Encoding system- Façade design throught GeD & AI

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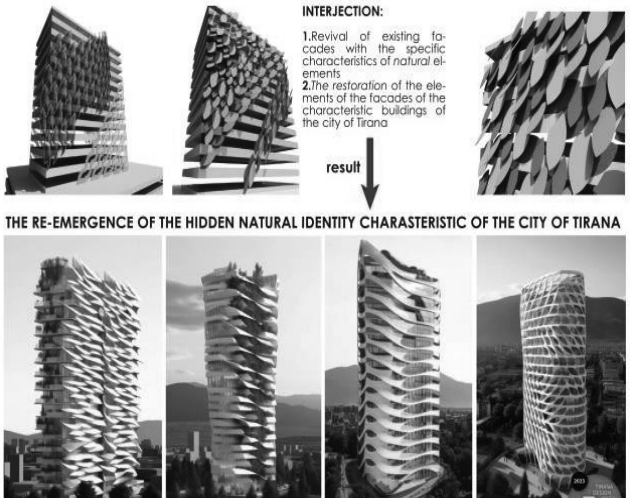
This workshop aims to introduce an alternative approach to engaging with reality by bringing together various methodological and applied knowledge. Although this syllabus presents a clear methodology for program treatment, the substantive and qualitative outcomes are entirely open to reinterpretation and case-by-case reevaluation, directly influenced by facilitators, treated topics, hypotheses proposed by participants, and, above all, by each participant's individual approach. To contextualize the development of the theme within the framework of TDW23, with participating students who are now entering their final academic year in the 5-year integrated Architecture and Urban Design program, the program builds upon the knowledge acquired during the preceding four years, both in theory and practice. It endeavors to elevate these concepts to another level, one that is more applied and executable. The use of the Midjourney AI (version 3.0) platform was, for the pedagogy team as well, a method of inquiry on how such potentialities could be expressed and catalyzed in proper design projects rather than just on a bi-dimensional screen of an already precompiled platform. Exposing the students to learning how to use diffusion models, how to strategize methods to convert the resulting images into 3D models, and how to perform a critical forensic examination of the results, was the trigger to involving them in a deeper understanding of how to formulate a theory around their designs.

Methodology

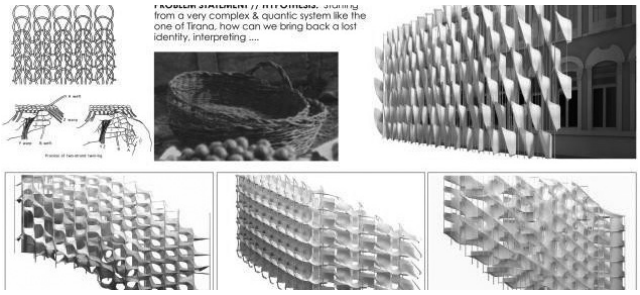
Following a series of thought-provoking presentations on the potential impacts of arbitrary architectural decisions on the boundless dimensions of the city, students will be encouraged

to speculate and envision an alternative facade for their capital. Employing a seemingly rigorous yet creatively liberating process, students will embark on a multidimensional decoding journey aimed at reimagining plasticities through the creation of simplified systems. By "systems," we refer to the geometric aggregation of one or more modules and the rules governing their assembly. The system itself will emerge as a product or outcome of a generative process that commences with hand-drawn sketches on paper and may extend to the construction or utilization of basic generative algorithms within CAD software (such as Rhinoceros 3D & Grasshopper) or AI platforms (including Fooocus, Midjourney, DALL-E, etc.).



Conclusions

In conclusion, this workshop has proven to be a transformative experience for the students, who not only grasped the inherent complexity of the subject matter but also fully embraced the multi-dimensional challenges of system decoding processes. While the initial days presented formidable hurdles, the students exhibited remarkable perseverance and pushed their creative boundaries to the limit, culminating in a captivating demonstration of methodological application within Generative Design. The workshop's emphasis on variables deductions and the assembly of simple systems yielded intriguing results, with some projects intentionally diverging from conventional aesthetic norms, aiming to provoke thought and stimulate contemplation about the profound visual impact of urban plasticities. This dynamic mix of experimentation, creativity, and critical reflection underscores the success of the workshop in fostering a deeper understanding of architectural and urban complexities while encouraging innovative thinking.



Workshop Process Image