs as they relate to the food that we already consume. We hope this can build empathy in a less deterring way.



A map of the interactive space.

FINAL ITERATION

FEAST FOR TINY FARMERS

In our winter semester, we decided that instead of continuing to work in iterations we'd focus on the final piece, we felt we had learned enough now to start thinking about what our final would look like. We decided we wanted to focus our attention on how people ate and how that could represent insects' role in agriculture. We divided our efforts; Siena focused on making ceramic serving-ware while Courtney focused on the food itself.

As mentioned before, we had decided to pull back from the “eating bugs” aspect of our piece given the feedback we received in the *Circle of Giving*. The

Feast for Tiny Farmers
before the opening.



direction of this shift was towards an approach that saw bugs as a part of the process of growing food rather than food in and of themselves. We didn't abandon entomophagy all together, instead, we made $\frac{3}{4}$ of the foods we'd serve bug-free and only $\frac{1}{4}$ with bugs. This way people less open to the idea of eating bugs would still be able to participate. At the same time, we redefined the aim of the food to convey what bugs do for our food system and our environment. This opened the possibilities of interpretation for our project as well as the possibilities of what we could make. We kept the element of public dialogue from *Eat a Bug* present in our final piece. Talking to visitors directly allowed us to create a relationship with each viewer in much the same way we wanted to convey that they ought to form a relationship with the natural world.



A visitor 'pollinates' a pie crust flower.

Our finalized menu focused on the foods that bugs help us grow. We hand-developed each recipe to be both delicious and fun to eat. Earlier in this paper, we explained the four major ways in which bugs help us grow food, those four actions are what we based each food around.

Knowing pollination was the first interaction we wanted people to engage with, we wanted to start with something sweet

since sweets are irresistible for most people. We had been experimenting with molecular gastronomy and decided we'd use the cold-oil technique of spherification to create spherified flower-flavored syrups. These would act as pollen that would "pollinate" bite-sized pie-crust flowers.

For soil aeration, we wanted to have the visitor act like a bug would in aerating soil. We thought about roots and air and came up with the idea of an aerated root vegetable juice that could be continually bubbling throughout the show. Siena made three special vessels that allowed for the juices to be aerated. These vessels were also decorated with motifs that related to the organisms that aerate soil: mole crickets, ants, and termites. At this station, the visitor is not acting as an insect exactly, but instead, they are eating a direct analogy of what insects

do. The foaming juice is a metaphor for the air that insects help bring to the roots of plants, especially the root vegetables that we eat.



above: Raddish, lime and ginger foam.
below: baby wasp skewers.

For decomposition we wanted the visitor to be able to somehow decompose their own food. We settled on a chickpea salad that could be ground (“decomposed”) into hummus - a pun arose from this idea as ‘hummus’ is the name of the organic matter that is produced through decomposition by insects.

Siena made two special vessels for

this display. The vessel that held the chickpea salad (or “pre-hummified matter” as it was labeled) was made to look like a mealworm. The vessel that held the “hummus” was made to look like a darkling beetle, the adult version of a mealworm. These organisms are versatile decomposers; the larva can decompose plant-matter while the adult is capable of decomposing carrion. Since these organisms participate in different levels of decomposition, it seemed fitting that they would represent different stages of decomposing matter.

For predation we were inspired by the parasitoid wasps that lay their eggs inside green hornworm caterpillars. Green hornworm caterpillars are a common issue for tomato farmers and parasitoid wasps help these farmers fight the caterpillars off. For this meal, Siena created a massive ceramic caterpillar and a series of



‘baby wasp skewers’ that could be used to stab the colorful cricket-powder-filled chocolate truffles that Courtney made. This last push to feed bugs to the public tallied all the faults we had encountered before. We decided to make chocolates because it’s one of the few sweet foods that 1) almost everyone likes and 2) can be easily combined with savory flavors (like crickets). We included crickets as a powder mixed into the ganache that filled the truffles. The flavor was mild but a keen tongue could make out the flavor. This delicate balance straddled our concern that people should be able to taste the bugs and that people would not want to.

CREATIVE WORK

Feast for Tiny Farmers was presented on April 12th at the Stamps Gallery. We presented four distinct sections of food on a large chartreuse table. Each station consisted of ceramic vessels filled with food.

The pollination station featured 'pollen' of flower-flavored syrups that the visitor could spoon into a pie-crust flower. These pearls were displayed in three flower-shaped vessels that Siena made. The pie-crust flowers were arranged on a store-bought tiered ceramic plate.

At the soil aeration station, we used an aquarium pump and an aeration stone to diffuse air into a root-vegetable juice mixed with a foaming agent. The effect of this was a bubbling expanse of aerated root vegetable juices that could be scooped up with a root-vegetable chip.

At the decomposition station, our mealworm vessel was positioned nearest the meat grinder, the meat grinder was attached to the table over where we had set up the darkling beetle vessel. Guests were able to spoon chickpea salad from the

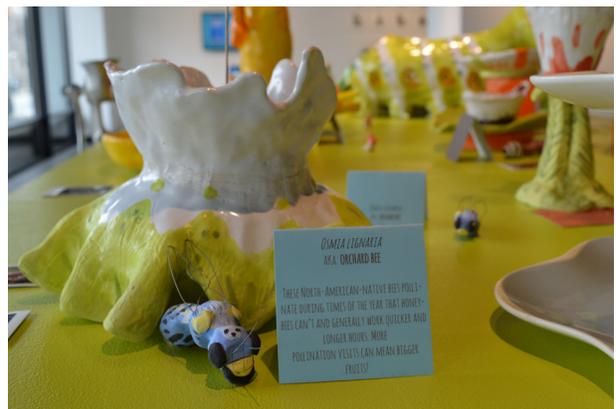
Below: Courtney explains to a small group how the aeration station works.



Feast for Tiny Farmers

mealworm into the meat grinder and make "humus" that they could then eat with pita bread or vegetable slices that were provided.

Finally predation, the only part of the feast where we actually served bugs. We served green matcha covered truffles, yellow ginger truffles, and orange cayenne truffles beset on Siena's caterpillar sculpture. Visitors used the baby wasp skewers to stab the truffles and bring them to their mouths.



clockwise from top left: Truffles before serving. Siena and Courtney address a hungry crowd. Pie crust flowers filled with "pollen". The pollination station featuring a blue orchard bee figurine that Siena sculpted. Elderflower "pollen".

FINAL PRESENTATION. APRIL 12TH, 2019.

Our final show on April 12th was a huge hit. We were stationed at the entrance to the gallery and this made it easier for us to attract a larger crowd. The fact that we were serving food helped pique the interest of many guests. We gathered groups to listen to us explain the significance of each station approximately every 10 minutes. For the final show we dressed the part that we played, Siena wore overalls and carried a net: she played the role of the entomologist. Courtney wore an apron: playing the role of the chef. The gallery was so crowded it was hard to talk to every single guest and fully explain the significance of the various aspects of the piece, but we explained as best we could. And as we explained, people who had heard our explanations would explain to their friends and even strangers what various aspects of the piece meant. This was rewarding to overhear since it was an act of care similar to the kind we were intentionally trying to encourage. As the show went on we became engrossed in the process of explaining the piece and re-stocking it. Most of our guests seemed to understand the basic premise of the piece. As the opening continued we were able to make time to explain the intricacies of the piece to particularly interested guests as well as to egg on a few bug-phobic guests (in good fun, of course). As the opening wound down and guests began to leave the table began to get messy and our explanations became less structured. This was expected but it was nonetheless disenchanted to see entropy run its course on our project.

A visitor shows another visitor how to use the decomposition station.



After we cleaned up the food we left the ceramics and food labels out for the remainder of the show-time. We added polaroid images of the food and people from the opening to give context to the ceramics. We also wrote and stocked recipe cards for each empty ceramic vessel as a means of sharing the ephemeral joy of food in a non-ephemeral way.

CONCLUSION

After 9 months of thinking over the issues of food security, food justice, entomophagy, mutual care, and many other important buzz-words we both have changed not only as artists but as people. In Courtney's experience with this project, she has learned that working with someone like Siena pushes her to work harder towards a common goal. The idea of mutual care comes to mind in reflecting on our process. We learned over the course of this project how to work together to the best of both our strengths. We started out working together closely and doing almost everything side-by-side. As our project developed we were able to divert our attention to the places we would be the most useful; Siena in creating ceramics and soft sculptures and Courtney in cooking and conceptualizing dishes. This process of moving from depending on each other at every step to trusting each other's knowledge and skill has been profoundly nurturing. We both been able to learn how to trust another person in the process of creating something collaboratively.

There is a certain skill in being able to trust that those around you will be better for a certain task than you will, this project has been a powerful lesson in that. Moving forward, Courtney is looking to continue work similar to this project. She has honed a passion and skill for creating interactive meals that educate and delight the diners. She will be moving to Chicago after graduation to pursue a creative practice in catering. Courtney has also been able to synthesize her love for science in art through this project. After learning how to work with and through Siena's knowledge for ecology and biology, Courtney hopes to spark similar creative partnerships in the future.

Siena would like to continue her education of the natural world. She will be searching for an environmental education or ecological restoration position in the U.S. She hopes to continue feeding her own curiosity for overlooked organisms (like insects) and extend that curiosity to others through her artwork. Siena seeks to use her artwork to combat the negative stereotypes that these organisms have and build positive spaces between nature and humans. Siena has learned through her collaboration with Courtney that there is a myriad of ways to create more intricate connections with nature whether it be through food, sculpture, or conversation.

Finally, stepping back, it is important to reflect and acknowledge the larg-

er scope of what our project has accomplished. By sharing bug-based foods with as many people as we have we hope we have widened those people's perspectives of what food can be. We believe that modern life has disconnected us from nature in a way that is affecting everyone's health. As the global climate continues teetering off-balance the health of everyone is in jeopardy. What we eat is an element of nature that everyone interacts with every day; food makes a bridge between individuals' relationship with nature and the consequences of that relationship. At the beginning of this project, we asked "How can we use entomophagy to affect the U.S. food system?" We believe that if people understand the impact their food has on the environment, people will want to change their food habits. Through *Ento-Mouth* visitors have become aware of the relationship between bugs and food. We hope visitors can take this awareness with them into the future to act with conscious care towards insects, food, and the planet.



Polaroid image of Siena and Courtney taken after we installed *Feast for Tiny Farmers*.

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