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Green Educational Park, UPM

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Jury Review

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AGRI 360 Putra Agro-Biotech Park

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Rainforest Discovery Ganglion

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Forest, For Us, Forever

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Green Educational Park

Osman Mohd Tahir

A. Ladang 16 University Agriculture Park

The University Agriculture Park was established in December 2002 to serve as a research park for UPM and its students to carry out their research and provide necessary facilities for them. Ladang 16 is one of the farm located in the University Agriculture Park which is strategically located at the east of UPM campus and surrounded by North South Highway (PLUS), Kajang Ring Highway (SILK) and ERL train route from Kuala Lumpur (KL Sentral) to Kuala Lumpur International Airport (KLIA). It covers a total area of 120 hectares. This farm consists of cattle, deer, goat and equine areas. At the same time, the site has an excellence panoramic and natural scenic views.

Amongst the aims of the project is to turn the farm into a green educational park whereby the staff and students can continue with their education and research in agriculture and at the same time the public could also participate and enjoy the facilities and natural environment of the site. At the first stage of the project, a site visit is being organised for the student to experience the site and initial site observation. The strength and weakness of the site are being observed as well as the potential and sensitivity of the site with regards to the natural scenic view and environment and the life stock living in the area. Interview and briefing from the agriculture officers and their staff are carried out in order to get in depth information's regarding the site. Some group of students also carried out soil test and view analysis from and into the site. Other related and relevant site survey and analysis are also being done by the students in group.

At the same time, to further their knowledge and understanding regarding the project, a simple case study and literature search is being given to the student as their assignment focuses on certain topics. The topics selected include literature search regarding Green Tourism, Agri Bio Park, Permaculture and Edu Tourism. A study trip was organised to strengthen their appreciation and awareness regarding the topic and include a visit to Agro Park and Wildlife sanctuary area.

All the data gained from the survey of the site is being analysed and synthesized using Geographical Information System (GIS) by some students. From the site synthesis, visit experiences and project presentations, the students would develop their design objectives. Design strategies, approaches and programs were incorporated in the design process. Throughout the process students underwent a series of design critics and presentations to the studio master and lecturers as well as the officers and staff of the University Agriculture Park UPM. Comments, suggestions and recommendations gathered from the process have been taken up by the students to improve, strengthen and reinforce their design ideas and developments. AGRI 360 by Muhammad Shafiq Zulkifli respective is a noteworthy solution in developing the site into an agriculture research centre and at the same time creatively integrates the green and educational tourism in the development. It is hoped that the concept and solution given in the design will promote UPM as one of the outstanding edu tourism campus in Malaysia and being recognised globally in line with the university's vision to become a university of international repute in all direction and field.

B. Ayer Hitam Forest Reserve, Puchong

Ayer Hitam Forest Reserve in Puchong serves as a natural classroom and an open laboratory for Universiti Putra Malaysia (UPM) especially for the Faculty of Forestry, UPM. The site has been utilised by researchers and students in their studies regarding forest and its environment as well as for extension activities with the community especially from the Klang Valley area. This is where the Sultan Idris Shah Forestry Education Centre (SISFEC) is situated.

The forest reserve which is situated about 20km from UPM is the green lung of the Puchong Township. The forest is surrounded by vast development and new cities which includes Putrajaya, Cyberjaya, Petaling Jaya and Shah Alam. It holds the distinction of being the Low Land Dipterocarp Forest which is still intact and preserved in Selangor. Originally the gazetted land area of the forest reserve are about 4270.7 hectares but eventually at the end of 1980's, 2638.39 hectares was finally gazetted for a variety of land uses.

As mentioned in the SISFEC Faculty of Forestry Booklet (2012), the importance of the site are as follows;

- a. Education, research and extension site for UPM
- b. Sanctuaries for plants and animals
- c. The largest in situ forest rehabilitation initiative in Klang Valley
- d. Local Flood mitigation
- e. The largest carbon absorption area in Klang Valley
- f. Environmental education for the public.

Beside the current usage of the site as conservation site for biodiversity, education, research and habitat refuge area, it has also being promoted by UPM as one of the university's forest educational tourism site (Edu-tourism).

This project aims to propose this sensitive landscape area; Ayer Hitam Forest Reserve, into a forest edu tourism and recreation site without compromising the sensitivity of the site as a forest reserve and a centre for forest research. The students involved in the project at the first stage are being brief by officers and staff of the Faculty of Forestry regarding the history and the forest reserved activities and development. At the same time they are being guided into the forest to have a first-hand experience with the natural forest environment and appreciate the sensitivity of the site. The student are also required to do a survey

and analysis of the site in order to investigate the strength, weakness, potential and the treat of the area.

Students are also given an assignment regarding the appreciation of fauna in parks and garden. This assignment aims to stimulate their emotion towards the importance of living things in their surroundings. The appreciation and obligation of these living things including the insect in landscape hopefully will motivate them to be grateful in dealing with this sensitive area.

At the same time a study tour to the North of Peninsular Malaysia was organised to expose students with real site situation and condition in planning, designing and developing a sensitive landscape area. For instance, forest as a tourist destination and for the purpose of recreation by the public. Some of the places that have been visited include Gua Kelam Recreational Park in Perlis, Sungai Sedim Recreational Park in Kedah, Penang Botanical Garden in Penang, Pulau Pinang National Park and Gunung Lang Recreational Park in Perak. These sites were carefully selected in order for students to acquire different experiences and understandings in different setting.

Hence, through a comprehensive and rigorous site survey and analysis, literature search, study visits and site observations, as well as laborious desk critics and presentations, the students have came up with commendable creative and innovative concepts and ideas in developing the Air Hitam Forest Reserve as an edu-tourism park without compromising the sensitivity of the area. Two projects have been selected to showcase the diverse ideas that are being propose for development of the forest. They are as follow:

- i. Rainforest Discovery Ganglion by Mohd Amirul Hussain
- ii. Forest, For Us , Foever by Sim Siew Fern

It is hoped that with these enormous ingenious and resourceful ideas and concepts will inspire the development of the forest reserve parallel with the conservation and preservation program of this green lung as a unique lowland rain forest reserve in Puchong. It may be as well a model benefiting the whole country.

Reference

Faculty Perhutanan (2010) Sepintas lalu Pusat Pendidikan Perhutanan Sultan Idris Shah , UPM Press Serdang, ISBN 978-967-344-277-5

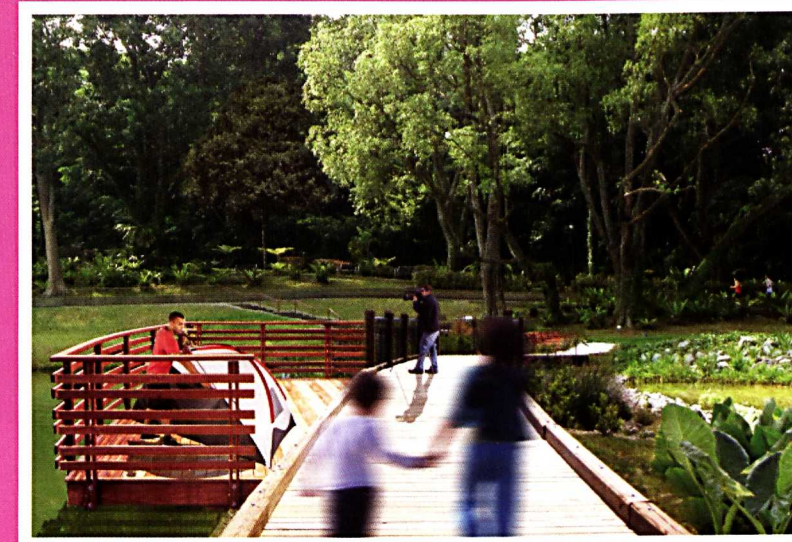
Jury Review

Khalilah Zakariya

This project uses centralized management as a strategy to minimize interferences to the agricultural landscape and animals. It brings together different approaches from architecture, ecology, transportation and management. The design strategy is well-thought and analysed. The execution of the design spaces and elements however seems more urban than natural or agricultural. The details of the tower that include vertical farms, offices and R&D centre are clearly articulated and explored. This potential design can be further refined into an integrated landscape into the building.

Devendiran S.T. Mani

A thorough study and good explanation of existing areas and land use. The presentation provides good background information of existing vegetation, topography and access. The student has graphically illustrated their conceptual thoughts and strategies. Their ideas are innovative focusing on biomass and agro tourism. The overall presentations of Master Plan were good with vibrant graphics and well designed layouts. The presentations displayed attractive images and graphics. However, the student could improve their planting strategy to support the scheme. A management plan would also benefit the proposal. It is a very well presented schemes with in-depth analysis of existing terrains and vegetations. The schemes have originality. There is no indication of planting strategy and perhaps the designer could focus on a planting strategy and a management plan. Overall, it is a fine scheme with good and well presented graphics.



AGRI 360 Putra Agro-Biotech Park

Osman Mohd Tahir, Abd Aziz Othman, Mohd Kher Hussain & Mohd Johari Mohd Yusof

The goal of this project is to transform UPM's Green Educational Park into a Putra Agro-Biotech Park, a leading sustainable agriculture park for the future. The design aims to achieve a self-sustainable farm environment suitable for education and green tourism. The site's issues range from water, air and sound pollution to the livestock activities in the farm and from the nearby highway. In addition, there is lack of quality in showcasing areas and having unsustainable management system. Hence, the AGRI 360 project highlights the need to transform the farm through green design concept. Among the strategies to include are the engagement of green architecture, ecological barrier, water filtration, vertical farming, green transportation, control environment and sustainable management system. The proposal hopes that the realisation of the project will elevate the green edu-tourism in UPM towards becoming the leader in sustainable agriculture park.



PERSPECTIVES



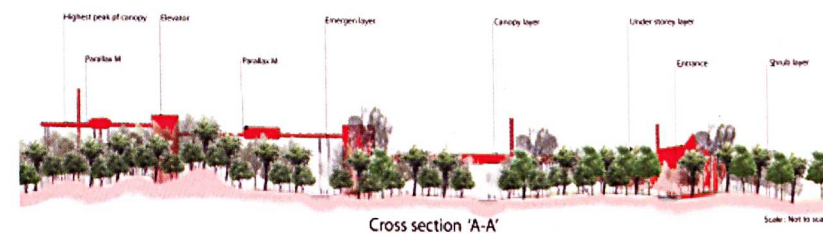
Muhammad Shafiq Zulkifli

Rainforest Discovery Ganglion

Abd Aziz Othman, Osman Mohd Tahir, Mohd Kher Hussain & Mohd Johari Mohd Yusof,



The work provides a simple idea to conserve the natural settings and biodiversity of the green patch. This value is expressed by the ecological design and management technologies to preserve the existing habitat and natural landscape features as well as to minimize human impacts to the forest. Emphasis is on the 'Natural Discovery'. It is an interpretative trail system designed with technology which is in harmony and appropriate to the natural environment. A series of spaces provided along the trail for different active and passive activities especially for nature appreciation and awareness will serve the educational role of the forest. These spaces are designed according to the site's special features of site such as water body, scenic view, topography and significant trees. These trails will lead users to discover the actual environment of lowland tropical forest.



Mohd Amirul Hussain

Forest : For Us : Forever

Osman Mohd Tahir, Abd Aziz Othman, Mohd Kher Hussain & Mohd Johari Mohd Yusof

Forest is an invaluable gift of natural biodiversity to mankind. The forest is for us to cherish and use forever. Over time, human greediness has intruded and damaged the natural environment for its valuable resources. It is time for us to compensate, to preserve and conserve, in order to prevent it from further degradation and ensuring its sustainability for future generation. The design is inspired by the Cree Indian Prophecy "Warriors of Rainbow" where 'thanks to the people who have reserved their culture and heritage... and thanks to this knowledge that we will come

back to the harmony with nature...'. The design concept FOREST: FOR US: FOREVER integrates "educate + appreciate + respect" themes to "PROTECT" our fragile and precious forest. Engaging the Sustainable Forest Management approach, the design reflects vigilant planning of the spaces, trails and programs. Incorporated in the natural forest setting, pertinent programs include forest education and culture, forest appreciation and experiences, and forest preservation and conservation.



Sim Siew Fern

