Chicktopia

Columbia University
Advance Design Studio VI, Spring 2011

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In 1847, the City of New York authorized street-level railroad tracks down Manhattan's West Side which gradually causing chaotic traffic and accidents on the already hectic New York City's roadway. This leads to the establishment of The Highline, an elevated railway that allows milk, meat, produce, and raw and manufactured goods to be transported and unloaded without disturbing traffic on the streets. The Highline was opened for service in 1934. Unfortunately, the growth of interstate trucking in the 1950s led to a drop in rail traffic throughout the nation which led to the demolishing of the highline railway. In 1980, the last train runs on the High Line was pulling three carloads of frozen turkeys. What interests me is what happened to those frozen turkeys? This leads me into researching meat processing from factory farm and why it is important to grow food locally. If we buy from factory farm, we spend a lot of time and money on transporting livestock to the slaughter house, conditioning, transport the meat and distributes them to stores, and refrigerate those meat before selling. A study regarding a meat market in Cambodia shows that it is safe to leave raw meat outside for at least 7 hours after the animal is killed. Without the unnecessary steps in meat processing, we can raise our food locally, kill, cook, and eat the same day.

The proposal for this project is a 1.09 acres of free range and organic chicken and turkey farm that promotes urban farming and self-sustained locally raised poultry. The site features the production of its site-grown food from egg to the dinner table meaning you raise your own calories. This design studio also requires us to create an iPhone app and use social media like Facebook to monitor and populate the architecture space allowing people to interact in real and social media spaces at the same time.



The Highline Park: A 1.45-mile (2.33 km) park built on a section of the former elevated freight railroad spur called the West Side Line, which runs along the lower west side of Manhattan.

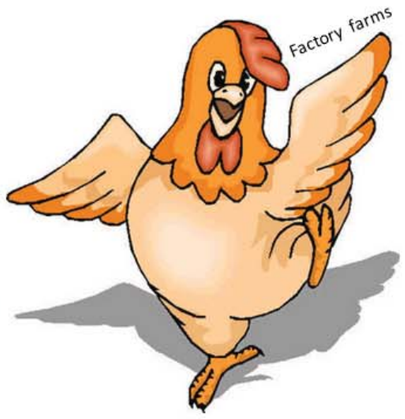


A study regarding a meat market in Cambodia shows that it is safe to leave raw meat outside for at least 7 hours after the animal is killed. Without the unnecessary steps in meat processing, we can raise our food locally, kill, cook, and eat the same day.





1950 vs. 2008



DAYS: 70

DAYS: 48

Left: Factory farms are known to inject their livestock with growth hormone, as seen here the significantly reduced period of raising a chicken. Growth hormones can lead to various health risks and the disruption of human hormone balance.

Brined Roast Turkey

Serves about 24

1 (18 pound) turkey, neck and giblets removed
2 cups kosher salt
1/2 cup melted butter
2 large onions, chopped
4 carrots, chopped
4 stalks celery, chopped
2 sprigs fresh thyme
1 bay leaf
1 cup dry white wine





DAYS: 0 DAYS: 21 DAYS: 90 SNACKS

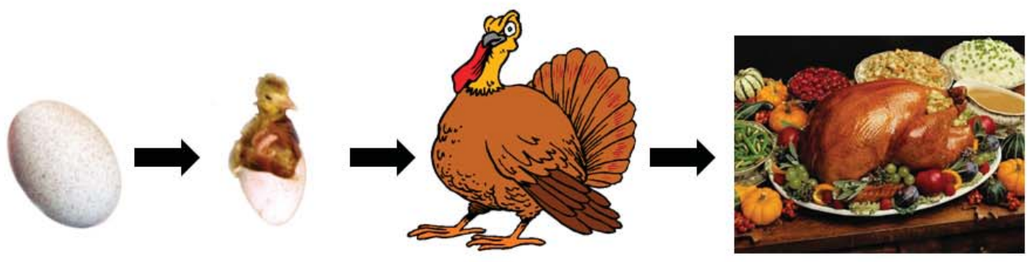
Left: The concept of this farm is the production of chickens and turkeys from egg until they end up on your plate. Raising a full grown chicken takes 90 days (3 months) and turkey takes 180 days (6 months).

Miss Lamie's Fried Chicken

Serves 8

Ingredients
2 3- to 4-pound chickens, cut into 8 pieces and each breast cut in half again (reserve the neck, back, and wing tips for another purpose)
3 teaspoons coarse salt
1 1/2 teaspoons freshly ground black pepper
2 teaspoons dried thyme
2 onions, peeled and sliced
3 cups plain dried bread crumbs
2 large eggs, beaten
1 1/2 - 2 cups vegetable oil

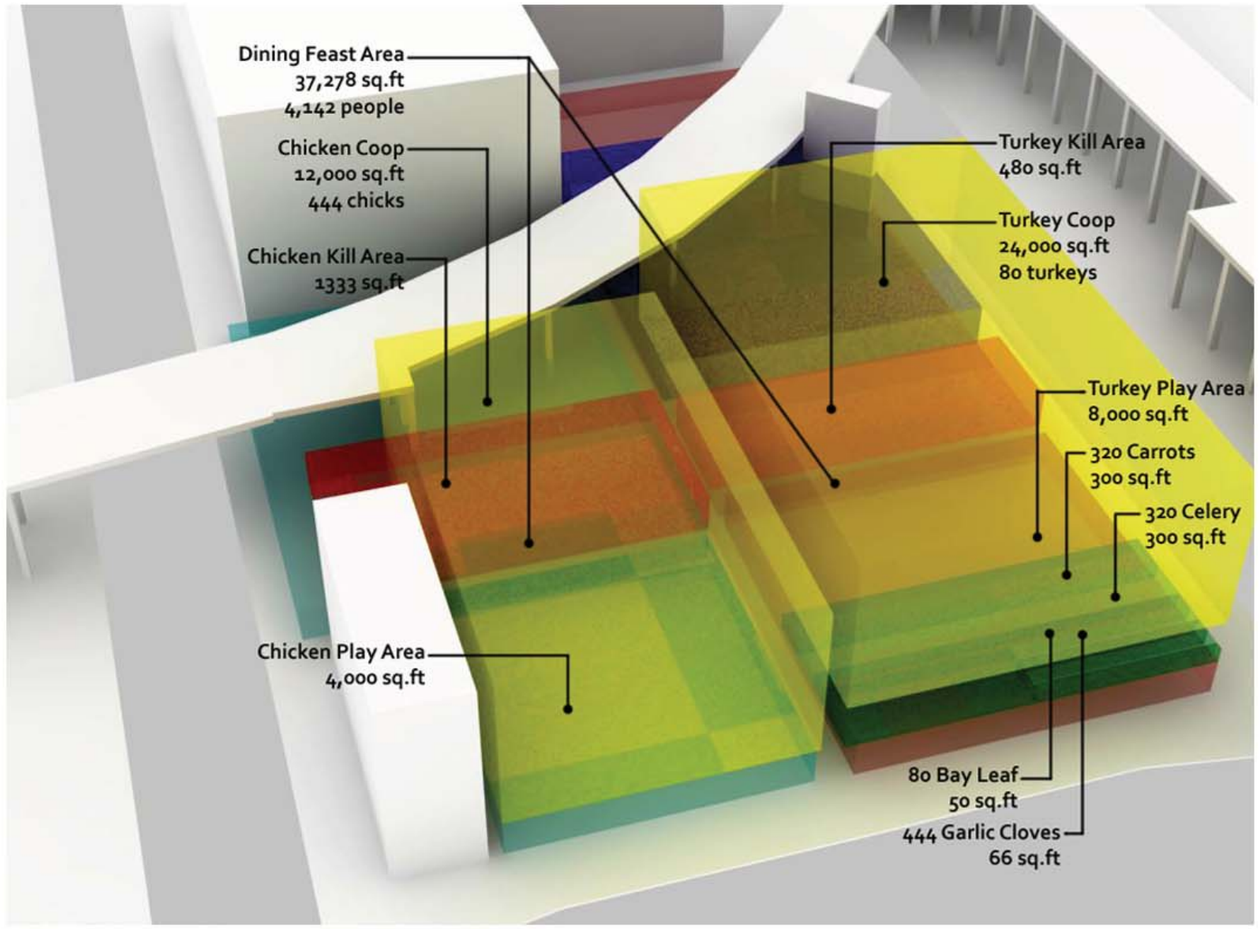




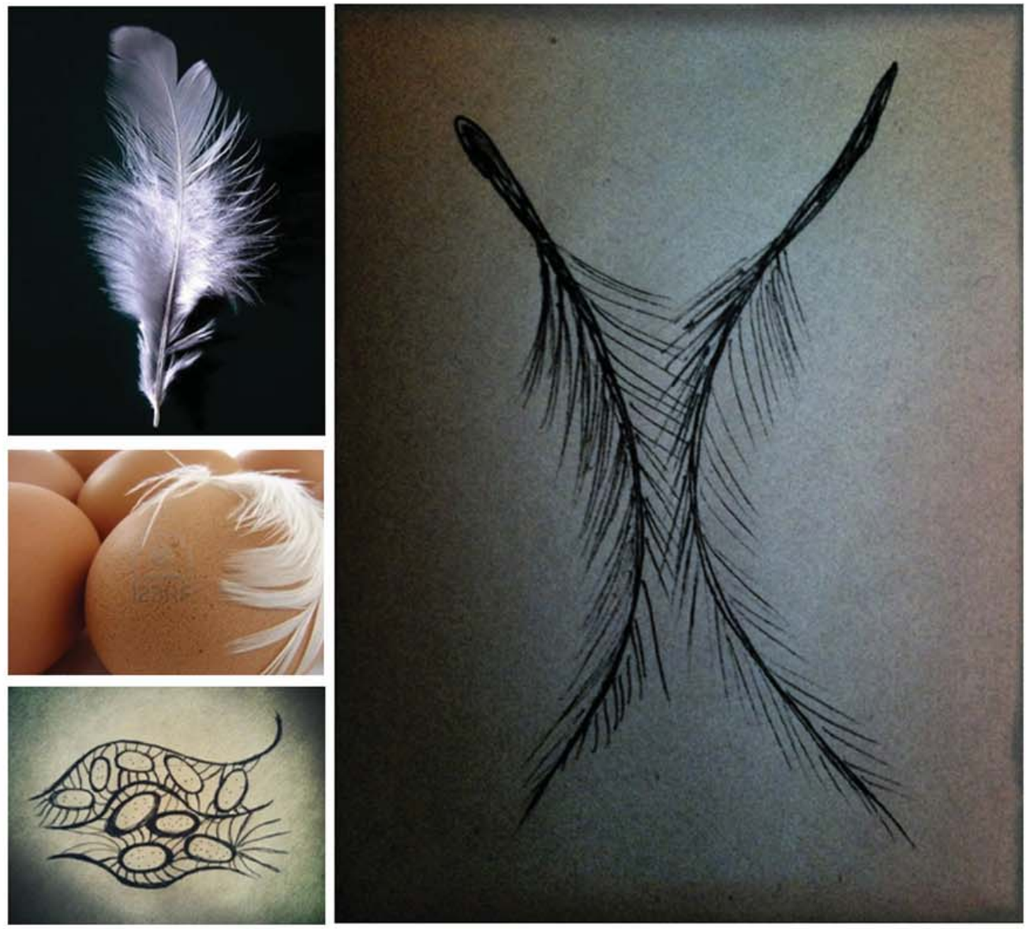
DAYS: 0 DAYS: 28 DAYS: 180 THANKSGIVING FEAST

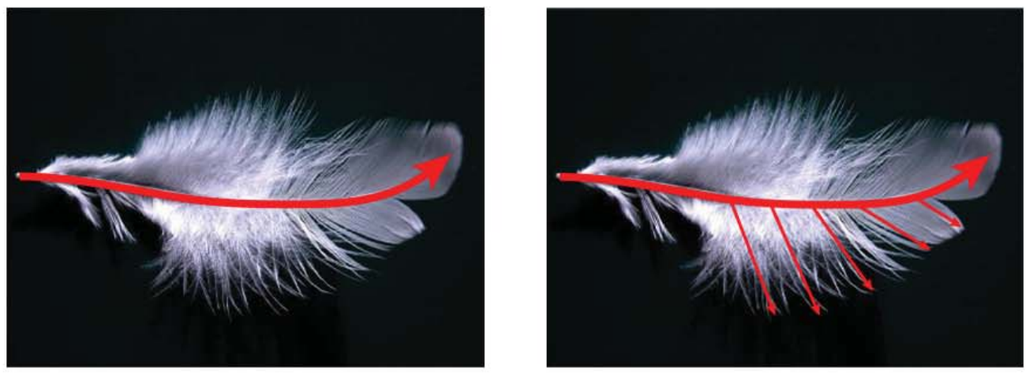
Right: The programs were generated from the site's square footage and Marta Stewart's popular Thanksgiving Menu and Fried chicken recipes.

at Marthastewart.com

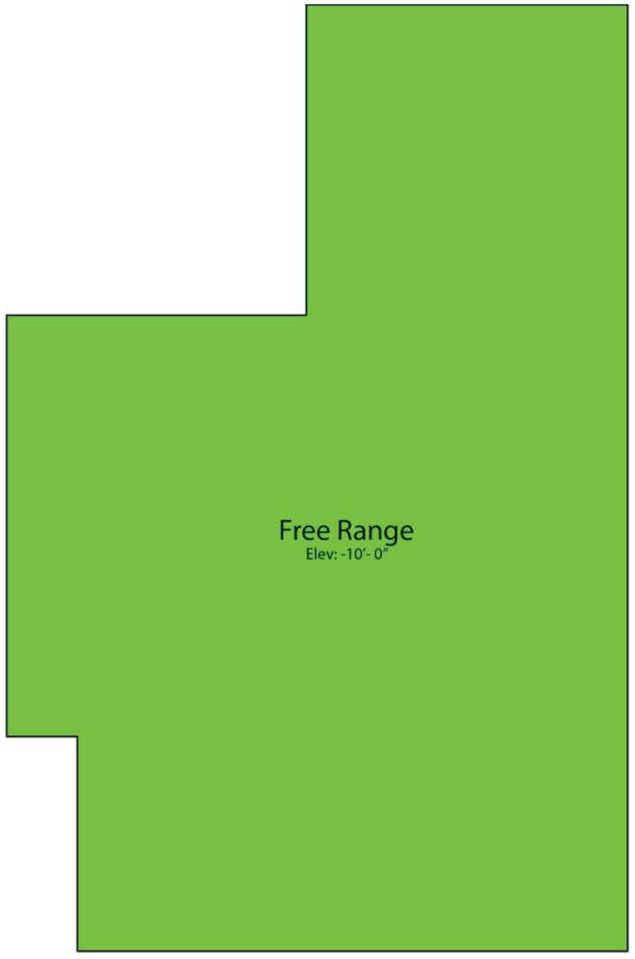


Above: From the menus, the following numbers of chickens, turkeys, and vegetables with the according square footage--80 turkeys, 444 chickens, vegetable area to cook in the recipes, kill and cook area for both chickens and turkeys, and eating area for the people.

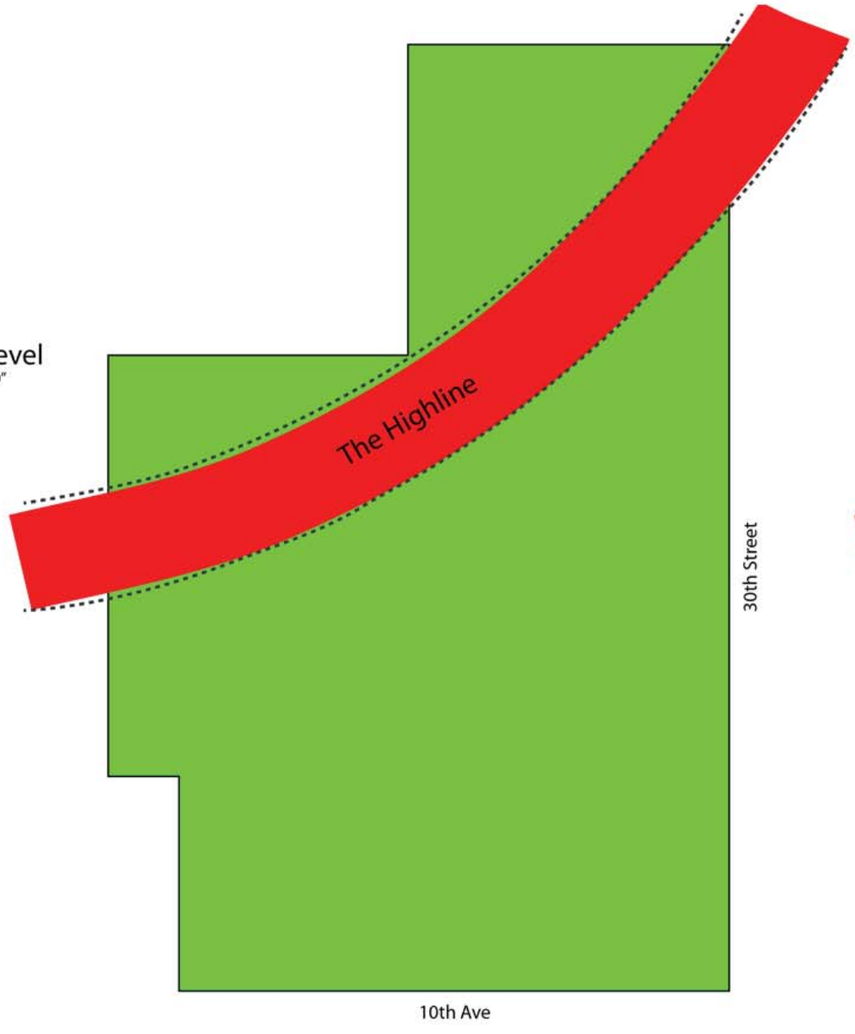




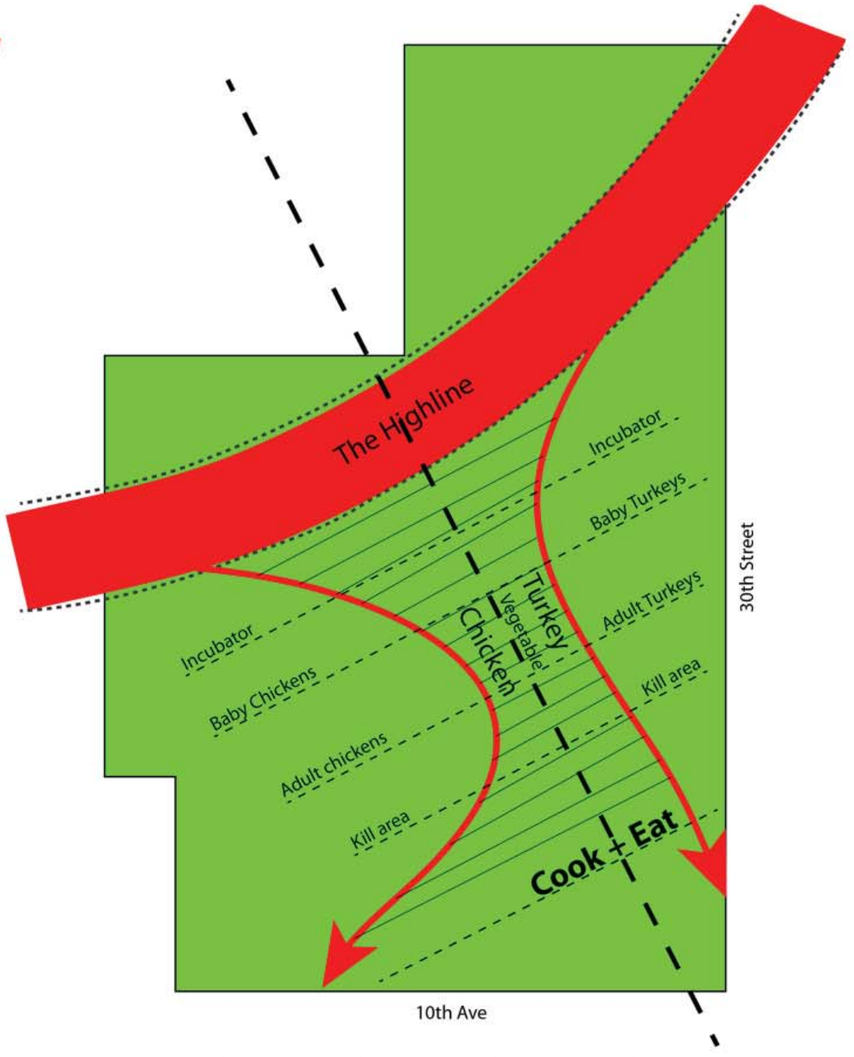
Right: Inspiration for site design comes from a chicken feather. Looking closely at it (bottom two images), it has one primary spine that has programmatic cores that lead off creating multiple circulations.



The entire ground floor will be designated to the free open range for the chickens and turkeys. Also lowered one story down to to keep the chickens and turkeys from running out and eliminate fencing on the street level.



Using the existing Highline walkway as the main spine.



Two bridging paths are created leading to each existing sidewalk. Within those paths a programmatic space is established in between. A main axis is created to organize the programs within that space which leads to the areas for Turkey, chickens, and vegetable.

After that, a procession of the site concept of production from incubator(eggs) to baby chickens and turkeys, adult chickens and turkeys, kill area, then finally the cooking and eating area.



The ground floor are free open grass areas for chickens and turkeys to run and play.

The site features:

Programmatic pods which will be discussed in more details later on.

The procession of food production starting from incubator to the killing, cooking, and eating area.

Vegetable pods that are in the previous menus discussed earlier.

A grand eating area for Thanksgiving Feast.

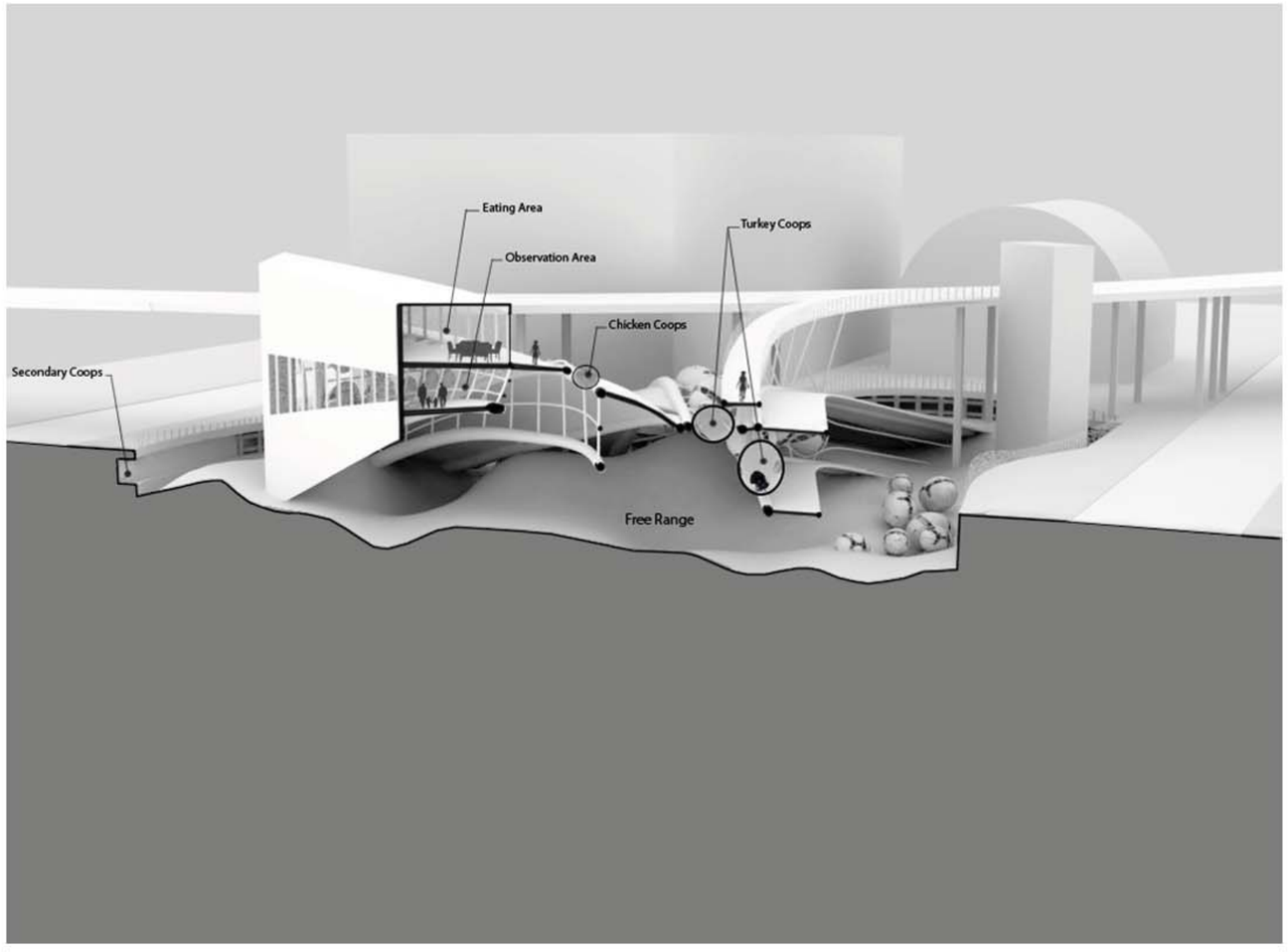
And additional chicken and turkey coops.



Circulation of people: Red are people walking from the highline, orange are people walking inside the site, and purple are existing sidewalks circulation.



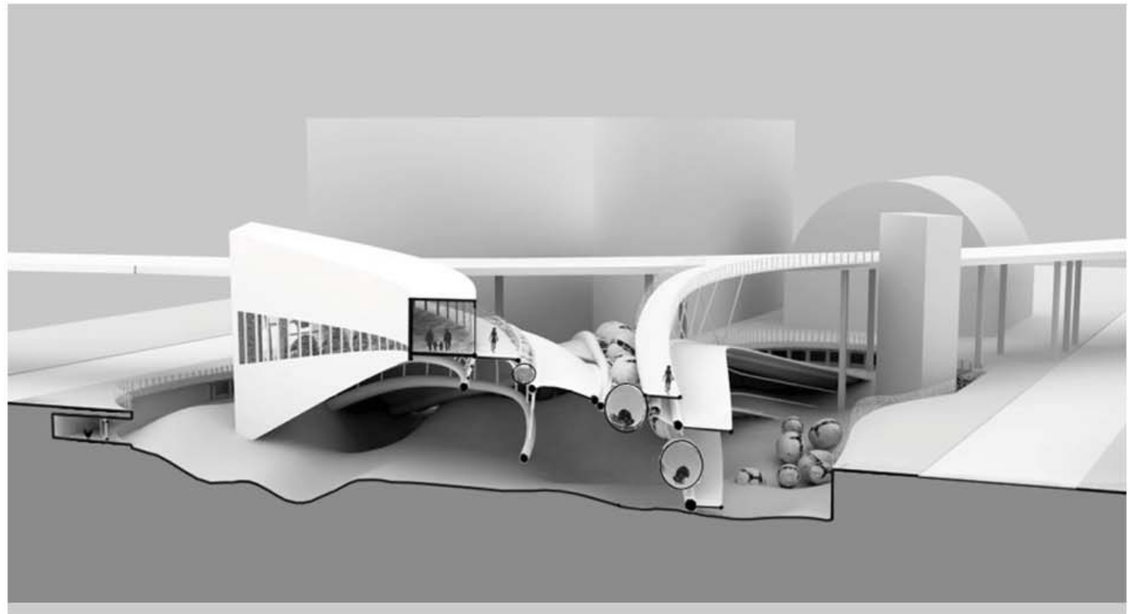
Circulation of livestock: Yellow represents the circulation of chickens and blue represents the circulation of turkeys inside the site.

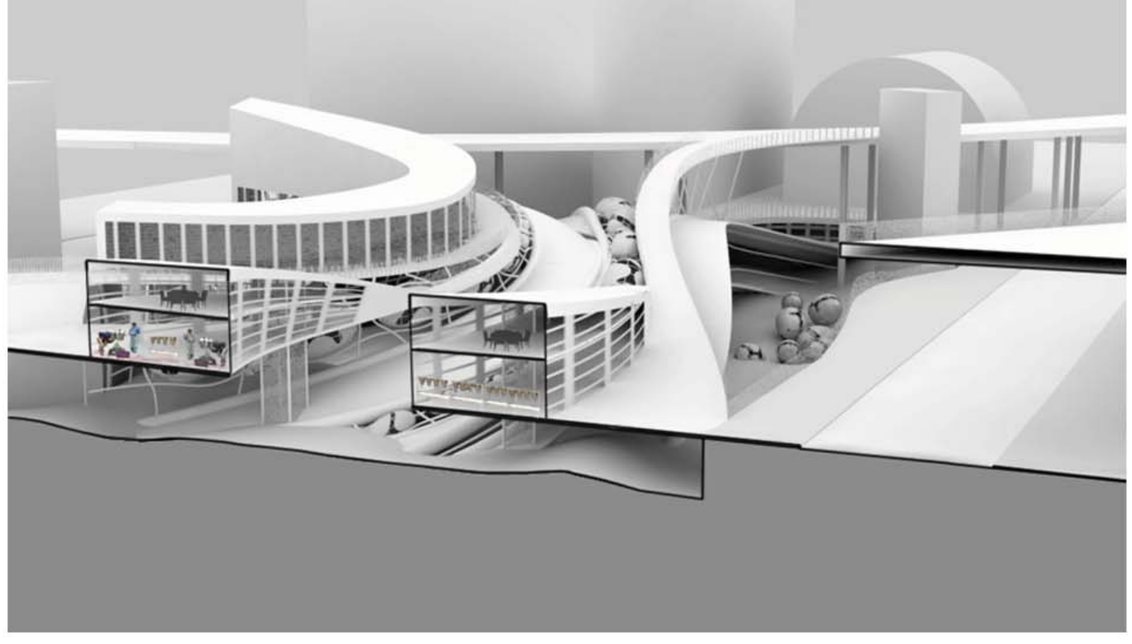


This is a transverse section of the site showing the bridging structure leaving the ground floor open, primary programmatic pods are located higher to maximize ventilation (chickens and turkeys love open air!) The coops up top are first come first serve, chickens and turkeys move around all the time, so every one of them would get the access.

Cutting further toward the 10th Ave sidewalk, the grand eating area and coops continues.

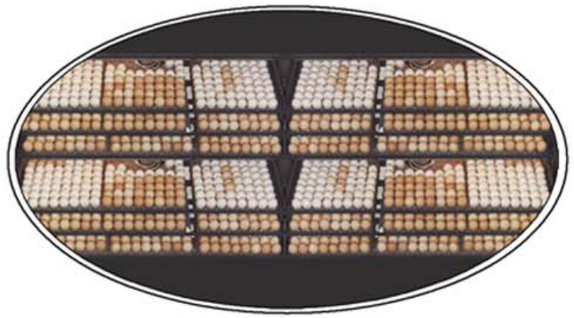
Cutting further, this shows the killing areas which are adjacent to the 10th Ave sidewalk. So if you walk on the sidewalk near meal times, you'd see chickens getting killed, and on Thanksgiving day you'd see turkeys getting killed. Chicken killing area is on the left and the turkey killing area is on the right. There is a restaurant and eating area on top of both killing areas.



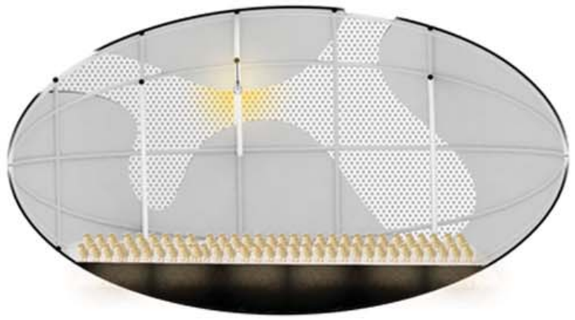


Chicken x 2

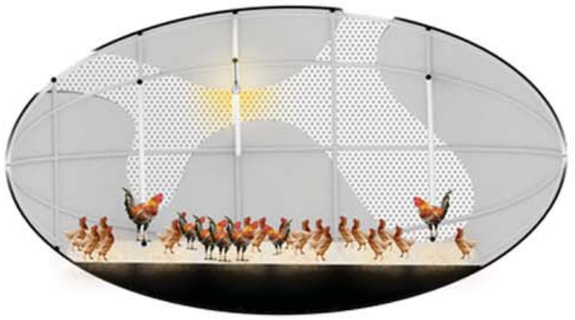
Day 1



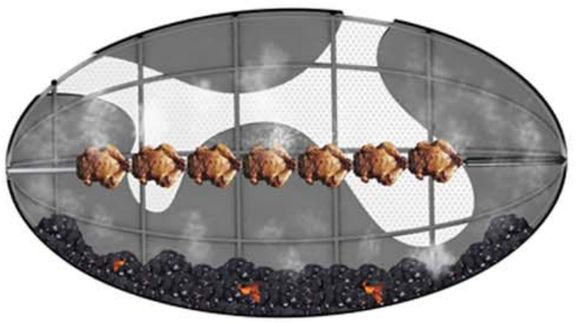
Day 21



Day 89



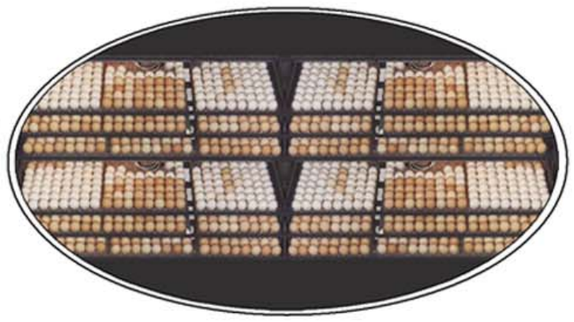
Day 90



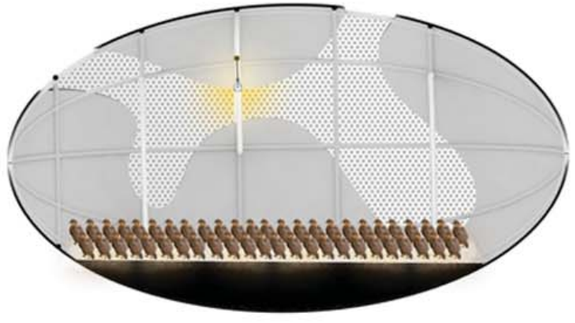
May 27

November 22

Turkey



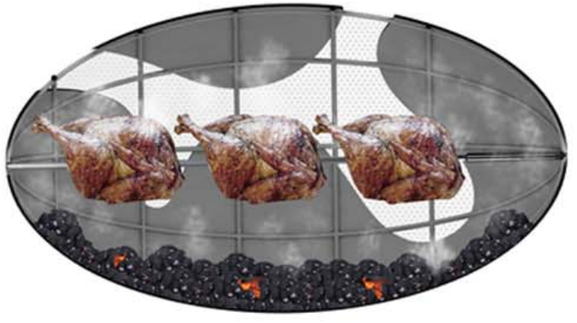
Day 1



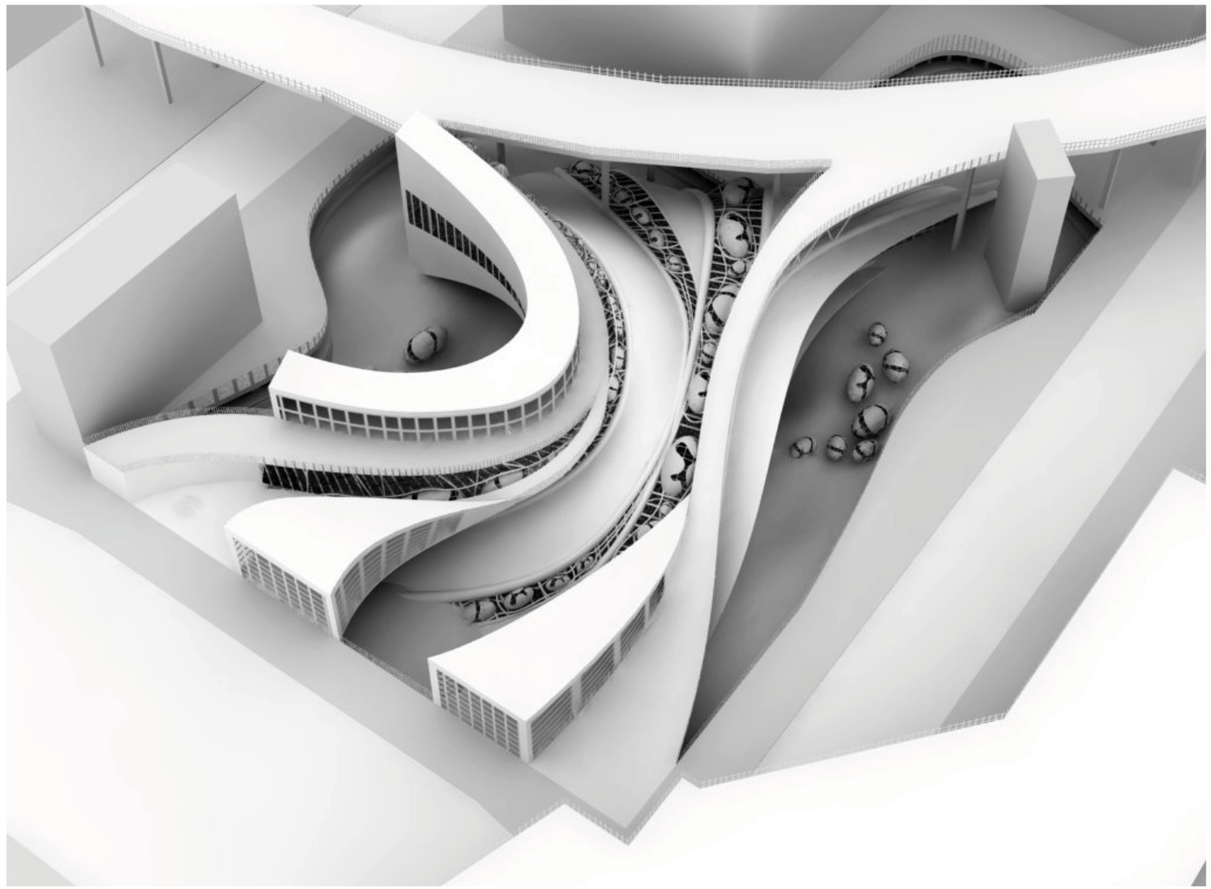
Day 28



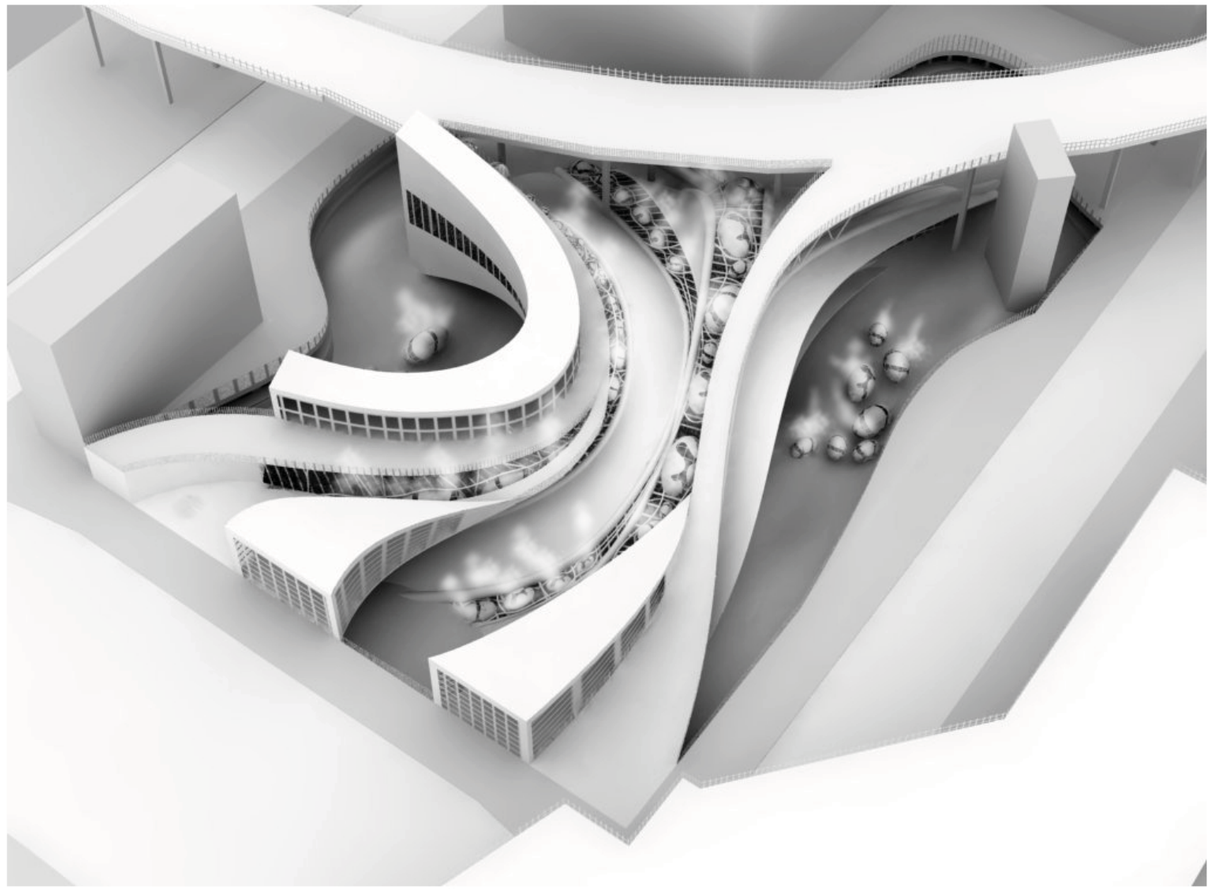
Day 179



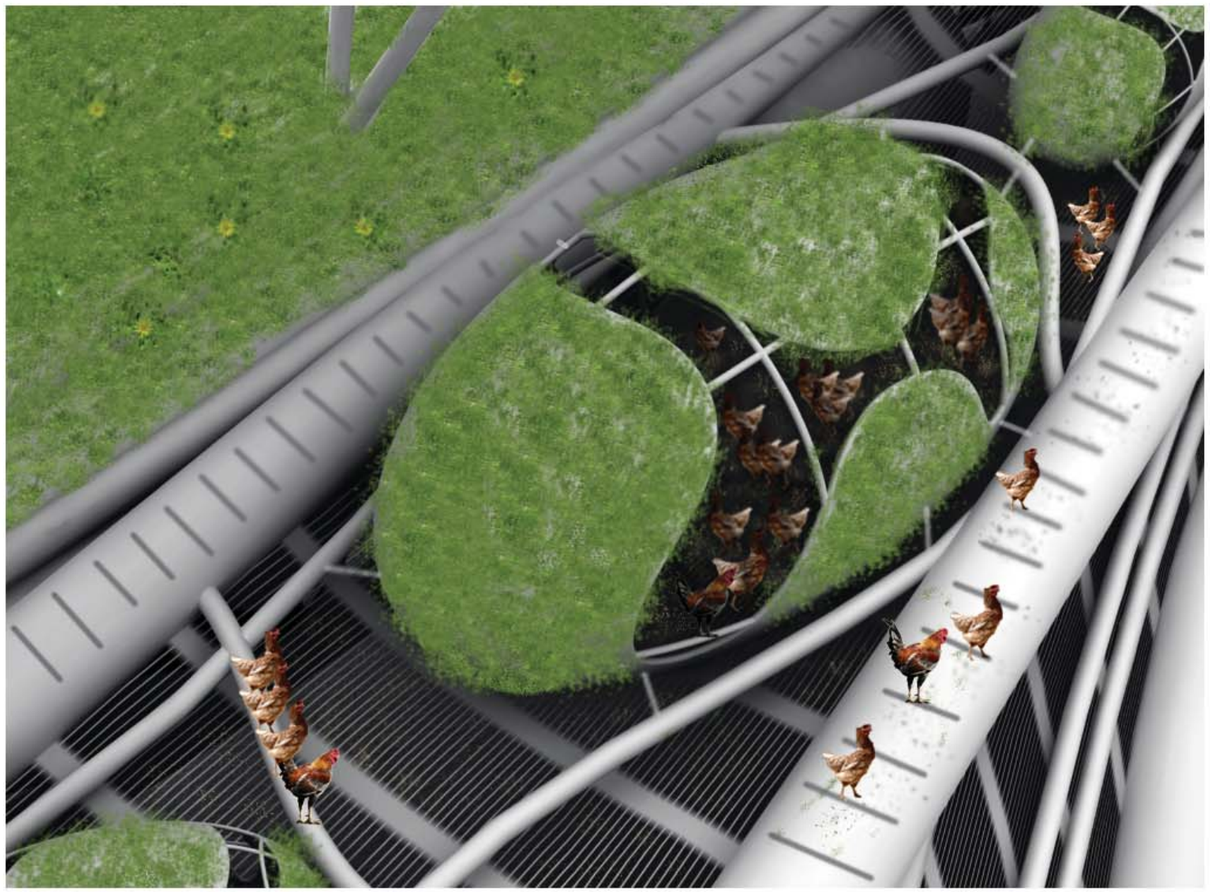
Day 180



Normal everyday condition at the site



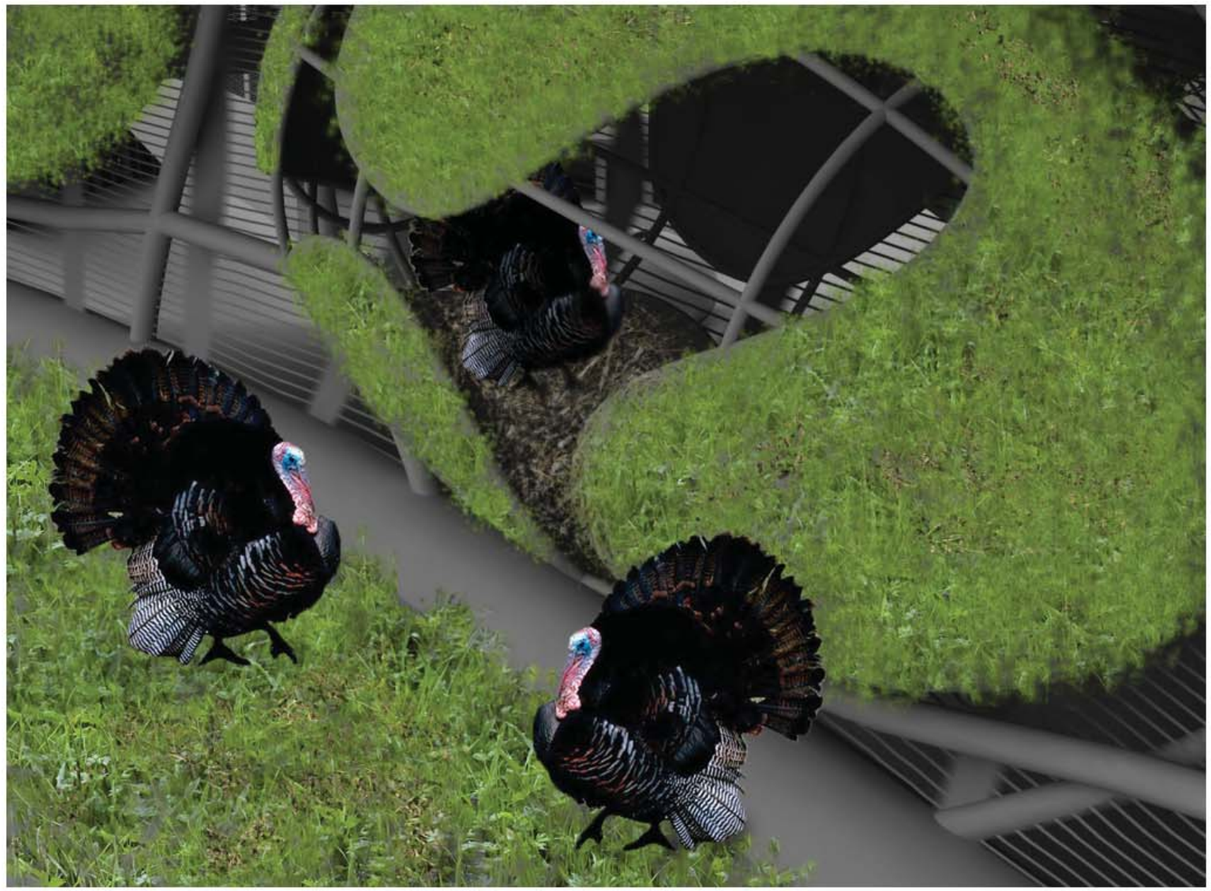
The site during Thanksgiving day where the chicken and turkey pods become cooking pods



Chicken pods/coop



Closer view inside the chicken coop



Turkey coop



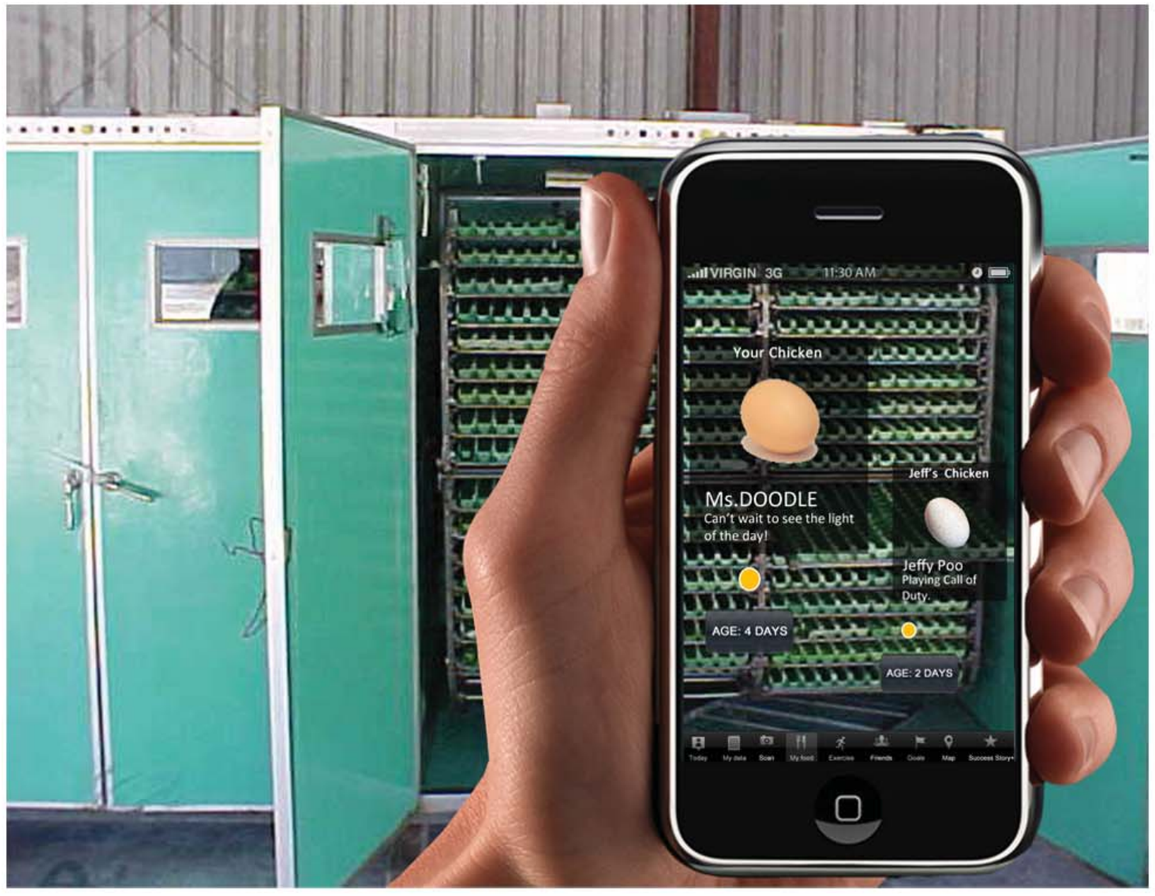
Vegetable pods



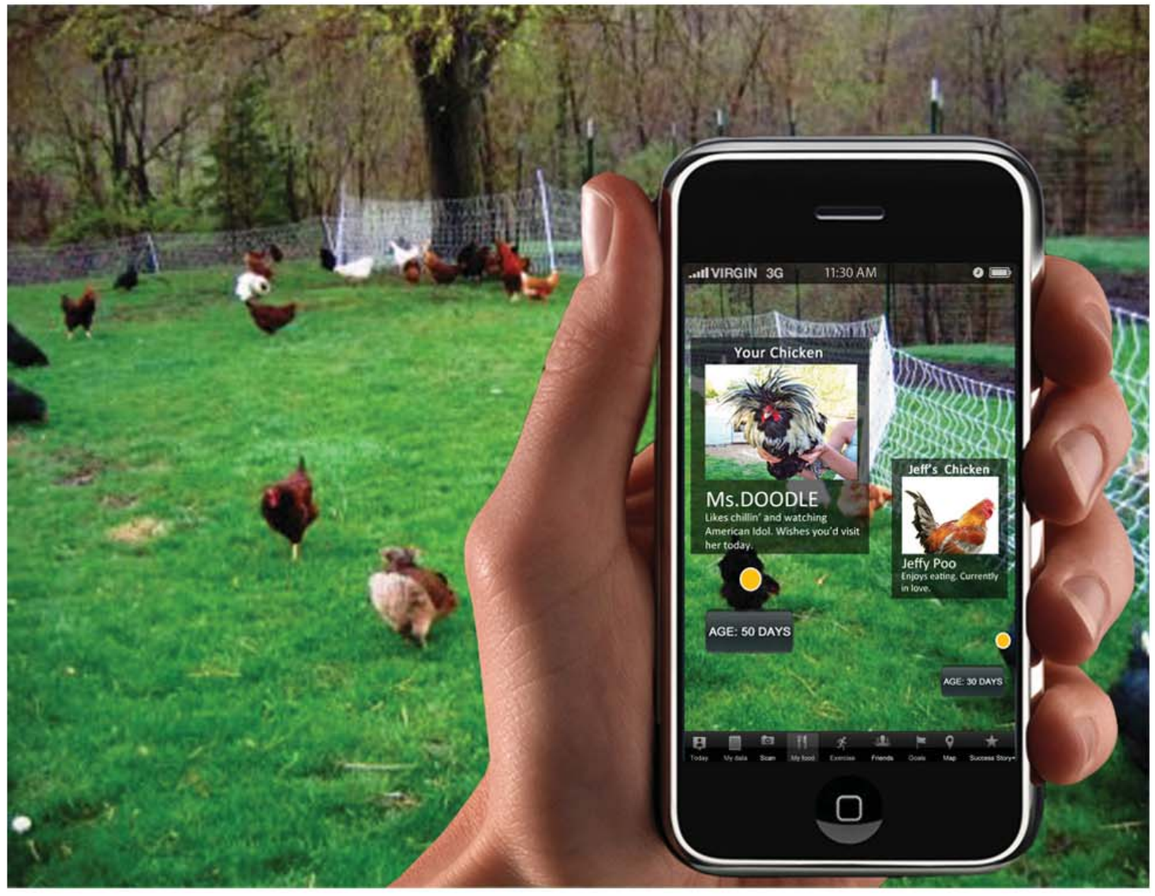
Ground area where chickens, turkeys, their owners, and visitors interact with each other.



Normal condition on site.



An iPhone app is created to track the growth of chickens and turkeys.



The app allows chickens and turkeys owners to share their livestock or compare with friends.

HIGHLINE







SCAN



WAIT
RAISE

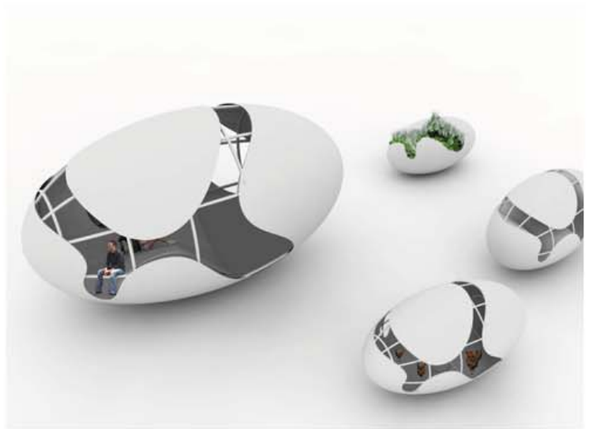


KILL

EAT!!!










CHICKTOPIA
Happy is tasty
EAT HAM