TAYLOR'S UNIVERSITY

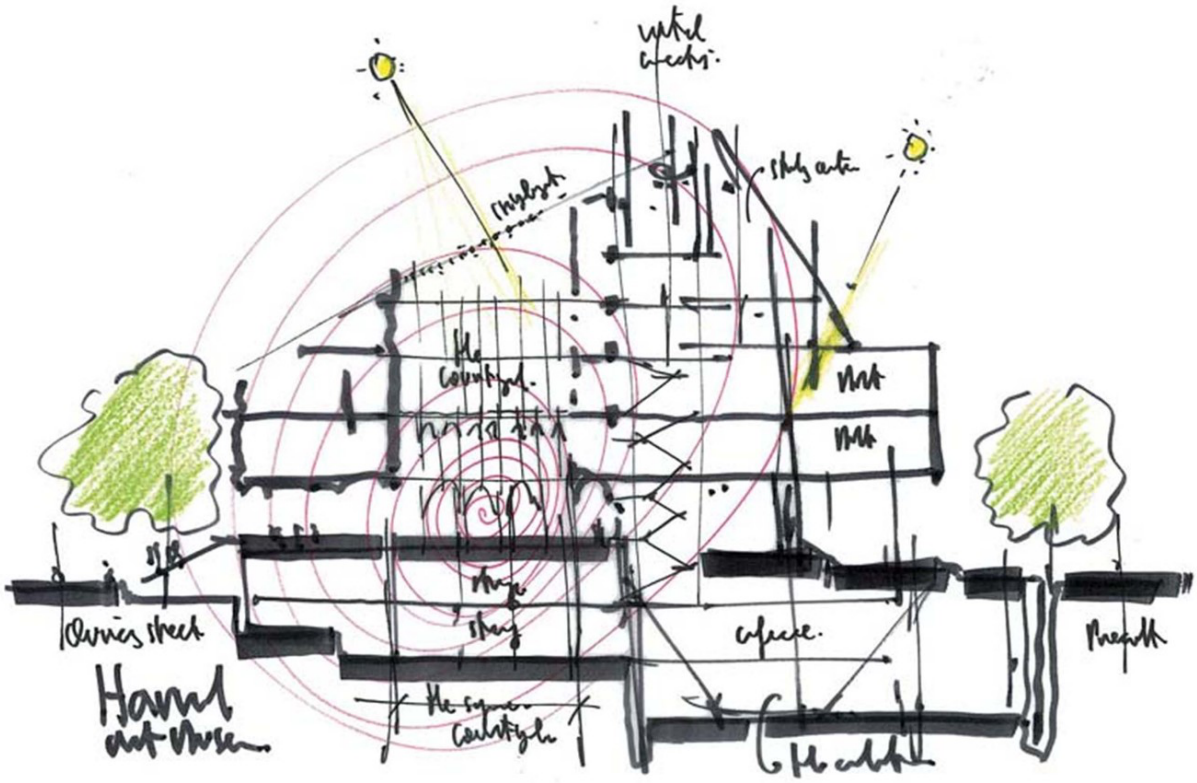
Wisdom • Integrity • Excellence

SCHOOL OF ARCHITECTURE, BUILDING & DESIGN

Centre for Modern Architectural Studies in Southeast Asia

Bachelor of Science (Honours) in Architecture

GREEN STRATEGIES FOR BUILDING DESIGN (ARC61804)



https://www.archdaily.com/568736/harvard-art-museums-renovation-and-expansion-renzo-piano- payette/546abfc4e58ece90fe0000a1-sketch?next_project=no

Assignment 2 : **Passive Green Building Strategies Report (Individual) – Integrated with Architectural Design studio Projects (3/4/5/6)**

Weightage : **50%+10%**

Final Submission : **Week 16 (06.08.25)**

Introduction

A Green building focuses on increasing the efficiency of resource use – energy, water, and materials – while reducing building impact on human health and the environment during the building's lifecycle, through better siting, design, construction, operation, maintenance, and removal. Green Buildings should be designed and operated to reduce the overall impact of the built environment on its surroundings.

Objectives of Assignment

The objectives of this project are as follows:

1. To analyze theories and principles of passive green building design strategies.
2. To integrate understanding of sustainable design strategies in the development of architectural design

Learning Outcomes

Students are expected to be able to:

1. Analyze passive sustainable design strategies in relation to climate and culture and compare their impact on space and user experience.
2. Employ appropriate sustainable strategies in final architectural design.

Tasks

Each of students are required to develop passive and active green building strategies simultaneously with their final architectural studio (3/4/5) project. Students are expected to:

1. **Go** for **building green visit.**
2. After the visit, students to prepare a **reflective write-up of green building visit** – **Describe in your own words** of what you have learned from **the green building visit and Assignment 1** done previously and how do you want to **apply those strategies** in your own final projects.
3. **Employ all passive green building strategies** by their tropical building case study **done in the Assignment 1** wherever possible, including but not limited to site planning, day lighting, façade design, natural ventilation, strategic landscaping and other renewable energies.
4. Students are expected to compile and documents their processes and final proposal in **soft copy of A4 reflective write-up and A3 Design Report in .pdf format**

Reflective Write-Up Interim Submission Requirement on Week 13 (10%)

Students are required to prepare the following:

1. **A4 reflective write-up (minimum of 3-5 pages, portrait, excluding cover & references),** uploaded via **Google drive link below;**

   https://drive.google.com/drive/folders/1cFmjDmiUq9ukdMJhcZjGEmI_zOBdSqnV?usp=share_link

2. **Main texts with standard font size of 12 - min. of 1000 words**
3. **Illustration** of strategies through point-form textual descriptions, images, infographics, sketches or doodles.
4. **Related drawings / diagrams**
5. **References** – APA format
6. **Students' full name, ID and name of respective tutor MUST** be included in on the cover of report and soft copy file naming **(in PDF format)** uploaded onto the **allocated tutor's folder** in **the Google Drive.**

Assessment Criteria

- **Clarity in narrative, research and analysis** in the write up, both in textual descriptions and graphic presentations.

Assignment 2 - Interim submission on Week 13 (Formative)

Students are required to prepare **Design Progress slides presentation** consisting a compilation of the following information:

1. **Project introduction, site introduction and analysis.**
2. **General passive design approaches (**including site planning, day lighting, façade& Envelope design, natural ventilation, strategic landscaping and other renewable energies).
3. Passive design **case studies, strategies & user experiences.**
4. Draft of green strategies **sectional diagram/s explaining item no.03.**

Assessment Criteria

Assessment will be based on the following:

- Able to do **in- depth analysis of site contexts** and able to **develop green building design perimeters and strategies** for the proposed architecture.
- Able to **apply appropriate passive green building solutions** with a refer to **contexts, spatial qualities and user's experiences** of the proposed architecture.

Final Submission Requirement on Week 16 (50%)

Students are required to prepare the following:

1. **A3 report (minimum of 15 pages, landscape, excluding cover, pages content & appendix)** soft copy **maximum size of 50MB,** uploaded via **Google drive link below;**

   https://drive.google.com/drive/folders/1m2cmmbPEBuzZL2Eh8Wy8ZI3E_8IP27t_?usp=sharing

2. **Main texts with standard font size of 12.**
3. **Illustration** of strategies through point-form textual descriptions, images, infographics, sketches or doodles.
4. **Drawings** (**relevant** plans, sections, elevations, 3D views) of the selected areas, data analysis, options, samples
5. **References** – APA format
6. **Students' full name, ID and name of respective tutor MUST** be included in on the cover of report and soft copy file naming **(in PDF format)** uploaded onto the **allocated tutor's folder** in **the Google Drive.**
7. **Kindly refer to Submission Folder Format Samples shared in the submission drive**

Assessment Criteria

Assessment will be based on the following:

- Intensity of analysis with regards to **site contexts** and able to establish several green building design **main objectives and strategies** for the final project proposal.
- Able to **employ appropriate passive green building solutions** with a great consideration to **contexts, spatial qualities and user's experiences** for the final project proposal, and
- **Clarity in research and analysis of contents** in the report, both in textual descriptions and graphic presentations.

Marking Criteria/ Assessment Rubric

Marks shall be distributed as follows:

Marking Criteria	Marks (%)	Acquired TGC	FAIL	POOR	SATISFACTORY	GOOD	EXCELLENT
Able to do in-depth analysis of site contexts and able to develop green building design perimeters and strategies for the proposed architecture.	**40**	**1.2**	Absence of/very little analysis of site contexts and development of green building design perimeters and strategies for the proposed architecture **(0 - 8)**	Minimal/poor analysis of site contexts and development of green building design perimeters and strategies for the proposed architecture **(10 - 16)**	Minimal good analysis of site contexts and development of green building design perimeters and strategies for the proposed architecture **(18- 24)**	Considerable amount of good analysis of site contexts and development of green building design perimeters and strategies for the proposed architecture **(26 - 32)**	Excellent and detail analysis of site contexts and development of green building design perimeters and strategies for the proposed architecture **(34 - 40)**
Able to apply appropriate passive green building solutions with a refer to contexts, spatial qualities and user's experiences of the proposed architecture.	**40**	**1.1 1.2**	Absence of/ very little application of appropriate passive green building solutions with refer to contexts, spatial qualities and user's experiences **(0 – 8)**	Minimal/poor application of appropriate passive green building solutions with refer to contexts, spatial qualities and user's experiences **(10 - 16)**	Minimal good application of appropriate passive green building solutions with refer to contexts, spatial qualities and user's experiences (**18 - 24)**	Considerable amount of good application of appropriate passive green building solutions with refer to contexts, spatial qualities and user's experiences **(26 - 32)**	Excellent and detail application of appropriate passive green building solutions with refer to contexts, spatial qualities and user's experiences **(34 - 40)**
Able to communicate the points in a narrated texts and visual presentation through diagrams, images and information with clear references	**20**	**3.1, 3.2**	Absence of/ very little number of diagrams, images and information to demonstrate clear analysis through narrated presentation **(0 - 4)**	Minimal/ poor diagrams, images and information to demonstrate clear analysis through narrated presentation **(6 - 8)**	Minimal appropriate diagrams, images and information to demonstrate clear analysis through narrated presentation **(10 - 12)**	Considerable amount of good diagrams, images and information to demonstrate clear analysis through narrated presentation **(14 - 16)**	Excellently produced diagrams, images and information to demonstrate clear analysis through narrated presentation **(18 - 20)**
Total	**100**						

References

Main References:

1. Baird, G. 2010. *Sustainable Buildings in Practice: What the Users Think.* Routledge, Oxon.
2. Behling, S. 2000. *Solar Power: The Evolution of Sustainable Architecture.* Prestel, Munich.
3. DeKay, Mark (2014). *Sun, Wind, and Light: Architectural Design Strategies 3rd Edition*, John Wiley & Sons, Inc. New Jersey, USA.
4. Duran, C. Fajardo, J. 2010. *The Sourcebook of Contemporary Green Architecture.* Collins Design, New York.
5. Kishnani, Nirmal. 2012. *Greening Asia: Emerging Principles of Sustainable Architecture*, BCI Asia Construction Information Pte Ltd. Singapore.

Recommended References:

1. Battle, Guy. 2001. *Sustainable Ecosystems and the Built Environment*. Wiley: Great Britain.
2. Hawkes, Dean. 2002. *Energy Efficient Buildings, Architecture, Engineering and Environment.* WW Norton: N.Y.
3. Hyde, Richard. 2000. *Climate Responsive Design*. Spon Press: N.Y.
4. Williams, Daniel E. 2007. *Sustainable Design Ecology, Architecture and Planning*, John Wiley & Sons, Inc. New Jersey, USA.
5. Yeang, K. 2006. *ECODESIGN: A Manual for Ecological Design*. John Wiley and Sons, Great Britain.
6. Yeang, K., Woo, L. 2010. *Dictionary of Ecodesign: An Illustrated Reference.* Routledge, London

Prepared by:	**Checked by:**	**Approved by:**
NIK SYAZWAN BIN NIK AB. WAHAB	Ts. KHAIROOL AIZAT	MOHD ADIB RAMLI
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Date: 21/04/2025	Date: 21/04/2025	Date: 21/04/2025
Module coordinator	Stream Coordinator	Program Director
Email: NikSyazwan.Wahab@taylors.edu.my		