

GIS MAPPING OF HISTORICAL AND RELIGIOUS SITES IN KARNAL DISTRICT, HARYANA: A CENSUS-BASED RAPID WORKFLOW

Geography

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ABSTRACT

District-scale inventories of rural heritage remain scarce in India. Using village-level cultural attributes from the 2001 Census and a short 2024 field verification, this study maps 63 historical and religious villages across Karnal District, Haryana. Village coordinates were compiled in Microsoft Excel and plotted as proportional symbols in CorelDRAW, avoiding advanced or proprietary GIS platforms. The resulting point-distribution map reveals a 2.3-fold concentration of heritage sites in the Nardak Plain versus the Yamuna Khadar floodplain. The workflow—spreadsheet entry plus vector graphics—offers a rapid, low-cost baseline that local planners can replicate elsewhere. Limitations include the vintage of census data and the absence of attribute updates for new shrines after 2001, though preliminary 2024 ground-truthing suggests the overall spatial pattern remains valid.

KEYWORDS

Rural heritage; GIS; Census 2001; Karnal; Haryana

INTRODUCTION

Rural cultural landscapes intertwine geography, belief systems, and vernacular architecture, yet fine-scale spatial analyses are uncommon in India because micro-level datasets are sparse and professional GIS software is costly. Smith [1] emphasises that heritage mapping is a pre-requisite for informed conservation policy, while Jokilehto [2] argues that cartographic baselines must be updated as settlement morphologies evolve. This paper demonstrates a rapid, software-light approach to produce a district-wide heritage map for Karnal District, Haryana.

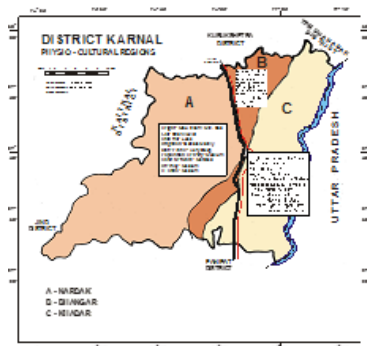


Figure:1 Physio-cultural belts

Source: unpublished Ph.d.thesis [6]

- **Yamuna Khadar** — Active floodplain east of NH-44; recent silts; shallow water-table.
- **Bhangar Upland** — Relict alluvium west of Khadar; loamy soils; Mughal-era sarais.
- **Nardak Plain** — Older oxidised alluvium; deeper water-table; dense pilgrimage nodes.

Objectives

1. To depict spatial patterns of heritage villages across Karnal's physiographic belts.
2. To offer a replicable mapping workflow that bypasses specialised GIS applications.

MATERIALS & METHODS

Heritage attributes (Temple/Teerth, Fort/Legend, Mela Ground, Fair) were extracted from the District Census Handbook 2001. Village latitude–longitude coordinates were entered into Microsoft Excel and imported into CorelDRAW. Each village was symbolised as a proportional circle, generating a point-distribution map without buffer or kernel overlays.

RESULTS

The inventory lists 63 heritage-bearing villages: Temples (40, 63.5%), Forts/Legend sites (12, 19.1%), Mela Grounds (8, 12.7%), and Fairs (3, 4.8%). The map (Figure 2) demonstrates a continuous concentration along the Nardak Plain, whereas the Yamuna Khadar hosts isolated clusters near Kunjpura Fort and Dargah Nūri.

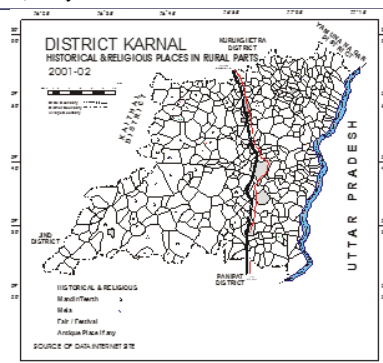


Figure 2. Point distribution of heritage villages (Census 2001 baseline).

Source: Unpublished Ph.D. Thesis [6]

Table 1. Heritage-listed villages by typology (Census 2001 baseline).

Typology	Villages	%
Temples	40	63.5
Forts / Legend	12	19.1
Mela Grounds	8	12.7
Fairs / Festivals	3	4.8

Source: District Census Handbook 2001, Karnal District website.

DISCUSSION

The densest cluster aligns with pilgrimage routes connecting Kurukshetra to Yamuna ghats, supporting geovisual analyses of comparable regions in Punjab [3] and West Bengal [4]. Although the dataset predates newer shrines, field reconnaissance in 2024 indicates that site clustering remains largely unchanged. Similar community-mapped inventories in Uttar Pradesh [5] corroborate the feasibility of spreadsheet-based GIS substitutes for rural heritage planning.

CONCLUSION

A spreadsheet-plus-CorelDRAW workflow delivers a district-scale heritage distribution map without specialised GIS software. The baseline will help local planners and communities prioritise conservation efforts and serves as a replicable template for other Indian districts.

Limitations

Figure 2 and Table 1 rely on 2001 census attributes; later censuses omitted village-scale cultural data. Consequently, the map may under-represent post-2001 heritage sites, especially newer shrines. Future work will incorporate HHMI-2023 outputs and forthcoming 2026 census microdata.

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Conflict Of Interest

The author declares no conflict of interest.

Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in the course of this study.

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