GREEN EQUITY: DESIGNING EQUITABLE HEAT-RESILIENT PUBLIC SPACES FOR DELHI

LACF Student Research Grant recipient – Kanika Mehta

I am grateful to the Landscape Architecture Canada Foundation (LACF) for supporting my practicum project, *Green Equity: Designing Equitable Heat-Resilient Public Spaces for Delhi*, and enabling a research journey that combined historical inquiry, spatial analysis, and community-grounded design strategies to tackle urban heat inequities.This funding became the backbone of my work, enabling research components that brought both depth and authenticity to the project. From gathering on-site data to accessing books with archival maps and advanced spatial tools, the grant helped bridge critical gaps that otherwise would have limited the scope of my design exploration.

The funding allowed me to carry out a preliminary site survey in East Delhi, one of the city's most densely populated neighbourhoods. With the support of local people in Delhi, I was able to document on-ground conditions through photographs, field notes and lived experiences. These observations became the foundation for understanding patterns of current urban density, public space distribution, and heat vulnerability, ensuring that my design strategies were grounded in real-world conditions rather than relying solely on secondary online sources.

Delhi, India, has very limited open data sources, which initially restricted my ability to work with accurate datasets at a regional scale. The grant, however, made it possible to access paid academic publications and specialized GIS datasets for Delhi. These resources were invaluable in correlating environmental, social, and morphological data to examine how urbanization, ecological degradation, and heat exposure intersect across the city.

Additionally, purchasing books such as *Maps of Delhi*, which contained historical maps and archival records, offered a rare opportunity to trace the city's urbanization patterns over time. This research revealed how key ecological systems such as the Yamuna River floodplains and the Delhi Ridge forests have been progressively fragmented by urban expansion. This historical perspective became essential in shaping future design interventions for a city struggling to balance density, ecology, and equity. It also created opportunities to rediscover and adapt vernacular urban cooling strategies using traditional approaches to shading, water management, and community-based green spaces that once helped Delhi remain resilient to extreme heat but have largely disappeared from modern planning practices.

With these insights, the project evolved into a comprehensive, evidence-based design exploration, proposing a network of cooling corridors, neighbourhood parks, and cultural nodes aimed at restoring ecological functions while ensuring equitable access to green spaces for all residents.

The full research findings, spatial analyses, and design proposals have been documented and can be accessed here: http://hdl.handle.net/1993/39317.

In bridging research gaps, from field data collection to historical and ecological analysis, the LACF grant allowed this practicum to move beyond theory into actionable climate-resilient urban design strategies for one of the world's fastest-growing megacities.