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ARCH

10 YEARS ANNIVERSARY

**BACK IN TOWN SERIES III: TRIBUTE TO MARK
PAUL FREDERICKSON**

2012
2022

Learning Objectives

DESIGN ORDERING SYSTEMS & URBAN SUSTAINABILITY

Mark Paul Frederickson

Sustainable Design has the capacity to affect profound change in the urban fabric.

For the past ten years, we have attempted to develop our design studios into innovative applied research environments in which faculty and students collaborate in apprenticeship-style learning scenarios. Our studios have become international and multicultural experiences and have developed thesis projects on four continents.

Although we work on a wide variety of project types in an array of environmental and social contexts, we are most frequently involved in sustainable community development and the planning, design, and revitalization of urban environments. Over the years, we have developed a series of exciting design and planning methodologies that seem to serve us well in forming sustainable urban fabric. As Architecture is inherently interdisciplinary, we engage a range of design tools on any project. But, in the formation of the intelligent and versatile urban fabric, we have become very impressed with the capacity of specific planning strategies to effect meaningful change in our cities, towns, neighborhoods, and edifices.

Rüyet Sefercioğlu,
Post-Industrial
waterfront
revitalization in
Paha. Arch 402
2019,
Instructor: Mark Paul
Frederickson



ordering systems

We have come to understand and embrace a variety of Architectural, planning, and Landscape Architectural processes as effective catalysts of consequential economic, environmental, social, and aesthetic change in urban environments. They are also remarkably effective tools for urban and small-town revitalization. Although our processes inevitably vary according to project type, client, site, budget, etc., we find that with most complex planning projects, design organizational criteria and sources of form prove quite effective as design tools.

Although we remain apprehensive regarding using the term “sustainability”, we honor it as an elusive yet worthy goal integrated into all of our planning and design efforts. We believe that a genuinely sustainable urban environment must be defined across an array of dimensions: economic, cultural, environmental, functional, and aesthetic.



Accordingly, in our more complex projects we evaluate the relative merit of our ideas according to the following design and planning ordering systems:

Economy: is the design economically sustainable? Does it create jobs and income sources for the community?

Environment: is the design environmentally sensitive? Does it connect and enhance existing ecosystems? Does it reduce our carbon footprint?

Culture: does the design create opportunities for meaningful social exchange and learning?

Function: does the design circulate effectively? Is it safe? Is it easily maintained?

Aesthetic: has the design identified and created an aesthetic sensibility appropriate to the history and culture of the region and its vision of the future?



Selin Şahin,
Urban Agriculture
and Aquaponics
complex in Prague 7
Arch 402 2019,
Instructor: Mark Paul
Frederickson

For instance, an idea that concerns itself with only aesthetic issues is not as useful as an idea that fully engages not only spatial and image-related matters but also explores economic, environmental, and social issues. A park with flowers is fine, but a park with flowers that meanders its way through a community, increasing land value, creating economic opportunities, mitigating erosion, promoting urban water harvesting, and encouraging meaningful social interaction is a richer, more layered, and therefore more relevant concept and eventual urban component.

We use these invariably interconnected systems as a means of verifying the relevance of our ideas. Our solutions must be multi-layered and satisfy the complex range of design determinants present in all urban settings. Over the years, we have understood and appreciated that landscape Architectural design and planning strategies can encourage meaningful transformation in urban environments. The ordering systems have, in turn, become our definition of sustainability.

The following is a more focused discussion of how these strategies can lend dimensions of sustainability to our design and planning ideas and improve urban environments across all of the fore-mentioned ordering systems.

Economy: Our work in small town and urban revitalization projects has taught us that economic viability is perhaps the most critical issue facing clientele. If our design and planning solutions are not economically sustainable, then all other ideas and well-intentioned concepts rarely gain full realization. Catalyzing economic growth and revitalization with minimal capital outlay remains a primary concern in most urban design scenarios. The inertia counter to economic revitalization in many communities effectively postpones or cancels many well-intentioned urban design projects. Due primarily to significantly lower initial costs, we have found landscape architectural solutions to be effective facilitators of economic growth and useful organizers in urban revitalization and design scenarios. Landscape Architecture is relatively inexpensive compared to urban design solutions predicated on large architectural and infrastructure-related projects. In the United States, the value of a property will almost always increase when a park, plaza, recreational opportunity, or greenway is developed next to it.

Environment: Environmental degradation has become a genuine problem throughout the global urban fabric. Whereas past generations of designers were focused on social equity and justice, a great majority of our incoming students are environmentally motivated. They have recognized that truly sustainable urban environments not only need to preserve and remediate existing ecologies but also need to approach carbon-neutrality in their formative principles. The good news is that the market for dense, walkable, mixed-use community configurations surrounded by preserved natural open space and recreation opportunities is rapidly expanding.

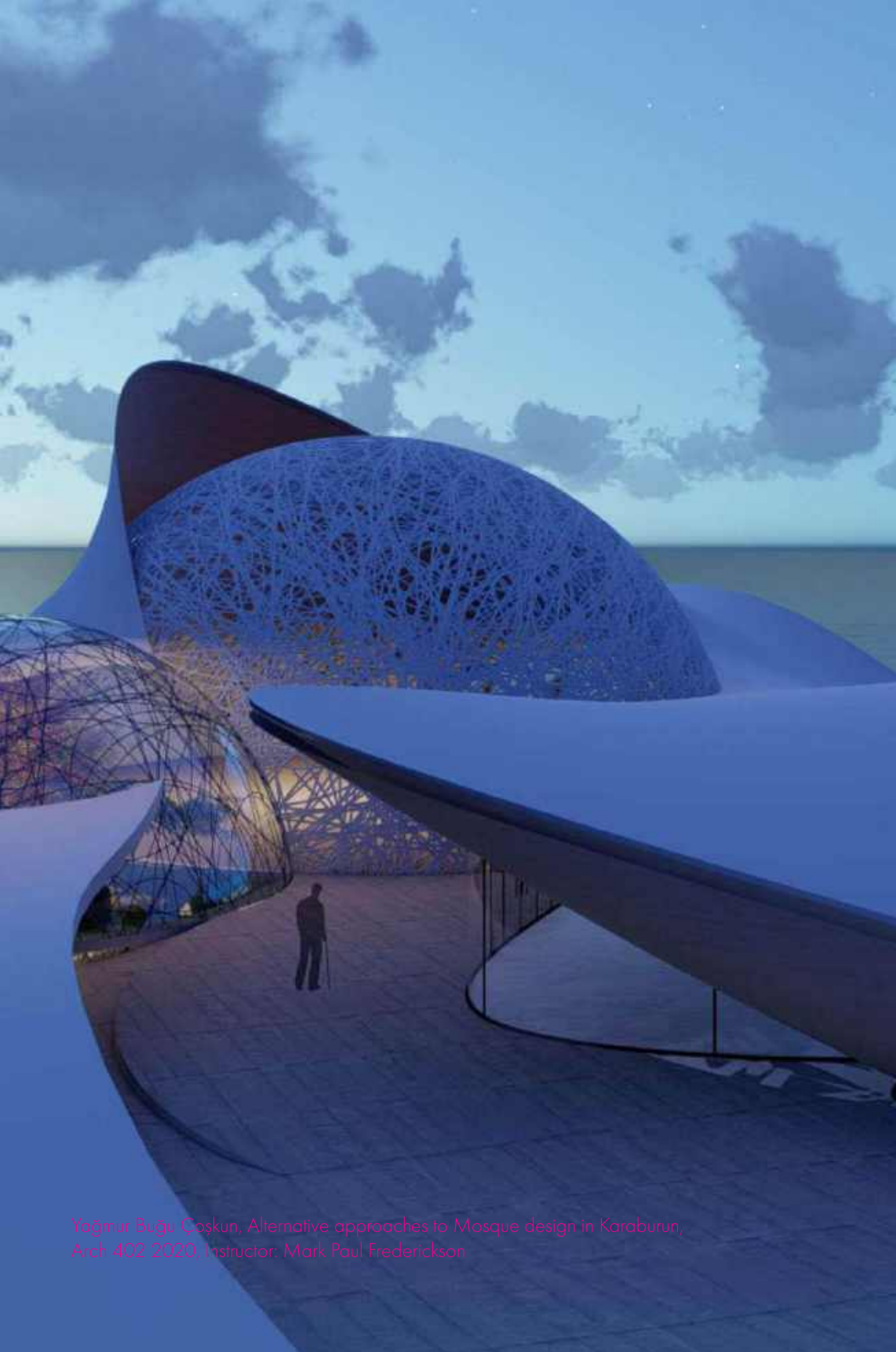
Culture: in most cities, we are becoming culturally isolated from one another. We view the world through our cars and television screens. Our urban fabric is formed of an anonymous grid of vehicles and garage doors with little opportunity for meaningful social interaction. We find that through the creation of interconnected green networks of parks and preserved open space as well as walkable and pedestrian-oriented streets; we can encourage meaningful social exchange. In several of our projects, socio-economic differences were an issue. For example, we have recently worked on revitalization master plans for several coastal villages where the effective economic and social integration of existing settlements into new tourism-related development became a primary component embedded in our design solutions. Landscape-based solutions proved exceptionally helpful in these complex situations.

Function: As previously mentioned, we consider functional issues to include the following: efficient vehicular and pedestrian circulation, user-group safety, and ease-of-maintenance issues. Urban connectivity is a critical issue in the creation of compelling urban environments. Dense, walkable, mixed-use environments that reduce our reliance on the car are paramount. Once again, one can see that green pedestrian and bicycle networks of linear parks and pedestrian-oriented streets are key design strategies. More pedestrians and bicycles in green corridors results in less traffic congestion. Centralized parking concepts connected to public transport and bicycle traffic will lead to more efficient urban transportation. Washes, streams, river corridors also offer wonderful opportunities to achieve this sort of urban interconnectivity. They offer existing unused and unclaimed open space networks that can easily accommodate pedestrian and bike trails. When this pedestrian network is coupled with effective public transportation as well as centralized vehicular and bike parking strategies, walkability is increased as traffic congestion is lessened.

Aesthetics: Our view and definition of “aesthetics” is a comprehensive one that necessarily considers and includes all of the ordering systems. Can an urban area be “beautiful” if:

- .. its inhabitants are financially destitute?
- .. its natural environment despoiled and unhealthy?
- .. it is choked with traffic?
- .. its citizens live in fear of crime?

We believe that a truly “beautiful” community is one in which participants reflect a sense of well-being as measured through a carefully selected range of criteria. Discovering, defining and enhancing identity are often important issues in urban design. A primary goal of our revitalization plans often includes the establishment of a “Community Face” – in essence discovering, defining, and celebrating the community’s sense of place. Defining a ‘Face’ delineates how the town/community/neighborhood meets the world and is also an important way to attract visitors to explore and enjoy the amenities the area has to offer. Further, it can be a tool both for attracting investors and for those stakeholders to market themselves. And most importantly, it can help to increase community pride and be a catalyst for the organization and care of the urban fabric.

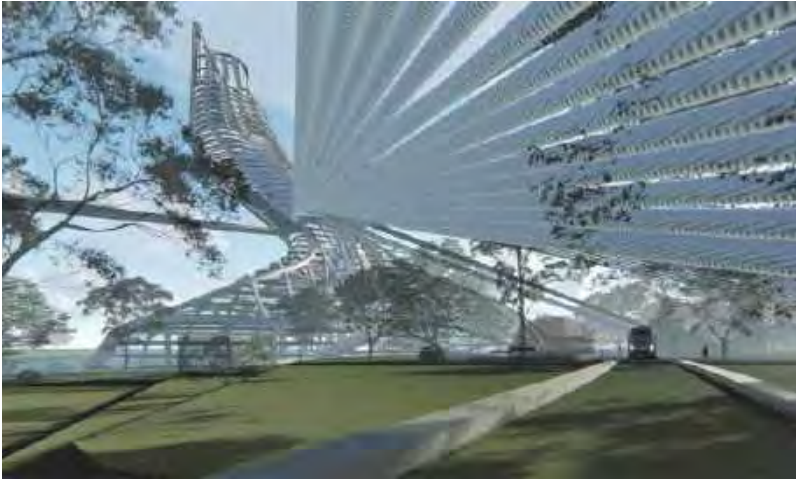


Yagmur Buğu Coşkun, Alternative approaches to Mosque design in Karaburun,
Arch 402 2020, Instructor: Mark Paul Frederickson

Eda Tarakçı,
Wastewater
management and
wetland restoration
research center
Arch 402 2019,
Instructor: Mark
Paul Frederickson



Naz Kaplan,
Net zero hotel
and wetland
revitalization
complex in Izmir
Arch 402 2020,
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Paul Frederickson



Bünyamin Sönmez,
Revitalization of
urban drainage
canals in Los
Angeles
Arch 402 2022,
Instructor: Mark
Paul Frederickson



In summary:

It is our experience that the effective integration of hybrid design methodologies derived from the allied design fields has the capacity to effect profound change in urban environments. And it places an array of revitalization tools at our disposal.

It can stimulate economic development with modest initial investment.

It can purify and preserve our precious air, land and water resources.

It can preserve and remediate wildlife habitat. It can encourage meaningful socialization and recreation.

It can focus growth and reduce sprawl. And it can offer an urban respite to soothe an otherwise stressful existence.

We designers are fortunate people and are in possession of skills that can positively impact the surrounding urban fabric. The students in our studios like to think of themselves as urban design street fighters, and they feel quite comfortable in "ugly" places.... it's where we belong.

Replace grey with green and blue.
Replace cars with shoes.
Replace garage doors with front porches.
Replace noise with sound.
Replace concrete with parks and children playing.