FORTIFIED
THE LIVING TRADITION OF PREHISTORIC OHINGI

GEORGE G. BOOTH TRAVELING FELLOWSHIP

ALEXANDRA CHEN
This proposal is to explore various prehistoric sites of Kenyan ohingi and the provocative contradiction between their enigmatic origins and their established construction techniques.

Near the border of Migori and Homa Bay counties in Kenya, on the shores of Lake Victoria in the Great Rift Valley, mysterious prehistoric ruins emerge from the bush. These circular enclosures are entirely constructed without mortar and occur at hundreds of sites throughout the region, the largest and best preserved of which is Thimlich Ohinga. Literally translated as ‘the large fortress in the frightening forest,’ these architectural objects are thought to have been constructed between the thirteenth and fourteenth centuries by Nilotic tribes who suddenly vacated the sites not long thereafter.

Uniquely, the ohingi of western Kenya are actively repaired and fortified by local masons who carry on the practice of dry stone stacking. Thus, while the origins of ohingi remain a mystery, their inherent construction technique is a living tradition. We know how the ohingi are built, but not why. Why were they built in these locations? What did the ruins originally look like? Why were they abruptly abandoned? What drove the formal logics of these spaces? Theories abound, and these ohingi represent a fertile ground of potential imaginative ‘why’ scenarios.

I have been interested in this region since my Peace Corps service in central Africa. Now that I have completed my graduate education and am immersed professional training, I am eager to return these skills and tactics to the productive region of Sub-Saharan Africa.

Remote sites in this part of the world, such as Thimlich Ohinga, remain understudied for a number of reasons. Among these are a lack of funding by private and public institutions, inconvenience of location and a persistent lack of attention by academia as a whole. Moreover, architectural research in Sub-Saharan Africa is largely focused on the sustainability of indigenous structures, social impact design or the chaos of the urban environment. While these perspectives are invaluable, the ohingi also offer another opportunity to contribute theoretically to the discipline. How can the tools of architecture unlock the critical and visionary potentials of a site like Thimlich Ohinga? What role can the cryptic play in architecture?

The mysteries of ohingi are so hidden that they have effectively become alien to contemporary understanding. To examine this circumstance, this project will explore the remaining ohingi ruins, document existing conditions and conduct local interviews. In addition, I will consult with local masons to study the technique of dry stone stacking and seek participation in an active reconstruction site. Ancillary information will be provided from visits to museums and with local academic experts. I will use my established network of ex-patriots and local community partners to facilitate this research.

PROJECTED EXPENSES

- **Airfare** SFO to NBO Roundtrip: $1250
- **Airfare** SFO to DTW Roundtrip: $400
- **Lodging + Meals + Incidentals** ($150 x 42): $6300
- **Transit** Nairobi to Magori Roundtrip: $100
- **Research fees** Nairobi National Museum: $350

Total: $8400

Thank you for your consideration. I am excited for this opportunity and would be honored to be the next George G. Booth Traveling Fellow.

Alexandra Chen
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While some research exists on ohingi, it mainly takes on archaeological and anthropological slants. Academics have established digs within the complex and performed analysis focusing on pottery and object finds. Little analysis has been conducted on the architecture itself.

This project proposes a publication with original drawings, maps, photographs and diagrams, documenting the ohingi as a phenomenon. This rigorous analysis would be carried out at the scales of (1) detail, (2) formal layout and (3) regional geographical relationships including comparative analyses of the remaining sites.

Additionally, this project will take on the construction techniques of prehistoric ohingi and extrapolate their implications in a contemporary context. Drawings produced toward this end will utilize the publication as a springboard to take on the dry stone stacking and extrapolate its significance in a contemporary context. This particular iteration of mortarless masonry and its potential implications will be explored in a less restrictive, more imaginative format.

Throughout the process, I will maintain an online presence documenting the process of discovery and analysis.

**ITINERARY FALL 2017**

**Base I NAIROBI** Days 01 - 14
The Kenyan capital is the location of the domestic public institutions, where the majority of scholarship on Thimlich Ohinga has been conducted.
- Research Historical Archives at Kenya National Museum
- Kenya Institute of Surveying and Mapping, Ministry of Lands
- Interview relevant faculty at University of Nairobi

**Base II MIGORI** Days 15 - 35
Regional capital of the province and centrally located to several sites. Not a bustling city center by any stretch of the imagination, but the closest jumping off point with facilities to assist the progress of the research.
- See Thimlich Ohinga
- See outlying ohingi in Kadem-Kanyamkago, Gwassi, Kaksingiri Lake headlands, Kanyidoto and Kanyamwa
- Interview and study with local masons

**Base III RUMA NATIONAL PARK** Days 35 - 42
Remotely located national park containing ohingi sites rarely visited or documented.
- See outlying ohingi in Karungu North and Homa Bay
- Interview local park rangers
STUDIO

YEAR

PROJECT

*American Splendor*, Maria Arquero + McLain Clutter
2014 - 2015

M. Arch thesis critically re-staging the interfaces between hospital and the city to create new situations and synergies between participating systems.
LIVE

Part historic neighborhood, part laboratory for long-term medical research, the historic neighborhood of Upper Chester acts as a testing bed for cohort observation, surveillance studies and experimental interventions.
PLAY

Having recently acquired the New Cleveland Playhouse, the clinic’s rehabilitation of the neighborhood creates a theater of transit: elucidating the role of its automated guided vehicles, tying into civic transit systems and tapping into the recreation and health of clinic employees and civilians alike.
REAP

The uncompromising productivity of the Cleveland Clinic behooves its consideration of a major externality of the healthcare industry—death.
STUDIO YEAR PROJECT
Mary Ann Ray
2014
Always Red 水红 celebrates the rich and varied traditions of alcoholic processes of the rural contriesides of China.
DOGA, Oslo, Norway (09.08 - 11.27.2016)


**FIRM**
Design Earth (Rania Ghosn + El Hadi Jazairy)

**YEAR**
2013 - 2016

**PROJECTS**
Select drawings prepared for publications, exhibitions.

FORTIFIED ABRIDGED CURRICULUM VITAE

EDUCATION

2015  Masters of Architecture University of Michigan
2015  Masters of Engineering, Construction University of Michigan
2008  Bachelor of Arts, History of Science & Medicine Yale University

ACADEMIC EXPERIENCE

2015  Graduate Student Staff Assistant Taubman College Administration
2015  Graduate Student Research Assistant to Amy Kulper University of Michigan
2014-15 Graduate Student Instructor University of Michigan
2014  Dow Sustainability Fellow Graham Institute of Sustainability

PROFESSIONAL EXPERIENCE

2016-  TEF Architecture + Interiors, Designer San Francisco, California
        Ghirardelli Square Power House, Compass Tenant Improvement
        Mission Armory Re-Use Plan
2015  MAde Studio, Intern Architect Ann Arbor, Michigan
        Riverside Park Playground, Ypsilanti
2015  T+E+A+M*, Project Designer Ann Arbor, Michigan
        “Detroit Reassembly Plant”, Venice Biennale American Pavilion
2014  Ibuku, Designer and Project Manager Bali, Indonesia
        Permata Ayung Spa and Hotel
2014-16 Design Earth, Graphic Designer Ann Arbor, Michigan
        Pacific Aquarium, Oslo Architecture Triennale
        “Territories of Oil: Trans-Arabian Pipeline” The Arab City: Architecture & Representation
        Geographic Leviathan, Pamphlet Architecture 36 competition entry
        Hassi Messaoud Oil Urbanism,” New Geographis 06: Grounding Metabolism
2013  Mopsiti Architecture, Deseno + Construction, Draughteur Lusaka, Zambia
        Rufunsa Development Proposal
        Ibex Hill and Makeni Residence Construction Management
2010-11 Technology Development + Advisory Unit, Consultant University of Zambia
2009-11 US Peace Corps, Appropriate Technology Program Coordinator Lusaka, Zambia

RECOGNITION

2016  Honorable Mention: Community Stewardship Play Space Design Competition
2015  Kampner Thesis Award Taubman College, University of Michigan
2014-15 Knopke Scholarship Taubman College, University of Michigan
2012-13 Lee Scholarship Taubman College, University of Michigan
2012  Phi Kappa Phi University of Michigan

GRANTS

2014  Bailey Fellowship, Center for the Education of Women University of Michigan
        Behavior Change in the Built Environment, Bali, Indonesia [A. Chen]
2014  Rackham International Research Award University of Michigan
        Sustainable Materiality: Balinese Bamboo Structures, Bali, Indonesia [A. Chen]
2010  Small Projects Assistance Grant US Agency for International Development
        Appropriate Technology Initiative, Lusaka and Provincial Capitals, Zambia
        [N. Yuill, A. Smith, H. Chilufya, A. Chen, Peace Corps/Zambia, D-Lab@MIT]

SELECT PUBLICATIONS + EXHIBITIONS

        Journal (May 2016).
2015  Ghosn, R. “8Mile Baseline: A Dialectical Image of the Urban Crisis,” Journal of
        Architectural Education 69:1, 86-97. (March 2015). [Copy editor, Demo Detroit
        graphic representation and narrative by A. Chen.]
2015  “Metastatic Metropolis,” Thesis Honors Exhibition, Taubman College Gallery,
        University of Michigan, Ann Arbor. (On view 08.01 - 09.15.2015). [Featured
        project]
2015  “Metastatic Metropolis,” American Splendor, Cleveland Urban Design
        Collaborative, Cleveland, Ohio. [Featured project and curatorial assistant.]
2014  “Demo Detroit,” Taubman College Student Show, CMYK, University of Michigan,
        Ann Arbor. (On view 03.2014). [Featured project]
        Grounding Metabolism, Graduate School of Design, Harvard University Press, 145-
        168 (June 2014). [Graphic representation by A. Chen.]