ARCH 573
Performance + Computation (Jeju, Korea)
Technology & Performance

Traveling Studio: Jeju, and Seoul (Korea, South)
INSTRUCTOR: Yun Kyu Yi, Ph.D.

c:\ Statement_
Computation for architecture is no longer used for 2/3D modeling and/or rendering. The recent development of building simulations is now part of the design generation process. As architects develop a design, simulation tools can constantly give feedback for decision-making. It is common practice that computation helps architects evaluate the design and support the design process.

Recently, the use of machine learning and artificial intelligence (AI) is emerging in other artistic fields and professions such as illustration. AI is not only used to represent design but also as a generative tool for visual art. Open AI tools like Giga Manga, DALL×E, and Midjourney make it possible to generate images without skillful experts. Users can simply type a text that describes the scene or desired characteristics, and the computer generates images that match the description.

These new tools are shaking not only the visual art area but could also impact the future of architecture and architects. The once architect's undeniably domain of creativity no longer belongs to the architect. Would we as architects even remain as creators of the design?

This studio is a research studio that seeks to speculate on the future use of AI as design generators and what the role of architects could be.

c:\ Site_ (Jeju, South Korea)
1. The studio will travel to Jeju during the Fall break to present final work to critics (Nov. 22 – Dec. 01).
2. Since the final presentation will be in Jeju, students with personal reasons or other commitments that prevent them from traveling are encouraged not to take this class.
3. Students are expected to respect the local culture and follow all local laws and regulations to avoid any legal troubles.
4. Take the opportunity to explore local sites, try new foods, and immerse yourself in the culture. A willingness to try different experiences is highly encouraged for those taking this class.
5. Make connections with local students to enrich your experience.

c:\ Studio process_
1. research on AI image generation
2. research on AI in other fields
3. define performance objective
4. use AI as tool to measure performance

5. simulate performance / optimization
6. evaluate and selection of designs

c:\ Studio constraints_
1. Willingness to do different design approach
2. Quality of outcome depends on skills of computation. - understanding of tools such as grasshopper, blender, google Colab, python, etc.
3. Team project of two
4. Focused on design methodology not buildability

c:\ Q&A_
1. Do I need to know how to use grasshopper? If you know your will have more potential for exploration. But studio will cover basics of grasshopper and other computational tools. If you like to take this studio, recommend learning tools during break.

2. Is the studio team project? Yes, you will choose your team member, the grading will not consider how the team is organized.

3. Do we have to develop floor plans, site plan, or other technical drawings? The studio is to do research not to do design, the studio will focus on how to use computation to generate design not solving technical design problems. If you are more interest on practical or technical design, I will not recommend taking this studio.

Tentative travel schedule

Date	Program	Location
11.22. (Fri) - 11.23. (Sat)	• Champaign → O'Hara → Incheon (Seoul) → Jeju	
11.24. (Sun)	• Visiting project site. (싸이트 방문) • Jeju urban regeneration center, (제주 도심제생 센터) • Jejumok-Gwana (제주목 관아) • East gate market (동문 시장)	
11.25. (Mon)	• Lecture by hosting faculty on Jeju architecture (제주대 교수 렉처) • UIUC students' project review (Revitalization of fish farm at Jeju) (프로젝트 프리젠테이션, 리뷰)	
11.26. (Tue)	• Pyoseon Folk Village (표선 민속 마을) • Seongsan Ilchulbong (성산 일출봉) • Cheonjiyeon Waterfall (장지연 폭포) • Jusangjeolli Cliff (주상절리)	Jeju
11.27 (Wed)	• Itami Jun Museum (이테준 박물관) • Jeoji Artist Village (Woojoo Duck) (우주오리) • Bangju Church (방주교회) • Bonte Museum (본테 박물관)	
11.28 (Thur)	• Teshphone, Isidore Farm (테슈폰, 이시돌 농장) • O'sulloc (오설록) • Dream Tower (드림타워) • Jeju Literature Museum (제주문학박물관)	
11.29. (Fri)	• Flight from Jeju to Seoul • Gyeongbokgung Palace (경복궁) • Changdeokgung Palace (창덕궁) • Gwanghwamun (광화문) • Cheonggyecheon (청계천) • Dongdaemun Design Plaza (동대문 디자인 플라자)	Seoul
11.30. (Sat)	• National Museum of Korea (국립박물관) • KOLON ONE&ONLY TOWER (코오롱 원 엔온리 타워)	
12.01. (Sun)	• Seoul → O'Hara → Champaign	