

Exploring Contested Historic Landscapes in a GIS Environment

A Study of Lahore, Pakistan



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GEOG 596 A MGIS CAPSTONE PRESENTATION
FALL 2 13 DECEMBER 2018

A. Overview

- Project description and proposed outcome.
- Conceptual framework – what is contested?

B. Background

- Timeline of key eras
- Lahore Timeline

C. Exploring the contested

- Spatial Imprints: the built environment as a manifestation of conquest and new beginnings
- Place-names: an analytical tool to navigate what was there ...

D. GIS Environment

- Database development
- Data collection

E. Some conundrums and possibilities

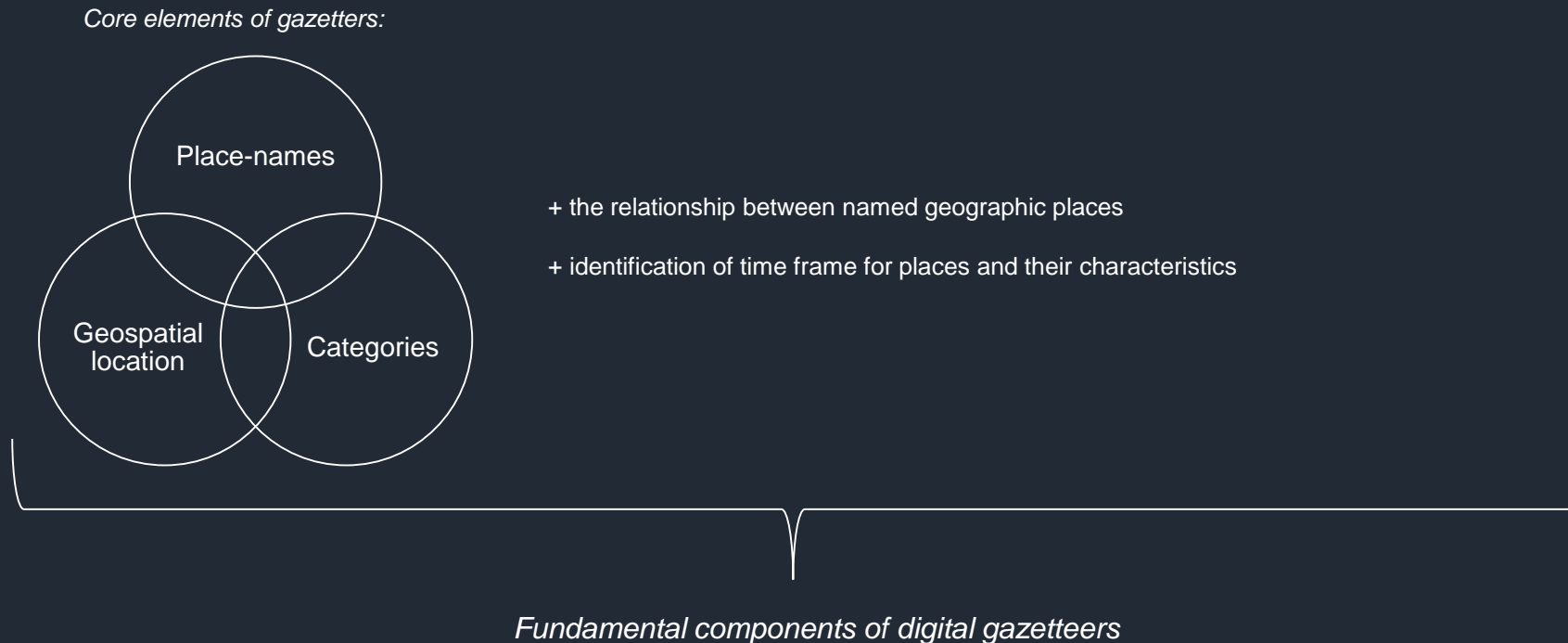
- Data classification
- Visualization

PROJECT DESCRIPTION

This project explores how various 'contested' sites in Lahore can be mapped and visualized through a layered reading of different data sources in relation to historic points of interest. The objective of the study is to apply Geographic Information System (GIS) methods to record what used to be at a location, what was lost and what came to be over the years.

OUTCOME

A digital gazetteer of Lahore



METHODOLOGY

Maps of Lahore are used as a key data source to identify spaces that have undergone transformation, which are then linked to old photographs, gazetteers, historical and literary accounts, memoirs etc., to describe the extent and nature of change in spatial terms. Integral to the present inquiry is also a documentation of place-names that provide clues to 'missing' places.

PROPOSED TIMELINE

January '19 – June '19:

Literature review

Fieldwork (site visits and interviews)

Data collection and conversion into feature layers

Design database

Review database

CONCEPTUAL FRAMEWORK – WHAT IS CONTESTED?

The historic urban landscape as a manifestation of contested narratives.

The realm of the historic footprint between seeming permanence and transience ... some examples



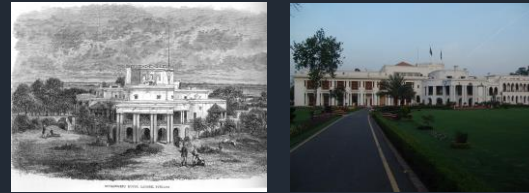
TOMB OF ANARKALI

Mughal era: Built in 1615 in the memory of a slave girl who was buried alive

Sikh era: General Ventura's residence

British era: Residence for clerical staff and office. By 1851, used as a parish church.

Presently: Punjab Archives



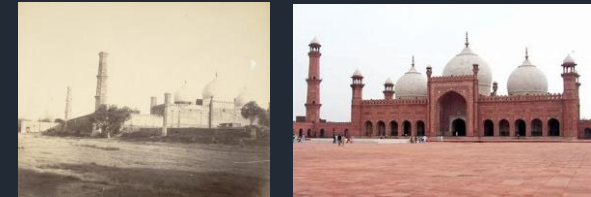
TOMB OF KASIM KHAN

Mughal era: (no date / 16th c.). Tomb of a cousin of emperor Akbar

Sikh era: Residence of Khushal Singh

British era: Adapted in 1851 as residence for the governor of the Punjab

Presently: Governor House



BADSHAHI MOSQUE

Mughal era: Built in 1673

Sikh era: Magazine for military stores

British era: Restored as a mosque

Presently: Mosque

CONCEPTUAL FRAMEWORK – WHAT IS CONTESTED?

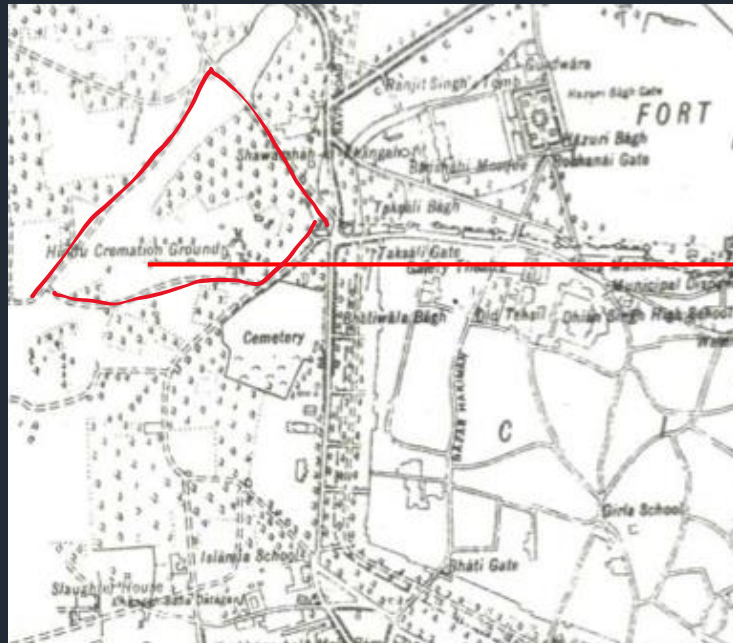
The historic urban landscape as a manifestation of contested narratives.

The realm of the historic footprint between seeming permanence and transience ... some examples

HINDU CREMATION GROUND

No date

Presently: Built-up



RATTAN CHAND'S TEMPLE

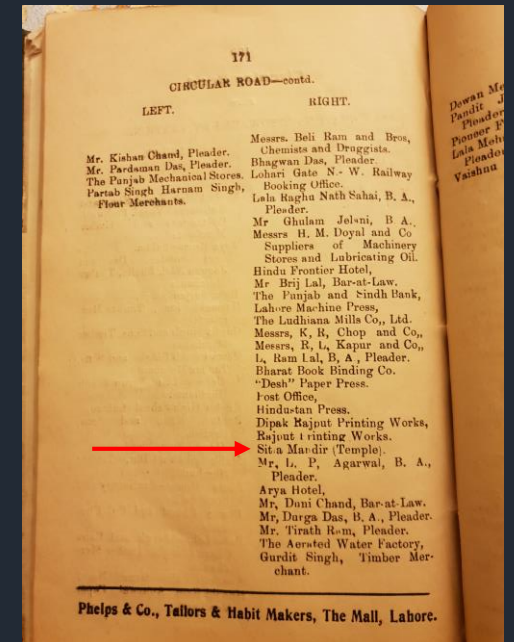
Sikh era: no date

Presently: Does not exist

SITLA MANDIR

No date (entry in Lahore Directory, 1914)

Presently: Boundary exists; occupied



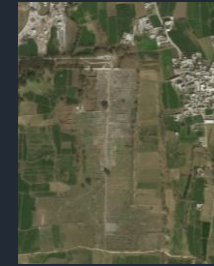
Phelps & Co., Tailors & Habit Makers, The Mall, Lahore.

TIMELINE OF KEY ERAS (BCE)

5000	Indus Valley Civilization
4000	Farming settlements
3000	First signs of urbanization: Mohenjodaro and Harappa
2600	Multiple urban centres
1500	Aryans from Central Asia
1000	Aryans expand towards the Ganges Valley
600	Achaemenid
326	Greek
324	Mauryan
250	Indo Greek
2 nd c. – 1 st c.	Scythians



Mohenjodaro



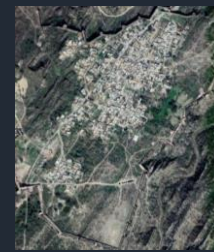
Sirkap



Katas Raj



Darawar Fort



Rohtas Fort

TIMELINE OF KEY ERAS (CE)

1 st c. BC – 1 st c. CE	Parthians
1 st c. – 5 th c.	Kushans
5 th c.	White Huns
7 th c. – 10 th c.	Muslim
9 th c. – 10 th c.	Hindu Shahi
11 th c. – early 16 th c.	Sultanate era

A BRIEF HISTORY OF LAHORE

630: Hiuen Tsang; first historical reference to Lahore

1022: Mahmud of Ghazni seizes and plunders Lahore

1397: Tamerlane captures Lahore

1584: Akbar makes Lahore the capital

1849: East India Company annexes Punjab



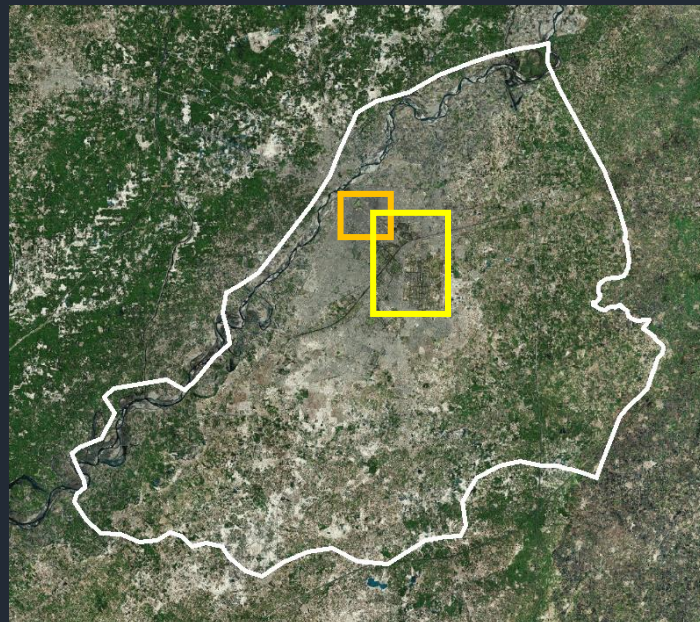
Late 7th c. :First Muslim invasion




1241: Gengiz Khan plunders Lahore

1524: Babur's soldiers plunder and burn Lahore

1799: Ranjit Singh establishes the Sikh Empire

1947: India and Pakistan become independent states

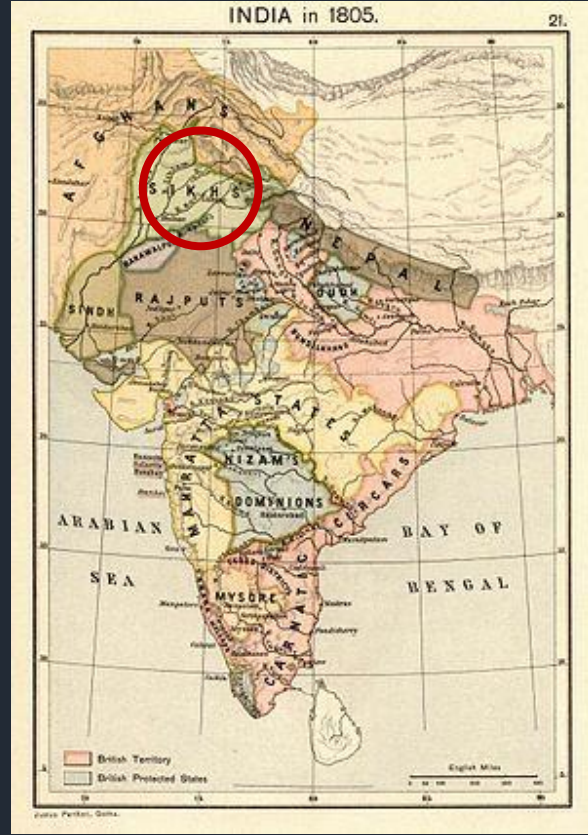


-  Primarily Mughal with some additions in the Sikh period
-  British: East India Company and later the British Raj
-  Present administrative boundary of Lahore district

KEY INFLUENCES IN LAHORE



Mughal
16th c. – 18th c.



Sikh
1799 - 1849



British
1849 - 1947

EXPLORING THE CONTESTED THROUGH SPATIAL IMPRINTS



City limits during Mughal and Sikh periods
Late 16th c. onwards



Expansion of city limits during British rule
1849 onwards



Current city boundary of Lahore district includes the Walled City and the British period neighbourhoods
1947 onwards

Mughal
16th c. – 18th c.



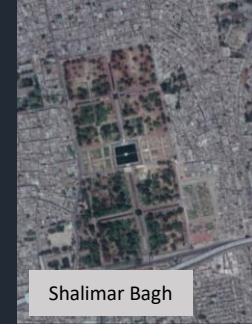
Badshahi Mosque, Hazuri Bagh and the Lahore Fort



Wazir Khan Mosque



Noorjahan, Asaf Khan and emperor Jahangir's tombs



Shalimar Bagh

Sikh
1799 - 1849

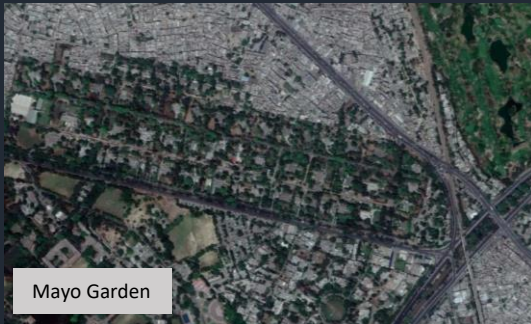


Ranjit Singh Samadhi and Guru Arjan Dev Gurdwara



Bebe Nanke Gurdwara

British
1849 - 1947



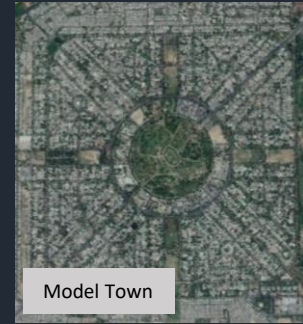
Mayo Garden



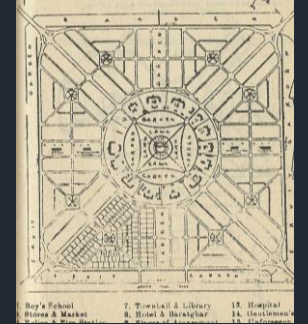
Lawrence Garden



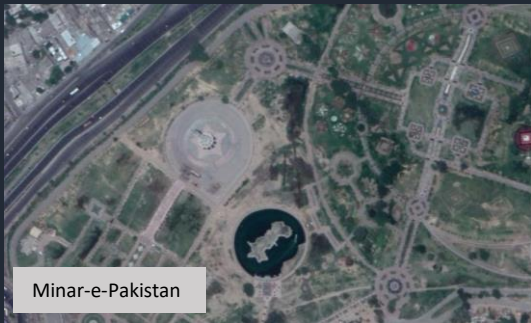
Cantonment



Model Town



Pakistan
1947 -



Minar-e-Pakistan



Defence Housing Authority



Bahria Town

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EXPLORING THE CONTESTED THROUGH PLACE-NAMES

Maryam Zamani Masjid
Shahi Qila
Moti Masjid
Mall Road
Lytton Road
Nicholson Road
Temple Road
Charing Cross
Lawrence Garden
Queen's Road
McLeod Road

Masjid Wazir Khan
Dera Chahal
Chota Mota Singh
Hanuman Gali
Donald Town
Model Town
Civil Lines
Minto Park
Cantonment
Freemason's Lodge
Gymkhana Club
Cosmopolitan Club

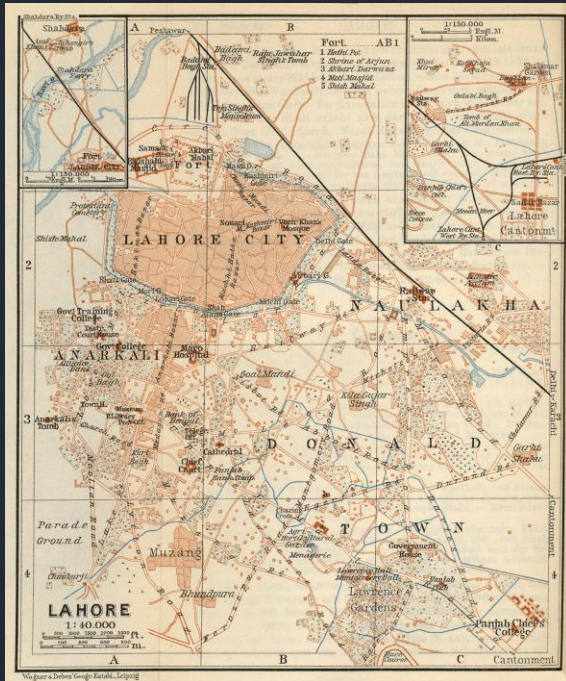
Garhi Shahu
Baghbanpura
Kuri Bagh
Ranjit Singh Samadhi
Naunihal Singh Haveli
Lunatic Asylum
Lahore High Court
Lahore Museum
Lahore Zoo
Faletti's Hotel
Nedou's Hotel

Shalimar Bagh
Mazang
Jahangir Makbara
Data Darbar
Mian Meer Darbar
Seetla Mandir
Gurdwara Guru Arjan Dev
Jain Mandir
Gulberg
Iqbal Park
Muslim Town
Iqbal Town
Bagh-e-Jinnah
Township
Defence Housing Authority
Bahria Town
Faisal Chowk

Ichra
Machhi Hatta Bazaar
Badami Bagh
Rattan Chand Shivala
Gumti Bazaar

Anarkali Bazaar

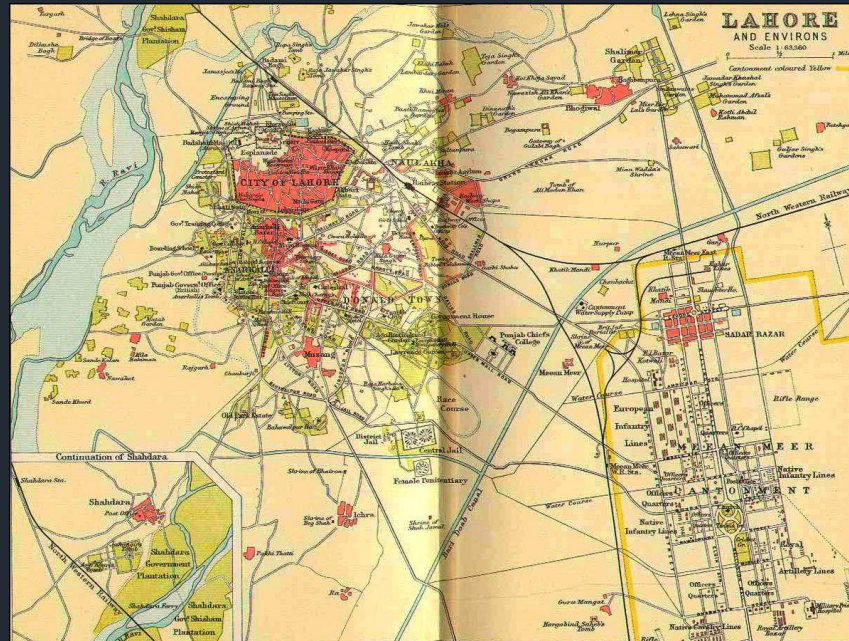
DATA COLLECTION



Walled City and Civil Lines
Internet

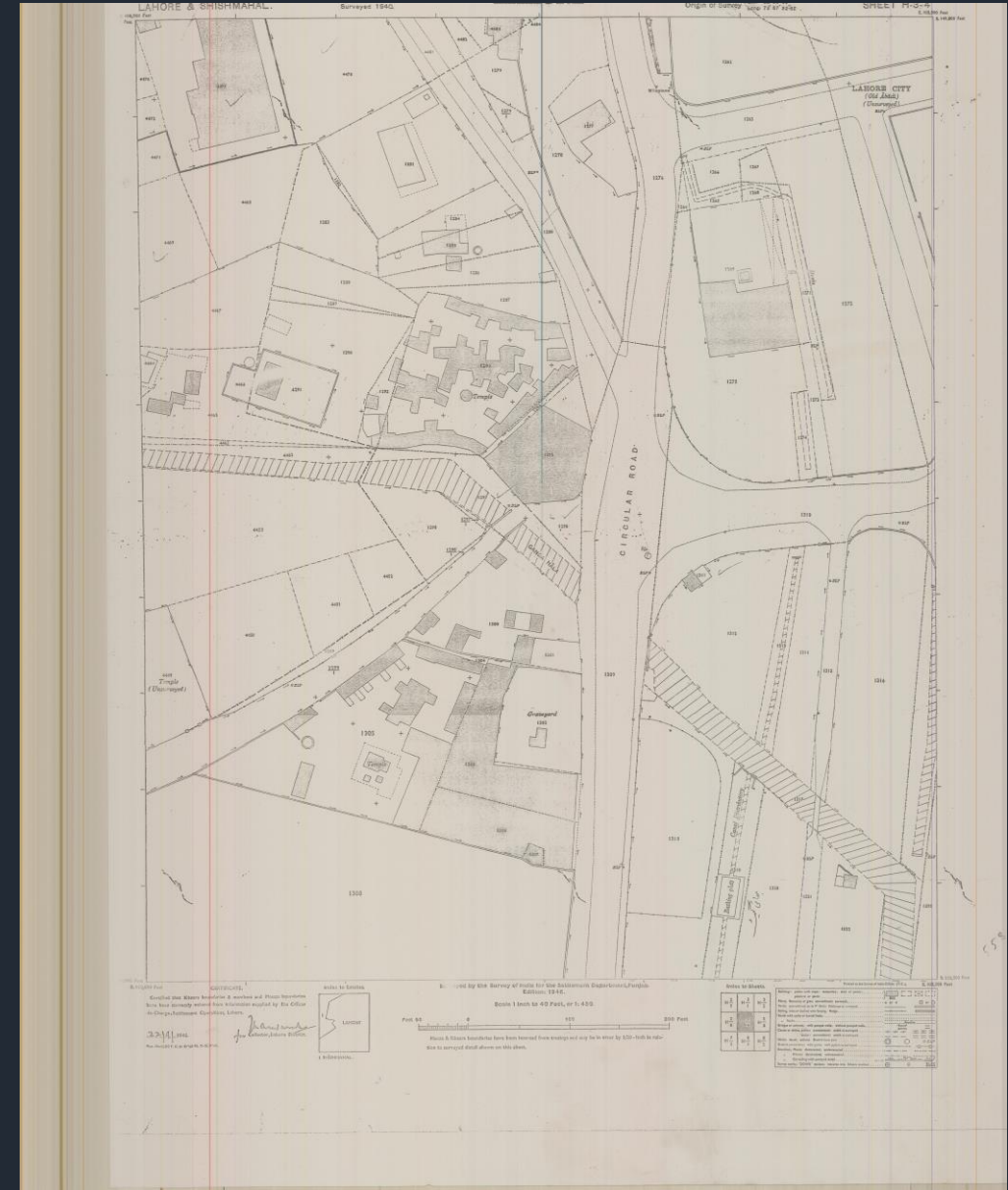
British era maps of Lahore

1907 survey of the Walled City of Lahore
Municipal archive

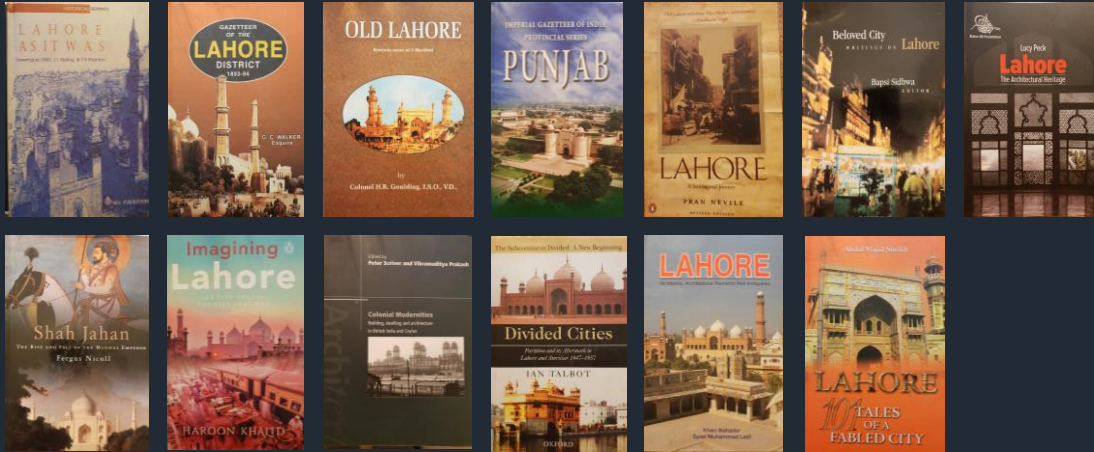


Walled City, Civil Lines and Cantonment
Internet

1940 survey of the Circular Rd
Municipal archive

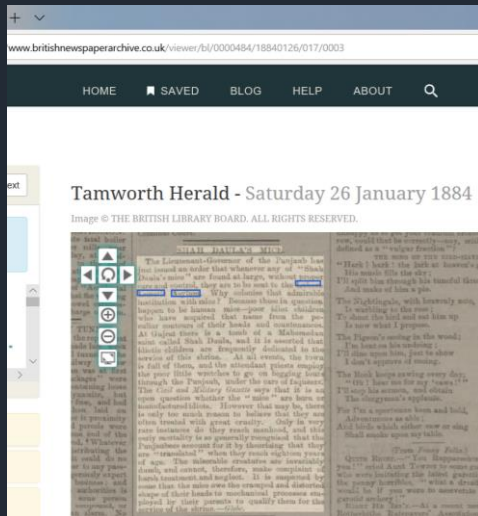
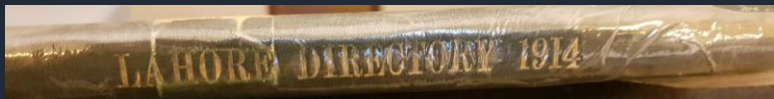


DATA COLLECTION



Travelogues
Imperial gazetteers
Memoirs
Inventories
History

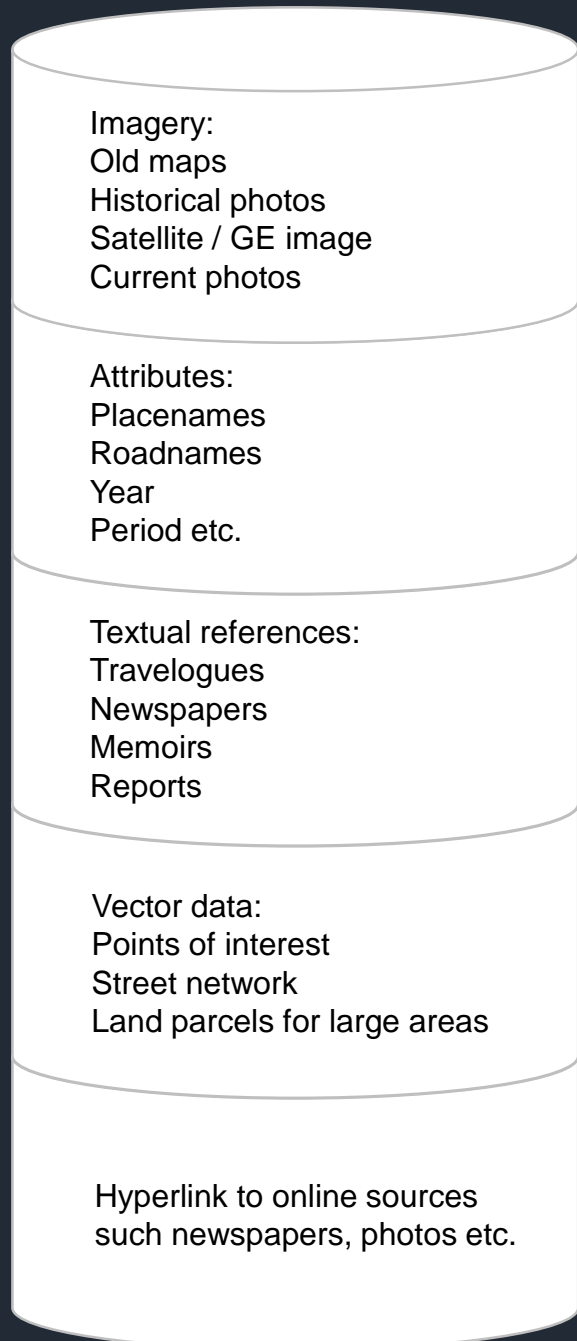
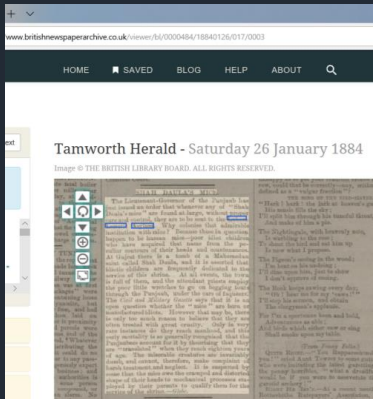
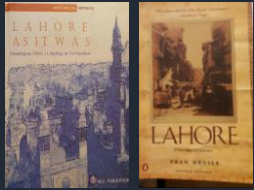
Old photos available online
Photos of current condition will be taken during fieldwork



British
Newspaper
Archive



GIS ENVIRONMENT - DATABASE DEVELOPMENT



POINT

Place-names
Sites

LINE

Street network
Street names
Railway line

POLYGON

City limits
Neighbourhood
Garden
Cemtery
Cremation ground
Historic structures
Historic sites
Water body

GIS ENVIRONMENT - DATABASE DEVELOPMENT

The screenshot displays the ArcMap interface for a project named 'Lahore1914'. The main map area shows a historical map of Lahore with several layers overlaid. The 'Layers' panel on the left includes:

- Placenames
 - Period
 - Mughhal
 - Sikh
 - British
 - To be verified
- Lahore_Sites_Google_Earth
 - Bazaar
 - gadm36_PAK_3
 - Map_no_date.png
 - lahore_41.jpg
 - txu-pclmaps-lahore_1914.jpg

A legend below the layers panel indicates color coding for bands: Red for Band_1, Green for Band_2, and Blue for Band_3. The map features various colored markers (red, green, blue, orange, black) and red arrows pointing to specific locations. These locations are annotated with historical photographs and labels:

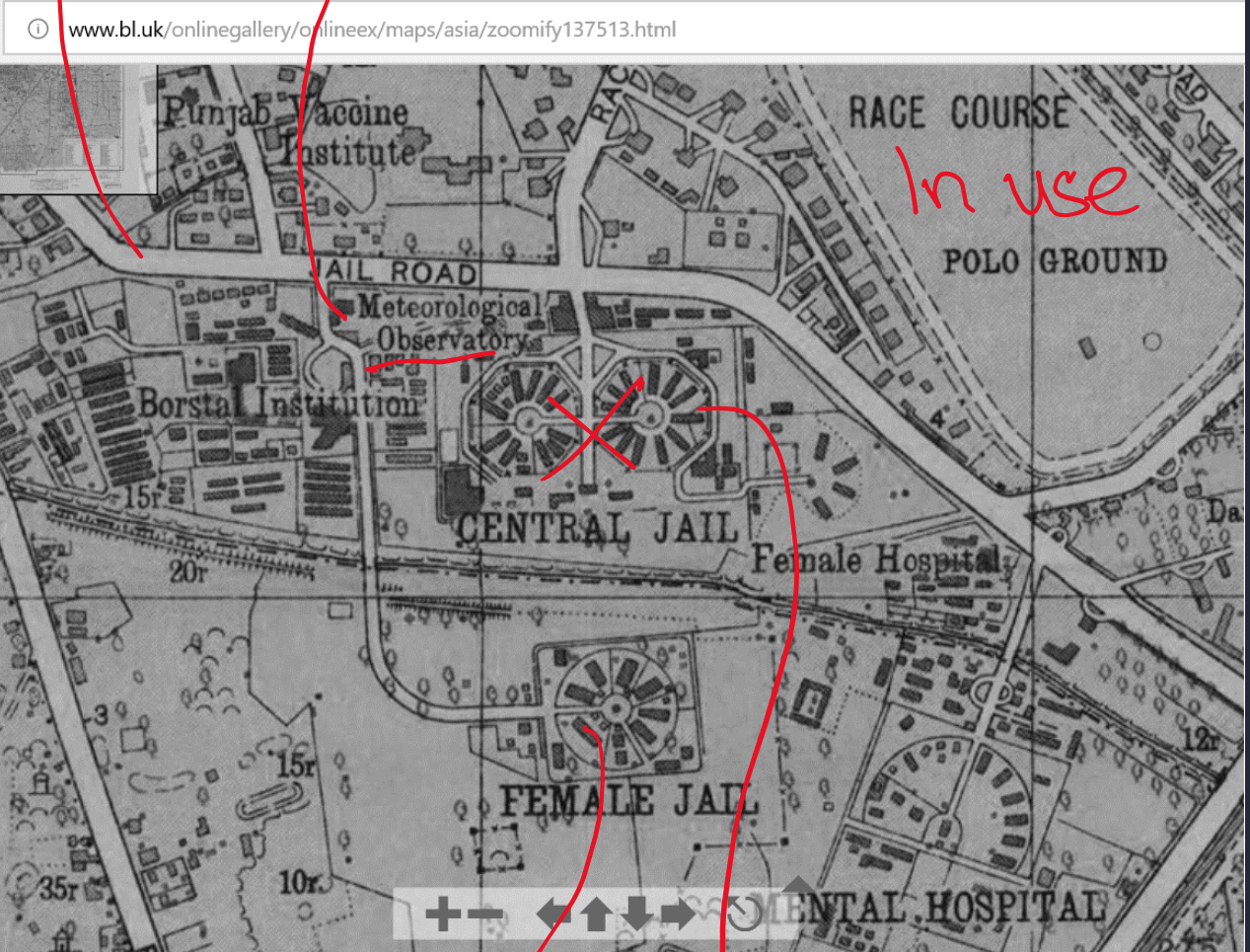
- Shalimar Garden, 1637**: A photograph of the Shalimar Garden in Lahore, with a red arrow pointing to its location on the historical map.
- North Western Railway Station Lahore Railway Station**: A photograph of the North Western Railway Station, with a red arrow pointing to its location on the historical map.
- Anarkali Tomb, First Parish Church, Punjab Archives**: A photograph of the Anarkali Tomb, with a red arrow pointing to its location on the historical map.
- Lawrence Garden, Bagh-e-Jinnah**: A photograph of Lawrence Garden, with a red arrow pointing to its location on the historical map.
- Queen's Statue near Charing Cross, Faisal Chowk**: A photograph of the Queen's Statue, with a red arrow pointing to its location on the historical map.

The software interface includes a menu bar (File, Edit, View, Bookmarks, Insert, Selection, Geoprocessing, Customize, Windows, Help), a toolbar with various GIS tools, and a status bar at the bottom showing the system time as 18:45 on 08/12/2018.

JAIL RD: SAME NAME

GIS ENVIRONMENT - DATABASE DEVELOPMENT

still on site



1935 guide map of Lahore
British Library online gallery

relocated!

Central Jail
relocated

ELGIN RD → SARWAR RD

WELLINGTON → TUFAIL RD

CUNNINGHAM → SARFARAZ

RAFIQI RD



SPENCER RD

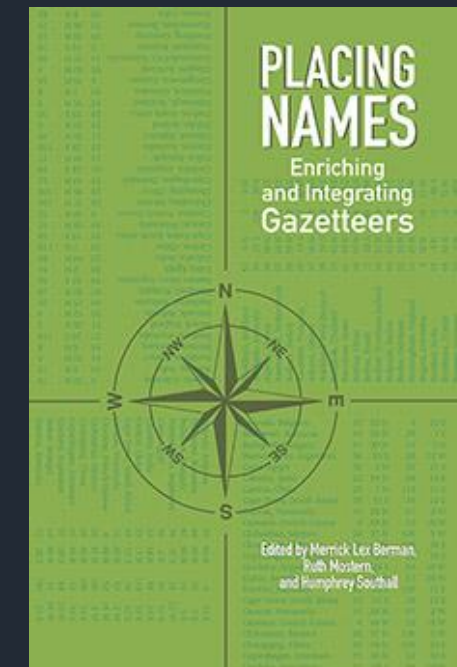
AZIZ BHATTI RD

ATTRIBUTES

D1											
Year											
	A	B	C	D	E	F	G	H	I	J	K
1	OBJECTID	Name	Period	Year	Type	Present_Use	Present_Name	Previous_Use1	Previous_Use2	Also_Known_As	Link
2	13	Anarkali Tomb	Mughal	1600	Construction	Institution	Punjab Archives	Tomb	Parish Church		https://www.dawn.com/news/1141937
3	5	Badami Bagh	<Null>		Open space	Bus terminal					
4	44	Badshahi Mosque	Mughal	1674	Religious	Religious	Badshahi Mosque				
5	35	Baghbanpura	Mughal		Settlement						
6	25	Bank of Bengal	British								
7	37	Basti Ram Garden	Sikh								
8	32	Begumpura	Mughal		Settlement						
9	51	Bibi Pak Daaman Tomb			Shrine	Religious					
10	10	Bundpura			Settlement						
11	22	Cathedral	British								
12	14	Charing Cross	British		Intersection		Faisal Chowk				
13	12	Chauburji	Mughal		Construction	Historic Site	Chauburji				
14	23	Chief Court	British								
15	49	Cotton Store	British								
16	33	Dina Nath Garden	Sikh								
17	29	District Court House	British								
18	7	Garhi Shahu									
19	8	Goal Mandi									
20	6	Gol Bagh			Open space						
21	17	Government House				Government		Tomb	Residence	Qasim Khan's tomb	
22	30	Govt. Training College	British								
23	41	Gurdwara of Arjan Dev	Sikh		Religious	Religious	Gurdwara of Arjan Dev				
24	42	Hazuri Bagh	Mughal								
25	39	Hindu Cremation Ground									
26	47	Hira Mandi	Sikh		Mohalla						
27	3	Kila Gujar Singh	<Null>		Construction						
28	38	Kot Khoja Sayad			Settlement						
29	11	Kuri Bagh			Open space						
30	19	Lawrence Garden	British								
31	18	Lawrence Hall	British	1861		Library	Quaid-e-Azam Library	Club		Gymkhana Club	
32	48	Leather Store	British								
33	1	Lunatic Asylum	British	1861	Construction					Lena Singh's Chauni	https://www.britishnewspaperarchive.co.uk/viewer/bl/0000484/18840126/017/0003
34	15	Mayo Hospital	British		Construction	Hospital	Mayo Hospital	Hospital			
35	40	Minto Park	British			Park	Greater Iqbal Park				
36	9	Muzang			Settlement	Neighbourhood					
37	34	Nawazish Ali Khan Garde	Mughal								
38	46	Pani Wala Talaab	British		Infrastructure	Water reservoir					
39	28	Protestant Cemetery	British								
40	20	Punjab Chief's College	British								

SOME CONUNDRUMS ...

- Data collection
 - Vernacular place-names
 - Neither place-names nor corresponding footprints exist (e.g. Rattan Chand Temple)
 - Place-names exist but footprint may or may not be established (e.g. Sitla Temple)
 - Boundary representation
 - Footprint exists but the institution or purpose is relocated elsewhere (e.g. Lunatic asylum or central jail)
 - Source material in different languages, for instance, Urdu, not necessarily available online
 - Contextualizing material from online and offline sources
 - Interviews as a source of data
 - Hyperlinking information from other online sources
 - Georeferencing text
- Data organization
 - Feature type
 - Attribute classification
 - Year not always available
 - Multiple place-names and different functions over time (e.g. Anarkali's Tomb / Residence / Parish Church / Residence / Office / Punjab Archive)



SOME POSSIBILITIES ...

- Interactive web map



QUESTIONS