

Japanese People, Urban Design, and Architecture



As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design



ARCHITECTURE WEBSITE



FYS100 **CONCEPTUAL ARCHITECTURE**

- Architecture Theory intro; Mansions; Barns
- Architecture of **JAPAN** and **ITALY**
- FRANK LLOYD WRIGHT Ages: **0-19** (1867-86), **20-33**, **34-41**, **42-47**, **48-62**, **63-78**, **79-91**, V-Lecture of 31 Chicago Designs
- Assignments: 1 2 3 4 5 6 7 8 9 10 11 12

EGR353 **GREEN ARCHITECTURAL ENGINEERING**

- REVIT Lab1 and Lab2, "SWEETS" Catalog
- LEED Intro; LEED Project1 Neighborhood Design(ND), Etown Master Plan, LEED Project2 Building(BD+C) or Interior(ID+C); LEED Trips: SFW Center and SFW 2
- LEED Checksheets: ND Plan, BD_C New Cnstrct/MajorReno, ND Built, BD_C Core&Shell, BD_C Schools, BD_C Retail, BD_C Data Centers, BD_C Warehouse/DistrCenter, BD_C Hospitality, BD_C Healthcare, BD_C Homes&MultifamilyLowrise, BD_C Multifamily Midrise, ID_C Commercial Interiors, ID_C Retail, ID_C Hospitality, O&M ExistingBldg, O&M Schools, O&M Retail O&M Data Centers O&M Hospitality O&M Warehouse/DistrCenter
- Lectures: ; CH3 Thermodynamics Concepts ; CH4 Comfort ; CH5&11 Climate&Site Design ; CH6 Solar Geometry ; CH7 *PASSIVE Solar Heating* ; CH8 *Active Solar* ; CH9,10 *PASSIVE Cooling* ; CH12,13,14 Daylighting and Illumination Engineering ; CH15 Building Envelope ; CH16 HVAC; Acoustics
- AIA Graphics Standards; Guest-Speakers; 2018 FINAL EXAM

ART370 **ARCHITECTURAL DESIGN THEORY**

- Lectures: **PRIMARY ELEMENTS FORM FORM & SPACE ORGANIZATION CIRCULATION PROPORTION & SCALE PRINCIPLES**
- Assignments: 1.Japanese Bridges, 2.Massing Models, 3.Origami, 4.Kirigami Architecture, 5.Sacred Space, 6.Joyful Space, 7.Great-Window Inspired Residence
- Cedar Hill Housing

ART371 **ARCHITECTURAL MATERIALS & METHODS**

- 2020 PDF's of in-class Lectures before Coronavirus (also on "Canvas"): **STANDARDS STRUCTURAL FOUNDATIONS WOOD: 1, 2, 3 Masonry&Concrete: HISTORY, STONE,.....**
- 2020 PPTX Lectures with Audio due to Coronavirus (also on "Canvas"):
 - ... **BRICK** PPTX-audio PDF
 - **BLOCK** PPTX-audio PDF
 - **CONCRETE** PPTX-audio PDF **CLOUD**w/transcript **VIDEO**
 - **STEEL&HIGH-RISES** PPTX-audio PDF **MP4 YouTube**
 - **SHELL/ENVELOPE** PPTX-audio PDF **MP4 YouTube CLOUD**-w/transcript[Pswd:7f+!N4Z&]
 - **INTERIORS** PPTX-audio PDF **MP4 YouTube CLOUD**-w/transcript[Pswd:3e@g&9#3]
- Assignments: 1:Site1_Bridge&Creek 2:Site2,Revit1 3:Neighborhood,Revit2,LEED1 4:FINAL DESIGN (Residential Renewal, VR, etc.)
- Final Exam

ART/SOC371 **FRANK LLOYD WRIGHT**

EGR/ART495/496(499A&B) **ARCHITECTURE STUDIO I&II (Juried)**

- 2017 **Etown Library Cafe** from (1989 Library Drawings)
 - **ACOUSTICS**
 - **Etown Solar Paths**
 - **LEED: Daylight, Views, Lighting, Acoustics, Raw materials, Material Ingredients**
 - **Revit Intro, Levels, Walls, High Library, Interior, Doors&Windows, Library acoustics**
- 2018 **Etown Residential Renewal**
 - **LIGHTING: Design, Solar, Feng Shui**
 - **LEED Daylight, Views, Lighting, Neighborhood Development; LEED ND rules**
 - **Etown Master Plan: 1999 Chapter 1 and seven site analysis maps, 2011 update; Etown 3d Google Map, and Topographical Map(Source) Overviews of: Human Vision, Color , and Illumination Engineering; Illumination Engineering Standards (IES): Eyes&Brain, NonVisual Effects, Performance&Perception, and Gallery Design**
 - **Revit assignments: 499A Perspective, 499B Perspective; 499A&B Perspective, 499A Solar, 499B Solar; 499A REVIT Intro, 499B REVIT Topo; 499A REVIT BIM (Building Information Managemnt), Doors&Windows, 499B REVIT Topo; ("SWEETS" Catalog); 499A&B Site Walks**
 - **Dorms by Cannon Design; Real Estate Development**
- 2019 **Etown \$1M RACP Grant, and Cedar Hill Housing**
 - **SPECIFICATIONS**
 - **Assignments: 1. Bridges, 2. Green Roofing Spec, 3. \$1M RACP Grant for Sports, Fitness, & Wellness, 4. Revit Great-Window Inspired Residence**
 - **Cedar Hill Housing**



*“Green Architecture and Environmental Design using Rapid-Prototyping
Social-Networking Sandbox Tools followed by Professional Architectural Software”*

2013 Asian Conference on Sustainability, Energy and the Environment -- Osaka, Japan

Joseph T. Wunderlich PhD, Keynote Speaker
Joseph John Wunderlich



The Japanese People





“Key” Japanese words
by Mahua Bhattacharya,
Professor of Japanese,
for J Wunderlich’s students

OMOIYARI – Considerate
ON - Duty
AMAE - Empathy
WA - Group Harmony
UCHI - Inner (or insider)
KENSON - Modesty
GIRI - Moral Obligation
SOTO - Outside (or outsider)
GARMAN - Persistence
ENRYO - Restraint
HAJI - Shame





OMOIYARI – Considerate
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JAPANESE PEOPLE



2013 Photo by J Wunderlich in Kyoto



1905 Photo by Frank Lloyd Wright in Nagoya





Bullet train from Tokyo to Osaka



名城大学附属高等学校

“WA” = Group Harmony

From window of Bullet train from Tokyo to the Osaka





“WA” = Group Harmony





“WA” = Group Harmony





“WA” = Group Harmony





“WA” = Group Harmony





Platform 1

13:18	Shinjuku	13	Keihin Tokaido Line
13:20	Hakata	14	Keihin Tokaido Line
13:25	Shinjuku	14	Keihin Tokaido Line
13:40	Shinjuku	13	Keihin Tokaido Line

Platform 2

13:18	Shinjuku	13	Keihin Tokaido Line
13:20	Hakata	14	Keihin Tokaido Line
13:25	Shinjuku	14	Keihin Tokaido Line
13:40	Shinjuku	13	Keihin Tokaido Line

Platform 1

Platform 2

Platform 3

Platform 4

Platform 5

Platform 6

Platform 7

Platform 8

Platform 9

Platform 10

Platform 11

Platform 12

Platform 13

Platform 14

Platform 15

Platform 16

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Platform 95

Platform 96

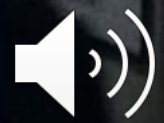
Platform 97

Platform 98

Platform 99

Platform 100

“WA” = Group Harmony





“WA” = Group Harmony





浄土宗は、法然上人のみ教えをうけ、過去、いま、そして明日へのいのちを感じ、新しい共生(ともいき)文化を創造します。

法然共生

浄土宗21世紀劈頭宣言

愚者の自覚を
家庭にみ仏の光を
社会に慈しみを
世界に共生を

浄土宗 総本山 知恩院

“WA” = Group Harmony



OMOIYARI – Considerate
AMAE - Empathy
WA - Group Harmony







OMOIYARI – Considerate
ON - Duty
AMAE - Empathy
WA - Group Harmony
KENSON - Modesty
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GARMAN - Persistence
HAJI - Shame





川に空カン・ゴミ等すてないで下さい。



子どもたちに
美しい
川をのこそう

白美会（祇園白川）

- 京都河川美化団体連合会
- 京都府京都土木事務所





OMOIYARI – Considerate
ON - Duty
AMAE - Empathy
WA - Group Harmony
GIRI - Moral Obligation



There are more vending machines per capita in Japan than any other place in the world

[VIDEO](#)





京都華頂大学

KYOTO KACHO UNIVERSITY

華頂短期大学

KACHO COLLEGE

華頂短期大学附属幼稚園

KACHO KINDERGARTEN









田山公園を美しくしましょう
田山公園を美しくしましょう
田山公園を美しくしましょう

田山公園
田山公園
田山公園







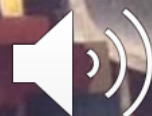




AMAE - Empathy
WA - Group Harmony
GIRI - Moral Obligation



AMAE - Empathy
WA - Group Harmony
GIRI - Moral Obligation





AMAE - Empathy
WA - Group Harmony
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OMOIYARI – Considerate
AMAE - Empathy
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SOTO - Outside (or outsider)
ENRYO - Restraint



?

SALE

¥2500

Spray

WHAT'S?

¥1,900





?



?

RE
LE
10



?

以上で 20% OFF

FUNKY MONKEY BABYS/LAST BEST

今までありがとうファンモン!!最後の集大成が全て詰まっています!!



ただいま、当店で激売れロングセラー中です!!

DVD/Blu-ray

2点以上で

20% OFF

HMV SALE

20% OFF





WELCOME BACK SOON!!

BOOKS & MAGAZINE MIRAIYA SHOTEN

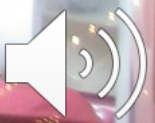
両替機

梅

新

お楽しみだけ...
お楽しみだけの
お楽しみスレット

30
すく





OMOIYARI – Considerate
ON - Duty
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U.S.A. ?



Urban Design

PATHS

NODES

LANDMARKS

EDGES

DISTRICTS



Japanese Urban Design

PATHS



Japanese Urban Design

PATHS

(of rails)

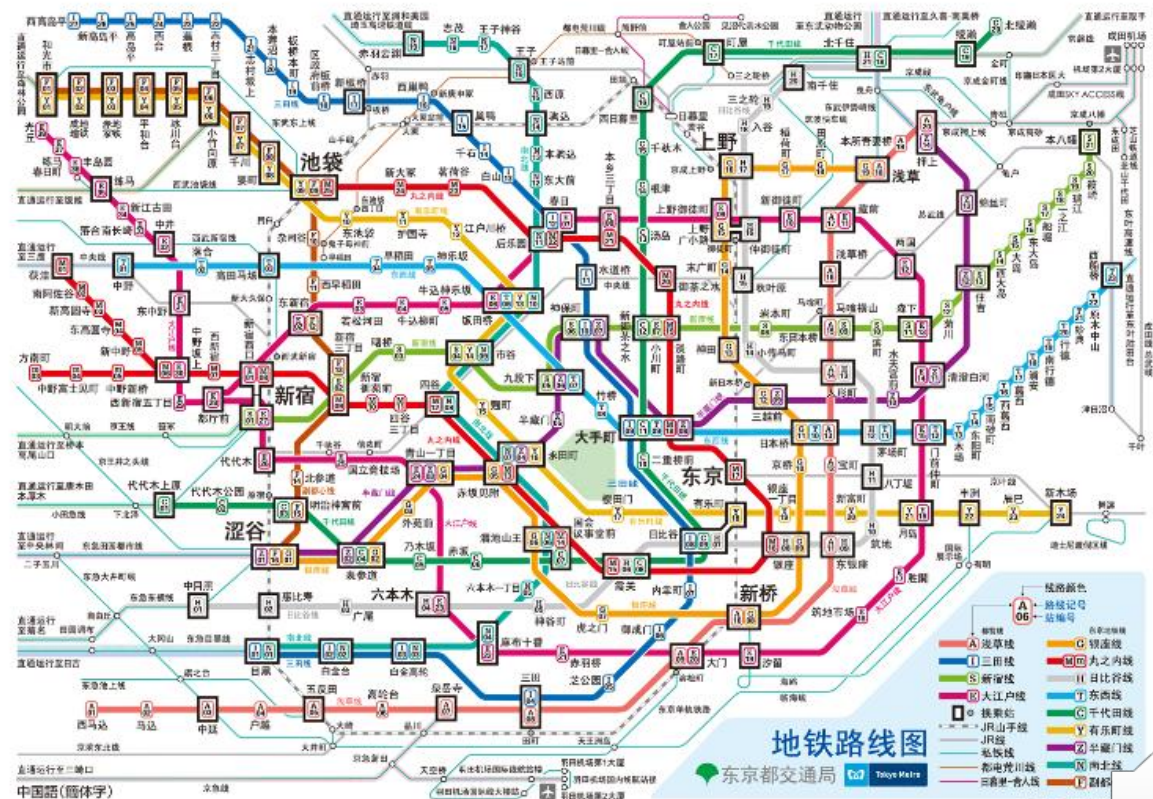
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course on
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THEORY



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Urban Design
PATH

Japan 2013



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Japan 2013

Urban Design
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Japanese Urban Design

PATHS

(of water)

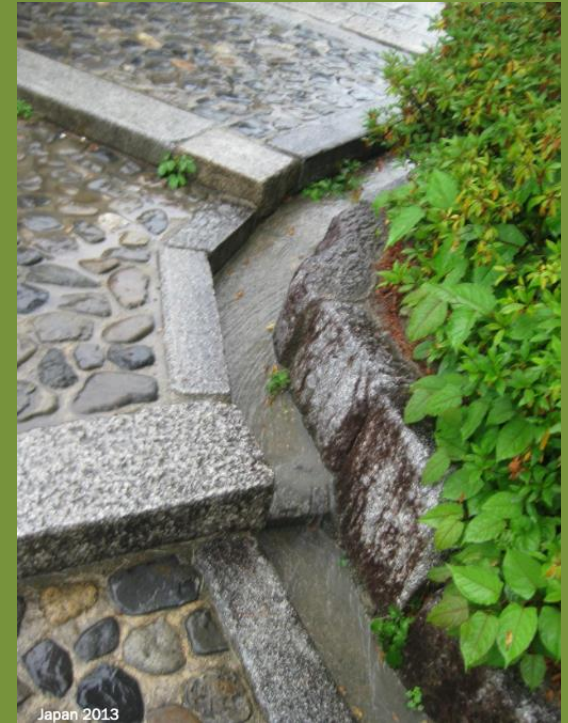
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[VIDEO](#) of water in
drainage channel



[ARCHITECTURE WEBSITE](#)



[VIDEO](#) of water on rain chain



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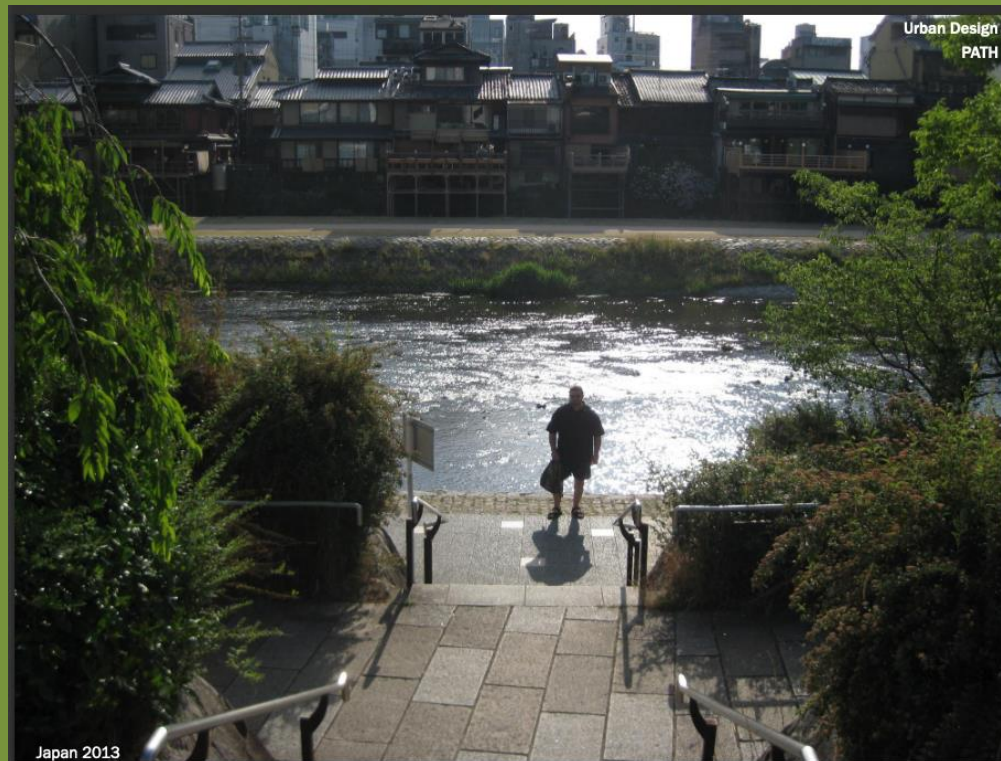
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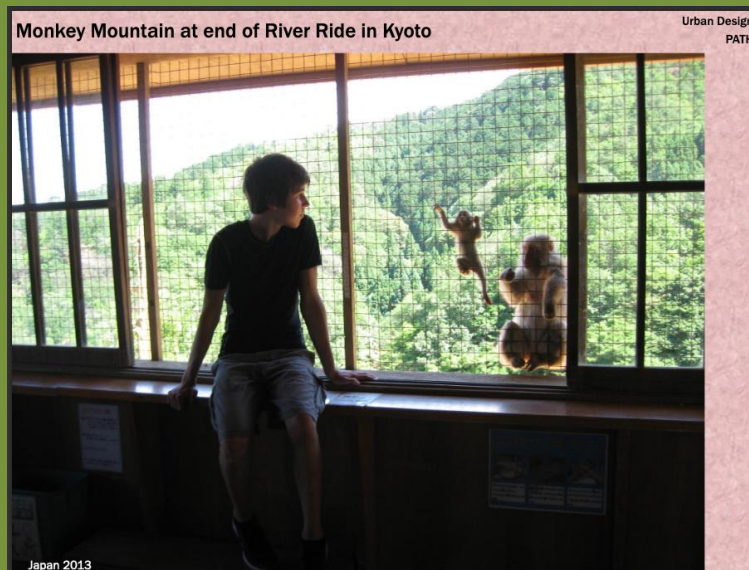
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Video of river ride on river next to historic railroad
<https://www.youtube.com/watch?v=d3X1MWgvcs0>



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Japanese Urban Design

Urban Design
PATH

PATHS

(by Foot)

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Japan 2013



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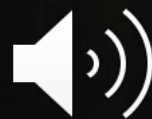


お猿を見る時の注意点

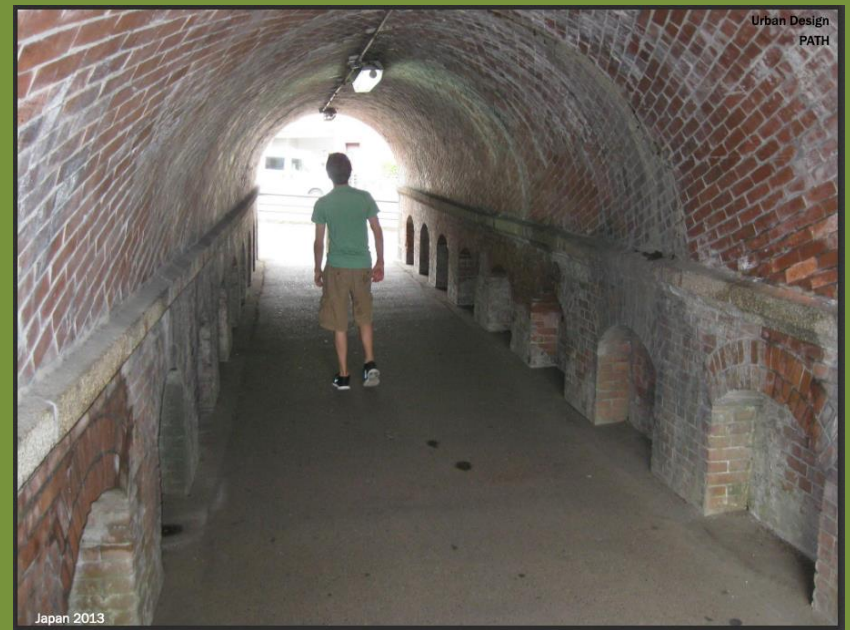
1. お猿の目を見つめない!!
Don't stare at the monkeys in the eye.
※お猿に対して威嚇をしている意味になります。
2. お猿をさわらない!!
Don't touch the monkeys.
※野生のお猿ですので、いやがって怒ることがあります。
3. お猿に食べ物を
見せない与えない!!
Don't feed them outside.
※人に飛びつくクセがつき、マナーの悪いお猿になってしまいます。

以上3つの注意点を必ず守り
楽しくお猿を観察しよう!!









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Slides from Lecture on
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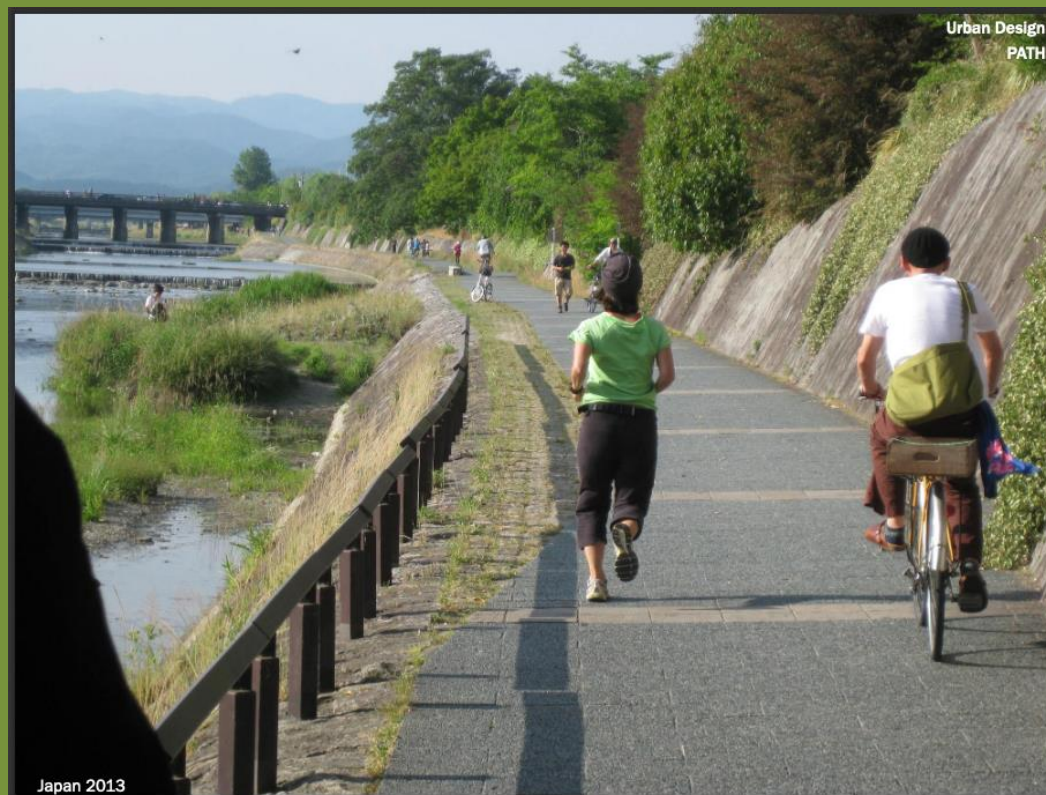
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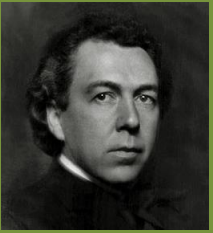


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38 years old (1905)

[Frank Lloyd Wright Trust 2017]



1905 Photo
by Frank Lloyd Wright
in Nagoya



2013 Photo by J Wunderlich in Narita



"A stairway can be an organizing element and weave together a series of spaces at different levels of a building or outdoor space." [1]



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BRIDGES

movement
across space

BRIDGES

As you watch this video about bridges in Japan:
YouTube: "Japanology Plus – Bridges"

<https://www.youtube.com/watch?v=4V04-S-IPJg>

Take notes about each bridge; you may note technical aspects including structural methods and materials as well as required levels of craftsmanship; and/or recognize notable aspects of space and form including circulation such as the relative intensity of waterway and man-made flows as well as where pathways lead to and from; and possibly note aesthetic qualities of scale and form as they relate to the natural surroundings. Make sketches as time permits, but don't worry about the quality of your drawing on this part of your assignment.

1. Gyoja-bashi Bridge in Kyoto
2. Initial high-arch pedestrian bridges found at shrines and temples
3. Kozuya-bashi Bridge that temporarily floats during floods
4. The submersible bridge
5. Ishi Shrine in Mie Prefecture and the Uji-bashi Bridge that it leads onto
6. Kintaikyo Bridge in Yamaguchi Prefecture
7. Togetsukyo Bridge ("Bridge to the Moon")
8. Seto Ohashi Bridge
9. Akashi Kaikyo Ohashi Bridge
10. Nihon-Bashi Bridge

As homework, pick a place on earth with a waterway that you believe could be bridged for whatever reason -- pedestrian, automobile, mass transit, aqueduct, or whatever, and propose a new bridge of your own making. Create at least one decent quality drawing that communicates your concept. Perspective drawing is not required, but certainly do so if you feel comfortable with this technique. Or perhaps create a technical type drawing if you feel so inclined. Also write a paragraph describing your proposed bridge and whatever aspects of it you believe most noteworthy; whether they be technical or artistic is not important, rather just emphasize what you believe is unique about your design. Next week display your drawing on the screen at the front of the class and very briefly tell your story about how you conceived of your bridge idea. You can do this homework on the back of this paper, or staple it as an attachment as additional page(s).

Urban Design

PATH

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Japanese Urban Design

LANDMARKS



LANDMARKS



LANDMARKS



LANDMARKS



LANDMARKS



LANDMARKS



Japanese Urban Design

NODES



NODES



NODES





NODES



NODES



NODES



Japanese Urban Design

EDGES



EDGES



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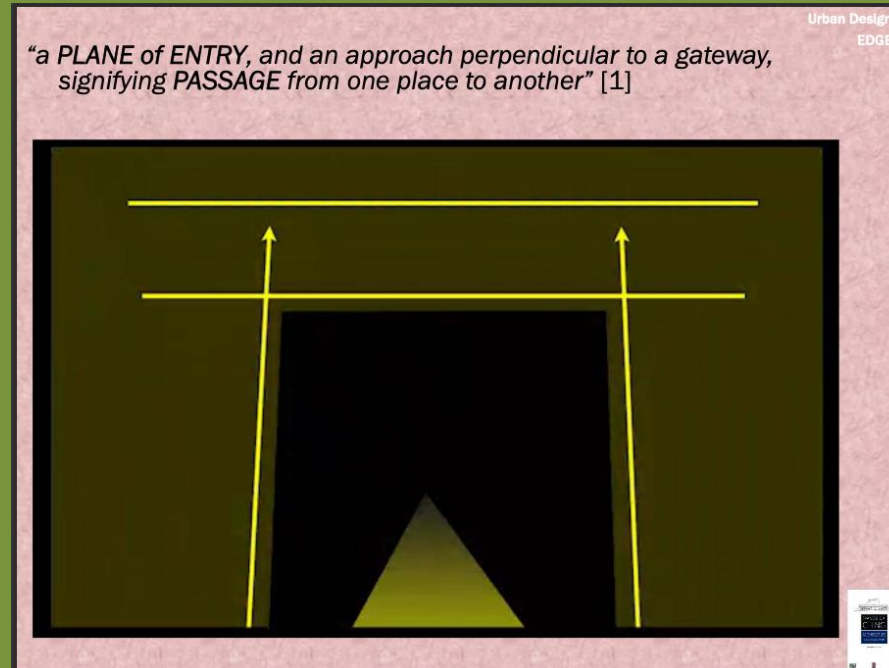


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THEORY

EDGES

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course on
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THEORY





Japanese Urban Design

DISTRICTS





DISTRICTS



DISTRICTS (Sacred)



DISTRICTS (Sacred)





DISTRICTS (*Large Parks*)



DISTRICTS (*Large Parks*)



DISTRICTS (*Large Parks*)



Japanology Plus Japanese Gardens

Watch video 

https://www.youtube.com/watch?v=z1_1AfHZENU

Japanese Architecture






2013 Photo by J Wunderlich in Kyoto



1905 Photo
by Frank Lloyd Wright
in Nagoya





“the west could not have easily seen an indigenous organic architecture... civilizations based on ... cultural inspiration, chiefly Buddhism... could.” “My work is in that deeper philosophic sense”



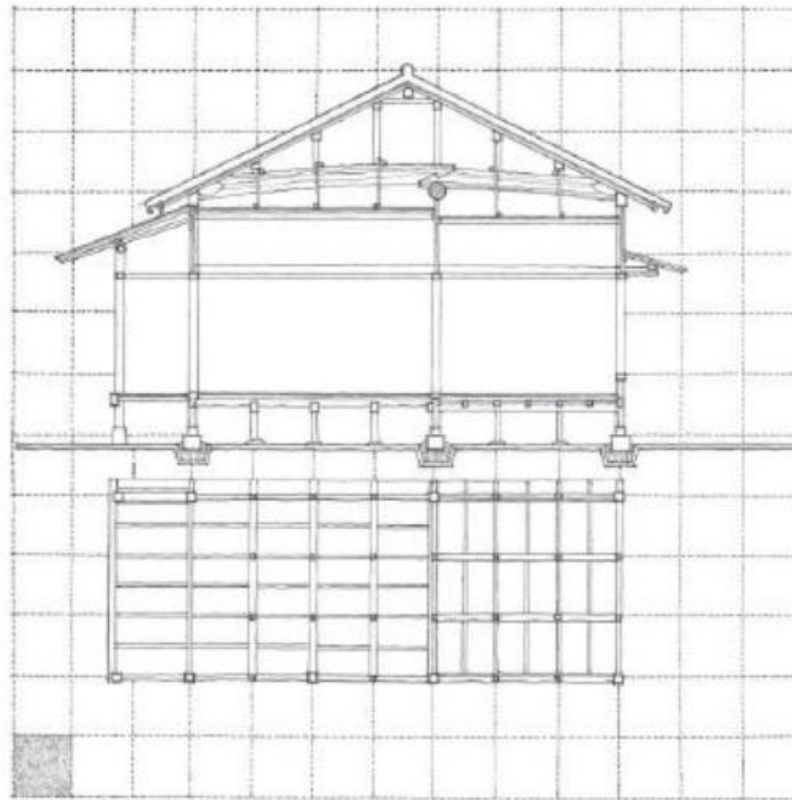
As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design



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Slide from Lecture on
PROPORTION & SCALE
in course on
ARCHITECTURAL
THEORY

“KEN” – in Japan



Traditional Japanese House

The traditional Japanese unit of measure, the shaku, was originally imported from China. It is almost equivalent to the English foot and divisible into decimal units. Another unit of measure, the ken, was introduced in the latter half of Japan's Middle Ages. Although it was originally used simply to designate the interval between two columns and varied in size, the ken was soon standardized for residential architecture. Unlike the module of the Classical Orders, which was based on the diameter of a column and varied with the size of a building, the ken became an absolute measurement.

The ken, however, was not only a measurement for the construction of buildings. It evolved into an aesthetic module that ordered the structure, materials, and space of Japanese architecture.



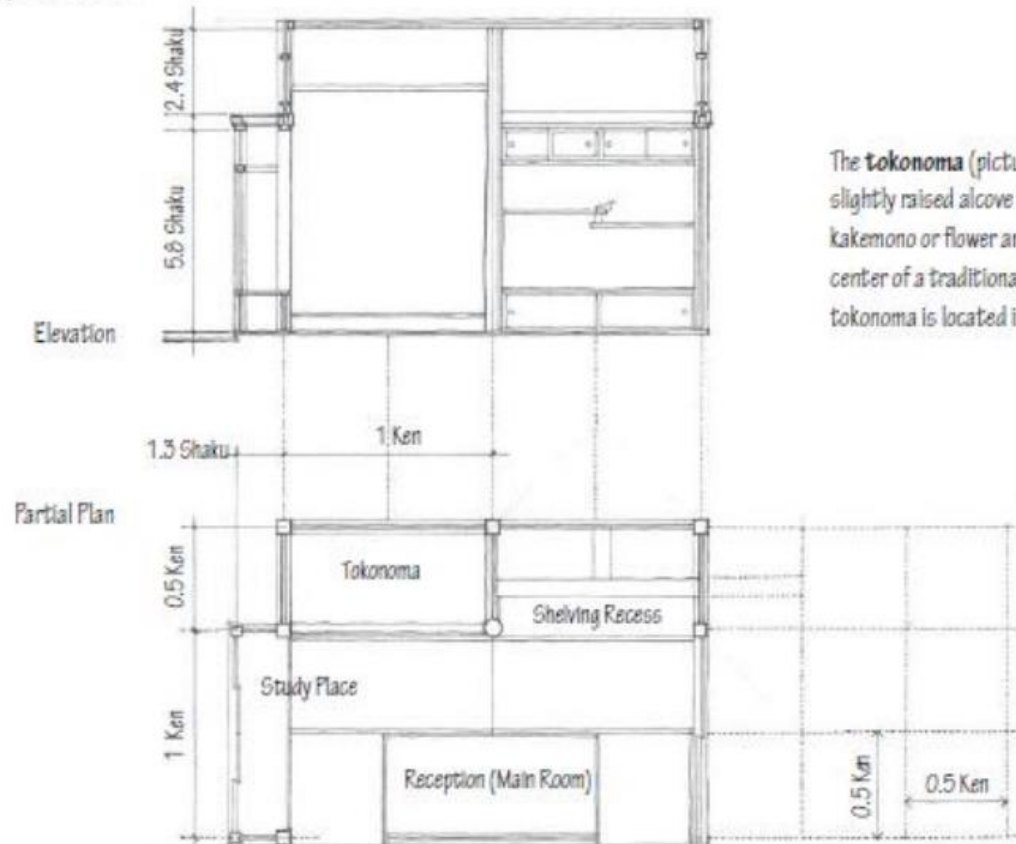
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“KEN” – in Japan

Traditional Japanese House



The **tokonoma** (picture recess) is a shallow, slightly raised alcove for the display of a kakemono or flower arrangement. As the spiritual center of a traditional Japanese house, the tokonoma is located in its most formal room.



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PROPORTION & SCALE
in course on
ARCHITECTURAL
THEORY

As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design

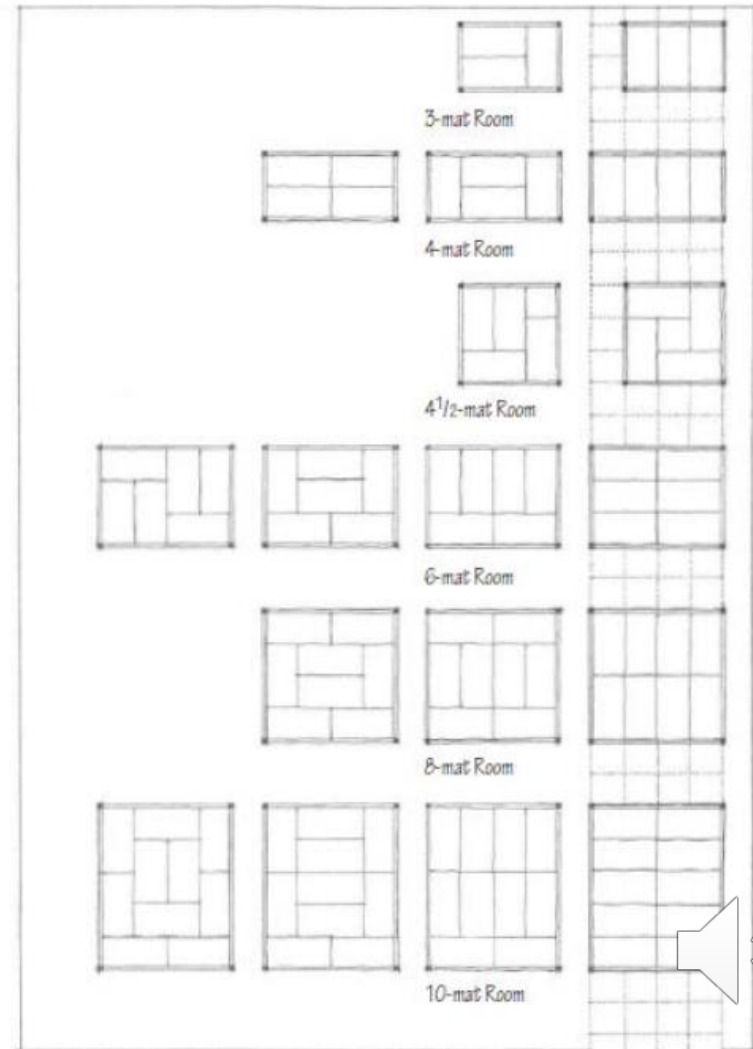


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PROPORTION & SCALE
in course on
ARCHITECTURAL
THEORY

“KEN” – in Japan

Two methods of designing with the ken modular grid developed that affected its dimension. In the Inakama method, the ken grid of 6 shaku determined the center-to-center spacing of columns. Therefore, the standard tatami floor mat (3 x 6 shaku or 0.5 x 1 ken) varied slightly to allow for the thickness of the columns.



As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design



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PROPORTION & SCALE
in course on
ARCHITECTURAL
THEORY

“KEN” – in Japan



In a typical Japanese residence, the ken grid orders the structure as well as the additive, space-to-space sequence of rooms. The relatively small size of the module allows the rectangular spaces to be freely arranged in linear, staggered, or clustered patterns.



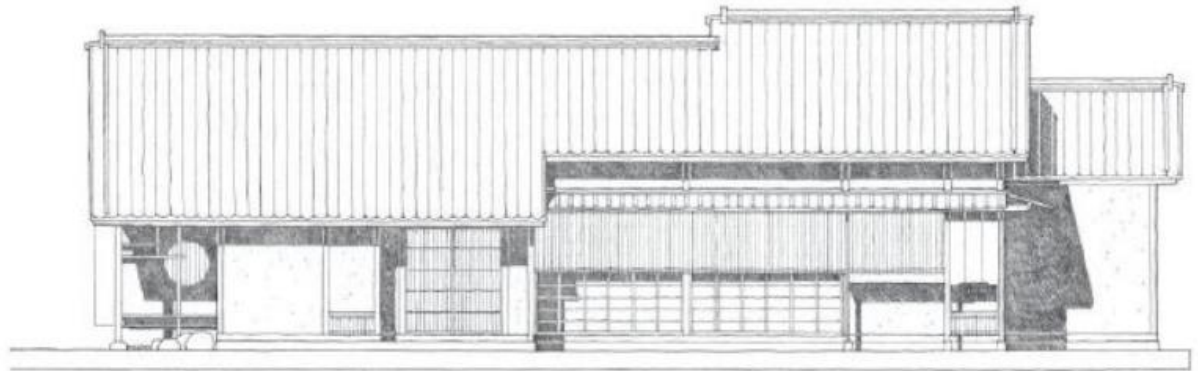
As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design



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“KEN” – in Japan

Elevations of a Traditional Japanese Residence



North Elevation



East Elevation



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PROPORTION & SCALE
in course on
ARCHITECTURAL
THEORY

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RYTHM

2) Sequentially ...



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*Travel to
Narita, Tokyo, Osaka, KYOTO, 2013*



Slide from Lecture on
PRINCIPLES
in course on
ARCHITECTURAL
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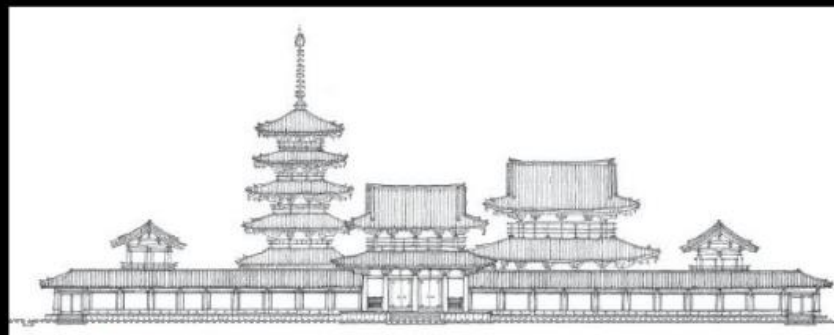
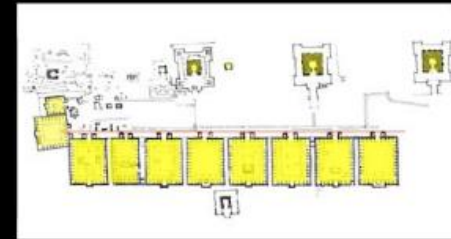
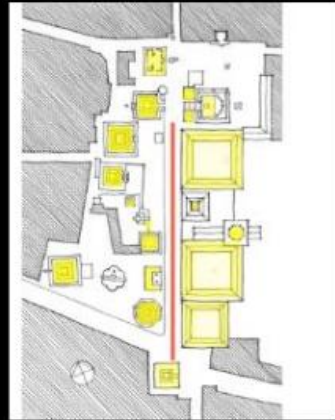
As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design



[ARCHITECTURE
WEBSITE](#)

DATUM

"A LINE can cut through or form a common edge" [1]



West Precinct, Horyu-ji Temple, Nara Prefecture, Japan, A.D. 607-746





国指定名勝
神苑入口











INDOOR / OUTDOOR SPACE's and PERCEIVED VERTICAL PLANES

Japanese ENGAWA

stop, or come back, to watch this: <https://www.youtube.com/watch?v=R1EFyca7MHQ>
(i.e., we only referenced it in last lecture, regarding BANDING WINDOWS)

OPENINGS

"As wall openings increase in size, views become part of the spatial experience" [1]



The Japanese ENGAWA (a veranda, an enclosed porch).

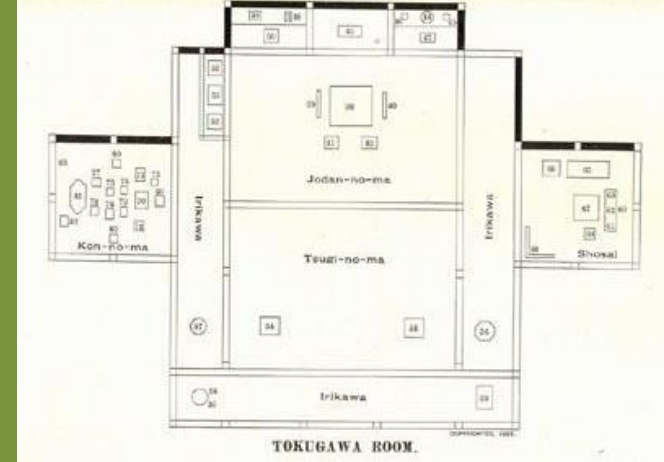
VIDEO: <https://www.youtube.com/watch?v=R1EFyca7MHQ>

From Wunderlich
Lecture on
“[INTERIORS](#)”
in Materials &
Methods course
on
[YouTube Channel](#)



The OPEN FLOOR PLAN by FLW, is common in Japan (with movable screens for separating spaces), as seen by FLW in 1892 Chicago worlds fair, as well as on his 1906 Japan trip.

PERCIVED SEPERATIONS via window/door bands, colonnades, furnishings, lighting, changes in ceiling heights, and strategically aligning lines of site between spaces.



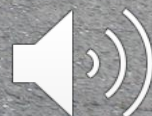
From Wunderlich
Lecture Series on
[ARCHITECTURE THEORY](#)

And
Lecture on "[INTERIORS](#)"
in Materials & Methods
course
on
[YouTube Channel](#)









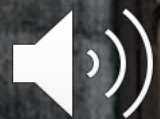


中津グラントビル















VIDEO



<https://www.youtube.com/watch?v=KdHR0mN4kwA>





















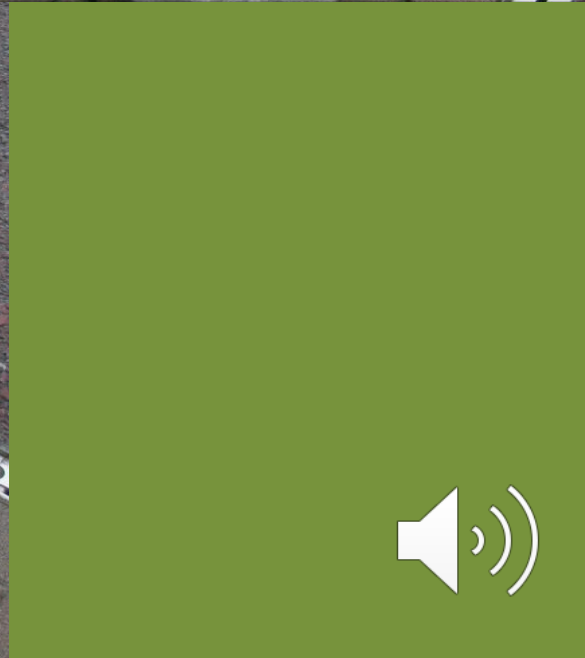


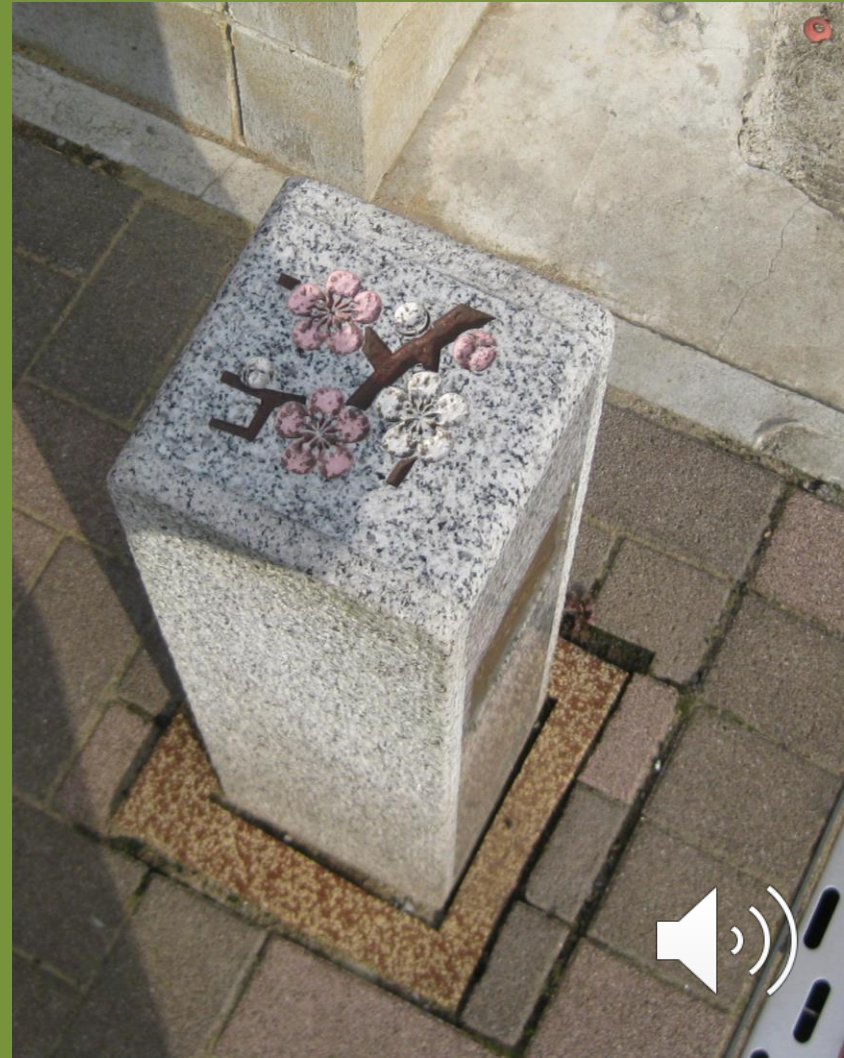








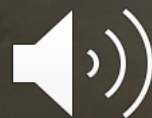
















Taught Judo for 10 years including promoting 200 students up to third-degree brown belt in USJA

Focused on **Philosophy, Culture, Character, and Biomechanics**

<http://users.etown.edu/w/wunderjt/judo.htm>



Also taught part of one Judo class in Narita Japan

Elizabethtown College Judo



[Joseph Wunderlich, Ph.D.](#)

Associate Professor of Engineering & Computer Science
Computer Engineering Program Coordinator
Architectural Studies Program Coordinator
[Black Belt \(Shodan\) awarded by Grand Master Chang \(Shichidan\)](#)
(USJA CLUB #PA4177)

121 STUDENTS PROMOTED to-date

[2013 \(15 to Rokyū, 2 to Sankyū\)](#)
[2012 \(16 to Rokyū, 1 to Gokyu, 2 to Yonkyū\)](#)
[2012 Gokyu \(Matt Frey and Nate Flickinger\)](#)
[2011 \(16 to Rokyū, 1 to Gokyu, 1 to Sankyū\)](#)
[2010 \(16 to Rokyū\)](#)
[2010 \(1 to Yonkyū\)](#)
[2009 \(18 to Rokyū\)](#)
[2009 \(1 to Gokyu\)](#)
[2008 \(15 to Rokyū\)](#)
[2008 \(1 to Gokyu\)](#)
[2007 \(13 to Rokyū\)](#)

[ROKYU EXAM](#)
(customized exam)
[ROKYU EXAM](#)
(customized exam)
[ROKYU EXAM](#)
(customized exam)
[ROKYU EXAM](#)
(customized exam)
[ROKYU EXAM](#)
(customized exam)

[Funny pic](#)

[Portraits](#)
[Another pic](#)



[JAPAN 2013](#)

2013 ELIZABETHTOWN COLLEGE FYS COURSE "Scientific Modeling for Sport" (and guidelines for all Etown Judo)

For the Final Exam, and USJA Judo ROKYU (Yellow-belt) rank promotion (Written and Practicum), you must know:

- 1) Essay question: What important things did you learn from 5 of the 17 special Lecture/activities on syllabus (I will give you seven to choose from),
- 2) Architectural concepts discussed (A labeled sketch of your Japanese home floor plan, plus a narrative of why you designed it that way)
- 3) Urban design & planning concepts discussed (A labeled sketch of Japanese town designed with your town's people, plus a narrative on why you d
- 4) Japanese garden design concepts discussed (A labeled sketch of what you designed with your town's people, plus a narrative on why you planned
- 5) Japanese culture discussed (**Bowing, Duty, Empathy, Group Harmony, Inner, Modesty, Moral Obligation, Outer, Persistence, Respect, Restraint,**
- 6) Sustainable design concepts discussed (in Reading Packet: positioning your house for Solar, also your crops, livestock, and water use)
- 7) Computer modeling concepts including how to use Minecraft as an educational tool
- 8) Jigoro Kano's Judo Philosophy here: http://users.ets.edu/w/wunderjt/syllabi/Jigoro_Kano.htm and in reading packet (Essay question)
- 9) Japanese words here: http://users.ets.edu/w/wunderjt/ITALIAN_WEB7.htm (I'll give you Japanese, you tell me English)
- 10) Concepts from my Biomechanics Lectures here: <http://users.ets.edu/w/wunderjt/syllabi/FYS%20Wunderlich-Joseph%20READINGS.htm> (JUD
- 11) Demonstration of Throws, Holds, and Fall Descriptions practiced in class and shown in readings and on Judo website
- 12) All Throws and Holds in readings and shown here: http://users.ets.edu/w/wunderjt/syllabi/FYS_Judo_Kodokan.html
- 13) Vector Diagrams shown here: http://users.ets.edu/w/wunderjt/syllabi/FYS_Judo_Secrets_of_Judo_FBD_KUZUSHI.html (VERY IMPORTANT)
- 14) Theory of Mind, Body, and Spirit (VERY IMPORTANT)
- 15) Judo for Sport, Self-defense, Police-work and/or Physical Education & Character Development (EMPHASIZED IN THIS COURSE)
- 16) Keeping yourself and your partner safe (VERY IMP)
- 17) All of Coach Bob Schlosser's Inspirational and Motiv



Teaching Assistants and those preparing for higher Rank Tests will be given customized tests (using USJA Exam as a guideline)

JUDO PHILOSOPHY

http://users.ets.edu/w/wunderjt/syllabi/Jigoro_Kano.htm

BREAK FALLS (UKEMI)

[Forward, backwards, sideways, and rolling](#)

[VIDEO](#)

BIOMECHANICAL ANALYSIS

Chapter handouts "Kinesiology: Scientific Basis of Human Motion"
"Free Body Diagrams" (by Dr. Wunderlich)
JUDO Free Body Diagrams (with notes by Dr. Wunderlich)
JUDO Free Body Diagrams (with KUZUSHI notes by Dr. Wunderlich)
Excerpts from Jigoro Kano's "Kodokan Judo" book
Biomechanical Classification of Judo Throws
Physics Models of UKEMI Techniques for Fall-Arrest
Kinesiology Text PowerPoint Presentations
Physics and Computer Models of Long and Short Jumps

Fully understand concepts

MEMORIZE

MEMORIZE

MEMORIZE

MEMORIZE

Understand basic concepts

Understand basic concepts

Understand basic concepts

Understand basic concepts

Judo course included designing
Japanese towns (4 students per town)
on one of my Minecraft public
Architecture servers

[Course Syllabus](#)



<http://users.etown.edu/w/wunderjt/judo.htm>

http://users.etown.edu/w/wunderjt/TSOJIN_ranks.pdf

Elizabethtown College Architectural Servers

TSOJIN SERVER IP:174.54.14.202



Including FYSworld for Etown College Freshmen

EARNED TSOJIN RANKS: Guest, Member, **Builder**, **Architect**, **Master**, **Admin**, **Grandmaster**



Robie House by Joseph (USA)
VIDEO



Four GREEN Towns in FYSworld
VIDEO VIDEO VIDEO VIDEO

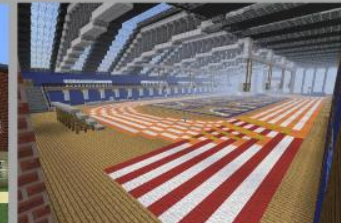


DigitalDesignWorld EGR332 Digital Circuit

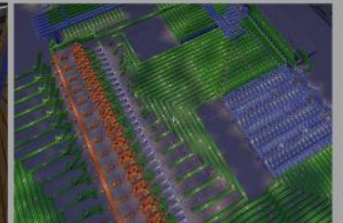
RICKY STURZ SERVER IP:199.188.100.104:25575



FYS Team-Build of Etown Housing
VIDEO



*Ricky's new Etown Field House design,
and FYS Team-Build of Masters Center*
VIDEO



RedstoneWorld EGR332 Digital Circuit





Judo course included designing Japanese towns

[Course Syllabus](#)

VIRTUAL REALITY JAPANESE HOME DESIGN AND COMMUNITY JAPANESE GARDEN (judged on-line)

- Thoroughly research traditional Japanese homes and the culture of Japanese families in the late 1800's
 - (use library, and reference class notes)
- Build a sustainable traditional-style Japanese home in **Tsojin2 (Dr. Wunderlich's Architectural Server)** in your designated town at whatever time you would like to be on the server (it will be running constantly).
- Your home must include:
 - PASSIVE SOLAR:** Without the use of any electrical or mechanical devices, let light into your house to warm it in the winter, but not let in too much sun in the summer. Remember that the sun rises in the East, sets in the West, tracks across the sky at high angles during hot months, and at low angles during cold months (since our software doesn't yet have variable sun paths, just be aware of which way is South – figure it out from the trajectory of the sun). Create **OVERHANGS** on roofs to strategically shade windows (estimate dimensions), and note that too many western-facing windows may cause overheating. Also, have sun shine on interior **THERMAL MASS's** to absorb heat during the day, and release it at night. Assume thick masonry works very well, and water works even better, but may be more difficult to implement **NATURAL DAYLIGHTING:** Maximize the entrance of sun into the house while not overheating the house in summer months.
 - MITIGATED COLD NORTHERN WIND:** Through site selection, possible placing of dirt & grass, and design of building's northern elevation (including wall thickness and materials chosen), shield the house from cold Northern winds; but consider letting some light in for natural daylighting and preserving views.
 - AN OVERALL ARCHITECTURAL ESTHETIC:** House should not only be the ultimate sustainable habitat, it also needs to be livable, and visually pleasant (interior and exterior), so balance all other criteria above while creating beautiful Architecture. Your architecture should be complimentary to all else in your village and to the group harmony ("Wa") of the village.
- Build your own private Japanese garden with coy pond on your lot.
- Take at least three screen shots of yourself working on your house (ALT+PrintScreen, then paste into a word document with CTRL-V)
- Take at least four screen shots of your finished house and private Japanese garden (ALT+PrintScreen, then paste into a word document with CTRL-V)
- The Community Japanese Garden must reference the new course text that I purchased four copies of, and are a part of the Lab (E273). I will use my database logger to see exactly who built what. Don't remove texts from Lab, and read with your teammates. TAKE THREE SCREEN SHOTS OF YOU WORKING ON THIS GARDEN WITH YOUR TOWN'S PEOPLE.**



course included designing
Japanese towns

2013 best paper about this,
by Sammi Eisdorfer



Creating a Minecraft Interpretation of Early Traditional Japanese Town Architecture, Drawing Additional Personal Inspiration From the Ideals of Judo (December 2013)

S. L. Eisdorfer
Elizabethtown College
575 Baugher Ave.
Elizabethtown, PA 17022 USA

Abstract—This is one student's reflection on her process, experiences, and research involved in creating a virtual minecraft town in the context of early traditional Japanese architecture. The project was a collaborative effort by a group of 4 within the First Year Seminar: Scientific Modeling for Sport instructed and facilitated by Dr. Joseph Wunderlich at Elizabethtown College. Important concepts for the project and the course as a whole include historical Japanese culture, sustainable and efficient architectural techniques, and "Wa"- group harmony.

I. INTRODUCTION

IN JapanTown1, we strived to create a community based entirely on the idea of group harmony—"wa." It is important to note that our own JapanTown1-specific idea of group harmony may differ from that of other groups or peoples. We decided that true harmony in a group setting comes not from uniformity and conformity, but from a relaxed and open ambiance created by universal freedom to be an individual. Our harmony would be disturbed if we tried too hard to be alike, as all four of us are distinctly independent in our own ways. Rather than fight this, we decided to embrace it. That's what group harmony means in JapanTown1—you will be loved and accepted as you are. Be that person. Our celebrated differences are what make us come together so well as a community. They are what make our *wa* so strong. A quote by author Steve Goodier depicting this mantra makes its home just outside our virtual Japanese Garden- "We don't

get harmony when everybody sings the same note. Only notes that are different can harmonize. The same is true with people."

II. MY ROLE WITHIN THE GROUP DYNAMIC

My natural tendency is to take up the leadership role from the beginning. This project was no exception. I was the first to send out an e-mail, taking the initiative to set up an early group meeting for town planning. The other members of the group were glad and relieved that I stepped up to the plate. We ended up meeting in the Myer lobby to discuss rudimentary plans for our town's intended dynamic and rules, layout for our house plots and gardens, and responsibilities that each group member should take charge of. This planning proved valuable and worked quite well for us, as it set us up in a way that each could work at their own pace and know what they needed to do.

A. My Architectural Identity and Inspirations

The Scientific Modeling for Sport FYS course for which this project was undertaken also teaches biomechanics and judo. I was fortunate enough to really make a connection to the sport, and in reading about its foundations was so inspired that I immediately wanted to incorporate it into every aspect of my life. After all, judo is not simply as a sport, but as a way of life. It is a physical manifestation of a deeper idea, a way to make an abstract concept tangible. At its core, judo



“Key” Japanese words
by Mahua Bhattacharya,
Professor of Japanese,
for J Wunderlich’s students

OMOIYARI – Considerate

ON - Duty

AMAE - Empathy

WA - Group Harmony

UCHI - Inner (or insider)

KENSON - Modesty

GIRI - Moral Obligation

SOTO - Outside (or outsider)

GARMAN - Persistence

ENRYO - Restraint

HAJI - Shame



After teaching a course for 10 years on Judo and Japanese culture & architecture, I began a course on conceptual architecture including relating Frank Lloyd Wright designs to Japanese architecture

[Syllabus](#)



As of 2020, taught **seven different architecture courses**, and often incorporate Japanese Architecture and Urban Design



ARCHITECTURE WEBSITE



FYS100 **CONCEPTUAL ARCHITECTURE**

- Architecture Theory intro; Mansions; Barns
- Architecture of **JAPAN** and **ITALY**
- FRANK LLOYD WRIGHT Ages: **0-19** (1867-86), **20-33**, **34-41**, **42-47**, **48-62**, **63-78**, **79-91**, V-Lecture of 31 Chicago Designs
- Assignments: 1 2 3 4 5 6 7 8 9 10 11 12

EGR353 **GREEN ARCHITECTURAL ENGINEERING**

- REVIT Lab1 and Lab2, "SWEETS" Catalog
- LEED Intro; LEED Project1 Neighborhood Design(ND), Etown Master Plan, LEED Project2 Building(BD+C) or Interior(ID+C); LEED Trips: SFW Center and SFW 2
- LEED Checksheets: ND Plan, BD_C New Cnstrct/MajorReno, ND Built, BD_C Core&Shell, BD_C Schools, BD_C Retail, BD_C Data Centers, BD_C Warehouse/DistrCenter, BD_C Hospitality, BD_C Healthcare, BD_C Homes&MultifamilyLowrise, BD_C Multifamily Midrise, ID_C Commercial Interiors, ID_C Retail, ID_C Hospitality, O&M ExistingBldg, O&M Schools, O&M Retail O&M Data Centers O&M Hospitality O&M Warehouse/DistrCenter
- Lectures: ; CH3 Thermodynamics Concepts ; CH4 Comfort ; CH5&11 Climate&Site Design ; CH6 Solar Geometry ; CH7 *PASSIVE Solar Heating* ; CH8 *Active Solar* ; CH9,10 *PASSIVE Cooling* ; CH12,13,14 Daylighting and Illumination Engineering ; CH15 Building Envelope ; CH16 HVAC; Acoustics
- AIA Graphics Standards; Guest-Speakers; 2018 FINAL EXAM

ART370 **ARCHITECTURAL DESIGN THEORY**

- Lectures: **PRIMARY ELEMENTS FORM FORM & SPACE ORGANIZATION CIRCULATION PROPORTION & SCALE PRINCIPLES**
- Assignments: 1.Japanese Bridges, 2.Massing Models, 3.Origami, 4.Kirigami Architecture, 5.Sacred Space, 6.Joyful Space, 7.Great-Window Inspired Residence
- Cedar Hill Housing

ART371 **ARCHITECTURAL MATERIALS & METHODS**

- 2020 PDF's of in-class Lectures before Coronavirus (also on "Canvas"): **STANDARDS STRUCTURAL FOUNDATIONS WOOD: 1, 2, 3 Masonry&Concrete: HISTORY, STONE,.....**
- 2020 PPTX Lectures with Audio due to Coronavirus (also on "Canvas"):
 - ... **BRICK** PPTX-audio PDF
 - **BLOCK** PPTX-audio PDF
 - **CONCRETE** PPTX-audio PDF **CLOUD**w/transcript **VIDEO**
 - **STEEL&HIGH-RISES** PPTX-audio PDF **MP4 YouTube**
 - **SHELL/ENVELOPE** PPTX-audio PDF **MP4 YouTube CLOUD**-w/transcript[Pswd:7f+!N4Z&]
 - **INTERIORS** PPTX-audio PDF **MP4 YouTube CLOUD**-w/transcript[Pswd:3e@g&9#3]
- Assignments: 1:Site1_Bridge&Creek 2:Site2,Revit1 3:Neighborhood,Revit2,LEED1 4:FINAL DESIGN (Residential Renewal, VR, etc.)
- Final Exam

ART/SOC371 **FRANK LLOYD WRIGHT**

EGR/ART495/496(499A&B) **ARCHITECTURE STUDIO I&II (Juried)**

- 2017 **Etown Library Cafe** from (1989 Library Drawings)
 - **ACOUSTICS**
 - **Etown Solar Paths**
 - **LEED: Daylight, Views, Lighting, Acoustics, Raw materials, Material Ingredients**
 - **Revit Intro, Levels, Walls, High Library, Interior, Doors&Windows, Library acoustics**
- 2018 **Etown Residential Renewal**
 - **LIGHTING: Design, Solar, Feng Shui**
 - **LEED Daylight, Views, Lighting, Neighborhood Development; LEED ND rules**
 - **Etown Master Plan: 1999 Chapter 1 and seven site analysis maps, 2011 update; Etown 3d Google Map, and Topographical Map(Source) Overviews of: Human Vision, Color , and Illumination Engineering; Illumination Engineering Standards (IES): Eyes&Brain, NonVisual Effects, Performance&Perception, and Gallery Design**
 - **Revit assignments: 499A Perspective, 499B Perspective; 499A&B Perspective, 499A Solar, 499B Solar; 499A REVIT Intro, 499B REVIT Topo; 499A REVIT BIM (Building Information Managemnt), Doors&Windows, 499B REVIT Topo; ("SWEETS" Catalog); 499A&B Site Walks**
 - **Dorms by Cannon Design; Real Estate Development**
- 2019 **Etown \$1M RACP Grant, and Cedar Hill Housing**
 - **SPECIFICATIONS**
 - **Assignments: 1. Bridges, 2. Green Roofing Spec, 3. \$1M RACP Grant for Sports, Fitness, & Wellness, 4. Revit Great-Window Inspired Residence**
 - **Cedar Hill Housing**



See more on my website

<http://users.etown.edu/w/wunderjt>

and YouTube channel

https://www.youtube.com/channel/UC_kM_k90zrelu40CVwuHQzg?

