

# 環境心理學

心理認知的緣由

# Curriculum

當期課號	7256	Course Number	7256
中文科名	環境心理學	Course Name	Environmental Psychology
開課單位	建築及都市設計研究所碩士班一A	Department	
課程目標	探討建築環境中特定物理因子變化對主觀心理以及客觀生理之影響。並研究其間的關連性，作為環境設計之基礎。並訓練建築計畫者利用心理學之原理來分析物理環境中心理，乃至於生理之控制技術。	Objectives	The course is designed to introduce the methods for conducting research on psychological problems within developmental framework. General topics included are: what is special about the developmental approach to psychology, the relationship between theory
教材	1. 音響心理學, Zwicker(日文版). 2. 官能檢查手冊 (日文版). 3. 心理學實驗與測驗之基礎. 4. Foundation of Cognitive Science. 5. Neuro-Vision Systems.	Teaching Materials	1. Psycho - acoustics. 2. 官能檢查手冊 (Japanese). 3. 心理學實驗與測驗之基礎 (Chinese) 4. Foundation of Cognitive Science. 5. Neuro-Vision Systems.
成績評量方式	1. 口頭讀書報告40% 2. 測驗或報告40% 3. 出席率20%	Grading	1. Reports 40% 2. Examination or paper 40% 3. Presents 20%
教師網頁	<a href="http://www.cyut.com.tw/~chychen">http://www.cyut.com.tw/~chychen</a>		
教學內容	本課程以介紹各種心理問題的進化架構為主，主要課題包括進化架構的理論與方法間的特性，以及客觀心理實驗之選樣、實驗計劃、資料分析與解釋。並研究其間的關聯性，做為環境設計之基礎。使學生能有能力去設計及計劃研究課題。	Syllabus	The course is designed to introduce to student the methods for conducting research on psychological problems within a developmental framework. General topics included are: what is special about the developmental approach to psychology, the relationship between theory and method, selecting participants (subjects), obtaining human subjects' approval, kinds of design (especially auditory, visual, cognition), measurement, data analysis, and interpretation. In each case, the topic is approached didactically and practically. The student is expected to complete a pilot study of a research project and a (re)design of same.

# Architectural Psychology



**Human factors**  
談環境心理應從何開始？



# Human factors (人因工程)

人因與環控有何關連？



1. Human factors science (人因科學)  
**Physical or Cognitive Property**  
**Mental Nerve, Mental Accounting**
2. Human factors engineering (人因工程)
3. Human factors integration (人因整合)  
Health Hazard Assessment  
System Safety  
Environmental Protection  
**Architecture Equipment**  
**Modify the Design**



# Environmental Psychology

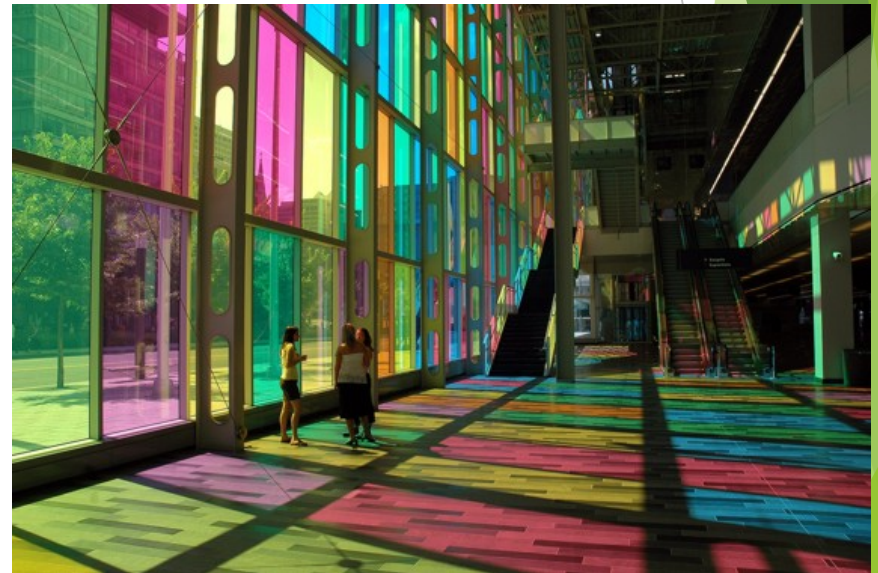


**Attention :**

**Perception and cognitive maps**

**Preferred environments**

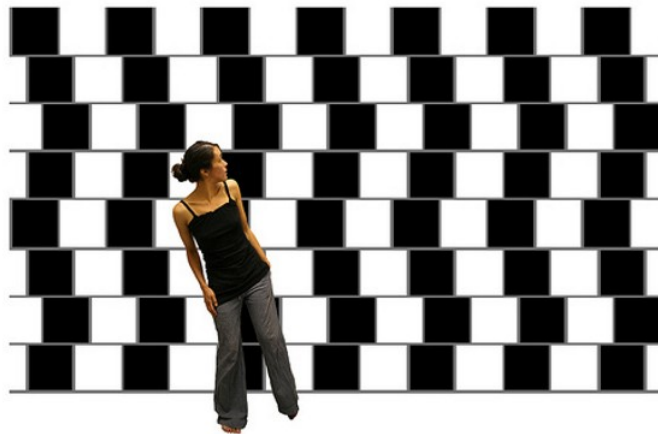
Environmental stress Conservation  
behavior (資源保護)



# Food for Thought



**PERCEPTIONS**

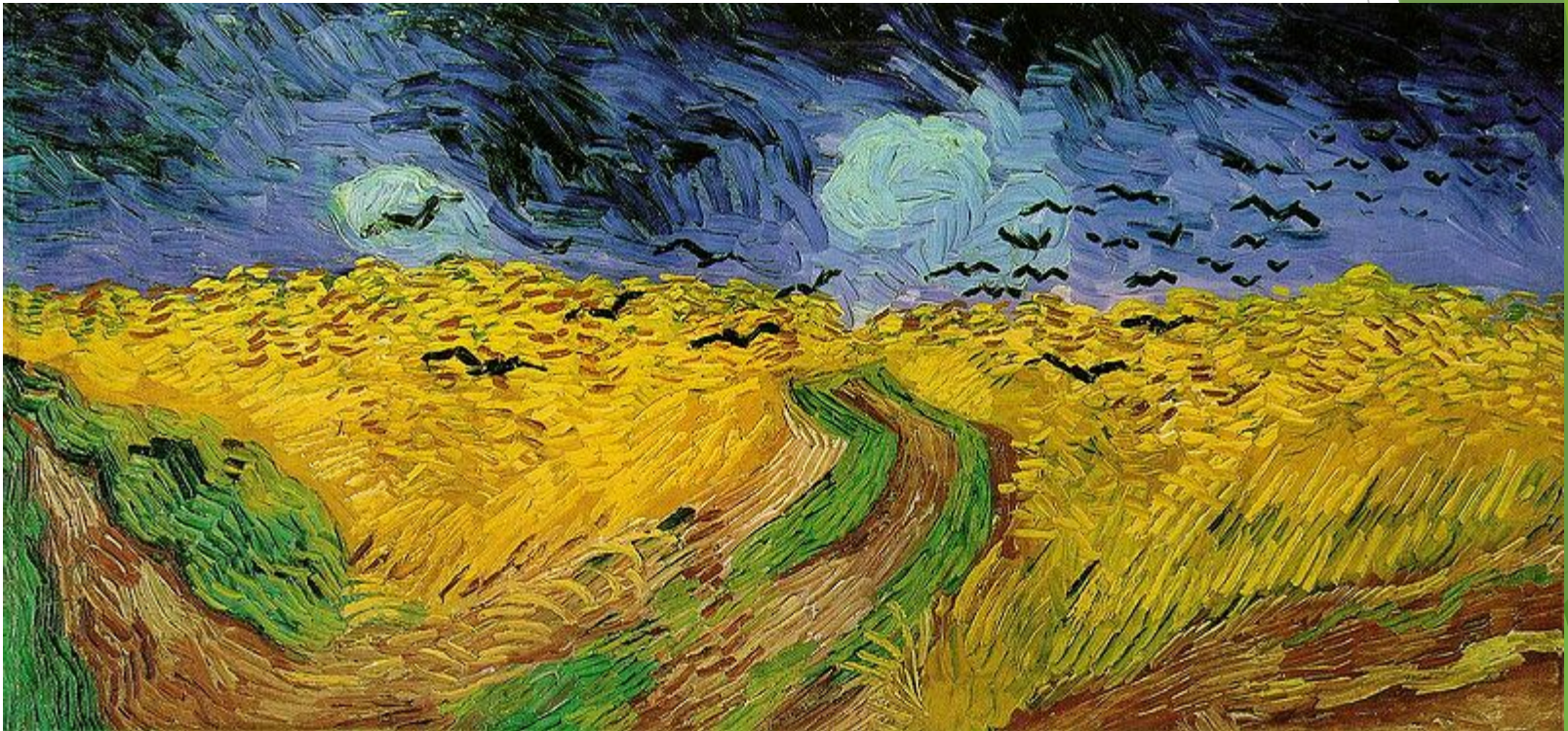


**OPTICAL ILLUSIONS**



# Psychology of art

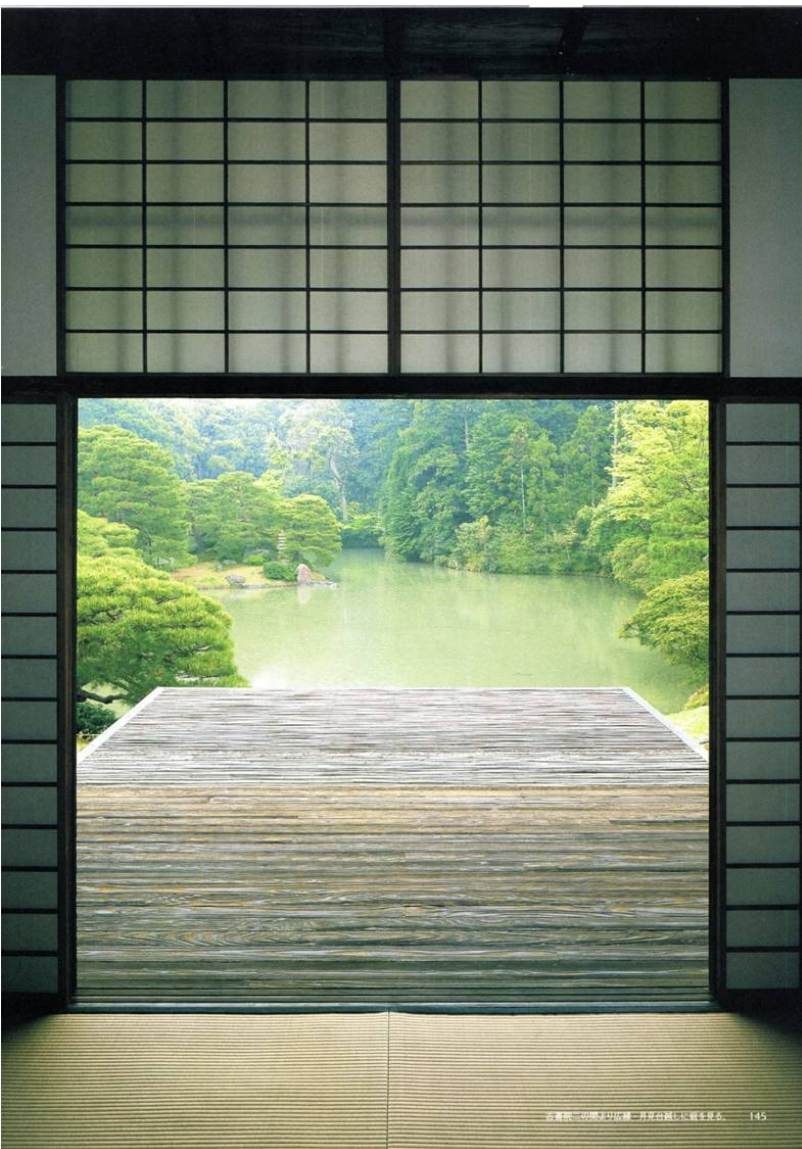
梵谷〔 Vincent van Gogh 〕〔 1853 ~ 1890 〕



**Wheatfield with Crows (1890)**



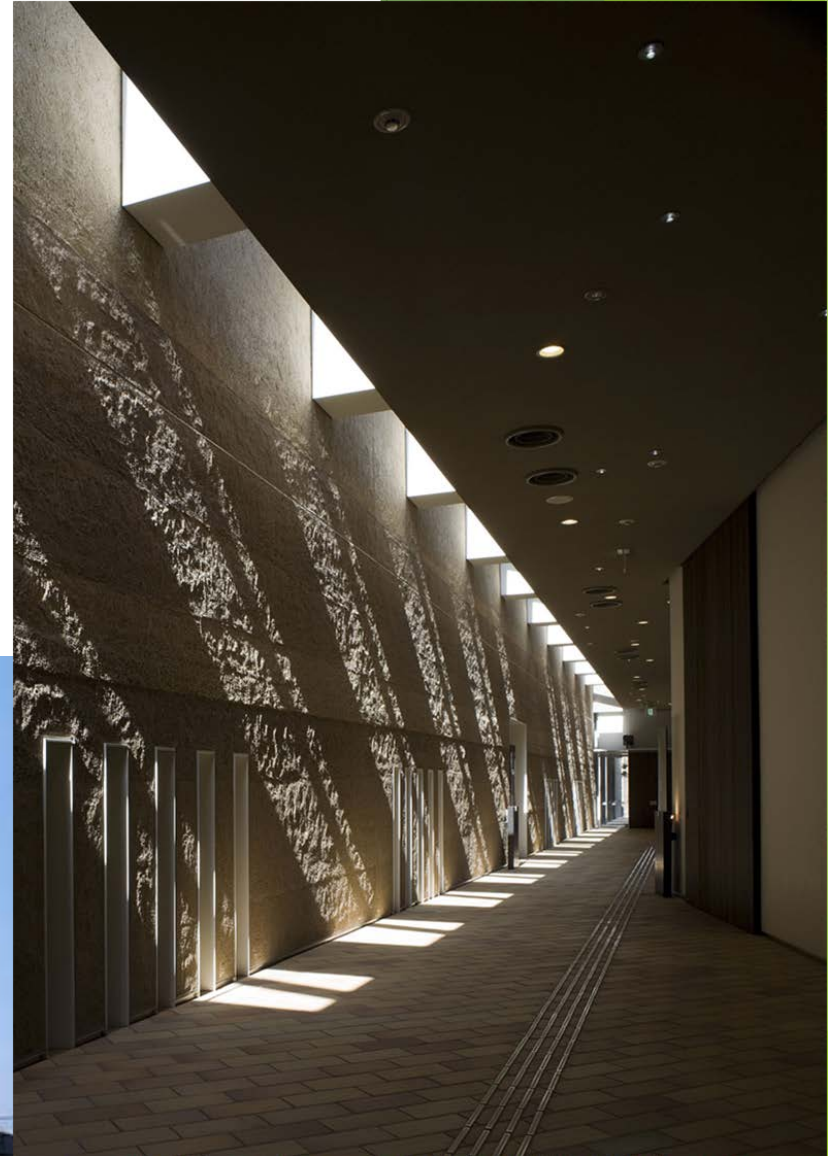
# Temporal Design



Katsura Imperial Villa (桂離宮)

Tsukimi-Dai (月見台)



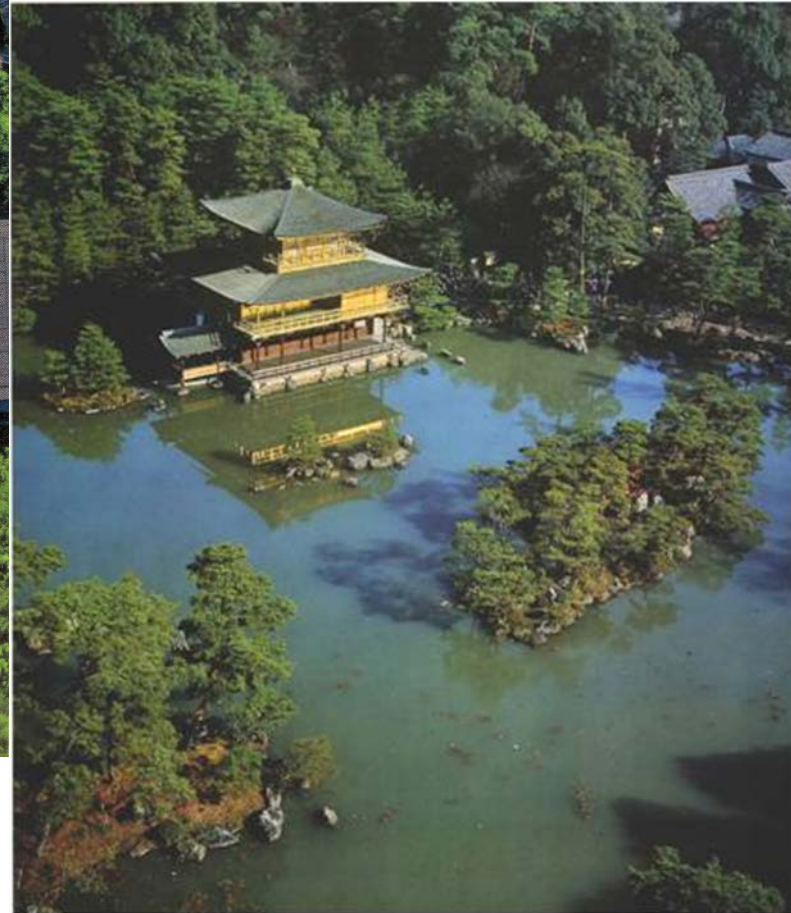


Hyogo Prefectural Museum of archeology (日本兵庫縣考古美術館)





Mizu-mido at Honpuku-ji (水玉堂、淡路島)



Kaiyu-type garden in Rokuon-ji Temple  
(金閣寺)



	Predominant period	Stimulus to a brain	Nature	Physiology Culture	Candidate for plan / design	Temporal designing in the third stage in human life	
						Architecture	Remarks
Neurologic presence* 1/1000 s.	1 ms		Sound (acoustic) Light (visual)	Neural spike time The first stages of human development	Safety, Security Basic performance in the architecture		Building standards Professional ability of architects
Psychological presence second	30ms ~ 5s		stream sound sound of wave singing of insects	brain waves breathing, heart tempo of music	acoustic space, music hall garden, exterior, flame of fireplace feel of materials of buildings	MIYAMA-Conseru Belle Forêt TSUYAMA Orbis Hall	re
Emotional presence* minute	1 min ~ 3 min		(Street scape)	Walking Body activity	Thermal environment Pedestrian space	Planning for street scape Mizu-Mido/Honpuku-Ji	Total of stimulus for five senses
Imaginary presence*	10min ~ 15min		(Town scape)	Image of a group	Planning for town scape Approach space Garden, Exterior	Esplanade (Tetsugaku-no-michi) Kaiyu-type garden ( KATSURA Villa) TESHIMA-Museum	Total of emotion
REM-nonREM sleeping cycle	70 ~ 90m	Time sense of European and American-style for eternity and permanence  Time sense of Japanese-style for eternity and permanence	Altitude & shadow of sun and moon wether	Sleep cycle	Function planning Section planning	Row House in Sumiyoshi Approach of Konpirasan-temple	On-time designing Off-time designing
Circadian-rhythm day	25h		Alternation between day and night Rise & fall of the tide	Greeting, Praying Routing-works	Freedom from routine-works Theater, Museum, GMCs Presentation at weekend in theater	Jodo-ji/Jodo-do KOBE-Fashion-Plaza	
weekly cycle	1 week			TV program Classes in a school	Demand to non-everydayness Resort, Sightseeing spot	Traditional village, city Disney World	Demanded vacation or stimulation to escape from the repetition of a monotonous week
Circalunar-rhythm month	1 month		Waxing and waning of the moon	Menstruation phenomenon of the women	Garden Toko-no-ma, Tsukimi-dai (terrace to view the moon)	KATSURA Imperial Palace Daikaku-Ji (Viewing the moon using Osawa Pond)	Progress of the confirmation Volume confirmation
Circannual-rhythm year	1 year		Seasons, Sunset and sunrise time, Growth of the creature	Farming, Festival Delivery period fiscal year, Terms	Landscape, Garden Sound environment during pregnancy	Festival in JAPAN Shougatsu, Setsubun, Sekku, Hanami Tanabata, Bon, and so on	Confirming of the aging by a festival memorial day Update of the sense by the year
Life stage 3years-cycle*	3 years			mental and physical growth prevalence	Growth of the brain cell Education (language, music) Midterm plan in organization	Utase elementary school	Interval of the orbit adjustment in the long term project Mental and physical stage of growth
Life stage 10years-cycle*	10 years		Sunspot	Each period at life (infants period) Fashion	town-scape (Static Scape) infrastructure plan urban (re)development	Housing used method by skeleton-infill	Renewal of the architecture Mental stage of growth
Life stage 30years-cycle*	20-30 years			Alternation of generations	Landscape City planning National land planning	ISE grand Shrine	Recurrence in the fashion
Culture stage 100years* century	100 years			Duration of life	Culture		Establishment of the history recognition
Culture stage 1000years* millenium	1000 years				Civilization	Magnificent cathedral, temple and mosque	History editing

\* Author's hypothesis