

# **Dr. Gorata Bontle Kgafela, DDes., MBA, M. Arch., BA (Arch)**

Cambridge, Massachusetts | Email: goratakafela@gsd.harvard.edu

Website: www.goratakafela.com | LinkedIn: www.linkedin.com/in/goratakafela

## **RESEARCH FOCUS**

Housing Infrastructure Systems

Governance-Centered Sustainable Urban Design

Civic Simulation and Design Computation

Institutional Resilience and Urban Political Economy

## **EDUCATION**

### **Harvard University Graduate School of Design, Cambridge, MA**

**Doctor of Design (DDes)**, 2025 – Class Marshal

Dissertation: *Imagined Futures of Housing Policy in Botswana*

Mixed-method research examining infrastructure, civic participation, and political economy through design-led governance.

### **MIT xPro**

**Certificate in Applied Data Science**, 2022

Capstone: *Facial Emotional Recognition*

Prototype Model using Convolutional Neural Networks (CNNs) developed through Python machine learning (ML) and deep learning (DL) classification tools.

### **University of Pretoria – Gordon Institute of Business Science (GIBS), Johannesburg, South Africa**

**Master of Business Administration (MBA)**, 2017

Thesis: *Hotel Chainscale Diversification and the Size Effect: Long-Term Operating Performance of U.S. Hotel REITs*

Panel data analysis of EBITDA margins for 25 listed REITs (2000-2015)

### **University of Miami, Coral Gables, FL**

**Master of Architecture (M. Arch.)**, Valedictorian – AIA Henry Adams Medal, Award of Merit, 2003

Thesis: *Rethinking the Periphery of the City of Gaborone, Botswana*

Master of Architecture in Computing (Post-Professional), 2003

Thesis: *Existential Space in the World Wide Web*

### **Washington University in St. Louis, St. Louis, MO**

**Bachelor of Arts in Architecture (B.A. (Arch.))**, magna cum laude, 2000

## **ACADEMIC APPOINTMENTS**

### **Harvard University Graduate School of Design, Cambridge, MA**

**Teaching Fellow and Doctoral Grader**, 2021-2025

*SES 5495 Urban Economics and Market Analysis*

Lectured and taught fortnightly recitations reinforcing economic concepts and exam preparation. Managed Canvas course delivery, coordinated readings, graded assignments and exams, held office hours, mentored students, and supported experiential classroom instruction.

*SCI 6123 Construction Systems and SCI 6230 Cases in Contemporary Construction*

Graded assignments, provided technical instruction, and mentored final projects using ase-based construction analysis. Initiated and coordinated international lecture programming.

*SES 5441 Policy Analysis: A Tool for Evidence-Based Decision Making*

Prepared analytical data frameworks supporting applied policy decision-making exercises.

*GENED 1071 African Spirituality and the Challenges of Modern Times*

Taught and facilitated weekly workshops, graded coursework, and mentored capstone projects.

**University of Miami School of Architecture, Coral Gables, FL**

**Graduate Teaching Assistant, 2002-2003**

*Introduction to 3D Computer Modeling*

Taught digital modeling techniques and software workflows supporting architectural design instruction.

Guided students in computational modeling and visual representation.

## **TEACHING AREAS & STUDIO CAPACITY**

Core Undergraduate & Graduate Design Studios

Advanced Research Studio – Sustainable Housing & Institutional Resilience

Urban Housing Systems (Graduate Seminar)

Professional Practice & Institutional Coordination

Global Urban Governance & Comparative Resilience (Studio, Travel Studio, or Seminar)

## **PEER REVIEWED & FORTHCOMING PUBLICATIONS**

*Intersecting Vulnerabilities: Polycrisis and Hyperlocalized Housing Solutions in Botswana*

MIT Projections 18 (Forthcoming, 2026)

*Rethinking Affordable Housing in Botswana*

Co-Authored White Paper – Architects Association of Botswana (2025)

## **BOOK MANUSCRIPTS IN DEVELOPMENT**

*Narratives of the Subaltern: Housing, Postcolonial Imagination, and Urban Governance in Botswana*

Book manuscript in development. A cross-genre scholarly work integrating housing governance research with narrative urban inquiry. Grounded in postcolonial theory and peri-urban fieldwork, the manuscript examines how institutional systems have shaped lived housing experience and spatial belonging.

*Housing Infrastructure Governance: Design, Simulation, and Institutional Reform*

Book manuscript expanding doctoral research into a comparative framework on governance-centered sustainable housing systems.

## **RESEARCH PROJECTS**

MOOT City Game – Provisional Patent (Harvard University)

Data-driven civic simulation framework modeling housing governance systems. Currently analog; digitization phase in development.

## **EXHIBITIONS AND PUBLIC LECTURES**

*MOOT City Game – Harvard patent-pending civic simulation platform*

Druker Gallery, Harvard GSD (2025)

*Memoirs of a subaltern: spatial narratives from the postcolonial*

Massachusetts College of Art and Design (2023)

*Exhibition: Tradition and Architecture: Informing our Modern Existence*

National Museum and Art Gallery, Botswana (2007)

## **GRANTS, FELLOWSHIPS, AND AWARDS**

Harvard Real Estate Research Grant – Harvard GSD  
Harvard Racial Equity and Anti-Racism Research Grant – Harvard GSD  
Research Travel Grant – Harvard University Center for African Studies  
Lawrence and Marla Curtis Fellowship – Harvard GSD  
Doctor of Design Tuition Grant – Harvard GSD  
Henry Adams Medal – American Institute of Architects  
Golden Key National Honor

## **PROFESSIONAL REGISTRATION AND AFFILIATIONS**

American Institute of Architects (AIA) - International Associate  
Urban Land Institute - Housing and Economic Development Council  
Registered Architect – Botswana (ARC)  
Professional Architect – South Africa (SACAP)  
Green Building Council South Africa - Accredited Professional  
Uptime Institute - Accredited Tier Designer

## **SERVICE AND LEADERSHIP**

President – Architects Association of Botswana  
Executive Member – African Union of Architects Southern Regional Council  
Executive Council Member – Architects Registration Council  
Co-Chair Finance Committee – Harvard Housing Infrastructure, Policy & Design Symposium  
Construction Sector Liaison – Business Botswana (Chamber of Commerce)  
Class Marshal & Alumni Council liaison – Harvard GSD

## **PROFESSIONAL PRACTICE & APPLIED RESEARCH EXPERIENCE**

### **Civic Syntax LLC, Norwood, MA**

**Founder and Principal, 2026 – Present**

Research translation platform advancing participatory governance design and civic simulation. Lead development and institutional deployment of the MOOT City Game, a data-driven framework modeling land administration, infrastructure capacity, fiscal constraints, and housing targets within structured civic engagement scenarios. Work bridges academic research in housing infrastructure governance with applied implementation environments.

Research Contribution:

Extends scholarly work on governance-centered sustainable design into applied civic tools that support evidence-based urban decision-making.

### **A1 Real Estate Solutions LLC, Newton, MA**

**Consultant – Strategy, Automation, and Business Development, 2025 – Present**

Consulting role focused on operational systems design within small and mid-scale real estate development practice. Develops AI-assisted workflow frameworks integrating market analysis, lead generation, and project pipeline management. Designs automation strategies that strengthen institutional efficiency and decision-making infrastructure in development environments.

Research Contribution:

Investigates how computational tools and systems design improves organizational resilience within professional practice. Aligns with research in Design Computation and institutional durability, examining how digital infrastructure shapes development capacity and long-term housing production systems.

## **GBK Architects, Gaborone, Botswana**

**Founder, Principal Architect, Business Advisor, 2008 – 2025**

Directed an architectural firm operating within complex regulatory and development contexts, delivering institutional and mission-critical infrastructure projects including national data centers and financial institutions. Integrated cultural identity frameworks, procurement systems, land regulations, and economic feasibility constraints into built form. Merged interdisciplinary coordination, contract negotiation, and governance compliance across public and private sectors.

Research Contribution:

Informs scholarship on institutional architecture, spatial identity, and economic resilience. Examines how architecture mediates governance systems and how cultural translation in public projects reinforces civic identity and institutional durability.

## **Architects Association of Botswana, Gaborone, Botswana**

**President and Advocacy Leader, 2018-2021**

Led national professional advocacy, regulatory reform, and industry-government partnerships.

Research Contribution:

Licensed professional practice experience informing research on regulatory systems, land administration, housing delivery mechanisms, and the implementation of policy frameworks in the built environment.

## **RESEARCH & TECHNICAL COMPETENCIES**

### **Research (R1)**

Governance-centered urban systems research; housing infrastructure analysis; comparative global urban research; fieldwork-driven scholarship.

### **Architectural Design**

Institutional and public architecture; housing and urban systems; multi-scalar studio leadership (building-neighborhood-infrastructure); design synthesis under regulatory and procurement constraints.

### **Civic Simulation & Design Computation.**

Participatory scenario modeling frameworks; digitization-ready simulation development & prototyping.

### **Hypothesis-Driven Strategy & Workplace Systems**

Strategic problem framing; hypothesis-led analysis of institutional and organizational performance; scenario testing and decision-support modeling; translation of research insights into actionable organizational and operational strategies within public, civic, and professional practice contexts.

### **Project & Contract Management**

Project and program management; DBB, DAB and FIDIC-based contract administration; risk management; multidisciplinary coordination in regulated delivery environments.

### **Tools**

AutoCAD; Adobe Creative Suite; Applied Data Analysis (foundational Python); Workflow Automation Tools; Microsoft Office Suite.

### **Languages**

English (fluent); Setswana/Tswana (fluent); Southern Sotho (intermediate).