

## Data Sheet of International Graduate's Course, Tongji CAUP

### 同济大学建筑与城市规划学院研究生国际课程(英语)登记表

Course Code 课程编号	2010281	Department 所在系(✓)	A ✓	P	L	D	院登记号 CAUP Code	
Instructor(Title) 主讲教师(职称)	Prof. TAN Zheng 谭峥 副教授	Other Teachers 合作教师	Prof. LI Xiangning 李翔宁 教授			Post-doc. Jiang Jiawei 江嘉玮 博士后研究员		
课程中文名	建筑学前沿: 机器与环境							
Course Name (E)	LECTURES ON FRONTIERS OF ARCHITECTURE: CRAFT							
Form of Teaching 教学形式(✓)	Lectures 讲课 ✓	Design Studio 设计课	Seminar 研讨课		Internship 实践课		Others 其他	
Total Hours 总学时数	36	Hours per Week 周课时	2		Weeks 教学周数		18	
Semester 春季或秋季学期	Fall 秋季	Tongji Credits 同济 学分数	2					

#### Brief Course Description 课程简述 (中英文)

Machine and environment become an antithesis in the process of modernization. Since the end of the first Industrial Revolution, the use of machine has not only enhanced dramatically production efficiency but also accelerated urbanization. It was not until the end of the First World War that the issue of environment was made into a main public concern. This course, through retrospective study of the dilemma brought by the antithesis of machine-environment, looks into new possibilities of reconciling such conflicting issues as well as potentials towards a well-tempered architecture that reflects on both machine and environment.

机器与环境是现代进程的一对正反面。自从第一次工业革命结束时开始, 机器的逐步广泛应用不仅极大地提高了生产效率, 而且加速了城市化。直到第一次世界大战结束, 环境议题才被人们纳入为一个重要的公共议题。这门课通过对“机器-环境”的正反面进行回溯式的研究, 寻找调和这些矛盾因素之间的新可能, 以及研讨一种能够深入反思机器与环境的适应式建筑学。

#### Brief Schedule and Topics 课程进度简表 (中英文)

(Since the arrangement of the lectures is subject to our guest speakers instant schedules, the sequence of the invited lectures is difficult to be fixed in advance. The following schedule provides the supposed guest speakers and their tentative topics, while not finalized yet.)

(由于本课程特邀讲座的顺序难以全部提前确定。以下为暂定的特邀演讲嘉宾及演讲话题。)

##### Week 1

- Course Introduction and Special Lecture “Machine in the Garden: 10 Key Words in the Environmental History of Modernity”  
Speaker: TAN Zheng

##### 第一周

- 课程导论与讲座“花园中的机器: 现代性的环境史里的10个关键词”  
演讲人: 谭峥

Week 2

- Reyner Banham I: Bibliography of A Historian and Critic that Loves Machine  
Speaker: JIANG Jiawei

第二周

- 雷纳·班纳姆（一）：一位歌颂机器的史学/批评家的文献回顾  
演讲人：江嘉玮

Week 3

- Module and Joints: The Story of Prefabrication  
Speaker: Zheng TAN

第三周

- 模度与节点：预制的故事  
演讲人：谭峥

Week 4

- Reyner Banham II: The Issue of Built Environment after WWII  
Speaker: JIANG Jiawei

第四周

- 雷纳·班纳姆（二）：二战之后的建成环境议题  
演讲人：江嘉玮

Week 5

- Secret of Section  
Speaker: WANG Fei

第五周

- 剖面的秘密  
演讲人：王飞

Week 6

- A Cybernetic View of Body-Architecture: From Fun Palace/SEEK to the Contemporary Adaptive Environment and its Paradox  
Speaker: YANG Chao

第六周

- 身体建筑学的控制论视角：从欢乐宫到当代的适应式环境及其悖论  
演讲人：闫超

Week 7

- Medical Body: from inhabitable machine to therapeutic environment  
Speaker: DOU Pingping

第七周

- 医药之身：从宜居机器到疗愈环境  
演讲人：窦平平

Week 8

- Midterm review of students' assignments

第八周

- 学生作业中期考核

Week 9

- Disease, Sewages and Civilization: A Brief Introduction of Subterranean Infrastructure  
Speaker: WANG Zigeng

第九周

- 疾病，排污与文明：地下基础设施的简史  
演讲人：王子耕

Week 10

- Infrastructure, Mobility and the Subterranean Space  
Speaker: TAN Zheng

第十周

- 基础设施、机动性与地下空间  
演讲人：谭峥

Week 11

- Special lecture by invited speaker (to be decided)

第十一周

- 特邀讲座（演讲人待定）

Week 12

- The theatrical constellation: Bauhaus potentialities and Chinese moments  
Speaker: WANG Jiahao

第十二周

- 戏剧化的群星：包豪斯潜能与中国时刻  
演讲人：王家浩

Week 13

- Special lecture by invited speaker (to be decided)

第十三周

- 特邀讲座（演讲人待定）

Week 14

- Reyner Banham III: Cross-field of Modern Art, Machine and Ecology  
Speaker: JIANG Jiawei

第四周

- 雷纳·班纳姆（三）：现代艺术、机器与生态学的交叉领域  
演讲人：江嘉玮

Week 15

- Special lecture by invited speaker (to be decided)

第十五周

- 特邀讲座（演讲人待定）

Week 16

- Final review of students' assignments

第十六周

- 学生作业期末考核

### Course Syllabus 课程大纲（中英文）

#### COURSE DESCRIPTION

This course will be carried out in a series of lectures, which are given by scholars or architects experienced in teaching or practice. All these lectures focus on machine and environment. We attempt to evoke the essence of architecture by emphasizing machine and environment, and to reflect on current architectural practice in China.

#### 课程介绍

本课程全程以讲座的形式开展，邀请具有丰富实践或者教学经验的校内外学者及建筑师来讲授关于机器与环境的相关话题。尝试通过对机器与环境的关注重新唤起对建筑本质的认识，并放置到当下中国建筑实践的总体环境中去进行反思。

#### REQUIREMENTS

Totally there are 36 contact hours in this course, of which about three fourths are lectures given by the coordinator himself or invited speakers, and the rest one fourth is for students to do case studies or make surveys. All students having chosen this course are required to submit a brief thesis based on his/her own case study, which should relate to machine and environment. These theses should be submitted at the end of the semester.

#### 课程要求

本课程预计授课 36 学时，当中约四分之三由带课教师及相关邀请演讲者在课堂上讲课，其余约四分之一时间让学生进行案例分析或者实地调研。所有选课学生必须根据自己的案例分析在期末递交一份论文，主题与机器与环境相关。

### Main Reference Books 主要参考书目

1. Banham, Reyner. *Theory and Design in the First Machine Age*[M]. New York: Praeger, 1960
2. Banham, Reyner. *A Concrete Atlantis*[M]. Cambridge (Mass.): The MIT Press, 1989
3. Giedion, Sigfried. *Mechanization Takes Command*[M]. New York: Oxford University Press, 1948