

Presenter: Martin Gold [15:30 to 16:15]

Presentation Title: Designing the Built Environment in Response to Future Flooding

Abstract: In Florida, chronic flooding and sea-level rise (SLR) will ultimately require the relocation of vast urban and suburban infrastructures to land that is currently fifteen to twenty feet above sea level. However, that eventuality is 100 to 200 years into the future for most locations and the forces acting on SLR may have abated or stabilized in that timeframe. Land development strategies for inland areas at higher elevations should account for future growth from coastal migration inland. Concurrently, coastal areas with infrastructural capacity should continue to be developed, densified, and optimized for both economic and environmental resiliency. Investments in roads, utilities, civic spaces should be utilized to their fullest capacity in the time they are useful rather than be abandoned leaving the cultural investment underutilized. This principal is examined through the case study of the coastal barrier island Longboat Key, Florida. The current development model is predominantly low-density, seasonal single-family and multi-family dwellings. Longboat Key is currently facing both rising waters that largely impact the Sarasota Bay side of the Key in addition to significant beach erosion – both of its 8-mile shorelines are actively being lost. However, Longboat Key is the wealthiest zip code in Sarasota County and the 5th wealthiest zip code in Florida (Miami Beach is the top). Longboat Key is an economic resource that is critically important to expanding resilient infrastructure in other parts of Manatee and Sarasota Counties. Perhaps counter-intuitive, it could be true that coastal development in the near term, using ‘paid-for infrastructure,’ can provide the resources for long-term more resilient development. This presentation will explore that idea and how and what types of development might be appropriate in vulnerable locations.

Martin Gold, FAIA

Martin Gold is a member of the American Institute of Architects College of Fellows and Associate Professor, University of Florida College of Design, Construction, and Planning. Professor Gold has over twenty-five years of engagement in architectural design, teaching, and research with a focus on the interrelationships among architecture, ecology, culture, and resource stewardship at urban and residential scales. He is a member of the Doctoral Research Faculty and supervises Ph.D. and Master of Architecture students in addition to leading design studios and lecture courses in the graduate program at UF. His work explores design opportunities for sustainable living in coastal communities underpinned by the critical need for integrating resiliency, mobility, and sustainability toward emergent urban forms. Gold served as the Director of the UF School of Architecture from 2008 to 2014. He established the CityLab satellite programs in Orlando and Sarasota, Florida to bring students in closer contact with the profession and the communities they will serve. He leads funded research-based design projects and is a founding member of the Resilient Community Initiative (UFRCI). He serves as the Executive Director of the national consortium of academic programs Architecture + Construction Alliance (A+CA). Professor Gold maintains a small award-winning architecture firm, is a registered architect in Florida, holds an NCARB certification and is a member of the American Institute of Architects.