Assessing the Critical Practice of Teaching Responsible Design in a Harsh Climate Complexity

verbal presentation

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Given the common understanding that performing a difficult task will reduce the difficulty of performing less difficult tasks, consider the hypothesis that teaching architecture students how to design responsibly in a harsh climate will reduce the difficulty of designing responsibly in milder climates. While this hypothesis may seem self-evident, there must be a clear, agreed-upon, definition of a harsh climate. Additionally, there must be a clear metric established for evaluating successful architectural design in a harsh climate. Only then can a fair conclusion on the pedagogical validity of the proposed hypothesis be drawn.

Taking the teaching of architectural design to the level of a critical practice, this presentation defines a “harsh climate” and “responsible design”. Responsible design is
explained as being critical in the process of execution and evaluation of successful architectural design.

Defining harsh climates (extreme climates) can be rather subjective. Carrying the topic to a critical understanding, the following questions are developed in the discussion: Is an extremely hot climate harsher than an extremely cold climate? What makes architectural design much more difficult in one of these two climates? Are the adversities of a harsh climate made irrelevant by technology? Does designing within the microclimate of a dense city mitigate the need for an architectural response to a harsh climate?

We are in an age of changing climates due to a multitude of causal complexities. One may argue that the hypothesis becomes irrelevant as the extent of mild climates wane. Then in a paradoxical twist, the hypothesis is more relevant because designing for harsh climates becomes even more critical.

As the understandings and meanings of a harsh climate unfold, and the means to evaluate architectural design responses to harsh climates become clear, there can be little doubt that designing for a harsh climate has extreme pedagogical merit.

**Author(s) Biography (200 words each):**

With a successful career as an architect and a Master of Architecture degree as his starting credentials, Ray became a full-time educator at the University of Arizona, School of Architecture in 2011. Currently, he is fully engaged in the craft of teaching: learning, discovering, sharing, and practicing new teaching pedagogies. Ray enjoys sharing the knowledge and skills required of an architect with the next generation of architects.

Ray’s professional career included 12 years as the sole managing principal and designer in the firm of Raymond E Barnes Design Architecture LLC, which was preceded by a very rewarding 14-year partnership with two other principles of Barg Meeks Barnes, Inc. Ray had a design and/or a project management role on many large and successful commercial projects around southwestern USA including recreation centers auditoriums, hotels, resorts, and healthcare facilities.

Ray was member of the American Institute of Architects (AIA) for 20 continuous years, is a Registered Architect, and is a LEED Accredited Professional (LEED AP BD&C). He is also a member of the United States Green Building Council (USGBC) and the American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE).

Interests include music, sports, academics, environmental design, and the expression of architectural forms.