

ENGLISH ABSTRACTS

SPECIAL SECTION: Regionalism in the Strategic Spatial Plan 2050 –
Alternative Approaches to Creating Affinity Areas in Regional Planning

Affiliation Centers and Optimizing Service Areas: The Case of the Levite Cities in the Book of Joshua

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ABSTRACT

In contrast to the traditional view of a region as a territorial unit defined by administrative or functional boundaries, the concept of 'affiliation space' claims that regions are constituted through the sustained interactions generated by the use of service networks. This perspective differs from that underpinning the **Israel Spatial Strategic Plan 2050**. The latter conceptualizes regions primarily in terms of functional linkages among settlements, populations, and institutions that may transcend existing administrative boundaries. This paper examines the concept of affiliation spaces from a historical-analytical perspective through the case of the **Levite Cities** outlined in the book of Joshua, chapter 21. However, unlike historical studies, this paper interprets this system as a case study in regional planning based on a network of public service centers. The spatial distribution of the cities is understood as an attempt to establish a nationwide network of public services that created spatial linkages among the tribes of Israel without altering the pre-established tribal boundaries.

To investigate this proposition, the study applies several optimization procedures using **GIS-based Location–Allocation Models**. These compare four alternative objective functions: minimizing travel distance, maximizing demand, maximizing equity, and maximizing service coverage. This makes it possible to evaluate the performance of the spatial system described in the biblical text and to assess the trade-offs among efficiency, equity, and institutional constraints. The contribution of these computational models extends beyond identifying optimal service locations. They also provide a framework for explaining how public service networks can generate 'affiliation spaces' within a given administrative framework. In doing so, the paper bridges the literature on spatial optimization with contemporary debates on regional planning and the formation of functional regions.

Keywords: affiliation spaces, regional planning, spatial optimization, location–allocation models, GIS, Levite cities.

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