

Yamecah Freedom Food Forest at York, CUNY

Prepared by Nina I. Buxenbaum, Professor, Studio Arts, Performing and Fine Arts

with contributions by Roberto C. Zapata & Emily Verla Bovino, Assistant Professor, Art History, Performing and Fine Arts

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EXECUTIVE SUMMARY

The name for the land that York College stands on – Jamaica – is believed to be derived from the Algonquin word for “beaver”: *jemeco* or ‘yamecah’.¹ This land is the ancestral home of the Lenape people. Maps created by the Swedish and Dutch settlers who forcibly removed the Lenape, named Jamaica for a beaver pond in 1655. A significant Black population has resided in the area since the 17th century, including the largest numbers of enslaved peoples in Long Island in the 17th century, and 65 free Blacks counted in the first Federal Census in the 1780s. The Green was a district of Black-owned homes in the mid-19th century.²

When York College was designed and built in the 1970s and 1980s, a campus art collection was curated and commissioned for the Academic Core featuring what have since become historically important works by artists engaged in debates around Black art and aesthetics like Sam Gilliam, Martin Puryear, Richard Hunt and Houston Conwill. Artist, activist and Black arts theorist Tom Lloyd ran the Storefront Museum on the campus grounds until the gymnasium was built in 1986. These projects set the groundwork for the college to play an important role in conversations around public art on college campuses.

Objective

Despite this significant history of the landscape, its stewardship and its relationship to questions about public art, the soil and the trees around the grounds of York College are diseased and dying from environmental neglect and the campus art is in need of cleaning, care and conservation. The objective of this project is to join these two issues under an ecological public art initiative that aims to rethink the role of art on campus caring for its grounds by bringing attention to its existing art, revitalizing and beautifying under-utilized outdoor spaces, growing healthy nutritious food for the community, teaching our youth to reconnect with the land, and sharing the knowledge of our ancestors, while addressing climate change through sustainable practices that lower our carbon footprint. Project Eats by renowned artist and curator Linda Goode Bryant is a precedent for such an urban gardening project in New York City, as is artist Theaster Gates’s Kenwood Gardens in the South Side of Chicago.

Goals

- To create the first ever community and CUNY collaborative Food Forest in NYC.
- To position the college at the forefront of conversations around ecological public art on New York City's campuses.
- To heal dying and diseased trees, plant life and soil on the campus grounds.

¹ Robert S. Grumet, *Native American Place Names in New York City*. New York: Museum of the City of New York, 1981: 16.

² Atkinson, Jaime. “Life on ‘The Green’: An analysis of the development of African American community in 19th century Jamaica, Queens.” *Hostra Papers in Anthropology*. Vol. 5, 2010.

DEPARTMENT OF PERFORMING & FINE ARTS

- To address food insecurity and lack of access to fresh healthy food options for York and the Queens community, predominantly populated by low-income people of color and ethnic minorities.
- To localize our food sources, grow our own produce, strengthen the sharing economy.
- To educate the community about ancestral connections to the land.
- To reconnect to the land and thus reconnect to our health.
- To create hands-on trans-disciplinary learning opportunities across departments and disciplines of the college.

Definition of Food Forest

“A Food Forest is an age-old agricultural strategy where people plant diverse types of edible, climate appropriate plants that form strong, mutually supportive relationships, creating a system that sustains itself over time. Food forests produce high yields of food, with minimal maintenance – humans design with nature to let nature work on her own.

Like a healthy woodland ecosystem, a healthy food forest has multiple levels. Fruit and nut trees are the upper level, while below are berry shrubs, as well as a mix of other edible plants that benefit from the shade of the canopy trees. Some supporting plants are strategically included to attract beneficial insects for natural pest management.

Other plants are included to make the soil healthier by providing nitrogen and mulch. By working with nature, we work less. In a food forest, humans help set the conditions where they, the plants, and local animals can keep the system going over time.”³

Project Outline

It is the intention of this project to reach out to local community gardens, Queens Botanical Garden, NYC Grows, GreenThumb, and others, to collaborate with their organizations, to create sustainable partnerships, and share resources, to fulfill our mutual goals. The project crosses many disciplines of learning and incorporates all aspects of the college's shared intellectual wealth. Many of our academic departments and programs, such as Geology, Biology, English, and Environmental Health, have expressed support for the creation of this space. **There are existing course offerings that would use the Yamecah Freedom Food Forest as another classroom for project based learning, maintaining the garden as a part of their curriculum.**

EXAMPLES OF POSSIBLE COURSE OFFERINGS/SPECIAL TOPICS:

In coordination with multiple faculty, new and existing courses will utilize the space. Courses can be created within common core to bring freshman into the Food Forest as soon as possible.

³ *Festival Beach Food Forest*. Publication date unknown. <https://festivalbeach.org/frequently-asked-questions/>. Accessed December 2022.

Anthropology (BA) - African and Indigenous ceremonies, festivals, & community practices around land and soil.

Art History (BA) - Indigenous art and contemporary art; issues of ecological public art

Biology (BA) - The biology of a forest, food systems

Biology/ Education 7-12 (BA)

Black Studies (BA) - The History of Black Resistance to Slavery and Jim Crow through agriculture

Chemistry (BA) - Plant medicines and dyes

Economics (BA)- The Share Economy

Earth Science/Education 7-12 (BS) - Native plants and encouraging Seed Diversity

Environmental Health Science (BS) - The Connection Between Access to Green Space and Human Health

Geology (BS) - Identify the health of soil, Soil Remediation & Composting

Public Health (BS) - Growing nutritious foods to address food related illnesses.

Social Work (BS) - Healing Trauma through reconnecting with ancestral practices and the earth

THE YAMECAH FREEDOM FOOD FOREST AT YORK COLLEGE WILL:

- Remediate lead and other toxins while rebuilding our soil health
- Reduce food waste through composting projects
- Localize our food sources, grow our own produce, strengthen the sharing economy
- Use African, Caribbean, South Asian and Indigenous practices around sustainable growing and seed saving
- Address food related illnesses in our community
- Reduce our carbon footprint and create sustainable practices
- Trap carbon through the planting of trees and shrubs, thus positively affecting our local air quality
- Save money on grounds maintenance; no mowing, no spraying, collection of leaves for compost
- Save the health of the existing White Oaks that border the location of the food forest.
- Address the global climate crisis through direct action and community participation

This can be low cost, or no cost, depending on how quickly we would like to plant. Some volunteer organizations would help, such as **Mission Continues**, a Veteran's group that would bring volunteers. We also can solicit donations from local farmers, community gardens, etc. **The Queens Botanical Gardens** provides trees free to the public each season and students are already in contact with them to get young fruit trees for the site.

- The Yamecah Freedom Food Forest team, including students, faculty, and members of the community, would be responsible for mitigating pests in the garden. The strategies used would include:
 - Consistent human presence- Development of a weekly and monthly plan for course activities and lessons on site, as well as community events
 - Create a planting plan to mitigate pest problems.

- Use the Bokashi method to get rid of street rats (dig up nests and fill with Bokashi). This is beneficial bacteria that speeds up the process of composting organic matter. The bacteria belong primarily to three strains: yeasts, (*Saccharomyces* spp.), bacteria that produce lactic acids (*Lactobacillus* spp.), and (phototrophic) purple non-sulfur bacteria (*Rhodospseudomonas* spp.).
- The work of maintaining and caring for the plants and trees will be done by students and faculty as a part of current, and future, course offerings that incorporate a hands on learning component.
- While we can not yet know what additional tasks may come up, as this is a project meant to include all aspects of the college community, including staff, the intention is to reduce the workload for Facilities Staff.
 - No leaf collection or removal
 - No mowing
 - No spraying of herbicides or pesticides
 - No fertilizing
 - Little to no irrigation: the wood chip mounds will absorb and hold water for plants and new trees
 - Tree Care and maintenance to be carried out by faculty, students, and community volunteers.

Resources

The following are links to related sites of organizations already engaged in this work as well as excerpts from current relevant articles.

Soul Fire Farm: <https://SoulFireFarm.org>

Queens Botanical Garden: <https://queensbotanical.org/farmandcompost/>

[Jonathan Franzen, "What if We Stopped Pretending?" *The New Yorker*. September 18, 2019.](#)

Working Group Members

Prof. Nina Buxenbaum - Studio Arts, Performing and Fine Arts

Dr. George White - Interim Dean of Arts and Sciences

Dr. Dawn Roberts-Semple - Geology, Earth and Physical Sciences

Dr. Emily Verla Bovino - Art History, Performing and Fine Arts

Roberto C. Zapata - Certified Permaculturist, Farmer

Wayne Dawkins - York Alumnus, Former Member of Student Government

Tierra Desir - York Student, Member of Discovery Community Gardens, Queens, NYC.

Tooshwarie Singh - York Alumnus, Former Member of Student Government.

Daquane Mays- Troop Leader, The Mission Continues

BUDGET

Description	Quantity	Unit Price	Cost
Broad Forks	5	\$300	\$1,500
Shovels- Flat and Spade	10	\$50	\$500
Scythes	2	\$200	\$400
Wheelbarrels	5	\$300	\$1,500
Hard Rakes	10	\$40	\$400
Leaf Rakes	10	\$40	\$400
Hand tools	10	\$4	\$40
Gardening Gloves	20	\$10	\$200
Pruning Shears	5	\$20	\$100
Compost/Soil - yrd3 (Free from QBG and or onsite composting project, run by Geology Dept. Students)	100	\$0	\$0
Woodchips - yrd3n (free from local arborists)	800	\$0	\$0
Seeds for cover crop (free from local seed saving community gardens) or lo cost	400	\$3	\$1,200
Small tool shed for storage (could be built by York FA Students for cost of materials)	1	\$1,000	\$1,000
Straw bales for Raised Planting beds	500	\$85	\$42,500
Medium to Large Field Ready Fruit and Nut trees	100	\$250	\$25,000
Total			\$74,740

The location we designated is the exterior space next to the Performing Arts Center on the corner of **Guy R. Brewer Blvd. & Liberty Ave.** This location has been designated for the pilot site because it is near the facilities loading area for the delivery of materials, and it is on a fenced-in exterior-facing corner allowing it to be viewed, but not accessed, by the public. There is a security booth at the Guy Brewer Blvd entrance to provide monitored public access to the site.

Currently this space is under utilized and the soil is dry and depleted of organic matter. The health of the existing trees is negatively affected because of the neglect of the health of the land. Beginning immediate soil remediation will help add nutrients and organic material and benefit the existing White Oaks bordering the space.

Exterior of PAC on Guy Brewer and Liberty Ave.



Visualization of the Food Forest at the exterior of 160th Street and Liberty Avenue, By Prof. Buxenbaum



Stage One – Creating Hügeltulture Mounds

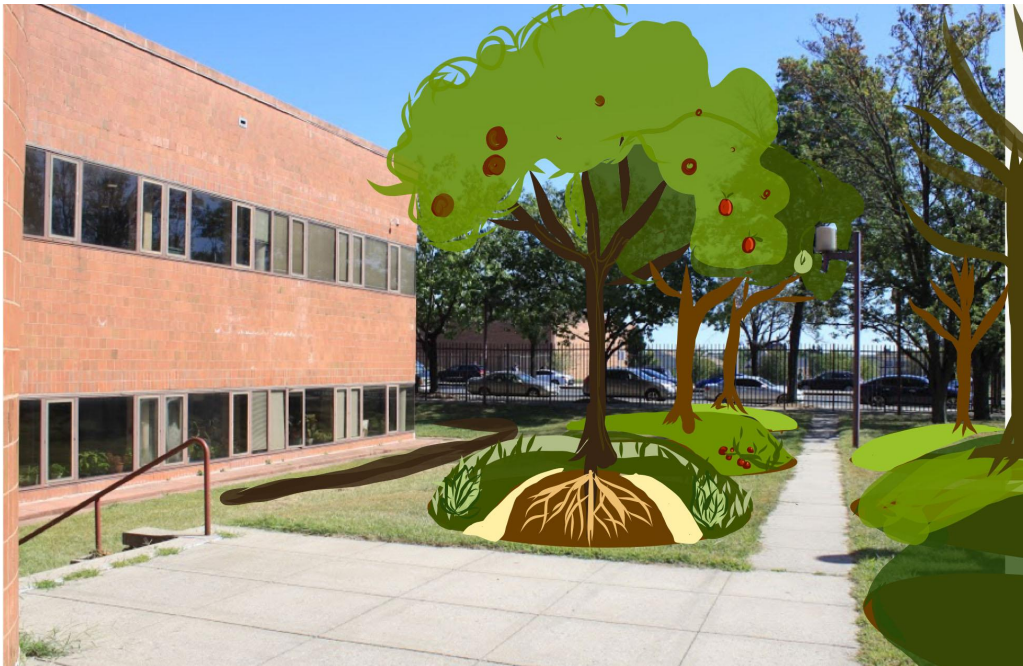
Prof. Buxenbaum
Mr. Zapata
Student Groups
The Mission Continues
Volunteers with tools supplied
by TMC

1. Use solar pathfinder to map the Sun's path.
2. Locate the paths of water using an A-Frame to find the contour lines in the landscape.
3. Dig out adequate trenches for location and design. Stack hay bales along contour to define planting beds.
4. Creating mounds with trees planted at the center and a raised outer ring of lower plants
 - Beginning with location marked #13:
 - Mark a 12' x 15' oblong oval
 - Securing a safe and healthy habitat for the tree:
 - 1) Back up truck to designated location
 - 2) Dump 4 yd³ with wood chips on half of prepared oval space
 - 3) Fill center with a mound of compost (1 yd³) (perhaps in large burlap bags to hold the shape, roughly 24" high. Note: with a combination of compost and topsoil mix added in top to achieve desired height as pile compresses and settles over time)
 - 4) Truck will dump another 4 yd³ of wood chips on the other side of the mound
 - 5) Molding wood chips to the desired oval shape around the center filled with compost in burlap bags
 - 6) Truck dumps remaining compost (1 yd³) in the center and on top of formed mound
 - 7) Last layer is topsoil covering the entire mound
 - 8) Add Bokashi to speed up the composting of wood chips and deter rats (the Bokashi will take a month to ferment before it can be added to the compost, or wood chips)
 - 9) Add cover crop and plant seeds. Perhaps, planting tree seedlings the next year once the mound has settled.
 - Broadfork the soil to mix compost

Stage One – Creating Hügelkulture Mounds - Prof. Nina Buxenbaum and Roberto Zapata



Stage One - Hügelkulture- Diagram of mounds with wood chips, compost, and soil.



Stage Two - Hügelkulture as the wood chips decompose and the trees

ANNUAL PROGRAMING AND FOOD FOREST ACTIVITIES

Coordinate with multiple faculty to create courses utilizing the space. Courses can be created within common core to bring freshman into the Food Forest as soon as possible. Seasonal Activities listed below will be done in coordination with Facilities Staff.

SPRING YEARS 1-5

Who	What	When
Students- CT and FA programs, in coordination with Legal Department	Creating a website specifically for the Food Forest, for volunteers, events, legal waivers, etc.	
Prof. Buxenbaum Mr. Zapata Students Groups The Mission Continues Volunteers	Build raised beds for wheelchair access Planting beds are tilled, following the contours of the grounds	
Prof. Roberts-Semple- Geology	nutrients have been replaced in the soils	
Biology- Students and Faculty	<ul style="list-style-type: none"> Transplanting of seedlings will begin. There is currently a greenhouse that can be utilized to cultivate plants, trees, shrubs, and vines from seed. This will take more time but will be more cost effective than the purchase of mature plants. Get organic matter from around the campus 	Spring Season
Coordinate with Queens Botanical Garden	Provide QBG with our food waste for compost and then return to York for our Forest, until we establish an independent composting project on site.	Spring/Fall Seasons
Geology Biology Environmental Education	Create Bokashi Enzymes- Bucket with egg shells and food scraps, sprinkle with bran inoculated with effective microorganisms Once the bucket is full you let it sit in the bucket and ferment for two weeks. Then bury the compost in a trench.	Spring/Fall Seasons
Who	What	When
Geology	Soil testing and Air Quality Testing	September, February & April

Who	What	When
Coordinate with Queens Botanical Garden	Provide QBG with our food waste for compost and then return to York for our Forest, until we establish an independent composting project on site.	On going
Geology Biology Environmental Education	Create Bokashi Enzymes - Bucket with egg shells and food scraps, sprinkle with Bran inoculated with effective microorganisms Once the bucket is full you let it sit in the bucket and ferment for two weeks. Then bury the compost in a trench.	February
Biology - Students and Faculty	Seeds started in Greenhouse Classes Offered	March
Prof. Buxenbaum Mr. Zapata Students Groups	Planting beds are tilled, following the contours of the grounds	March
Prof. Roberts-Semple - Geology	Nutrients have been replaced in the soils	March
Biology - Students and Faculty	Transplanting of seedlings into the food forest and raised planting beds Classes Offered	April - After last frost date
Biology - Students and Faculty Prof. Buxenbaum Mr. Zapata Students Groups	Tree Pruning and propagation Classes offered	April-May
Prof. Buxenbaum Mr. Zapata Students Groups	Plant identification Weeding and plant care Classes offered	April - May

SUMMER

Who	What	When
York Students/ Alumni & Community volunteers	Maintenance of the site- weeding, watering, checking on the plants	June

Who	What	When
York Students/ Alumni & Community volunteers	Harvesting of seasonal fruits and vegetables	July - August
Business Students, Student Groups	<ul style="list-style-type: none"> Farmers Markets York Open House Events 	August - September
Nursing Social Work Health Studies	<ul style="list-style-type: none"> Nutrition Workshops 	

FALL YEARS 1-5

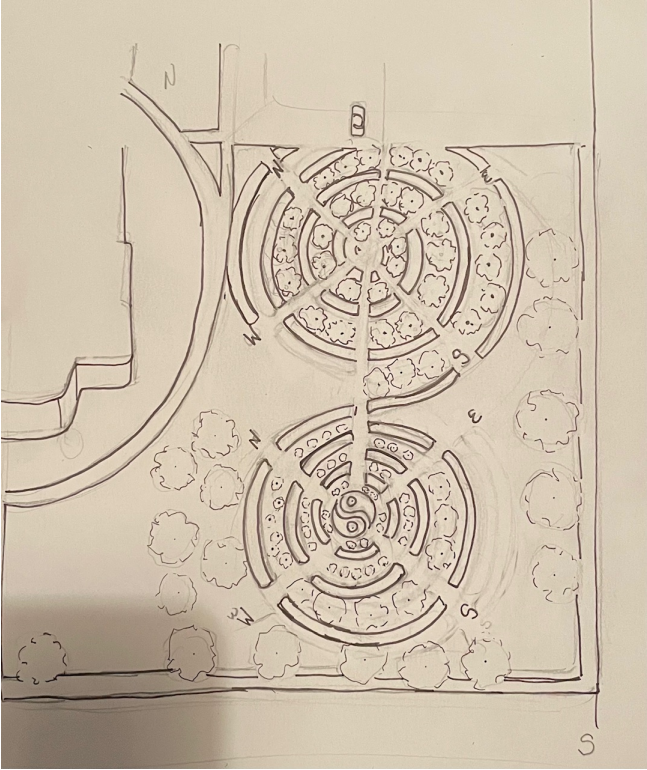
Who	What	When
York Community volunteers Prof. Buxenbaum Mr. Zapata Students Groups	<ul style="list-style-type: none"> Harvesting apples, pears, squashes, etc. Canning and preserving Crop rotation plan for following season 	October
York Community volunteers Prof. Buxenbaum Mr. Zapata Students Groups	<ul style="list-style-type: none"> Raking leaves off walkways and adding leaf material and mulch to planting beds Taking down trellises Planting garlic Seed Saving for next years crop plants and sharing with community 	October-November
Geology	Soil testing and Air Quality Testing	September & November

HARVEST YIELDS

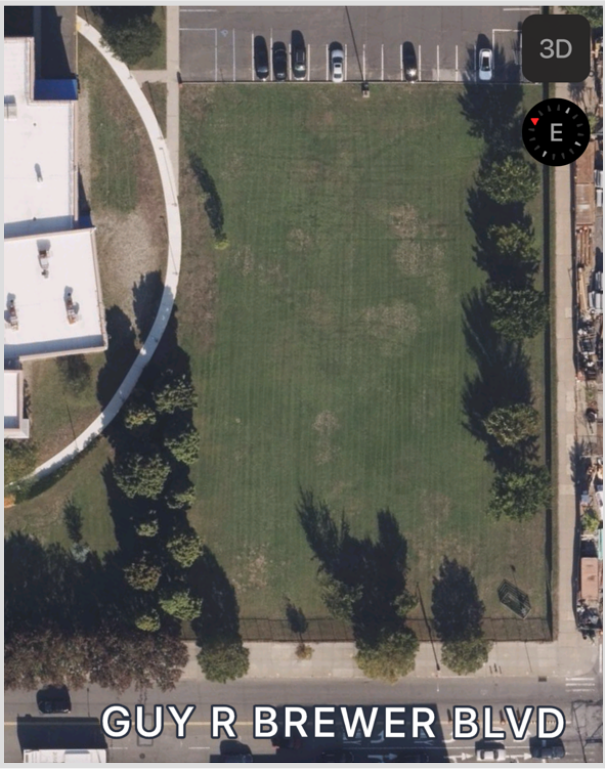
Description	Quantity- estimated lbs of produce	Unit Price	Income
Tomatoes - 8-20 lbs per plant	48	\$16	\$768
Kale - 3 rows per bed	1100	\$2	\$2,200
Beans	100	\$4	\$400
Carrots	200	\$4	\$800

Description	Quantity- estimated lbs of produce	Unit Price	Income
Lettuce	100	\$5	\$500
Apples	200	\$5	\$1,000
Pears	300	\$4	\$1,200
Peaches	100	\$7	\$700
Grapes	100	\$5	\$500
Berries	400	\$5	\$2,000
Native Lenape Corn, Squash, and Beans	50	\$0	\$0
Native Plum trees and various native stone fruit trees- Provided by Prof. Sam Van Aken, Syracuse University	50	\$0	\$0
Currants	400	\$5	\$0
Total			\$10,068

Proposed Design



Current Exterior of PAC



View of Proposed Food Forest from Guy R. Brewer Blvd.



All drawn and painted visualizations by Prof. N. Buxenbaum