Urban Identity Thru Heritage & Sustainable Buildings

World Habitat Day 2012

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Heritage Foundation of Pakistan

- Not-for-profit social and cultural entrepreneur organization since 1980.
- Research, training, publications for heritage conservation, sustainable construction, crafts & women's livelihoods.
- Heritage and tradition utilized for rehabilitation and development in post-disaster communities since 2005.

Heritage Safeguarding

World Heritage Sites Lahore and Makli, Historic sites Hazara, Peshawar, Khairpur, and Karachi.

Humanitarian Assistance

Post Earthquake Hazara and AJK (2005), Post militancy Swat (2009), Post floods Swat and Sindh (2010, 2011).

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UN Recognition Award 2002 for promotion of culture and peace.

INTRODUCTION - CHALLENGES

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- Global warming and increasing ecological footprint.
- Intensifying frenzy of violence and aggression due to life under unsustainable, harsh urban settings.
- Hostile city milieu marginalizes women and children, youth and disabled.

NEED TO HUMANIZE CITIES

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- **Foster attachment and pride by safeguarding heritage.**

- **Save depletion of earth's resources - halt unviable building practices, promote sustainable construction.**

Presentation Components

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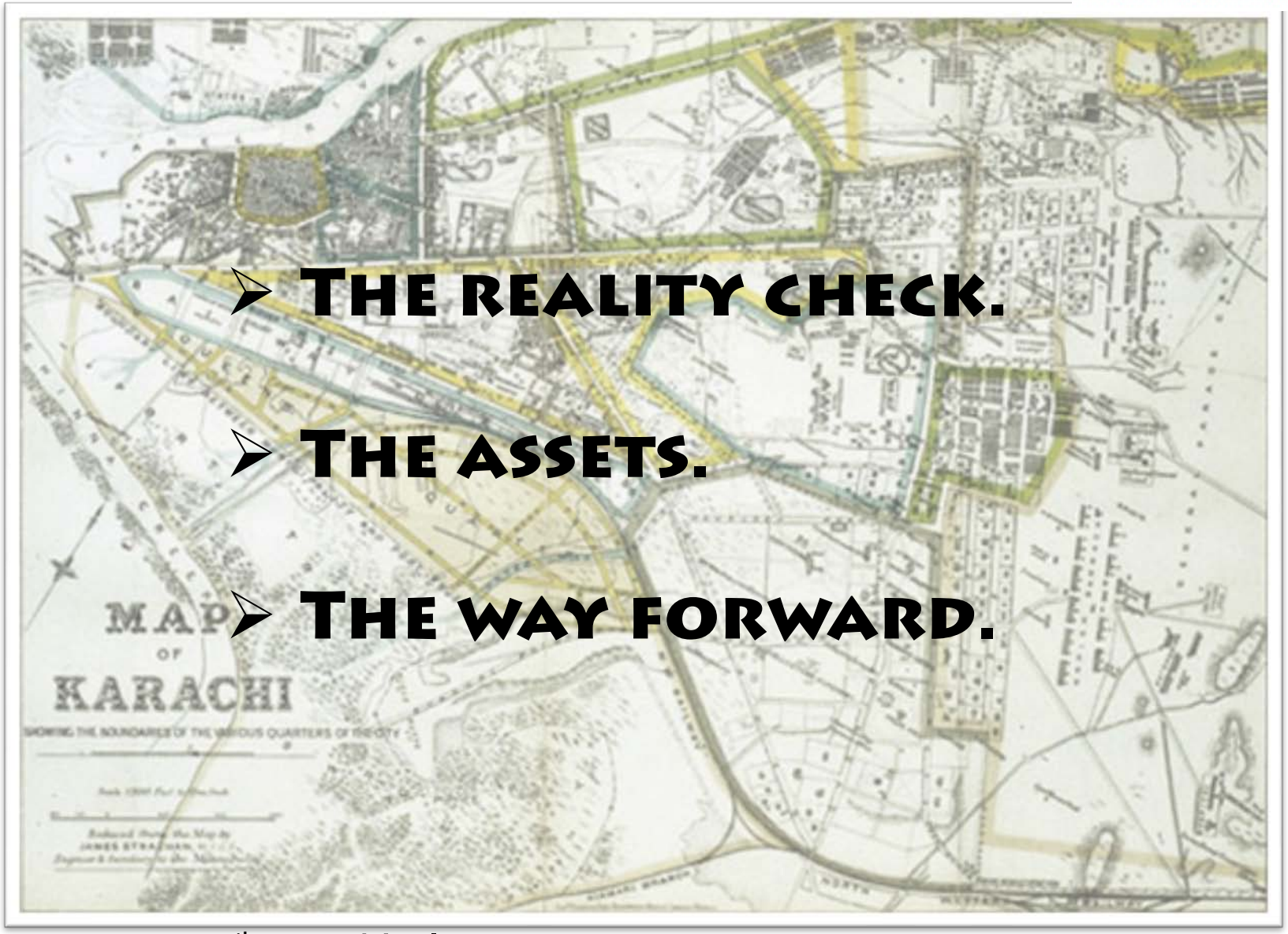

- The reality check.
- The assets.
- The way forward.

KARACHI 19th c. Archival Map

Courtesy: Heritage Foundation Archives.

URBAN DIVIDE

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- **UPPER CIRCUIT ENCLAVES OF PRIVILEGE**
  - Bahria Towns for luxury living;
  - Central Business Districts for corporate sector.

- **LOWER CIRCUIT SETTLEMENTS**
  - Vertical slums poorly designed & poorly built;
  - Informal settlements.

- **WHY ARE POOR, MARGINALIZED COMMUNITIES LOCATED FAR FROM LIVELIHOODS?**

IMAGE OF URBANISM

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- **Burgeoning cities.**
- **Loss of open spaces.**
- **Deficient physical and social infrastructure – water and power famines;**
  – overflowing sewerage;
  – mounds of solid waste;
  – Insufficient and non-functioning schools and health facilities.

- **WHY SHOULD THE POOR SUFFER FROM CHRONIC ILL-HEALTH AND HIGH ILLITERACY?**

URBAN ADVENTURISM

- Increasing automobile passageways at cost of pedestrian pavements;
- Ill-designed overhead bridges attracting increased private vehicular traffic;
- Ever-increasing air and noise pollution; loss of trees and vegetation.

◆ **WHERE IS THE MASS TRANSIT FOR GENERAL PUBLIC?**

IS THERE AN URBAN VISION?

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- **No thought to women's safety and work.**
- **No inclination for gainful assignation of youth – sports, playgrounds, parks etc.**
- **Inadequate public toilets.**
- **No emphasis on art and culture, creative and cultural activities.**

◆ **WHERE IS THE REALIZATION THAT CITIES ARE FOR PEOPLE NOT FOR VEHICLES?**

FLOUTING BYELAWS

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- **Scant imposition of zoning, planning and building byelaws;**
- **Matchbox five-storey walkups with scant air and light;**
- **Ill-designed urban environment with negative impact on women and children.**

◆ **WHEN WOULD CITIZEN'S LIVES BE GIVEN IMPORTANCE OVER CORRUPT PRACTICES?**

URBAN POLICY NON EXISTENT

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- **Lack of notified civic structural plans or master plans;**
- **Dirth of vision to create sustainable cities fit for human habitat;**
- **Lack of national urban policy, lack of arrangement for urban satellites or extensions.**

◆ **WHERE IS THE NATIONAL URBAN POLICY AND PLANS FOR SATELLITES OR EXTENSIONS?**

REALITY OF URBAN CENTRES

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- **Almost 50% population in informal settlements; in ghettoized precincts;**
- **Women and children in unsanitary conditions; harsh and unfriendly built environment;**
- **Wall chalkings & grafitti, smoke emitting vehicles, blackened heritage walls, harsh concrete and steel structures.**

◆ **WHERE IS PAKISTAN'S WOMEN-FRIENDLY OR YOUTH-FRIENDLY CITY?**

THE ASSETS - HERITAGE

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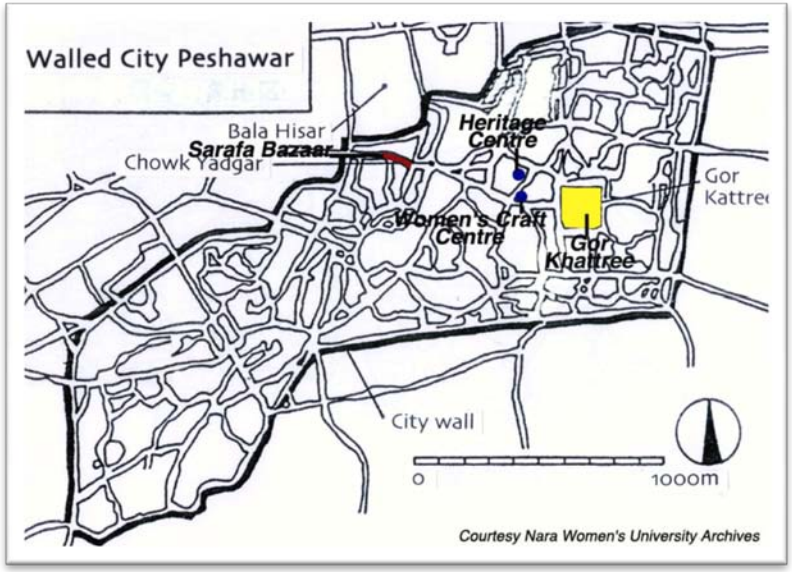
- **Pakistan - a treasure house of ancient heritage.**

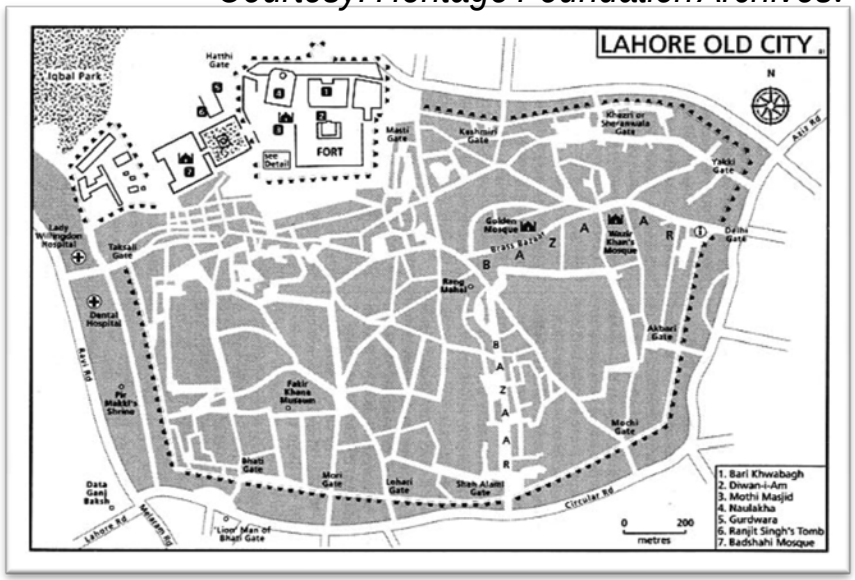
THE ASSETS – WALLED CITIES

- **Irreplaceable organic morphology and traditional value system.**
- **Protection and revitalization essential..**
- **Suitable for adaptive reuse.**

Courtesy: Heritage Foundation Archives.



PESHAWAR Walled City.



LAHORE Walled City.

HERITAGE FOR IDENTIFICATION

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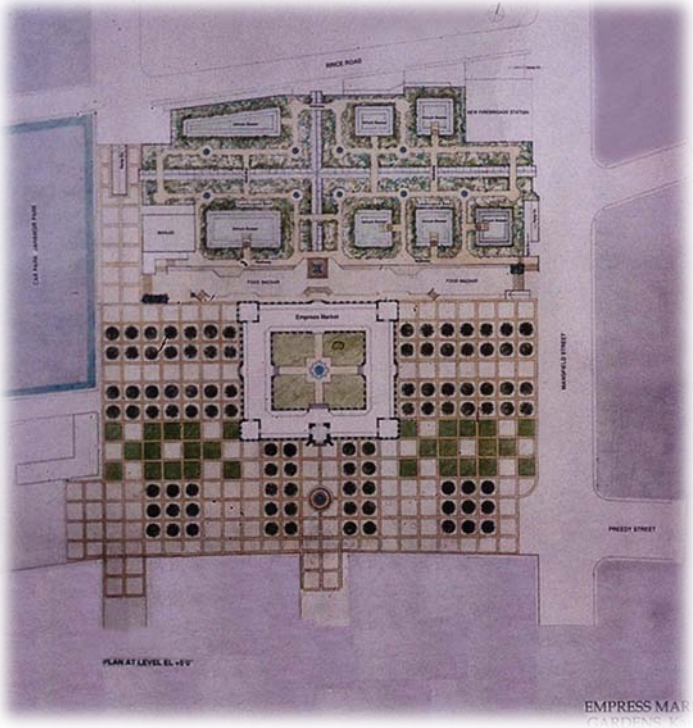

Courtesy: Lari Associates

◆ EMPRESS MARKET GARDENS PROJECT, KARACHI

Late 19th c. Landmark, could be used to create pedestrianized public square.

HERITAGE FOR IDENTITY

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Courtesy: Lari Associates.

◆ DENSO HALL & MARRIOTT ROAD, KARACHI

Late 19th c. Landmark and Juni Gali Walking Street.

THE ASSETS – HISTORIC CITIES

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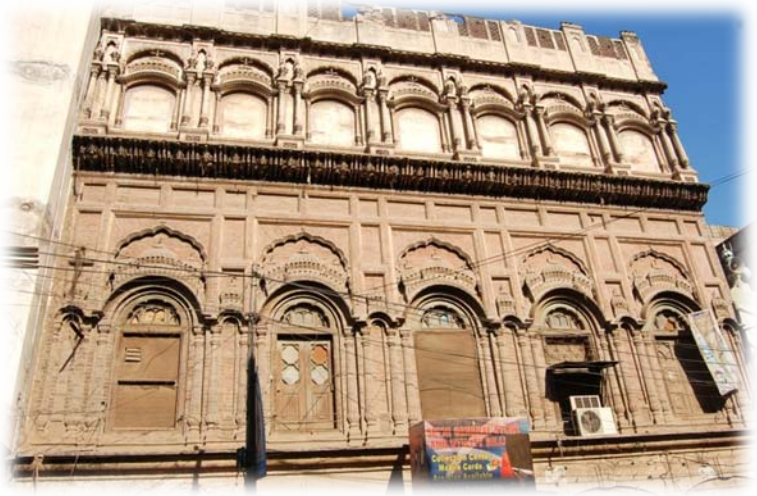
- **KARACHI – Rainbow city with diverse communities, Imperial-vernacular architecture.**
- **LAHORE – Architectural milestones from pre-Mughal to Sikh and British.**
- **PESHAWAR – Winding artisans' bazaars, storytelling by caravans from Central Asia and Czarist Russia.**



RESOURCE DEPLETION

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- **Building Industry consumption:**
  40% of world energy
  16% of world's water usage
  3 billion tons of raw material
  15-20% of waste stream

- **Energy Requirement:**
  Steel 1600-1800 centigrade
  Portland cement 1450-1550 cent.
  Ceramic brick 800-1000 cent.

- **WHY NOT CURTAIL THE USE OF HIGHLY ENERGY CONSUMPTIVE MATERIALS?**

QUETTA CITY MAP.

Courtesy: Heritage Foundation

The Assets-
Pakistan's Vernacular Architecture

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- **Unfired brick or layered mud**
  100% biodegradable
  100% recyclable
  100% reusable

- **Unfired clay plasters**
  Breathable walls
  Humidity buffering & healthier indoors
  Comfortable microclimate

- **Why allow 'sick building syndrome'?**
- **Why not promote Sustainable materials in urban construction?**

Unviable Construction Increased Ecological Footprint

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- **Post-Earthquake 2005**
  - **Introduction of concrete blocks and galvanized iron sheets – also destroyed beauty of mountainous terrain.**
- **Post-Flood 2010 and 2011**
  - **Introduction of burnt brick and steel girders, adding to carbon footprint.**
  - **Highly sustainable vernacular rural construction denigrated.**

- **Why destroy forest cover?**
- **Why not foster pride in the vernacular?**

Earthquake/Flood-Resistant HF's Sustainable Construction

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SHELTERS IN SWAT: Small plan footprint useful for urban areas.

SHELTERS IN SINDH: Unfired clay walls. strong, accessible bamboo KaravanRoofs.

- **Why not use non-engineered technically sound structures for urban poor?**

HF's *BUILD BACK SAFER WITH VERNACULAR METHODOLOGIES*

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TRAINING CENTRE IN SINDH
Bamboo cross braced frame and roof, mud and lime weather resistant renders.

TECHNICALLY SOUND MUD, LIME & BAMBOO
Unfired clay walls, extend toe bases, roof projection and strong, accessible KaravanRoof.

- **WHY NOT ADAPT ECONOMICAL SUSTAINABLE OPTIONS FOR APPLICATION IN URBAN SETTINGS?**

TRADITIONAL FORMS – ADAPTED FOR CONTEMPORARY USE.

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VISITORS' SUITES IN VILLAGE ORCHARD
Use of stilts, and elevating above flood levels.

LITERACY/WOMEN'S CENTRE IN SINDH
Improved traditional form and construction.

- **WHY NOT APPLY LOW COST, CULTURALLY RESPONSIVE RURAL TYPOLOGIES IN URBAN AREAS?**

DRR-compliant Community Structures

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2- STOREY WOMEN's/COMMUNITY CENTRE, KATCHA AREA, KHAIRPUR
Safety provided by stilts – Small footprint, suitable for low lying urban areas

Saving Planet's Rescources – Let Pakistan Take the Lead!

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- **Promote technically sound eco-building techniques for rural households and urban Lower Circuit communities.**

- **Add unfired clay/adobe/mud to Upper Circuit construction – replace industrialized products with sustainable materials.**

- **Why not replace concrete block with adobe, steel girders and wood with bamboo, cement plaster with lime renders?**

The Way Forward

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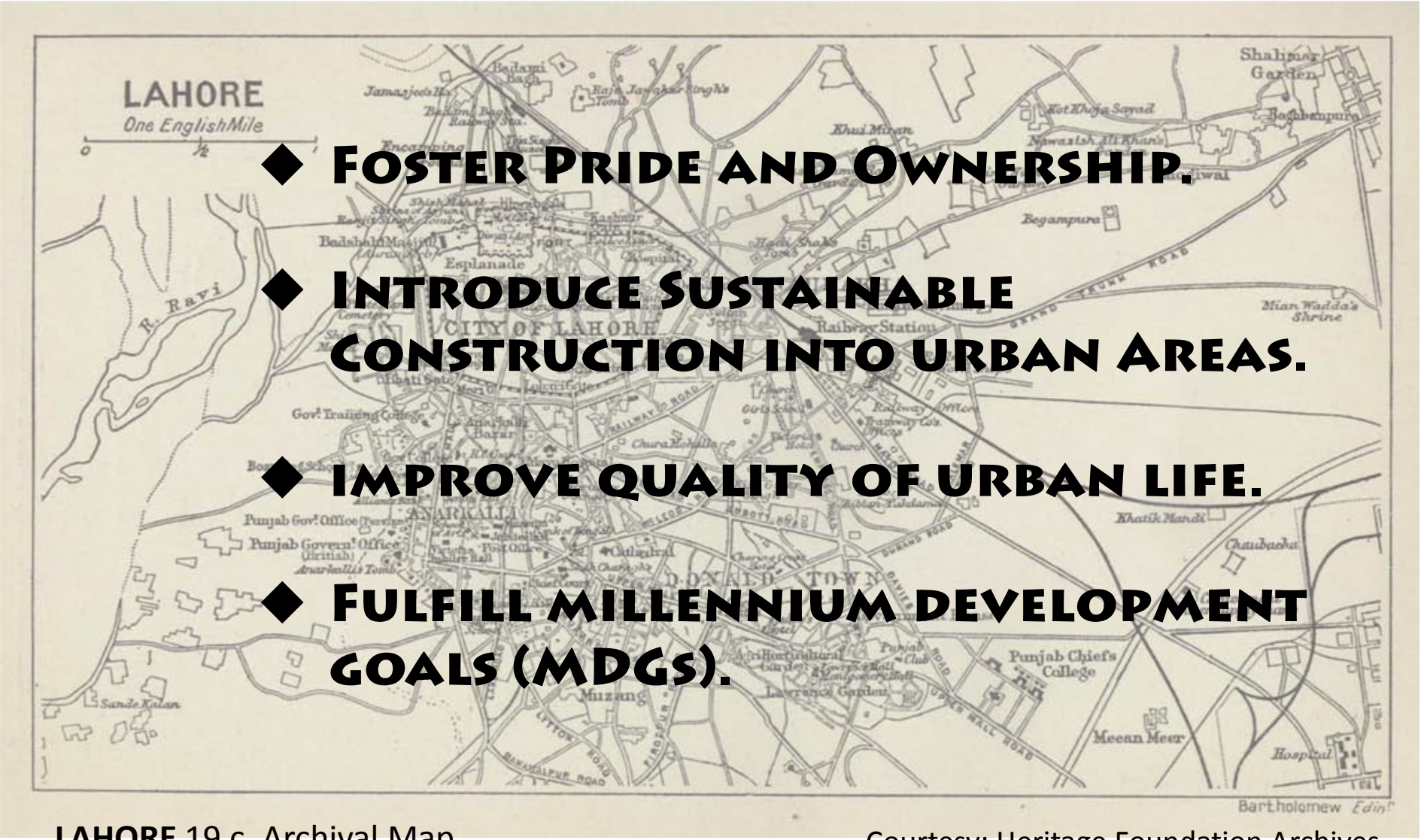

- Foster Pride and Ownership.
- Introduce Sustainable Construction into urban Areas.
- Improve quality of urban life.
- Fulfill millennium development goals (MDGs).

LAHORE 19 c. Archival Map

Courtesy: Heritage Foundation Archives.

The Way Forward - 1

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- National urban policy to give direction to urban development.
- Structure plans and master plans for orderly growth.
- Foster pride in historic legacy, integrate historic cores with contemporary development.
- Humanize urban environment by adaptive-re-use of historic architecture.
- Transfer of rural vernacular knowledge for urban sustainability

The Way Forward - 2

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- Make economical and sustainable methods accessible to marginalized urban communities.
- Introduce mass transit systems, minimize use of private vehicles.
- Give priority to foot travellers: introduce landscaped pedestrian areas and walking streets.
- Design urban spaces for human interaction; counteract anonymity, harshness, brutality.
- Implement, zoning, building byelaws for human safety and well being.

The Way Forward - 3

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- Implement, zoning, building byelaws for human safety and well being.
- Make cities women-friendly, with better facilities for the marginalized, disabled and children.
- Create youth-responsive enclaves, create, leisure and sports facilities
- Bring high level of urban design.

- **Let us strive to make each city 'City of Peace'**

THANK YOU

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HERITAGE FOUNDATION CENTRE, MAKLI , THATTA

Documentation Centre and Research Cell

- **BRINGING SUSTAINABILITY INTO MAINSTREAM ARCHITECTURE**