

ARCH 418 – ARCHITECTURE VIII – SPRING 2014
PROTOTYPE RURAL HOSPITAL IN JABUNG, INDONESIA
DESIGN/BUILD
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Minerals and Metals Building North
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Credits: 6 credit hours
Class: MWF 1:50 – 5:50

This 2-semester studio will design and build a PROTOTYPE RURAL HOSPITAL in a rural village in the district of Magetang. The International airport of Surabaya is within a 5-hour driving distance.

OBJECTIVE

Students of IIT will design and build, in collaboration with local village people, a prototype rural hospital, that could be adopted and potentially rebuilt in other communities by local people. Students will be exposed to fundraising, international building practice, teamwork, complex communication situations, budget constraints and working within a clearly defined and rigorous time schedule.

PROJECT DESCRIPTION

The project will have a footprint of maximum 1000 sq. ft. plus additional open/covered outdoor spaces. The design of the program is part of the investigation, but basically consists of one room. Additional open and covered spaces provide additional space as waiting areas. Passive solar strategies, rainwater collection, natural lighting and ventilation are a given. Additionally, we will try to fund a photovoltaic system to allow the provision of artificial lighting and a wireless network.

STUDIO FORMAT

In the first semester, students will investigate the history of Indonesia and the current socio/political situation. This will be followed by a study of building in hot climates and appropriate building typologies. Students will study the work of Architects such as Maxwell Fry, Hassan Fathy and Francis Kéré Architecture. This phase will end with an investigation of common building materials available in Indonesia. In an intensive design phase, each student will produce a design. Following this, small groups will work to produce several designs and ultimately the whole group will produce one design, which will be finalized in the production of permit drawings, and this will be immediately followed by the production of construction drawings. Parallel with the design process, we will produce full-scale mock-ups of the relevant architectural details. During the permitting process, students will investigate methods of fabrication, and as well, begin the design of architectural components. There will be a rigorous schedule of submissions and critiques that will include charettes.

ASSIGNMENTS

Phase 1: Research

Exercise 1: students will research the history and the current political situation of Indonesia as a group project to find everything written, published, photographed and filmed about the topic.

Exercise 2: students will individually analyze library typologies, write a brief report, produce drawings, build a model and give a power point presentation.

Exercise 3: will be a study of buildings in hot climates as a group project. Teams of 2 will write a brief report, produce drawings, build a model and give a power point presentation.

All information needs to be collected, scanned and formatted, to produce a small, publishable booklet.

Phase 2: Design

Individual design: Students will begin working individually to produce a scheme to be presented end of February (see schedule).

Group design: Based on this review you will work in groups to come up with a scheme and produce a set of architectural drawings in 1/8" scale, sections in 1/2" scale showing the construction and a model. This work will be presented in our midterm review. This work will be presented to the community via skype and discussed.

Final scheme: Students will finalize your project and produce a set of architectural drawings and produce a permit set. You will also produce design necessary renderings and a final model. (Scale TBD)

Additionally, students are expected to create a homepage, a weekly updated blog and a publication.

The work will be graded as follows:

Phase 1: Research

Exercise 1 Indonesia 5%

Exercise 2 hospital typologies 5%

Exercise 3 building in hot climates 5%

Phase 2: Design

Individual design 25%

Group design 20%

Final scheme: 20%

Attendance & Participation 20%

ADDITIONAL STUDIO INFORMATION

COURSE FORMAT: This course will be taught in a studio format that is closely aligned with your previous core studios. The largest portion of class time will be devoted to individual desk critiques conducted in the studio space in Crown Hall. However, there will be frequent group pin-ups or reviews, and impromptu group discussions treating various topics as needed. There may also be site visits and field trips conducted this semester as part of studio fieldwork.

COURSE REQUIREMENTS: Attendance at all course meetings for the full duration of the session is required (including any Field Work meetings). All assignments, including the final project submission, must be handed in complete and on time. Active participation in class discussions, critiques, and reviews is expected. The COA lecture series is considered an important resource for this course so certain lectures may be required. Key studio topics: The list of key issues to be addressed in this studio will include, at a minimum: research methodologies, sustainable building strategies, site analysis methodology, site planning strategies, vernacular traditions/precedents, use-program development and analysis,

ATTENDANCE POLICY AND ABSENCES: Our experience suggests that there is a direct relationship between active participation in the studio and performance in the studio; if you are not present every day you are not going to do well this semester. Attendance at all class meetings is expected and required. Studio absences can be excused if: 1) they result from a death in the student's immediate family, 2) they are caused by illness (this requires a doctor's note), or 3) they are excused at the discretion of the studio instructor. Late arrivals or early departures will be counted as absences. You are allowed two unexcused absences this semester after which any additional unexcused absences will impact your final grade. Attendance at pin-ups, critiques and reviews is critical. This is one of the key elements in the studio pedagogy and one of the most important teaching forums so your participation is essential. Showing up late or missing a scheduled review without a valid excuse will result in a failure for that review. If you miss the final review (without a valid excuse) you will fail the course

GRADING POLICY: Your final grade will be based on an evaluation of the quality of the work submitted, and the quality of effort put forth over the entire semester. Particular attention will be given to the development, or on-going and continual refinement, of each project. And special attention will be given to the level and quality of engagement with the full range of issues enveloping each project.

grade scale:

E failing - student work and/or effort fails to meet the minimum course requirements.

D below average - weak effort with weak results, poor but passing.

C average - work satisfactorily completed and submitted on time, work shows acceptable but average levels of engagement and effort, work shows basic understanding of material and methods, satisfactory but without distinction. Quality of work and quality of effort aligns with the overall studio average.

B above average - work of very good quality, energy, and involvement. The work surpasses the stated project requirements and expectations and displays higher than average levels of proficiency and engagement. Clearly above the studio average and clearly surpasses the studio's basic requirements.

A excellent - work of excellent quality, energy, and intense involvement; outstanding work that is clearly superior to the studio average and to the B-level work. Work and effort display unusually high levels of engagement, discipline, insight, curiosity, and ability.

required texts and additional resources: These will be provided by the studio head for each section.

AMERICANS WITH DISABILITIES (ADA): Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources. The Center for Disability Resources (CDR) is located in Life Sciences Room 218, telephone 312 567.5744 or disabilities@iit.edu.

SCHEDULE SPRING 2015

Phase 1: Research

Week 1 January 12-January 18

Monday 12: First Class, exercise 1, Indonesia
Wednesday: review exercise 1
Friday: review exercise 1

Week 2 January 19-January 25

Monday 19: MLK, no studio23
Wednesday 21: presentation exercise 1; Intro to Exercise 2: hospital typologies
Friday 23: review exercise 2

Week 3: January 26-February 01

Monday 26: presentation exercise 2; Intro Exercise 3: building in hot climates
Wednesday 28: review
Friday 30: presentation exercise 3; Intro to design1, lecture

Phase 2: Design

Individual Design

Week 4: February 02-February 08

Monday 02: desk critique
Wednesday 04: desk critique
Friday 06: desk critique

Week 5: February 09-February 15

Monday 09: desk critique
Wednesday 11: desk critique
Friday 13: Monday 02: desk critique

Week 6: February 16-February 22

Monday 16: desk critique
Wednesday 18: desk critique
Friday 20: **presentation individual design**

Group Design

Week 07: February 23-March 01

Monday 23: Flury out of town
Wednesday 25: desk critique
Friday 27: presentation

Week 08: March 02-March 08

Monday 02: desk critique
Wednesday 04: desk critique
Friday 06: presentation

Week 09: March 09-March 15

Monday 09: desk critique
Wednesday 11: desk critique
Friday 13: **Midterm**

Week 10: March 16-March 22 **Spring Break**

Week 11: March 23-March 29

Monday 23: desk critique
Wednesday 25: workshop
Friday 27: presentation

Week 12: March 30-April 05

Monday 30: desk critique
Wednesday 01: desk critique
Friday 03: presentation

Week 13: April 06-April 12

Monday 06: desk critique

Wednesday 08: workshop

Friday 10: presentation

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Week 14: April 13-April 19

Monday 13: desk critique

Wednesday 15: workshop

Friday 17: presentation

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Week 15: April 20-April 26

Monday 20: desk critique

Wednesday 22: workshop

Friday 24: presentation

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Week 16: April 27-May 03

Finals week

Friday 01: Final Presentation

Week 17: May 04-May 10

Friday, May 08: Open House