



K.Kumarasivam Young Environmentalist Award 2016

Report on the Abroad Environmental Internship Program at E5 Campus, Hong Kong Special Administrative Region of the People's Republic of China from 2nd April till 15th May 2017

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Table of Contents

1.0	Introduction	3
1.1	Hong Kong SAR of People’s Republic of China	3
1.2	E5 Campus	4
1.3	Social Enterprise and Overview of Social Enterprise in Hong Kong	6
2.0	Major Involvement and Contribution to the E5 Campus	7
2.1	Daily Operations in E5 Campus	7
2.2	Farming & Packing Mushroom cultivation packs	9
2.3	Organic Waste Recycling & Site visit to Calbee Potato Chips Factory	10
2.4	Site visit to Cityponics	10
2.5	Site Visit to school together with official from Ministry of Education	12
2.6	Visit to Environmental Educational center	13
2.7	Field visit to Hong Kong Unesco Global Geopark and water reservoir	14
2.8	Field visit to Maker Faire at Hong Kong Polytechnic University	14
2.9	Bicycle trip around Sheung Shui Gu Dong	16
2.10	Meeting with Founder of Flappyland	17
2.11	Field visit to Fung Yuen Butterfly Reserve, dragon back mountain hiking	18
3.0	Social Enterprise in Malaysia	20
4.0	Leisure Time in Hong Kong & Macau	20
5.0	Conclusion	22
6.0	Acknowledgement	22
7.0	References	23

1.0 Introduction

1.1 Hong Kong SAR of People's Republic of China

Hong Kong, officially known as Hong Kong Special Administrative Region of the People's Republic of China, located on south coast of China, 60 km (37 mi) east of Macau on the opposite side of the Pearl River Delta, north to Shengzhen. It consists of Hong Kong Island, Kowloon Peninsula, the New Territories and other 262 small islands. With a total land area of 1,106 square kilometres (427 sq mi) and a population of over 7.3 million, it ranks as the world's fourth most densely populated sovereign state or territory.

Originally Hong Kong was a small fishing village. Today, it is one of the world's most cosmopolitan cities where the East truly meets the West. On 1 July 1997, Hong Kong became a Special Administrative Region of China in an arrangement that would last for 50 years. Operating under the 'one country, two systems policy', Hong Kong maintains its own political, social and economic systems.

Hong Kong is one of the world's most significant financial centres, with the highest Financial Development Index score and consistently ranks as the world's most competitive and freest economic entity. As the world's 8th largest trading entity,^[24] its legal tender, the Hong Kong dollar, is the world's 13th most traded currency. Hong Kong is an affluent society with a per capita GDP of US\$38,000 in 2013. Hong Kong is one of the safest cities in the world. Both English and Chinese are the official languages. This bilingualism features in daily life in Hong Kong with many people speaking fluent English. Cantonese is the local dialect and an increasing number of Hong Kong people speak good Putonghua. However, while Hong Kong has one of the highest per capita incomes in the world, it also suffers from severe income inequality.

Hong Kong is a highly prosperous international metropolis now, and one of the third largest financial centers in the world. Hong Kong is Asia's leading financial, services and shipping center.

It is famous for clean government, good law and order, free economy and sound legal system. It is known as the "Pearl of the Orient", "Gourmet Paradise" and "Shopping Paradise".

1.2 E5 Campus



E5 Campus is a social enterprise established in 2016. E5 Campus aims to promote environmental protection and art education in order to rebuild the relationship among metropolitan and the connection between humans and the nature. Their deliverable embraces 5 elements which is energetic, enjoyment, enlightenment, enrichment, and environment.

E5 Campus Mission

- To enhance public's awareness of environmental protection and promote green lifestyle
- To promote art and environmental education in the community and promote sustainability in people's daily practice so as to bring vibrancy and sophistication to their living
- To maintain a social bond among people and reinforce the sense of belongings to Hong Kong

E5 Campus is located at Sheung Shui with an area of 120,000 sq. ft. This is a theme-based educational centre revolving the subject of organic cycle and art creation, which is the first ever concept in Hong Kong. Workshops and visits are held regularly.

E5 campus is a collaboration of few different enterprises and it consists of many facilities. For instances, permaculture farmland, hydroponics greenhouse, aquaponics system, composting area, organic waste treatment works, methane generation facility, photovoltaics zone, sludge blanket reactor, mushroom cultivation zone and so on. Some of the workshops are such as organic waste recycling workshops, planting workshops, pottery workshops, and essential oil workshops.



Participants will be given a more in-depth picture of environmental problem in Hong Kong, thereby enabling self-reflection on their daily practice and the corresponding measures. Meanwhile, the culture of art gradually slides in the current of their blood. Given that an appropriate venue for environmental education and art training have been lacking in Hong Kong, E5 Campus is to provide diversified events using the best teaching venues and materials for the public so everyone can enjoy learning new knowledge in a comfortable

atmosphere. Vitally, understand what we can do to reduce waste and how to separate waste for reuse and recycle.

1.3 Social Enterprise and Overview of Social Enterprise in Hong Kong

Social enterprises are businesses that apply trade or commercial strategy to maximize the improvement in social, human and environmental well being. They can also take more conventional structures. What differentiates social enterprises is that their social mission is as core to their success as any potential profit.

Using the power of the marketplace to solve the most pressing societal problems, social enterprises are commercially viable businesses existing to benefit the public and the community, rather than shareholders and owners. Social enterprises tackle the problems mostly using funds that derive mostly from trade, not donations or grants.

The number of social enterprises in Hong Kong has reached an all-time high and getting more of them can financially sustain themselves, breaking the stereotype that these organisations do not function effectively, government and industry leaders have said.

During 2011 to 2014, the Home Affairs Bureau of Hong Kong (HAB) and the Social Enterprise Advisory Committee had launched a series of structured Social Enterprise Training Programmes at practical and management levels to raise the operation capabilities of the social enterprise (SE) sector. HAB has also been providing funding support for other training programmes and capacity building workshops organised by relevant platform organisations for SEs.

According to Laurie Lo Chi-hong, deputy secretary of the Home Affairs Bureau, said data from the Hong Kong Council of Social Service showed the number of social enterprises in the city had doubled, from 260 to 520, in the past seven years. Most of the early social enterprises were mostly set up to create job opportunities for vulnerable groups.

2.0 Major Involvement and Contribution to the E5 Campus

2.1 Daily Operations in E5 Campus



Organic waste recycling in E5 campus. Mr Eddie explained that there are a lot of near expired food that are being thrown away by the supermarket. Also, there are a lot of safe to consume vegetables and fruits that are being thrown away by supermarket because of their imperfect outlook. This recycling mill also collect waste soy bean from the factory nearby and turn them into pig feed or compost.



There also a waste water treatment reactor inside E5 campus where they treat all the waste water generated by the waste recycling mill before it is being discharge out to the river or waterways.



Vertical farming and aquaponics systems also available in E5 campus for educational tour



The interesting thing is they not only have aquaponics, but also a closed sustainable loop cycle designed by Mr edit where all the fish here eat the worm that grew using food waste. Also, mr eddie designed a roving outdoor mushroom cultivation with ventilation system so that it is easier for them to bring it around to school for education workshops or talks.



Solar systems and vertical farming in E5 Campus

2.2 Farming & Packing Mushroom cultivation packs

I was given chance to learn organic farming with Ms Hermia from Foodcycle+. Foodcycle+ not only grows organic vegetables but also they make mushroom cultivation packs by collaborating with café and collect their waste coffee ground and turn it into this beautiful mushroom packs shown below.



Farming and recycled coffee ground mushroom packs.

2.3 Organic Waste Recycling & Site visit to Calbee Potato Chips Factory

We were appointed by Calbee as their service provider to collect their waste potato skin.



Repairing and cleaning the dustbin to collect potato skin from Calbee



Site visitation and discussion with representative of Calbee on the disposal of potato skin

2.4 Site visit to Cityponics

We paid a visit to Cityponics located at Yuen Long to further understand the concepts of Aquaponics and the technique they used.

They are various problems in Hong Kong, food safety, lack of land and agricultural pollution. Cityponics are established in 2013 by a group of people who love planting and Hong Kong hoping to promote this eco symbiotic concept to community. They believe the law of nature by letting vegetable to absorb the nutrient from the fish and produce non toxic food is the ultimate way to produce food.



Fish pond in Cityponics



This is the vegetables farm grown using the nutrients from the Fish pond as shown above, Mr Eddie checking the water pumping system of the vegetables.



Mini Hydroponics System by Cityponics. Suitable for family use.

2.5 Site Visit to school together with official from Ministry of Education

We had meeting and site visit together with official, teachers, syllabus maker to various school . The purpose of this meeting is to study the feasibility of integrating this aquaponics and other science elements into the school syllabus.



Photos together with officials from Ministry of Education at Cityponics



Introduction by the teacher on the school history of 大埔旧墟公立学校 (宝湖道) and the aquaponics systems set up by Cityponics on their school for education purposes.



Sharing by the students of Cotton Spinners Association Secondary School on their aquaponics systems.

2.6 Visit to Environmental Educational center

This is the environmental educational center where Mr Eddie volunteered here for more than 10 years.



Some of the eco products that they are selling



Educational exhibit materials and black soldier flies they fed using food waste.

2.7 Field visit to Hong Kong Unesco Global Geopark and water reservoir

We also went to MacLehose Trail which essentially goes around the High Island Reservoir. The trail crosses both of the reservoir's dams. The second of which is part of the UNESCO World Heritage-listed Hong Kong Geopark.

I also learnt how different types of rocks and shaped form in this geopark with the clear explanation by Mr Eddie.



Unique shapes of rocks at geopark



Water reservoirs and explanation of the shape of rocks they used to protect the reservoir

2.8 Field visit to Maker Faire at Hong Kong Polytechnic University

Maker Faire Hong Kong 2017 x Make Big" is a must-attend event for Hong Kong Makers. The event was held on 8 and 9 April 2017 with a series of happenings, including exhibitions,

workshops, sharings, and ten “Makers’ Day” in different neighbourhoods. They are promoting “Maker Culture” to the general public, demonstrating creativity, inventiveness and resourcefulness.



Life farmer seminar and sharing session by previous participants



Exhibitions at Maker fair, plastic weaving machine, wind turbine



Solar car , eco car by bamboo and plastic recycle machine at maker fair

2.9 Bicycle trip around Sheung Shui Gu Dong

Mr Eddie brought me to a bicycle trip around Shueng Shui Gu Dong to study the feasibility of organizing a eco tour / eco trip for foreigner. Sheung Shui is very near to the boarder of China. We managed to cycled until the boarder and to see the differences between the development of Shenzhen, China and Hong Kong. Shenzhen is full of high rise building where else Sheung Shui Hong Kong still maintain very much of the greenery and not that much of high rise building.



Photo at the borders of China and Hong Kong

Then we circled around to visit the traditional soy sauce factory. Firstly they will select the quality soy, wash it and blend carefully with salt then transfer them to the fermentation tanks for months. During this time, the soybeans and wheat are transformed into a semi-liquid, reddish-brown "mature mash." It is this fermentation process that creates the many distinct flavor and fragrance compounds that build the soy sauce flavor profile. The raw soy sauce is then separated from the solids. The liquid that emerges is then refined, and packaged as finished soy sauce.



Traditional Soy sauce maker factory

Then we also visited a old sawmill which officially opened during 1947. Last time it was located at north point, then Chai Wan and lastly settled down here at Sheung Shui since 30 years ago.



Wood making factory

Lastly, we also went to a pig farm where the farm owner carefully explains the life cycle of the pig to us.



Pig Farm

2.10 Meeting with Founder of Flappyland

Flappyland, a Hong Kong based online platform, aims to connecting environmentalists around using art and eco concept. Flappy is an Eco Artwork created from a shampoo pump which is easily available and able to be made by kids. Their visit is to understand more about other environmental initiatives and to seek possibility of collaboration.

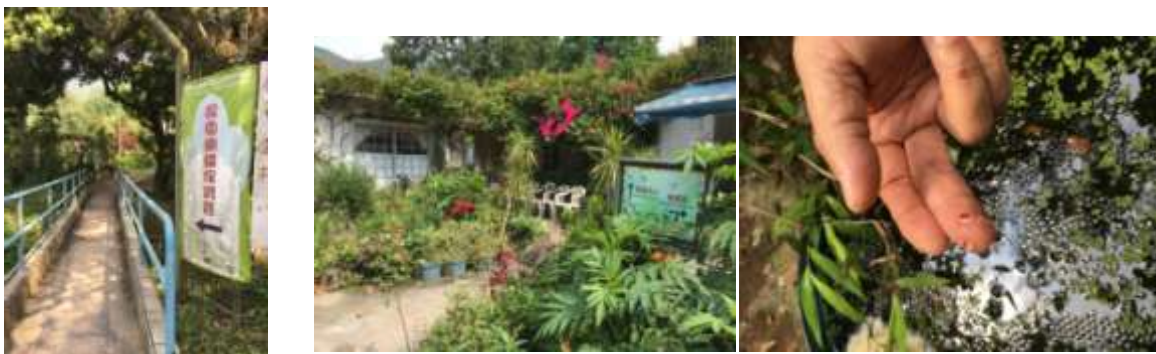


Mr Eddie bringing Founder of Flappy to tour around E5 Campus



Mr Eddie demonstrating the recycled products that he made

2.11 Field visit to Fung Yuen Butterfly Reserve, dragon back mountain hiking



Fung Yuen, which is situated about 2 kilometers from Tai Po Town Centre, is a famous site for appreciating butterflies in Hong Kong and Asia.

As early as 1980, the 42 hectares of land in Fung Yuen Valley has been listed as a "Site of Special Scientific Interest", of which about 8% (5 hectares) of private land with high conservation value.

Statistics shows that over 200 species of butterflies which accounts for 80% of the total 240 species have been recorded in Fung Yuen. Among them, about 50 species are uncommon and rare in Hong Kong.



With beautiful coastal scenery and easy-accessibility from the city, the Dragon's Back is a popular escape for Hong Kong people. The trail provides stunning views of Shek O, Tai Long Wan, Stanley, Tai Tam, and the South China Sea.

3.0 Social Enterprise in Malaysia

Prime Minister Najib Razak allocated 20 million ringgit on year 2015 to boost the number of social enterprises to 1,000 by 2018 from around 100.

As part of the plan it set up the Malaysian Global Innovation and Creativity Centre (MaGIC) which provides training in setting up a business, how to access funding and networking opportunities, along with competitions and outreach. They are the main key driver of social enterprises in Malaysia, especially their MaGIC accelerator program, Social Enterprise track has been really helpful and benefited around 75 social enterprises. Other of their initiatives include SEHATI, SE bootcamp, SE Community outreach.

Some of the successful social enterprise in Malaysia is such as EPIC Homes. Established in 2010 and has brought change to remote areas in Kuala Kubu Baru, Batang Kali and Gerik, where the orang asli lack basic necessities like shelter or a simple latrine. Other includes Biji-Biji, The nasi Lemak Project, PT Foundation, Arus Academy and the list keep goes on.

4.0 Leisure Time in Hong Kong & Macau

During my 14-stay in Hong Kong, I managed to arranged some free time to visit local and tourist attraction.

Mr Eddie also brought me to many different places and giving me a great local experience. I went dragon boat riding with Mr Eddie and his team at Tai Po, their dragon boat team is the best among the districts and I have had a great time learning dragon boat structure, techniques and culture. On the other hand, I also attended a 5D musical concert presented by some of the famous Hong actor such as Michael Tse, Wayne Lai Yiu Cheung, Kevin Cheng and so on. It is my first concert experience in the Hung Hom Coliseum which also a multi-purpose indoor arena, in Hung Hom Bay, Kowloon, Hong Kong. It was built by the Urban Council and inaugurated on 27 April 1983 and has 12,500 seats.

Besides that, I also visited Macau for the first time. I tried famous portugese egg tarts, visited the famous Ruins of St. Paul's, Senado squares, various casino and so forth. In addition, I also went to other famous street places like Temple's street, ladies' market, sham shui po, Wong Tai Sin Temple, Mong Kok, Victoria harbor.

I am grateful for the warm hospitality given by Mr Eddie else I couldn't have such as wonderful and local experience.



Leisure time with mr eddie



Musical concert and Macau

5.0 Conclusion

The Internship in E5 campus has not only exposed myself to the environmental problem and initiatives in Hong Kong but also enabled me to look into the reality and effectiveness. In addition, E5 campus itself has shown a very good example of collaboration effort between different company to tackle the environmental problem.

This internship has opened my eyes to several of innovative solution that Hong Kong are working on to tackle the environmental problem. In addition, the Hong Kong maker faire also exposed me to a lot of new technology and products that I have never seen before. Amazingly, some of the products are invented by primary school students. Most of the student in Hong Kong were exposed to programming , robotics in a participative ways where they get to make their own robot in class.

The knowledge and exposure that I gained from this internship will certainly benefits me in a long run as it got me to think and gave me different ideas on growing my social enterprises to a bigger scale so that more community can benefited from the grease collection services and also expansion to other products.

In short, we need to make a change by taking action today. All of the big changes start from small, it starts with you. Together we make a greater impact.

“we do not inherit the earth from our ancestors, we borrow it from our children”

6.0 Acknowledgement



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I would also like to thank Mr Eddie, and all other social enterprises in E5 Campus that have been welcoming me and treating me well besides allowing me to learn about not just the way the campus operates but exposing me to the public concept and awareness on environmental protection and management.

Thank you very much.

7.0 References

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