

### **Citation: Anthony Brazel for the 2015 Luke Howard Award**

The IAUC is pleased to recognize Professor Emeritus Anthony Brazel of Arizona State University as recipient of the 2015 Luke Howard Award. Professor Brazel has spent half a century engaged in and building a stellar record including: (a) research contributions that encompasses a wide range of urban climate issues, (b) public service activities that highlight societal issues associated with urbanization and climate change, and (c) proactive service to numerous scientific communities and the public sector that are engaged in understanding and responding to urban sustainability requirements in climate change situations.

His research encompasses issues of desertification and habitation in arid climates, suburbs, the surface energy balance and urban heat island processes. It incorporates fieldwork and the rigorous use of remote sensing and *in situ* measurements to characterize the urban area (and other microclimates) in locations ranging from Alaska to the Middle East and Phoenix. His many applied studies on topics such as air quality aspects, heat island mitigation strategies, urban sustainability, and heat stress risks in urban areas have beneficial societal impacts. He was an early user of computers for his studies, before digital technologies became ubiquitous, continuing along these lines with significant contributions to improving weather forecasting in urban areas, helping understand relationships between urban parameterizations and climate, and recently, providing comparative analyses of global climate models. Always interested in promoting research for the good of society, he wrote about enhancing the accountability of universities to serve the public and is engaged in NSF's prestigious urban Long term Ecological Research (LTER) program on human-climate interactions in cities. The range of his research interests is broad, it encompasses both traditional (technical) and non traditional (cultural) aspects of urban climate research that have both societal and policy implications. The latter includes contributions on the vulnerabilities of different classes and ethnic groups to climate change due to inequalities in society. Given his broad range of research interest and expertise, he has not surprisingly engaged in a wide range of multidisciplinary research collaborations that include bioacoustics, biometeorology, microclimates, heat related morbidity, and especially sustainability aspects of urban climates in arid cities. Results from his prodigious research portfolio has led to over a hundred scientific and social-scientific papers in prestigious journals, and according to Web of Science and Google Scholar, he has more than 1500 and 3400 lifetime citations.

His influence on urban climate is international, extensive, and reaches into all levels from academia to state and governmental agencies. He has mentored more than a hundred graduate students to whom he was either advisor or on their committees. In recognition of this service, the ASU Geography Department recently established (2007) the Anthony J. Brazel scholarship award for PhD students. The ASU emergence as a leading academic institute in urban climate is due in part to Tony's various leadership roles in the Geography Department (now School of Geographical Sciences and Urban Planning). He served for two decades as Arizona's State Climatologist, successfully forging coalitions to address issues significant to the well being of the State. He is sought out to perform technical reviews and consults for at least eight Governmental agencies including NOAA, NASA, USEPA, NSF, (and NATO) and reviews articles on a range of subjects, including, but not limited to urbanization subject matters by at least 22 Journals. He has generously served the AMS on its Board of the Urban Environment (BUE), and the Board of Urban Climatology (BUC), and served the IAUC on its Scholarship Committee.

Many organizations have recognized Tony's achievements, notably, the AMS recently bestowed on him its Helmut Landsberg Award, the AAG honored him with a Lifetime Achievement Award, and he is a Fellow of AAAS. His role as President and Fellow of the Arizona-Nevada Academy of science earned him their Outstanding Service Award. To these honors, the IAUC is pleased to add its recognition of Professor Brazel's contributions to the field of urban climate with the 2015 Luke Howard Award.

Respectfully,

Jason Ching, Interim Chair of Awards Committee