

# PROMETHEUS: JOURNAL OF THE PHD PROGRAM IN ARCHITECTURE

## Dean's Introduction

Creating a high-quality, peer-reviewed journal like *Prometheus* is a struggle during the best of times. But this issue bears special testimony to the passion and dedication of our PhD students: They completed this 5th edition under the constraints of COVID-19, but with the same outstanding, peer-reviewed content and award-winning graphics as the issues that preceded it — and right on schedule as well. We're delighted to share it with you, just as we will with a new, soon-to-launch publication from the B. Arch, M. Arch, and MLA+U programs, *Petri Dish*. Far from constraining creative production at IIT, the pandemic seems to have enhanced it, giving our students the opportunity to expand their skill bases and challenge their peers to engage with the provocative ideas streaming forth from this place. We hope you will enjoy both publications and engage in the dialog.

## Author

Reed Kroloff, Dean and The Rowe Family  
College of Architecture Endowed Chair  
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## Director's Introduction

*Prometheus* is a peer-reviewed student journal that showcases research-in-progress presented during our annual symposium (held entirely virtually this past fall due to the ongoing pandemic) hosted by IIT College of Architecture's PhD Program. Additionally, each issue of *Prometheus* includes a yearly "PhD Program Overview" to showcase the achievements and activities of our community of students and affiliated faculty; this section presents academic programming highlights such as our weekly Architecture Research Forum lecture series and news about the ongoing research and accomplishments of our students and recent graduates. Each year, the PhD students who organize the symposium also serve as guest editors for the journal. Our hope is that the experience gained from these curatorial, organizational, and editorial activities associated with hosting a symposium and editing *Prometheus* will serve our students well when they enter academia and/or professional practice.

This past year, *Prometheus* received the 2020 Douglas Haskell Award for Student Journals from AIA New York | Center for Architecture after we submitted the first four issues for consideration. In his letter informing us of the award, Benjamin Prosky, the Center for Architecture's Executive Director, wrote "The jury was particularly impressed with the fresh and relevant content, beautiful design, and diverse viewpoints in the journal." Even as digital publications currently play an important role in disseminating research, we continue to believe in the value of offering a digital format along with a beautifully designed printed issue.

Why did we select Prometheus as the symbol and masthead of our journal? He was the irreverent Titan who stole fire to pave the way for the advancement of humankind. From our vantage point in Chicago, we understand fire as a tool for both destruction and creation. The Great Fire of 1871 leveled our city but also provided Daniel H. Burnham and Edward H. Bennett with a reason to devise the widely influential "Plan of Chicago" (1909). Without the fire of modern blast furnaces, the fabrication of the distinctive steel girders and columns of our Ludwig Mies van der Rohe-designed S. R. Crown Hall (and many of the other buildings on the IIT campus) would not have been possible.

### Author

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## Director's Introduction, cont.

Since the early 1940s, research aimed at advancing practice has been generated by Master of Science Program students such as Myron Goldsmith (Arch 1939, MS 1953) who was eventually appointed faculty member at IIT. Our PhD Program in Architecture was established in the late 1990s as a continuation of the research conducted by former MS students like Goldsmith in collaboration with former faculty like Dr. Fazlur Khan who went on to develop the “bundled tube” structural system first deployed in the Sears Tower (1973; currently known as the Willis Tower). In the intervening years, we have trained researchers who have made significant contributions within academia and in practice across the globe. Today, our ambitious and talented graduates are impacting professional practice as well as research and pedagogy nationally and around the globe in countries ranging from Colombia to Saudi Arabia.



Professor Sabatino on the South Porch of Crown Hall, 2017. Photo courtesy of Scott Benbrook.

The fifth issue of *Prometheus* is focused on “Human Behavior, Performance, and Built Environments.” Papers presented at the symposium by PhD students and keynotes by experts in the field focused on how to better understand theories and tools with which to evaluate the performance of built environments and how they impact human behaviors in space and time. For our cover, we chose an image of the Chicago Riverwalk designed by Chicago-based architect Carol Ross Barney. Once brimming with life, it is now all but deserted. Through this example that is close at hand to IIT students and faculty, we understand how a catastrophic event like a pandemic can drastically alter the ways human beings interact with the built environment. Our symposium is a reflection of the PhD Program in Architecture’s multidisciplinary research environment in which different approaches (ranging from the social sciences and humanities, to engineering and data science) are deployed to advance architectural practice and scholarship. A full review of the program is available on the website specially designed for the symposium ([www.iit-igss.com](http://www.iit-igss.com)).

A heartfelt thanks to contributors from universities and research institutions across the country, and to IIT students and faculty of the College of Architecture, Armour College of Engineering, Institute of Design, and Lewis College of Science and Letters. We hope our *Prometheus* will continue to serve as a platform for emerging researchers who, like its symbol and masthead, defy the status quo by taking risks that lead to game-changing innovation in service to humankind, especially in times of crisis like the one we are experiencing now.

Nota bene: Funding for this publication and for our PhD program is provided by the John Vinci Distinguished Research Fellowship. I would like to express my gratitude to PhD candidates Zahida Khan and Yohan Kim for their efforts organizing this year’s virtual symposium and for serving as co-editors of this issue. Special thanks to our scientific committee members who brought rigor to the peer-review process and to all the keynotes and panelists. Christine Manuel from the Dean’s Office deserves thanks, as does Piyush Khairnar and our PhD administrative assistant Alejandro Saldaña Perales.

Thanks also to Provost Peter Kilpatrick, Dean Reed Kroloff, and Vice Provost for Research Fred Hickernell for their kind support of the symposium. To Professor Brent Stephens, Chair of Armour’s Department of Civil, Architectural, and Environment Engineering, and to Assistant Professor Mohammad Heidarinejad, we owe a special thank you for their ongoing support of our PhD students. Melinda Van Leer deserves a special thank you for her editorial review, as do designers Bud Rodecker and Alyssa Arnesen of Span for their continuing efforts to make *Prometheus* both easily readable and visually engaging.