Hong Kong Rooftop Farming

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Background

As one of the most densely populated places in the world, Hong Kong lacks free space that could be used for local farming. Hong Kong therefore depends on food imports from Mainland China to feed its population of 7 million people. However, the recent food scandals in China have increased the demands for organic food and ultimately the demand for local, organic food in Hong Kong. Therefore, there has been a rise of rooftop farms, community farms, and a community-supported agriculture (CSA) program in Hong Kong to meet these demands. Hong Kong’s local farms provide food directly to its consumers and encourage community participation, ultimately strengthening the relationship people have with their food and community.

Although Hong Kong’s Centre for Food Safety conducts farm visits in China to ensure safe food, there has been a rise in a “lack of confidence in the food supply in China”\(^1\) due to its recent food scandals. Hong Kong’s leading news source *South China Morning Post (SCMP)* has a section in its website that updates readers with “China Food Scandals,” illustrating how prevalent this issue is in Hong Kong today. SCMP states how the lack of confidence in China’s food industry emerged after the industrial chemical melamine was found in baby formula produced in China in 2008. Hong Kong’s Centre for Food Safety have taken local market samples of infant formula and other milk-mate products and found “a total of 40 samples of 18 brands of food products” containing “unsatisfactory amount of melamine ranging from 1.4 ppm to 68 ppm.”\(^2\) The food scandals in China have ultimately dissuaded Hong Kong’s consumers from purchasing imported food from Mainland China.

The Hong Kong Organic Resource Center found that after China’s food scandals, one-third of the 7 million people in Hong Kong started purchasing organic food at least once a week. Jonathan Wong, the director of Hong Kong Organic Resource Center, stated that local output of organic vegetables has increased two-thirds in five years; however, with the growing demand for organic food in Hong Kong, the current local output is “not enough.”\(^3\) To meet this growing demand, there has consequently been a rise of local and alternative means of organic farming in Hong Kong. There has been an estimated 300 urban farming projects in Hong Kong that range from rooftop farming to community supported agriculture programs (CSA). These new urban farming projects integrate “farming practices into the urban ecological and economic systems,”\(^4\) and are consequently reintroducing local farming in Hong Kong.

Why Rooftop Farming?

Hong Kong’s greenery can be deceiving given its cityscape known for its many commercial skyscrapers and high-rise apartments to accommodate its population of seven million people. However, less than 25% of Hong Kong’s land is developed and 40% of Hong Kong’s land is made up of parks and nature reserves. Today, less than 2% of Hong Kong’s food is locally grown, 4% less when compared around 10 years ago. Local agriculture seems to be decreasing, but there still remains a diverse group of modern-day farmers. From young entrepreneurs to university students to small families, various members of Hong Kong’s communities advocate for and practice agricultural practices in the most urban areas of Hong Kong.

Many of these urban farmers are rooftop farmers who transform unused rooftop spaces into farm spaces that cultivate edible crops. What sets rooftop farming apart from rooftop gardening (and other methods of urban farming) is the key value in education. Five out of six of the rooftop farms we have identified created their farms for the purpose of educating local community members around local, urban farming in Hong Kong. Rooftop farming in Hong Kong is more than just a means to provide local food to the community, but it is also a way to engage local communities to learn where their food comes from and the value in supporting local agriculture in Hong Kong.

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5 Leung, Michael. August 4, 2014. Interview with Michael Leung from Very MK.
Research Method:
Christopher Mattison is the director of GROW, a rooftop farm at City University of Hong Kong in Kowloon Tong. We got into touch with Mr. Mattison through Professor Robert Gottlieb at Occidental College. Mattison was our primary source of information for our work regarding CityU’s rooftop farm. We also found more information regarding the farm on the GROW website. Mattison was the first rooftop farmer we spoke with in Hong Kong and connected us with other rooftop farmers throughout the city.

Background:
Hong Kong’s University’s Grant Council (UGC) imposed a mandate for universities throughout Hong Kong to address issues of sustainability across campuses. The Provost Office at CityU then decided to start the Campus Sustainability Fund, which then gave rise to CityU’s rooftop farm. As a vertical city with an incredibly dense population, Hong Kong may seem unfit for agriculture. However, as there has been a rise of issues around food safety from the Mainland, CityU has taken the issue into their own hands by showing people that it is possible to grow food in the city through the campus’ rooftop farm.
The rooftop farm is located on top of AC2 on the CityU campus in Kowloon Tong. The farm consists of five 2x2 meter planters and mostly cultivates green vegetables that can grow year round. Specifically, local chinese greens like bok choy, tah tsoi, choi sum, fung tsing tsai, and kong xin cai (water spinach). Other examples are cucumbers, summer squash, zucchini, and cherry tomatoes. However, due to hot weather, these crops were cycling away at the time of our interview with Mr. Mattison. The farm also experiments with crops that are not native to Hong Kong, such as fruits like papayas and pineapples.

Key Values:
A key focus of CityU’s rooftop farm is to engage students and the local community. Mr. Mattison more specifically explains how CityU “wanted something that was not going to be just one researcher creating a number of academic papers, but [for] there to be more community engagement.” Throughout the school year, there are workshops two or three times a week where students will go up to the farm to pick crops and either have lunch on the rooftop or take the crops home. Faculty members are also welcome to pick the crops and take them home as well. During this past year, staff from CityU department have been adopting the 2x2 meter plots. For instance, members of the Provost’s office have begun to grow rows of lettuce, radishes, peppers, and leaks in their plots. The Campus Development and Facilities Office has recently started to work on raised beds on the rooftop farm.

To ensure continuous student involvement and a growing rooftop farm, there is a core group of students who are paid to maintain the farm. There is also another group of students whose work around the farm is a part of their student service project. The third group of students are those enrolled in courses that involve the rooftop farm and thus whose work on the farm goes towards their grade. These students use the farm as a wet laboratory where they can grow and experiment with different seeds and seedlings. Therefore, the rooftop farm has become a place available as a laboratory space for students to work on different projects. This allows students to work on campus rather
than traveling an hour into the New Territories to experiment on farmland. CityU rooftop farm also seeks to work on a collaborative project with local senior centers and schools. More community involvement will allow for the farm to grow and expand beyond the university's campus.

**Challenges:**
Although there are core groups of students involved at the CityU rooftop farm, student involvement still remains a challenge for the university farm. With students already having a set list of classes and hours, it is difficult to engage students into extra curricular activities that are not linked to their grade or courses. Therefore, it was very important for GROW to link with various professors so that courses will involve the farm. The assurance of student involvement was especially important when receiving permission to use the space on top of AC2 and funding for the rooftop farm.

**Future:**
After speaking with Mr. Mattison, he explained how within the next two years, it is likely that all eight major universities in Hong Kong will have some sort of green rooftop space. However, there still remains a challenge for the future of rooftop farming on the university level. More specifically, there still needs to be a structure that allows for the farm to exist on its own without the continuous aid from the directors of the farm or outside support (e.g., farmers from the New Territories or nonprofit organizations). In order for these farms to be truly sustainable, it is important that students and faculty are the primary supporters of the farms.
Feeding HK Rooftop Farms

Causeway Bay; Kowloon City, Hong Kong
Contact: Gabrielle Kirstein, gkirstein@feedinghk.org

Research Method:
After speaking with Samantha from A Time to Grow, we learned that many of their crops are donated to Feeding HK. After emailing and scheduling a phone interview with Gabrielle, the executive director at Feeding HK, we found that the organization actually runs two rooftop farms on top of two secondary schools in Kowloon City and Causeway Bay.

Background:
Feeding Hong Kong is Hong Kong’s first food bank network that seeks to fight hunger and to reduce food waste throughout the city. Feeding HK identifies, collects and sorts “high quality food surplus and ensure[s] its safe onward distribution through [its] network of charity partners.”6 Charity partners include shelters for the homeless, migrant workers, senior day centers, immigrant support centers, after school programs, and other non-profit programs that provide food to the hungry.

While restaurants and distributors supply Feeding HK with high quality food surplus, Feeding HK has connections with three rooftop farms in HK whose crops supplement the ingredients that are donated to charity partners. Feeding HK has started two of these rooftop farms itself through a grant that funded the equipment, soil, seeds, and other essentials to help build and set up the farm. Feeding HK has hired A Time to Grow, a green enterprise in Hong Kong that helps build and maintain rooftop farms, to help execute these two farms. The farms are located on the rooftops of two secondary schools in Kowloon City and Causeway Bay. The third rooftop that Feeding HK receives crops from is one owned by Jones Lang Lasalle (JLL), a commercial real estate services and management company, on top of the Bank of America Tower in Admiralty. JLL works directly with A Time to Grow as well, which built and now manages the farm. Crops are harvested by those who help out with the farm and the surplus is donated to Feeding HK. Feeding HK thus organizes a group of volunteers who go to the Bank of America rooftop farm and harvest the crops. These crops include greens like bok choy, choy sum, and basil.

Key Values:
The crops that come from Feeding HK’s rooftop farms make up a very small percentage of the ingredients that are donated. These rooftop farms primarily serve an educational purpose to engage the local community and raise awareness regarding issues of food security, food waste and food itself. The two rooftop farms that Feeding HK established consist of eight full-time staff members and over one hundred volunteers. For one of the two farms that are located on the rooftops of secondary schools, the farm is incorporated into school courses, specifically a science class once a week. For the other secondary school, there is a daily farming schedule that takes place after school. One or two students are responsible for watering the crops and harvesting the crops. Since most of the crops are mostly herbs (e.g. basil), students who participate in this after school program would use the basil to make pesto. Both students and faculty at these secondary schools become more involved with their food, learning how food is grown and how these crops can be used.

Future:
When asked how she felt about the future of rooftop farming Hong Kong, Gabrielle explained how popular it has been within the last couple of years. For instance, when Feeding HK is looking for volunteers, most volunteers ask and seek to work on their rooftop farms in Kowloon City and Causeway Bay. Although the rooftops farms at these locations make up a very small percentage of the ingredients for the food bank network, it still serves as an educational tool for local community members to learn more about how food is grown and food issues in Hong Kong.
University of Hong Kong Rooftop Farm

Central, Hong Kong

Contact: Samantha Woods, sam@timetogrow.hk

Research Method:
After meeting with Christopher Mattison, director of GROW at City University of Hong Kong, he helped get us in touch with an organization called *Time to Grow*, a social enterprise dedicated to promoting urban farming in Hong Kong. In reaching out to Time to Grow, using the email address Mr. Mattison had given us, we were able to get in touch with Samantha Woods. Ms. Woods is a part time worker for Time to Grow, who met with us at the University of Hong Kong (HKU) for an interview and a tour of HKU’s rooftop farm.

Background:
Hong Kong University’s rooftop farm was created in 2012 through HKU’s General Education Department partnership with Time to Grow. Time to Grow is an organization that promotes urban farming in Hong Kong. It helps anyone ranging from small families to large businesses, such as Jones Lang LaSalle, develop an urban farm of their own,
in most cases rooftop farms. Time to Grow currently has two full time employees and
two part time employees. Time to Grow receives their funding from either business that
want to hire them to help set up a farm or businesses that donate as a charitable cause.

Operations:
HKU’s rooftop farm is only accessible to the students, faculty and staff members of
Time to Grow who help take care of the farm. In terms of where the farm gets their
supplies, Time to Grow provides the farm with seeds that come from the New
Territories. Time to Grow makes an effort to make sure all of the seeds and soil they
purchase is local in order to support the local economy. However, Samantha explains
that even the local suppliers are importing the soil from different countries overseas.
Therefore, they are making efforts to find ways to make sure the soil they get is actually
local. For example, they recently have been exploring working with a company that is
growing mushrooms using coffee grinds. Time to Grow is trying to find ways to use their
leftover materials as fertilizer.

Challenges:
Speaking to Samantha and listening to her opinions was unique in that she was one of
the only people who we spoke to who had experience working on different types rooftop
farms (i.e. university, business, and family rooftop farms). She said one of the main
difficulties she observed while working at HKU’s rooftop farm was retaining the students
working on the farm. For example, she said the farm is much more kept during the
winter versus the spring due to the timing of the students’ exams. In addition, she said
that she always has to think about finding students to take care of the farm during the
summer when the majority of students aren’t at school. Lastly, she has to take into
account the students that are graduating that year, and finding enough students to take
their place.

When asked about the difficulty of getting students interested in rooftop farming,
Samantha responded that it’s not hard getting them interested, rather it’s difficult to
keeping the momentum going. Again, students not only have holidays, but they also
have the pressure of doing well in school.

Needless to say, Samantha was quite optimistic in regard to Hong Kong University’s
rooftop farm structure, in that, she believes there’s a good balance of students,
teachers, faculty, and volunteers from Time to Grow that enable the rooftop farm to be
adequately taken care of. Due to the widespread of people dedicated to taking care of
the farm, most of the time, each person only has to come up to the rooftop farm once a
week to give the plants their necessary water.

Future:
Samantha was optimistic about the slow increase in acceptance and desire for urban
and rooftop farming in Hong Kong. However, she still believes that Hong Kong’s
mindset regarding urban farming still isn’t “there yet.” Samantha explained how Hong
Kong’s culture is to be extremely clean and sanitary, thus when bringing up even the
idea of soil, immediately, people are turned off because they associate it with a negative perception of “being dirty.”

Samantha is an advocate of urban farming herself. She says she loves speaking to audiences and seeing the shocked reactions of the people when she mentions she’s a farmer, given she’s a young woman.

One of the goals for Time to Grow is to be able to open a sustainable, public farming learning center, where anyone from the community can come and learn about farming practices and participate in community farming events.
Au Young Family Rooftop Farm
Chai Wan, Hong Kong
Contact: Samantha Au Young, samanthaaycy@gmail.com

From left: Jennifer Yi, Yip Lan Wong, Samantha Au Young, Rachel Young, and Candice Lo

Research Method:
Professor Arthur Lau is the co-director of the Environmental Management and Technology Program at the Hong Kong University of Science and Technology, who was our research mentor for our project this past summer. We got in touch with Professor Lau through Professor Robert Gottlieb at Occidental College. Professor Lau connected us with a group of his previous students who conducted a similar research project around rooftop farming in Hong Kong. One of the students, Candice Lo, put us in touch with the Au Young Family (a rooftop farming family in Chai Wan). Candice kindly offered to come with us to the interview with the Au Young Family and help with translation. We were able to talk with the mother and one of the daughters of the Au Young Family.

Background:
Family Members:
Chung Yan (Samantha) Au Young (sister, interviewee)
Mau Chuen Au Young (Dad)
Yip Lan Wong (Mom, interviewee)
Wing Tao Au Young (Sister)
Yee Sheung Au Young (Grandpa)
Sui Hung Au Young (Aunt in NT)
The Au Young Family rooftop farm is located on the 27th floor of an apartment building in Chai Wan. The Au Young Family (family of four: two parents, two daughters), their maid and grandfather help maintain their rooftop farm. Both parents work, so they tend to the farm before they leave for work and when they come home. Their grandfather, who lives on the first floor of the same apartment building, helps tend to the rooftop farm during the day.

The Au Young Family bought the flat around 18 years ago, in which they did some small planting on the roof. However, it wasn’t until approximately two or three years ago (2011-2012) that the Au Young family started scaling up their farm to what it is now. The Au Young family started the farm as a hobby. They started growing tomatoes, and when they grew their first tomato, it was a great feeling of success, so they started to grow other crops. It didn’t have anything to do with food scare or food security issues from the Mainland, as their small rooftop farm wouldn’t be able to provide sufficient amount of food.

**Farming Operations:**

*Crop*: The Au Young Family is still experimenting with the types of crops and plants to grow each season. They do some online research on what types of plants to grow each season; however, it's still a matter of seeing what works best on their rooftop. They are trying to figure out plants that can grow year round. Currently, some of the plants they are growing include: lemons, blueberries, pomelos, grapes, pumpkin, okra, pineapple, basil and kumquat.

*Soil, Seeds, and Planting Containers*: The Au Young Family has an aunt who lives in Tsing Chuen Wai in the New Territories. In the village where she lives, she has a big piece of land where she grows crops as well, so the Au Young family trades seeds with her. Where their Aunt lives, she can also get cheap soil, so she helps the Au Young family buy soil for their rooftop farm. The Au Young Family also bought several fruit trees from Mong Kok. For the containers in which the Au Young family grows their plants, they get them donated from their neighbor who does recycling work. They don’t get the big containers often because it depends on their neighbor.

*Water Irrigation System*: The Au Young family got two sinks donated to them from their neighbors, which they put on top of the roof as a source of water for the plants. In addition, they’ve connected a pipe from each of the planting containers that leads to a drain as their water irrigation
system. In order to help irrigation, they also lift each container a few inches off of the ground.

**Composting System:**
The Au Young family has a food waste-composting container. When growing new plants, they use their compost soil to help grow the plant. They put it at the bottom of the container and then fill the rest of the container with new soil.

**Challenges**

*Typhoon Weather*
One of the biggest challenges the Au Young Family Rooftop Farm faces is the typhoon weather. In the beginning, when they only had a few plants in small containers, they were able to carry the plants inside to protect them from the weather. However, since the farm has grown into bigger containers, they can no longer do this. Therefore, they have been tying the plants to the wall with wire in order to prevent the plants from falling down. Some of the bigger containers have a harder time draining water, so the plants end up dying because the water floods in the containers.

*Materials*
Soil can get expensive as each bag costs around $200 HKD and they go through 6 packs every 2 weeks. The soil bags are also quite heavy and the Au Young Family has to transport the soil all the way from Central. The Au Young family also doesn’t get big planting containers that often, so they have to wait and depend on their neighbors for them.

*Access:*
The Au Young Family are the sole owners of the rooftop of the building—it came with the purchase of their apartment flat. Technically other people living in the apartment building have access to the rooftop because the Au Young Family is not allowed to lock the stairway leading to the rooftop for fire safety reasons, but access only for emergency reasons since the rooftop is private property. Otherwise, the rooftop farm is privately owned and is only accessed by those who are approved by the Au Young Family.

*Future:*
The Au Young family hopes to expand their rooftop farm by using up the space on their rooftop that is currently used to hang clothes to grow more plants. They are still experimenting with different plants to grow and will continue to experiment until they find certain crops that are suitable to grow year round.
Research Method:
Samantha Woods is a member of Time to Grow, a green enterprise dedicated to helping others create green spaces within the city, in many cases rooftop farms. We got in touch with Samantha Woods through Christopher Mattison, the director of GROW, a rooftop farm at the City University of Hong Kong in Kowloon Tong. Samantha informed us briefly that one of Time to Grow’s projects included a rooftop farm on top of the Bank of America Tower in the Central Business District, and we immediately tried to find ways in which to contact them and visit the farm. After doing some research online, we came across a YouTube PR video from Jones Lang LaSalle (JLL), the building manager of the Bank of America building in which the rooftop farm is on. The video included interviews with some of JLL’s employees. We then went on to look up those same employees we saw in the video on JLL’s website to get their contact information. We emailed them asking for more information or if they could connect us with someone who could tell us more about the rooftop farm. Through those emails, we were directed to Sarah Fowler, a member of JLL’s marketing team. After several emails back and forth with Ms. Fowler, we were able to schedule a meeting with her to see the Bank of America rooftop farm and for an interview.
Background:
The Bank of America rooftop farm was started by the Property Management Team at JLL as a CSR initiative. Fowler explained that the idea stemmed from the fact that the department wanted to support sustainable and healthy living. A big incentive for starting the rooftop farm was the fact that JLL would be taking a leadership role in the community, in that, they would be starting the first rooftop farm in the Central Business District. The team hoped to set an example so that others would follow and support the concept of living sustainably.

Conversations started 1.5 years ago to start this rooftop farm, but the actual planning process took around 6 months. Given that getting approval from the landlord was one of the most time consuming parts of the process, we asked how the project was pitched. First, Fowler said that they first pushed it as a CSR initiative. She then went on to explain that part of the negotiation was figuring out what the building owners would get out of having the rooftop farm on top of their building. A big selling point was the fact that the building was going to the first in the Central Business District to have a rooftop farm.

After getting permission from the landlords, the team had to look at logistical details such as how water was going to get up to the roof, how much weight the roof could hold, and making sure that the rooftop wasn’t going to interfere with the tenants of the building. During the process the team had to make sure that barriers were built around the roof for health and safety reasons.

At this time they hired Time to Grow, since they were experts in doing so, not JLL. Time to Grow set up all of the planters, got all of the soil, set up the water irrigation system, and everything else to get the farm started. After sorting through all of the logistics, they made their first plant in January 2014 and had their first harvest in March 2014.

Farming Operations:
Since the majority of the JLL’s staff are not trained enough to upkeep the rooftop farm, Time to Grow is mainly responsible for that. Time to Grow facilitates getting local farmers to bring seedlings to the BOA tower, depending on whether or not JLL is planning an event to get people to plan the seedlings and to harvest. The local farmers come twice a week and the rest of the time the management team, who have been trained by Time to Grow, will go to the farm to take care of it. Part of the agreement was that JLL would not have to rent out the rooftop space. JLL did have to pay upfront the cost of the rooftop farm as well as all upkeep costs. The money came from JLL’s CSR budget, and the farm cost around $150,000 HKD (approximately $20,000 USD).

Access:
Due to health and safety reasons, JLL staff doesn’t have unlimited access to the rooftop farm, those who wish to access it must get permission. This is mainly for health and safety reasons, thus no more than about 14 people can be up on the rooftop at a time.
Crops:
For the most part, the rooftop farm grows salad vegetables such as romaine lettuce because “it grows really nicely.” They also look to see what grows best with the environment.

Media:
Getting media attention played a large factor in the making of this rooftop farm. After the rooftop farm was built, it got a lot of publicity from lifestyle magazines, eco-magazines, and from property media. Ms. Fowler explained how there were two main aspects to the media attention. First, there were the property experts, highlighting the building and the rooftop as an added unique feature. Secondly, the lifestyle media focused on the sustainability principles underlying the rooftop farm.

Community Involvement:
JLL emphasizes the importance of community involvement in regards to the rooftop farm. They like to invite clients to help out with planting and in the past have invited local organizations such as Platinum, which works with people interested in sustainable development.

JLL’s first harvest went back to their employees, but their second harvest was donated to Feeding Hong Kong and the Society for Community Organization. Feeding Hong Kong is a non-profit food bank that acts as a liaison between food donators and charities. The Society for Community Organization (SoCo) works with new migrants and refugees and other disadvantaged groups to try and help make ends meet. Currently, the food that is harvested is donated to Feeding Hong Kong, which donates the food to SoCo, per request of JLL. JLL tries to hold an event every time there is a harvest, which happens every 4-5 weeks.

JLL has received positive responses from their tenants, most of whom have expressed interest in volunteer opportunities. In addition, buildings around them in the Central Business District have also contacted JLL asking about the rooftop farm, which has helped to create further interest around rooftop farms.

JLL wanted to try and tap into the educational aspect of the rooftop farm as well. They wanted to be able to teach others in the community about why it’s important to grow your own food. In the past JLL has worked with the South Island School, where about 15 disadvantaged kids would come to the rooftop farm for a harvest. At the harvest, Time to Grow has a small workshop about the different vegetables and how to pick them. All the food that is harvested is then donated to Feeding Hong Kong.

Challenges:
The largest challenge of the farm was actually getting approval from the landlords, as it took a lot of time and convincing. In addition, working out all of the logistics in regards to water access and health and safety standards was difficult as well.
Currently, one of the biggest challenges the JLL team faces is finding the right people to look after the farm, people who are going to be committed to looking after the farm everyday or every week since most of the people that work for JLL are not farm experts.

JLL also had to think about the rooftop farm through the landlord’s perspective because it’s a commercial building and having hundreds of people going up to the rooftop daily is not ideal for anyone living in the building. It would be difficult to manage all of the people going up and down, thus posing a security risk. Since JLL manages the tenants in the building, they didn’t want to tarnish their reputation by disturbing the tenants with strangers coming in and out of the building just to access the rooftop farm. In addition, the people who rent the highest floor are extremely important clients, and they wanted to make sure they didn’t bother them in any way.

**Future:**
The JLL team is looking to continue to evaluate the success of this rooftop farm, as they are using it as a pilot program. While they might want to expand to other rooftops of buildings that they manage, their greatest challenge is actually finding the right location. They have visited a few places; however, the environment has not been suitable to have a rooftop farm, whether due to not enough sunlight or that the space is not big enough. However, Fowler confidently said, “We are planning on finding the right space.”

In sum, the goals of this rooftop farm are to continue raising awareness to grow your own food and promote healthy living by continuing to engage clients, staff, and other organizations.
Very MK Rooftop Farm

Mong Kok, Hong Kong
Contact: Michael Leung, hello@hkfarm.org

Research Method:
Before arriving in Hong Kong, we have heard of HK Farm and its director, Michael Leung, through our interest-based research. However, once we arrived in Hong Kong, it was very difficult for us to meet Michael Leung and visit his rooftop farm. Although Christopher Mattison from CityU Rooftop Farm got us in contact with Leung, our connection with Leung ended after a couple email exchanges.

Professor Arthur Lau at The Hong Kong University of Science and Technology (UST) kindly set up a dinner meeting with him and five UST students in the EVMT\(^7\) program who had previously worked on a rooftop farming project. After explaining our difficulty in meeting Leung, these students offered to take us directly to Leung’s rooftop farm since they also had trouble meeting him and visiting his farm.

As the apartment building is private, the front gate was locked which required us to wait for a tenant to either enter or leave the building. Once we entered the building and walked up the 13 flights of stairs to HK Farm in Yau Ma Tei, the rooftop was, to our surprise, empty.

\(^7\) Environmental Management and Technology
The UST students suggested that Leung may have moved to a different location nearby. We therefore used our rooftop view to see if we can spot any green roofs that might be useful for our research. After visiting three different rooftops used as green spaces, all of them were either rooftop gardens or inaccessible.

A couple weeks later, we received an email from both Leung and Mattison inviting us to Leung’s art exhibition opening in North Point. We finally got to meet Leung in person at the art opening and scheduled an interview with him and a visit to his new rooftop farm in Mong Kok called “Very MK”.

**Background:**
Very MK Rooftop Farm was founded on April 2014 on the 6th floor rooftop of an apartment building in Mong Kok. The rooftop farm is organized by a group of “students, designers, teachers, business consultants, cafe workers, young professionals, social activists, urban planners, writers, musician and journalists” from different parts of Hong
Kong. Prior to Very MK, the farm was located on the 13th floor rooftop of an apartment building in Yau Ma Tei under the name HK Farm. With a friend who was renting the space below the rooftop floor of this building, Leung and HK Farm were given the keys to the rooftop, installing and designing a rooftop farm. However, their friend’s contract was “questionably not renewed,” resulting in the move from Yau Ma Tei to Mong Kok.

Although Very MK is fairly new, the rooftop farm still cultivates a wide range of crops. For instance, during the month of August, the farm was growing passion fruit, wild hibiscus, thai basil, and bitter melon. At their new location in Mong Kok, the farm also started to practice vertical farming. Vertical farming allows for more crops to be grown despite the limited space.

**Key Values:**

Very MK rooftop farm emphasizes the importance of using local soil to cultivate its crops. Almost all of Very MK’s soil comes from Mapopo Community Farm, a farm located in the New Territories that is unfortunately expected to be evicted by developers soon. Therefore, Very MK finds it to be one of their responsibilities to share with their rooftop visitors where the farm’s soil comes from and the development issue at hand that displaces Hong Kong farmers. As arable farmland is being converted into land for high-rise buildings, not only will there be a reduction of local soil, but ultimately a reduction of local farmland in Hong Kong. While only 2.3% of Hong Kong’s vegetables are locally produced, this number is expected to decrease with the development plans. In addition to educating the local community about development issues, Very MK also seeks to educate community members where their food comes from as food scandals continue to make headlines in Hong Kong. While the origins of their food has become a mystery for many Hong Kong residents; thus Very MK invites community members up to the farm and provides them the opportunity to learn about food origins through urban agriculture.

As the farm is still settling into its new location, Very MK has yet to hold community engagement events. However, its previous rooftop farm in Yau Ma Tei (HK Farm) demonstrates how much the farm values growing food with an educational purpose. For example, HK Farm held planter-making workshops that allows for people to grow in their homes, balconies, and rooftops. In addition to learning how to make a planter, the workshop included an introduction and tour of the farm, introduction to seasonal and organic urban agriculture in Hong Kong, and soil and seedling planting information.

Beyond its educational values, Very MK seeks to provide support to the Hong Kong community through its rooftop farm. For instance, HK Farm in Yau Ma Tei regularly worked with Vision First, an organization that provides support for Hong Kong-based refugees. As refugees in Hong Kong cannot legally hold jobs to earn money, HK Farm would invite the refugees to help with farmwork. HK Farm would in return pay for their transportation and provide food. The refugees were also welcome to take the crops home with them. HK Farm understood how difficult it is for foreigner to connect with the local Hong Kong community. Therefore, in addition to providing transportation and food,
the farm found that engaging the refugees to the farm would minimize this disconnect with the Hong Kong community.

Very MK (as well as HK Farm) also collaborates with a local restaurant in Yau Ma Tei called So Boring Canteen. The farm donates its harvests to the restaurant (e.g., bitter melons), which the restaurant then cooks into meals that are then sold at the restaurant.

**Challenges:**
The Urban Renewal Authority (URA) established under the Urban Renewal Authority Ordinance (URAO) pursues a redevelopment and rehabilitation strategy for the revitalization of Hong Kong land. The URA purchases and sells older buildings -- a process that increases the land’s commercial value and consequently displaces homeowners. The URA, for example, has acquired 40% of a tong lau building (a tenement building usually with no lifts) in Mong Kok and is expected to acquire the entire building. Leung suspects that this may have been the reason why his friend’s contract for the top floor was not renewed in Yau Ma Tei and why HK Farm was required to move.

In addition to urban renewal plans in the city, rapid urban development in the New Territories also serves as a challenge to Very MK and other rooftop farms in the city. Although rooftop farming falls under the category of urban agriculture and not rural agriculture, Very MK has deep connections with rural agriculture and farmland. For instance, Very MK gets most of its soil, seeds, and produce from a community farm in the New Territories called Mapopo. However, The North East New Territories New Development Area, an infrastructure project, seeks to convert farmland like Mapopo to private housing. This example illustrates how the replacement of fertile farmland with concrete serves is a major loss for not only rural farmers, but urban farmers as well.

**Future:**
Mr. Leung explains how there is a lot of work that still needs to be done to spread rooftop farming culture in Hong Kong. Many rooftops are still left unused in the city and the term “farm” is still seen as “dirty” and laborious. Mattison from CityU Farm also shared the same views about how farming is seen by many of Hong Kong’s citizens.

However, the increase in private and public rooftop farms and urban agriculture projects in Hong Kong provide hope for an increase in rooftop farming in the city. Mr. Leung is optimistic about the future of rooftop farming in Hong Kong as many of the rooftop farmers in the city work and collaborate with one another. For instance, Very MK has close ties with CityU Rooftop Farm in that it gives its processed and fertilized soil from Mapopo to the university farm so that there is no need to buy soil from a different area other than Hong Kong. He has also seen an increase in university projects around urban agriculture, which shows how there is more awareness around rooftop farming and more sensitivity around food production in Hong Kong.

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