

Topics in Computer Application Design
ARCH 5064 | ARCH 4164 | Fall 2016
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announcements

start thinking about final projects

discussions

https://www.ted.com/talks/michael_pawlyn_using_nature_s_genius_in_architecture?language=en

exercises

kangaroo install - food4rhino
kangaroo basic
kangaroo pavilion
galapagos

key points

Hooke's Law: https://en.wikipedia.org/wiki/Hooke%27s_law
form finding - Frei Otto
https://www.youtube.com/watch?v=degls4ve_Dc
<https://www.youtube.com/watch?v=Vt-yAiieDn0>
digital form finding - gridshell
<https://www.youtube.com/watch?v=5iqkMJbaOnU>

assignment completion

completed list of tutorials for the week
landscape 8.5" x 11"
screenshot of definition/rhino and tutorial at end
brief notes of main point learned
save as FirstInitial_LastName_Assignment#_tutorialname.pdf
upload to dropbox

resources

rando stuff
<http://www.designalyze.com/meshing-sp2013-class03>
https://www.youtube.com/watch?v=yY5WU_8L4S8
kangaroo
group: <http://www.grasshopper3d.com/group/kangaroo>
dl: <http://www.food4rhino.com/project/kangaroo?ufh>
ex: <http://www.grasshopper3d.com/group/kangaroo/page/example-files>
canopy: https://www.youtube.com/watch?v=yY5WU_8L4S8
galapagos
reading: <http://www.grasshopper3d.com/profiles/blogs/evolutionary-principles>
group: <http://www.grasshopper3d.com/group/galapagos>
<https://www.youtube.com/watch?v=3sM6qUUJxus>
Karamba
ex - <https://www.youtube.com/watch?v=E4Bkeh57B88>
ex - <https://www.youtube.com/watch?v=Jv-ma7ErP8g>
ex - <https://www.youtube.com/watch?v=dGXOqCkTvLI>
group - <http://www.food4rhino.com/project/karamba?ufh>
Millipede
dl: <http://www.grasshopper3d.com/group/millipede>
tutorial: <https://www.youtube.com/watch?v=EvKPmlwfJ10>
heliotrope
group: <http://www.grasshopper3d.com/group/heliotrope>
dl: <http://www.food4rhino.com/project/heliotropegh?ufh>
project examples
<http://frustrazioniarchitetoniche.blogspot.com/>
<https://www.youtube.com/watch?v=kh8y1Sf9Jvk>
generative house demo
<https://www.youtube.com/watch?v=SWyE3V6LKCc>
galapagos training parts 1-3
<https://www.youtube.com/watch?v=04ACFI9t7zl>
millipede + galapagos
<https://www.youtube.com/watch?v=EvKPmlwfJ10>

assignment 5 for 10.27.2016 @ 7:00 PM - 6 pdf's

Kangaroo
<https://vimeo.com/64326971> - pdf
Responsive Components
<https://vimeo.com/137770678> - pdf
<https://vimeo.com/137770680> - pdf
Gridshell
<https://vimeo.com/60604978> - pdf
<https://vimeo.com/60607852> - pdf
<https://vimeo.com/60607853> - pdf

assignment 6 for 11.3.2016 @ 7:00 PM - 11 pdf's

Daniel Nagy's Solar Dynamic Components - Heliotrope
advance analysis parts 1-4
https://www.youtube.com/watch?v=3tZFu_5VAIY
<https://www.youtube.com/watch?v=bYO7qnRKTUo>
<https://www.youtube.com/watch?v=FuWZrHGx9I>
https://www.youtube.com/watch?v=53nuzbv1_BQ
heliotrope install + setup
<https://www.youtube.com/watch?v=TB5wkh79Pv4>
<https://www.youtube.com/watch?v=PzJLfjY9u3I>
heliotrope insolation analysis 1-3
<https://www.youtube.com/watch?v=TM9NXY0ntVY>
<https://www.youtube.com/watch?v=62XOmdDT0C8>
<https://www.youtube.com/watch?v=Shlc2sAllvc>
heliotrope solar shading optimization 1-2
<https://www.youtube.com/watch?v=OKKT6BloXoE>
<https://www.youtube.com/watch?v=GSvm3uU62ow>

final project due at WAAC Show

optional assignment

millipede - <https://vimeo.com/94105579> - pdf

Daniel Nagy's Karamba Structural analysis - Karamba
optimization introduction
https://www.youtube.com/watch?v=3tZFu_5VAIY
Karamba Structural Analysis 1-4
https://www.youtube.com/watch?v=_znWGFvZImM
<https://www.youtube.com/watch?v=GvnBUbx34sE>
<https://www.youtube.com/watch?v=t3yE1xxMUo>
<https://www.youtube.com/watch?v=qJVHUsVyyqC0>