Prostorska arheologija

Settlement pattern

the way in which man disposed himself over the landscape on which he lived. It refers to dwellings, to their arrangement, and to the nature and disposition of other buildings pertaining to community life. These settlements reflect the natural environment, the level of technology on which the builders operated, and various institutions of social inter-action and control which the culture maintained. Because settlement patterns are, to a large extent, directly shaped by widely held cultural needs, they offer a strategic starting point for the functional interpretation of archaeological cultures.

Settlement Archaeology - Science of prehistoric society

... the ways in which a prehistoric society adjusted to its environment (Trigger 1971:330)

...the study of social relationships using archaeological data" (Trigger 1967:151).

Settlements were considered crucial intersections of various subsistence activities and strategies, and social and cultural components of individual and collective behaviour. On this basis it was hoped that studying the settlements properly it is possible to recognize principal social and cultural patterns much like anthropologists do it while studying living communities (Chang 1972, 1).

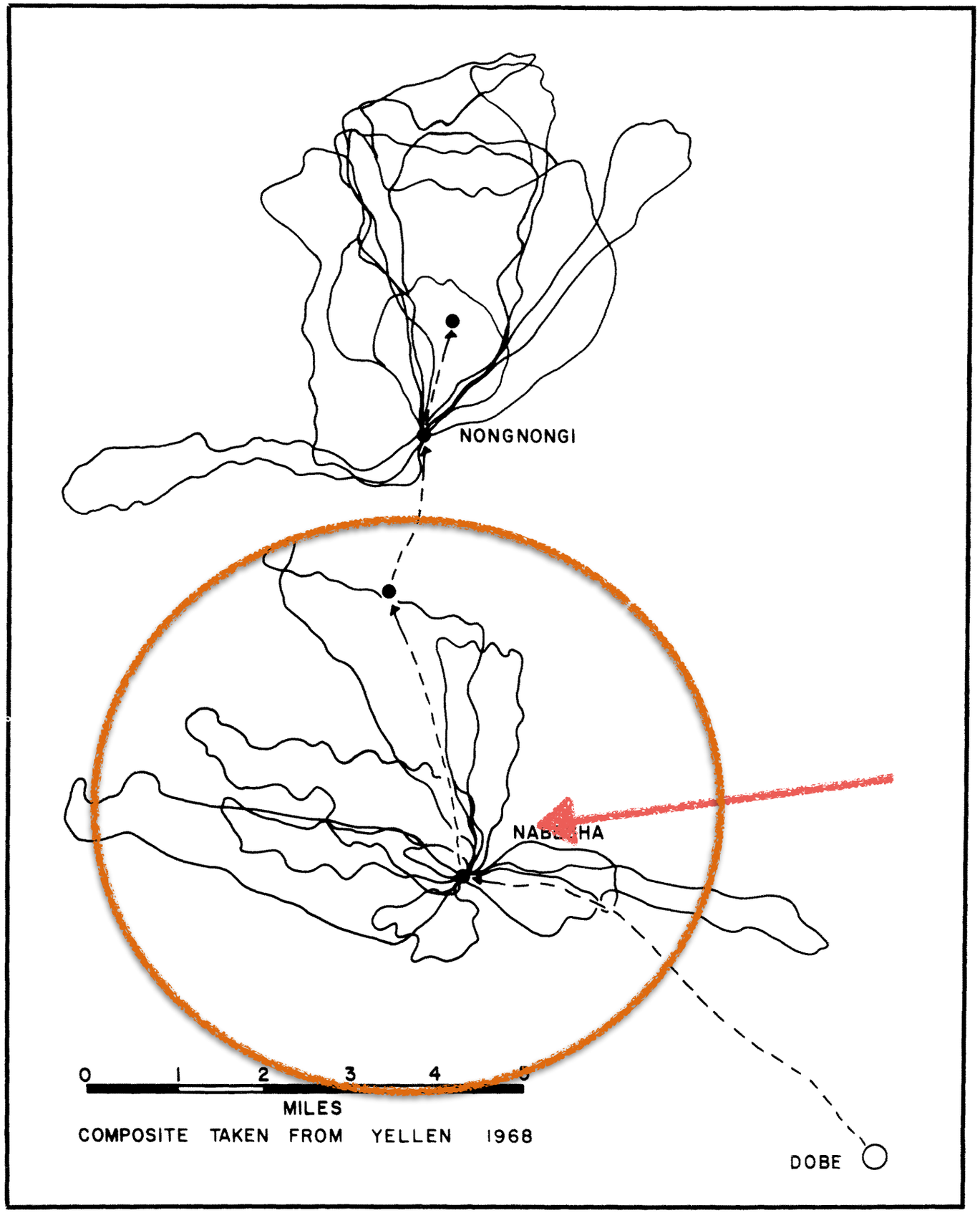
Community pattern

"Settlement....must subsitute for the community." (Chang 1968, 3).

"community as maximum number of individuals who live together and personally know each other. (Murdock 1949, 79; cf. Tringham 1972, xxi).

homestead	non-lineage
unplanned village	multi-lineage
planned village	mono-lineage
segmented village	multi-lineage

Chang's equivalents of village plans and community patterns (1958, 304-307):



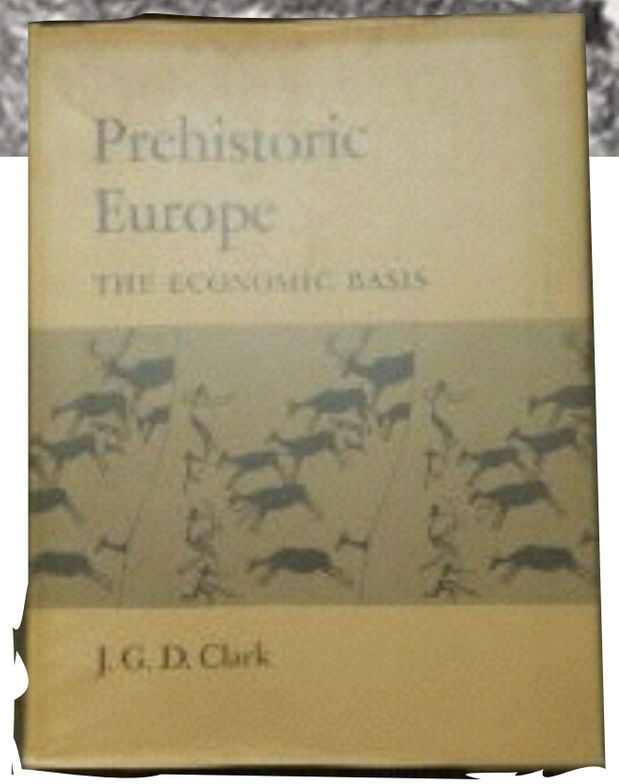
Foraging Radius

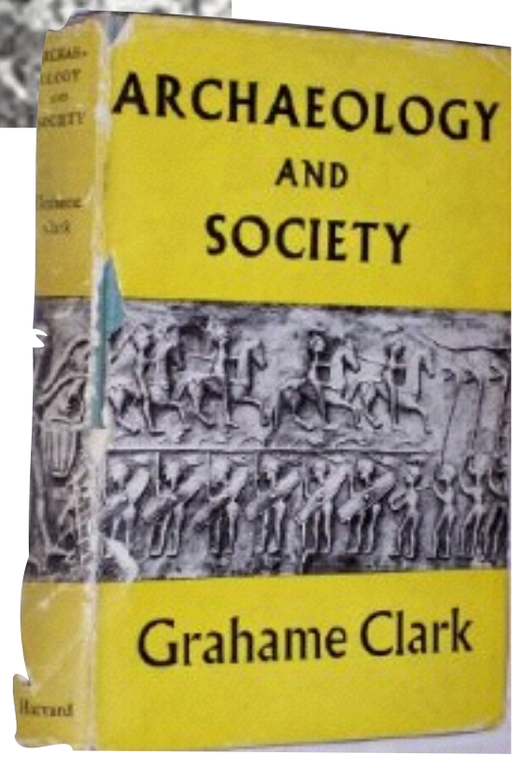
Base Camp

Figure 2. Actual map of foraging trips made by !Kung San around base camps.

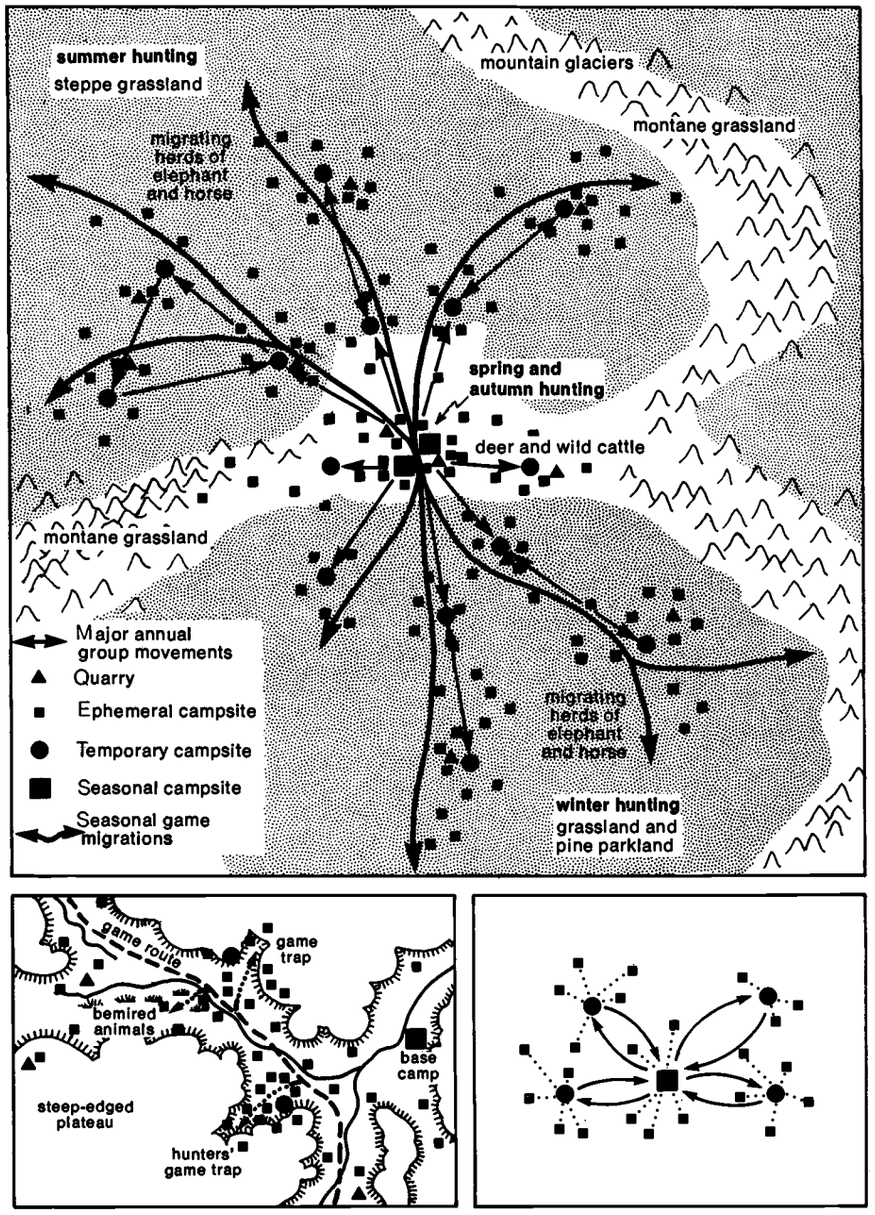
Paleoekonomska šola

G. Clark





Paleoekonomska šola (Palaeoeconomy)



E. S. Higgs

Palaeoeconomy (1975)

Papers in economic prehistory (1972)

Site catchment (najdiščno zajetje)

the study of the relationships between technology and those natural resources lying within economic range of individual sites." (Vita-Finzi and Higgs 1970:5)

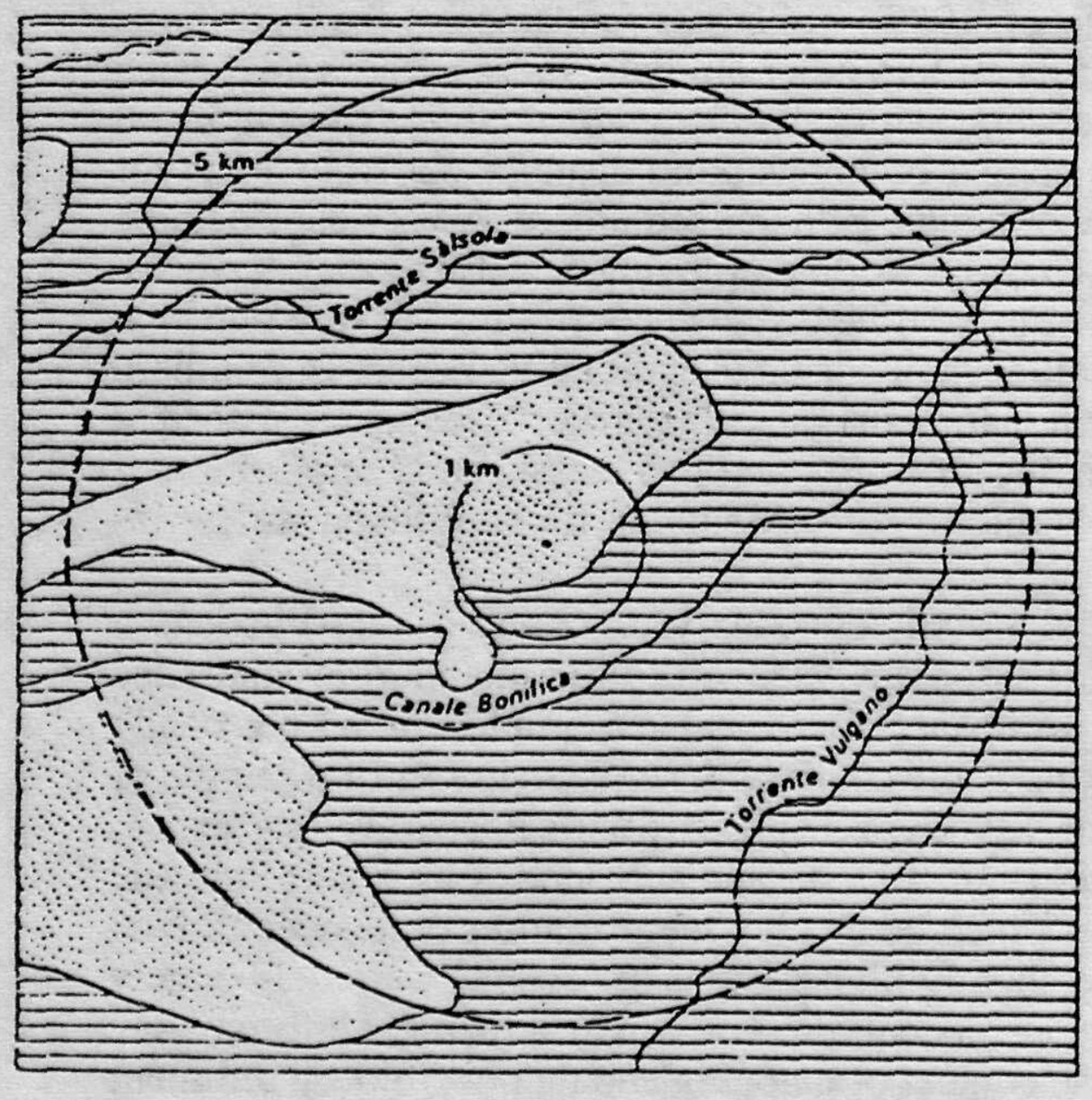
the catchment of an archaeological site is that area from which a site (or more properly, the inhabitants of a site) derived its resources (Vita-Finzi 1969a:106)

heavy alluvial soils

light crasta soils

thick limestone soils

thin limestone soils



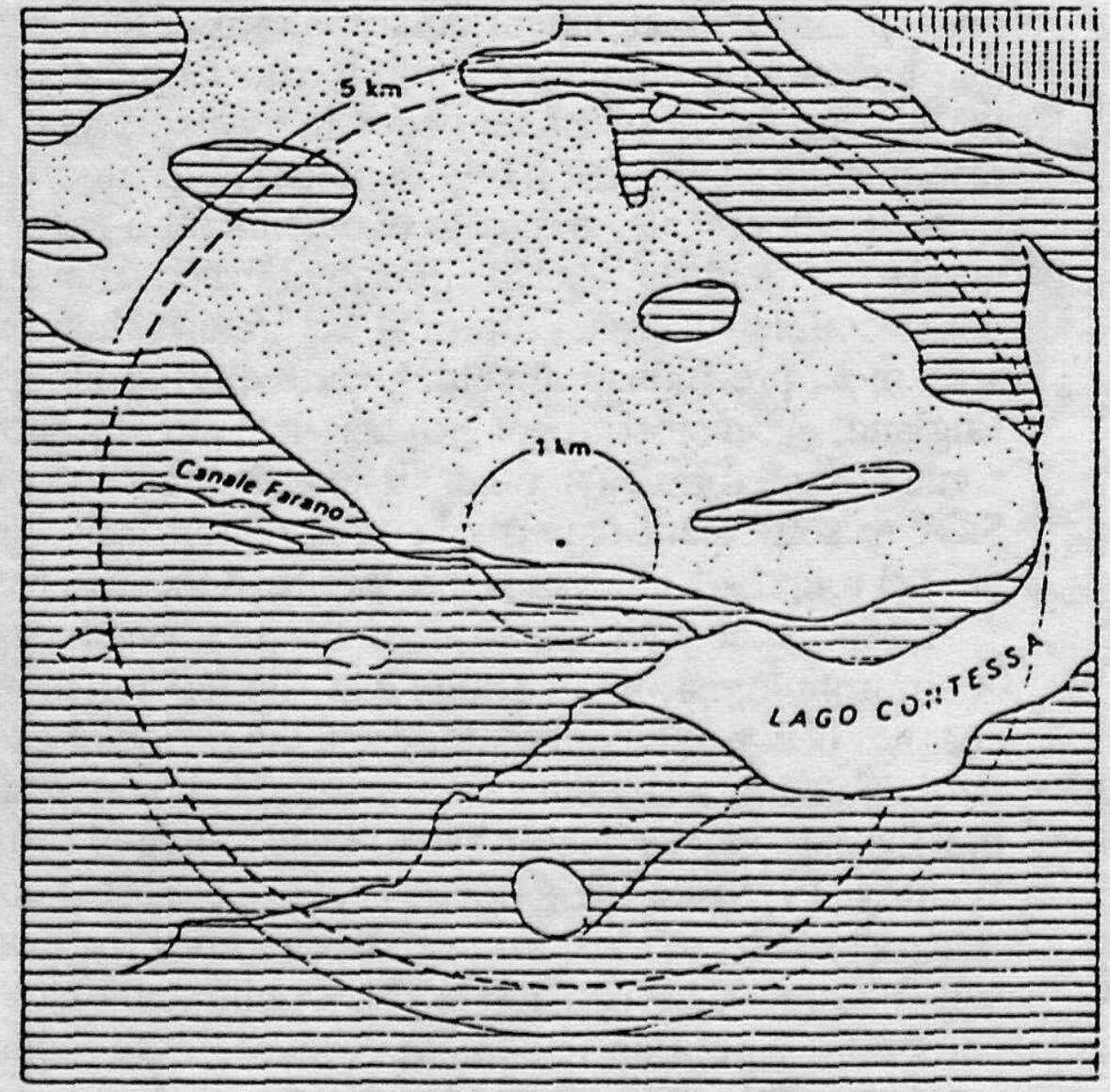


Fig 1. Catchment analyses of two Neolithic sites on the Tavoliere Plain, Italy, using the modern geomorphological context (from Jarman and Webley 1975)

modest assumption that a human group will in the long run make use of those resources within its territory that are economic for it to exploit and that are within reach of available technology. On this assumption, a site placed in a territory largely composed of grazing country would have been inhabited by human groups intent on the exploitation of grazing animals
(Vita-Finzi and Higgs 1970:2).

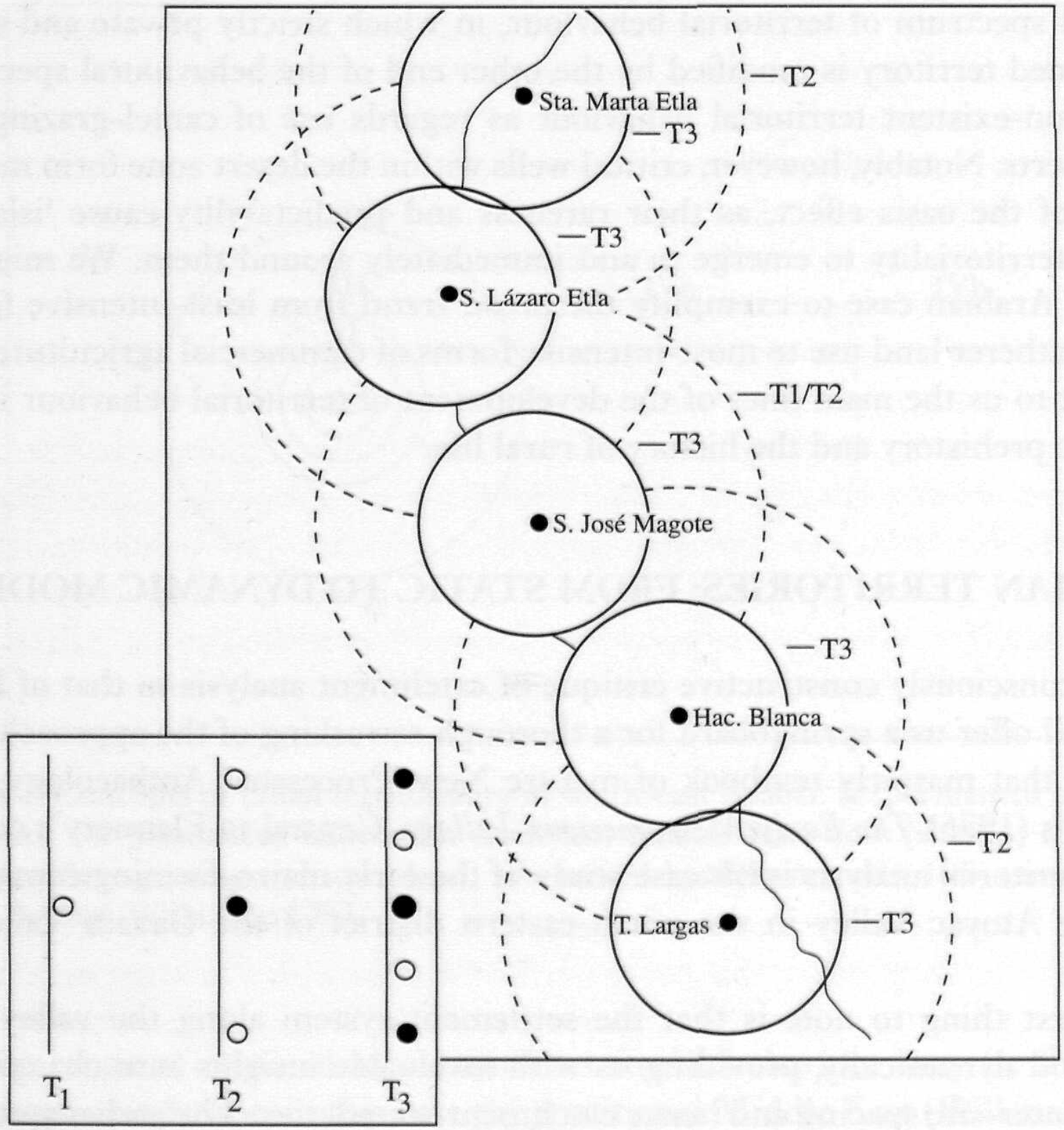


Figure 13.3 Early Formative villages along the Atoyac River in the north-eastern Valley of Oaxaca (Mexico); catchment circles with radii of 2.5 kilometres (solid line), 5 kilometres (dashed line). Inset: idealized model of settlement evolution along the Atoyac River during three temporal phases. Source: Flannery 1976.

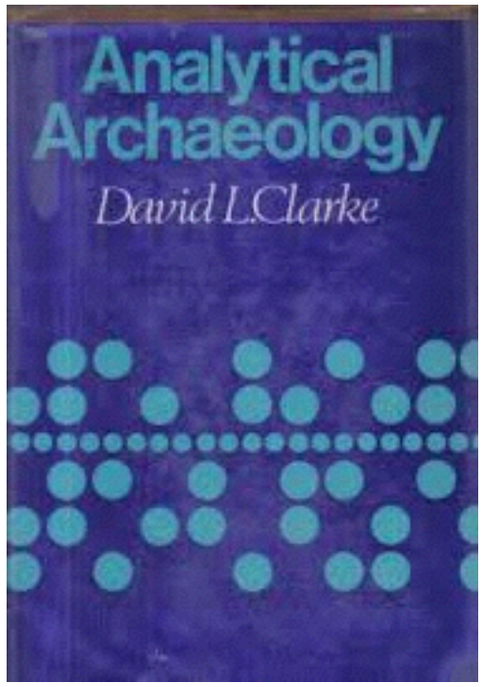
Spatial archaeology

the range of archaeological pursuits that focus on study of the spatial aspects of the archaeological record. These pursuits certainly do not constitute a separable "field," but, rather, a set of perspectives on studying ancient societies and cultures, emphasizing position, arrangement, and orientation, and examined at a range of scales: from individual buildings or monuments, caches, and burials, to settlements, landscapes, and regions. Architecture and the built environment, generally, are only a part of the whole, and discussion of them here highlights their two-dimensional aspects or plan view

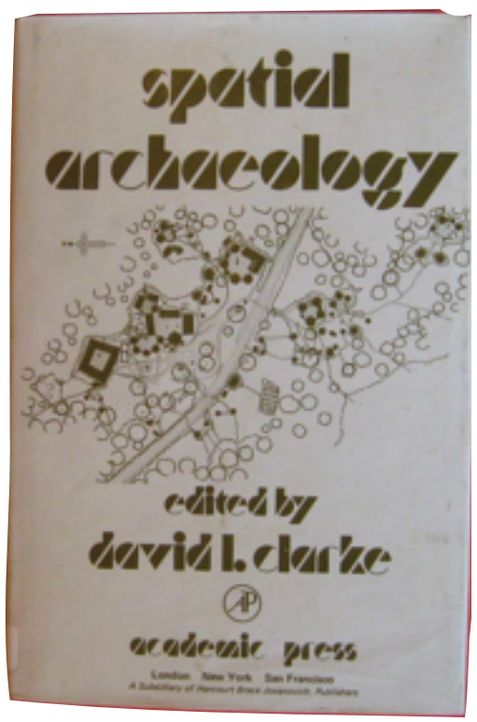
(Ashmore)

David Leonard Clarke (1937–76)

"archaeology is archaeology"



Analytical Archaeology (1967)



Spatial archaeology (1977)

the retrieval of information from archaeological spatial relationships and the study of the spatial consequences of former hominid activity patterns within and between features and structures and their articulation within sites, site systems and their environments: the study of the flow and integration of activities within and between structures, sites and resource spaces from the micro to the semi-micro and macro scales of aggregation. [1977:9]

Spatial archaeology

Elements

levels of observations

- Raw materials
- Artefacts
- Built structures (of any kind)
- Parts of built structures
- Communication routes
- Locations of raw materials
- Humans

macro
semi-macro
micro

Observations

Relationships between the elements:

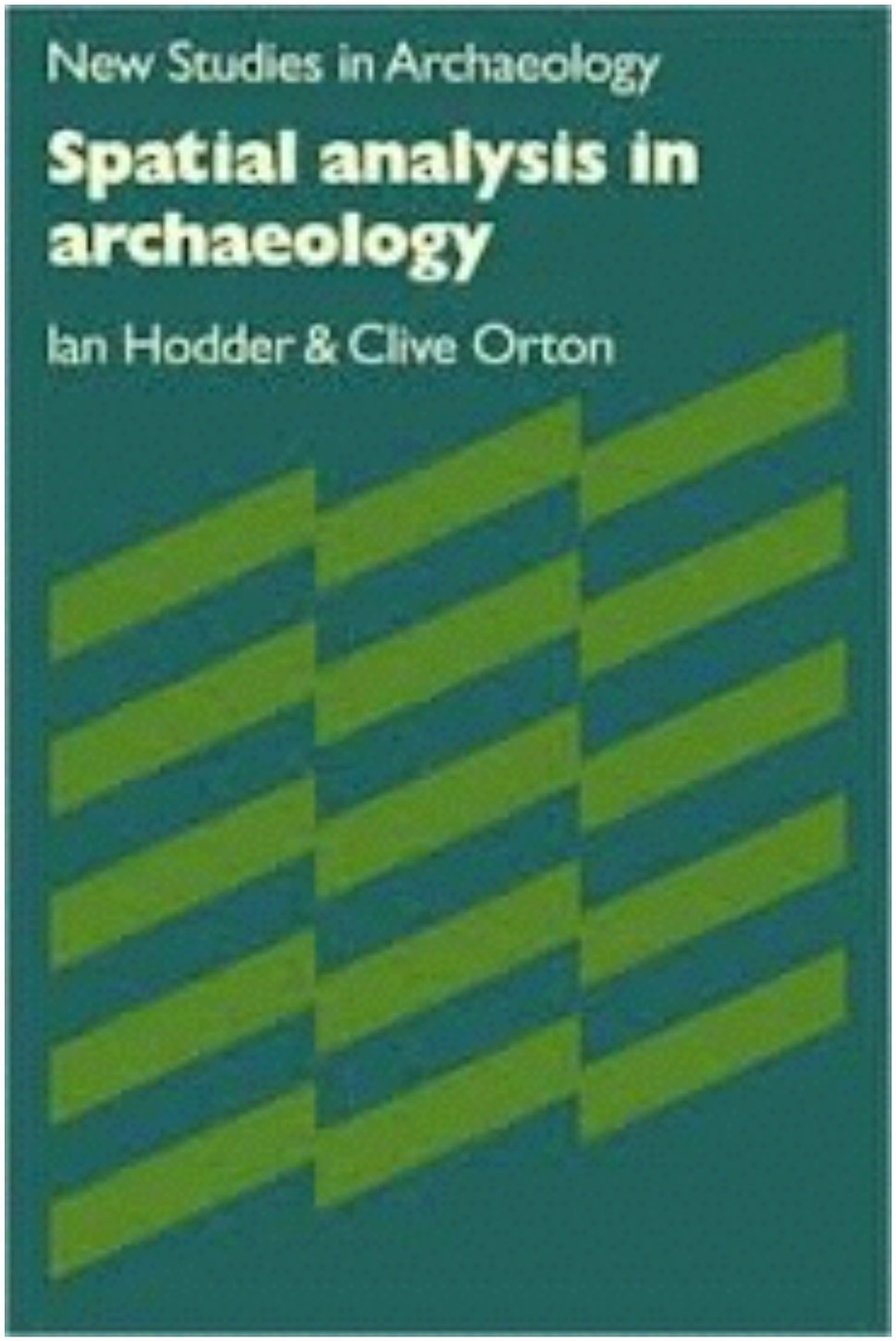
-Distributional logic
-Fluctuations in quantitative values
- Hierarchical structures and internal fluctuations
-Other forms of ordered structures

Theories

economic, architectural, anthropological, physics, statistics, stochastic …

Major premisses

rational decision making, distance as friction, multiplier effect in hierarchy


New Studies in Archaeology
Spatial analysis in archaeology
Ian Hodder & Clive Orton

Analiza distribucij

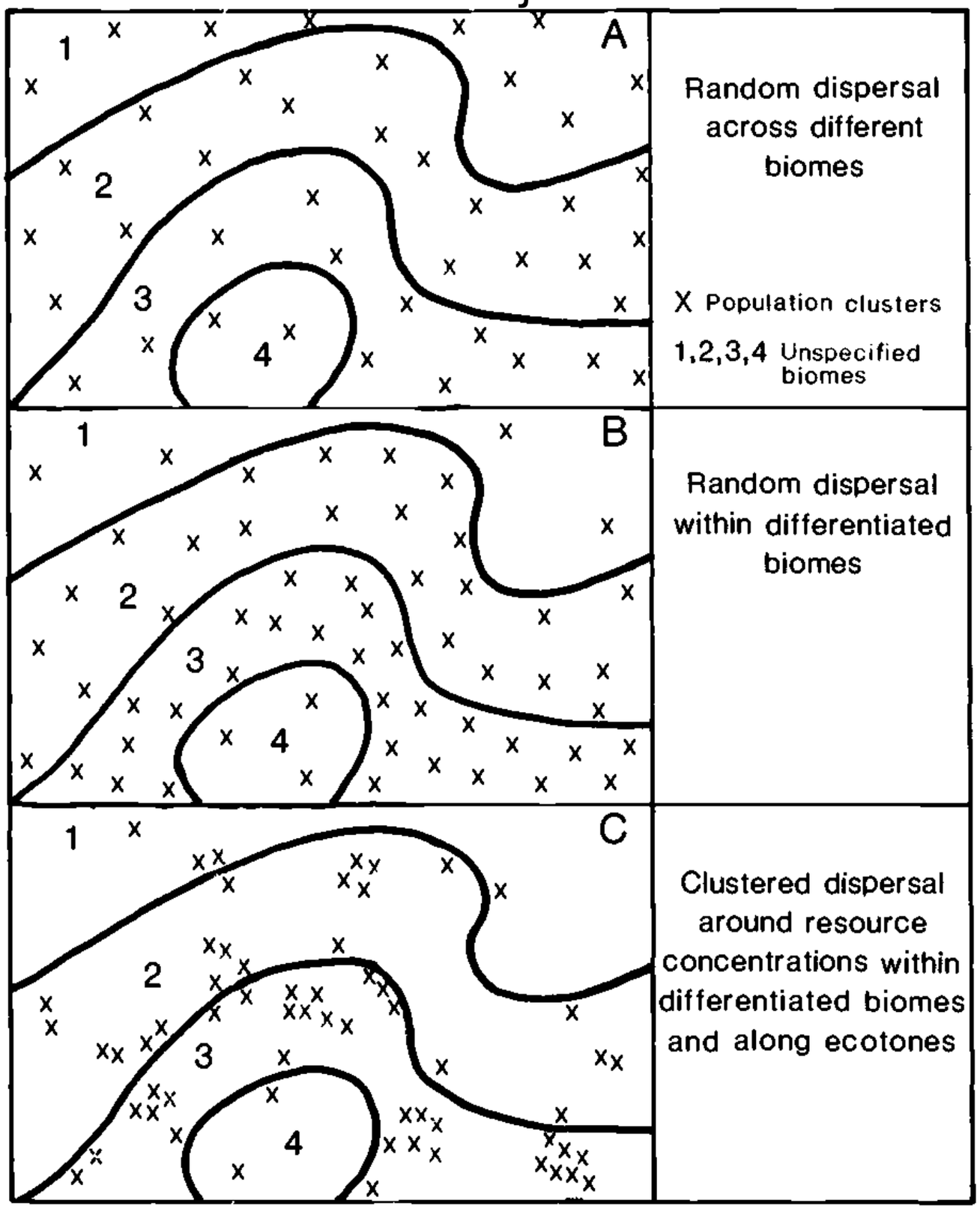
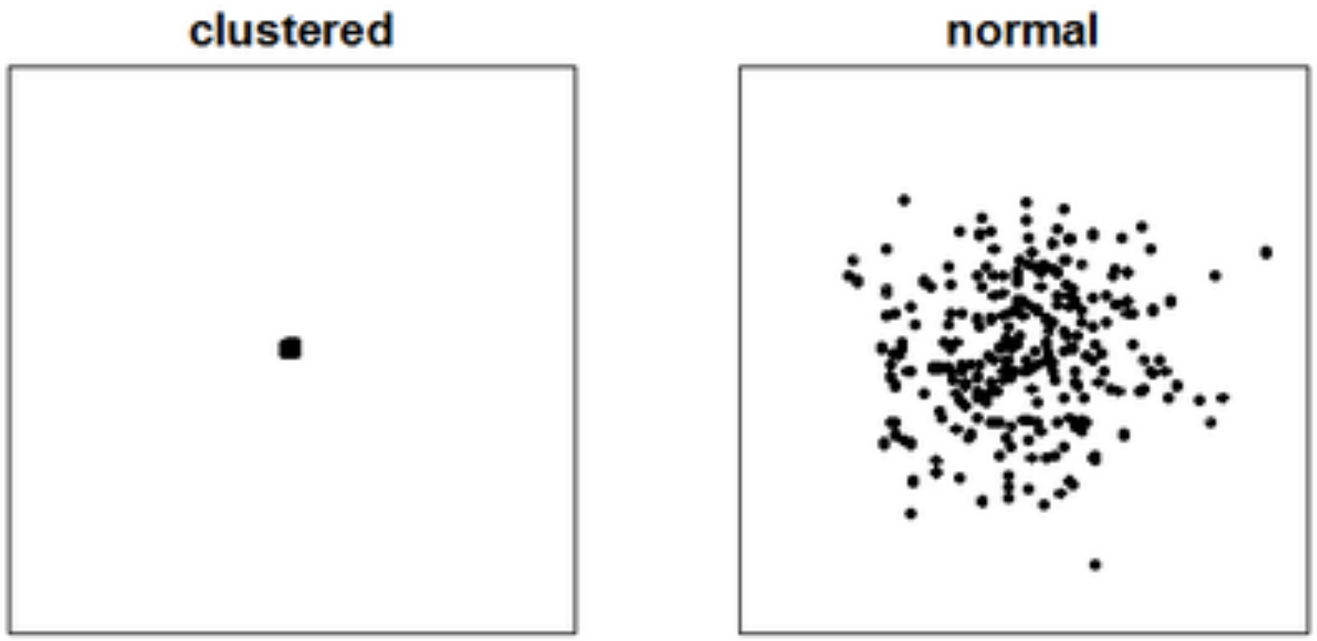


Figure 12-2. Alternative models for large-scale settlement patterns of prehistorical hunter-gatherers.

Since it is highly unlikely that geographic distribution, particularly locational patterns involving human decisions, are the result of equally probable events, it is expected that most map patterns reflect some system or order (Dacey 1964:559).

Point pattern analysis



Analiza trendnih površin (trend surface analysis)

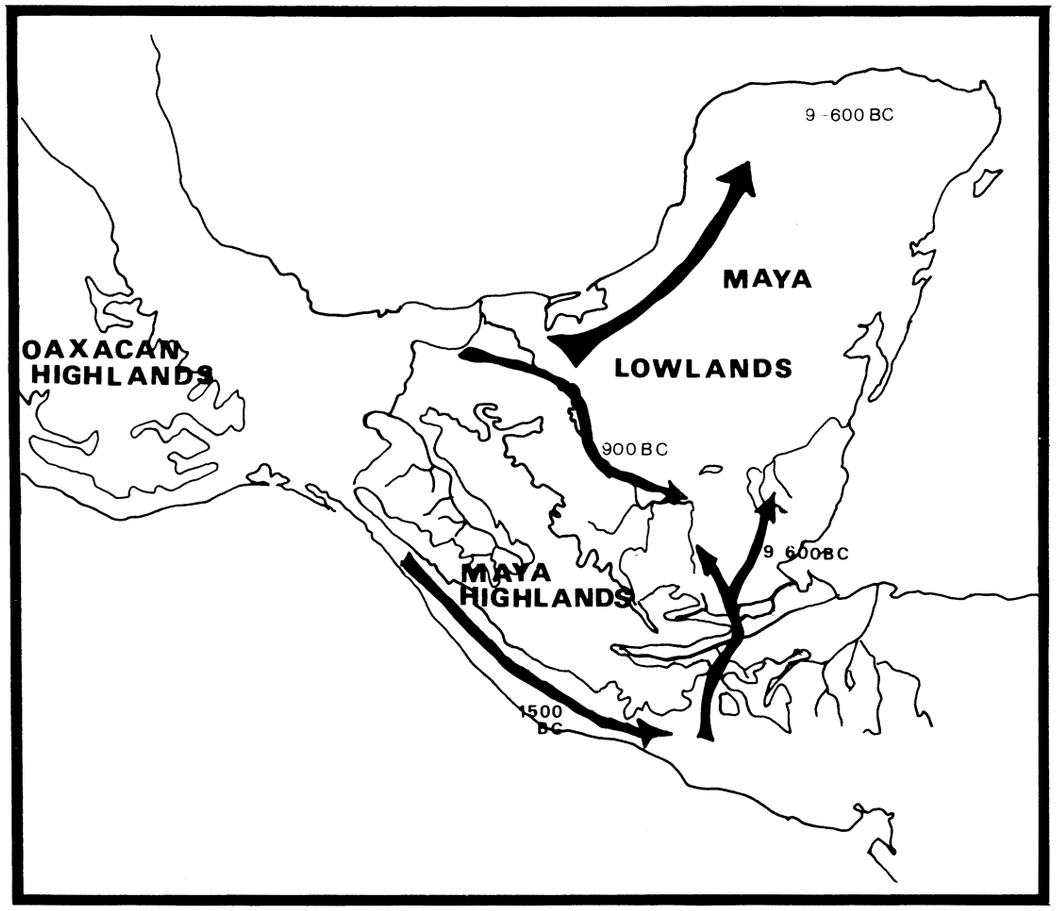


Figure 1. Movement into Maya Lowlands (after Adams 1972: Figure 1).

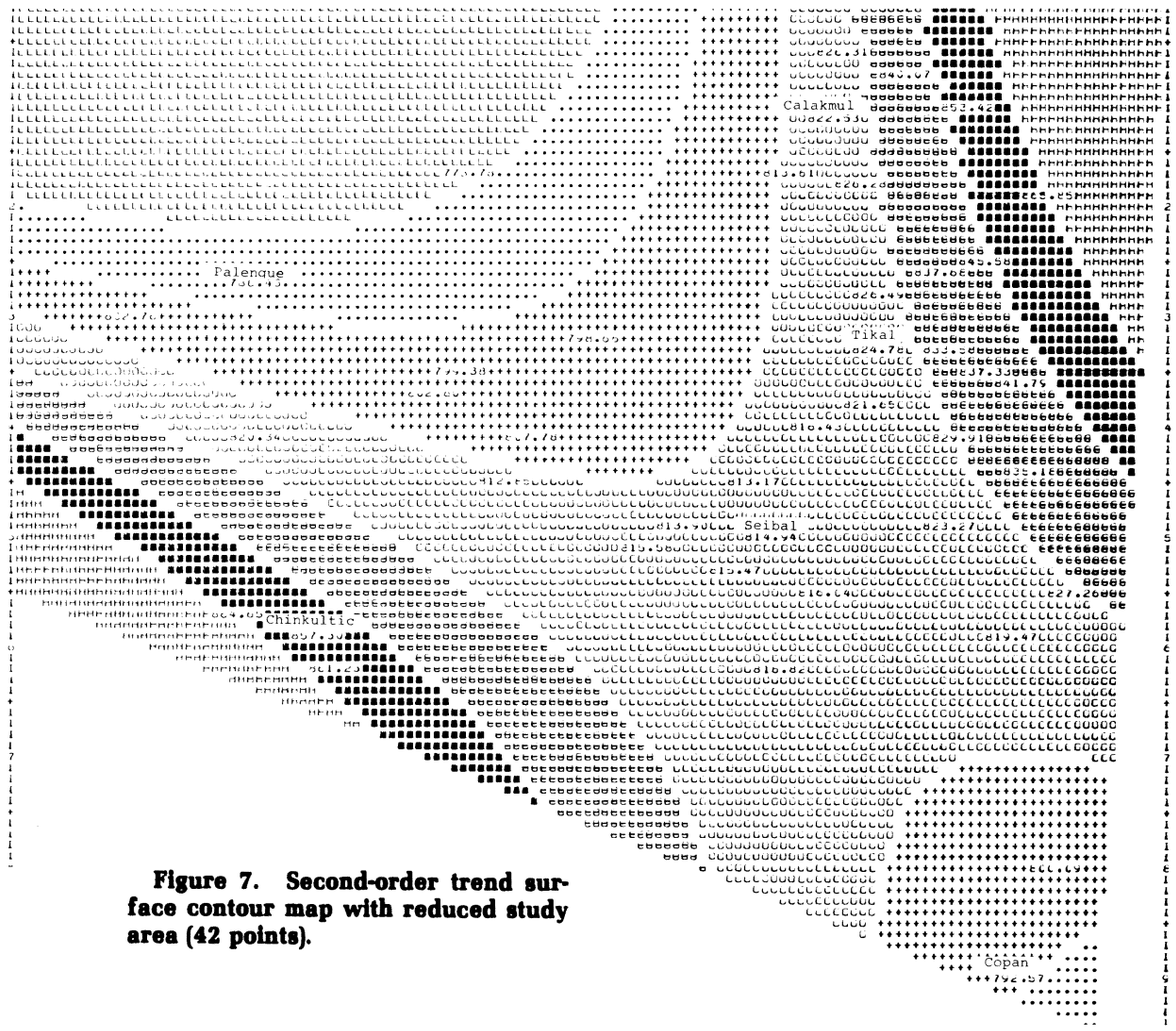


Figure 7. Second-order trend surface contour map with reduced study area (42 points).

Thiessnovi poligoni

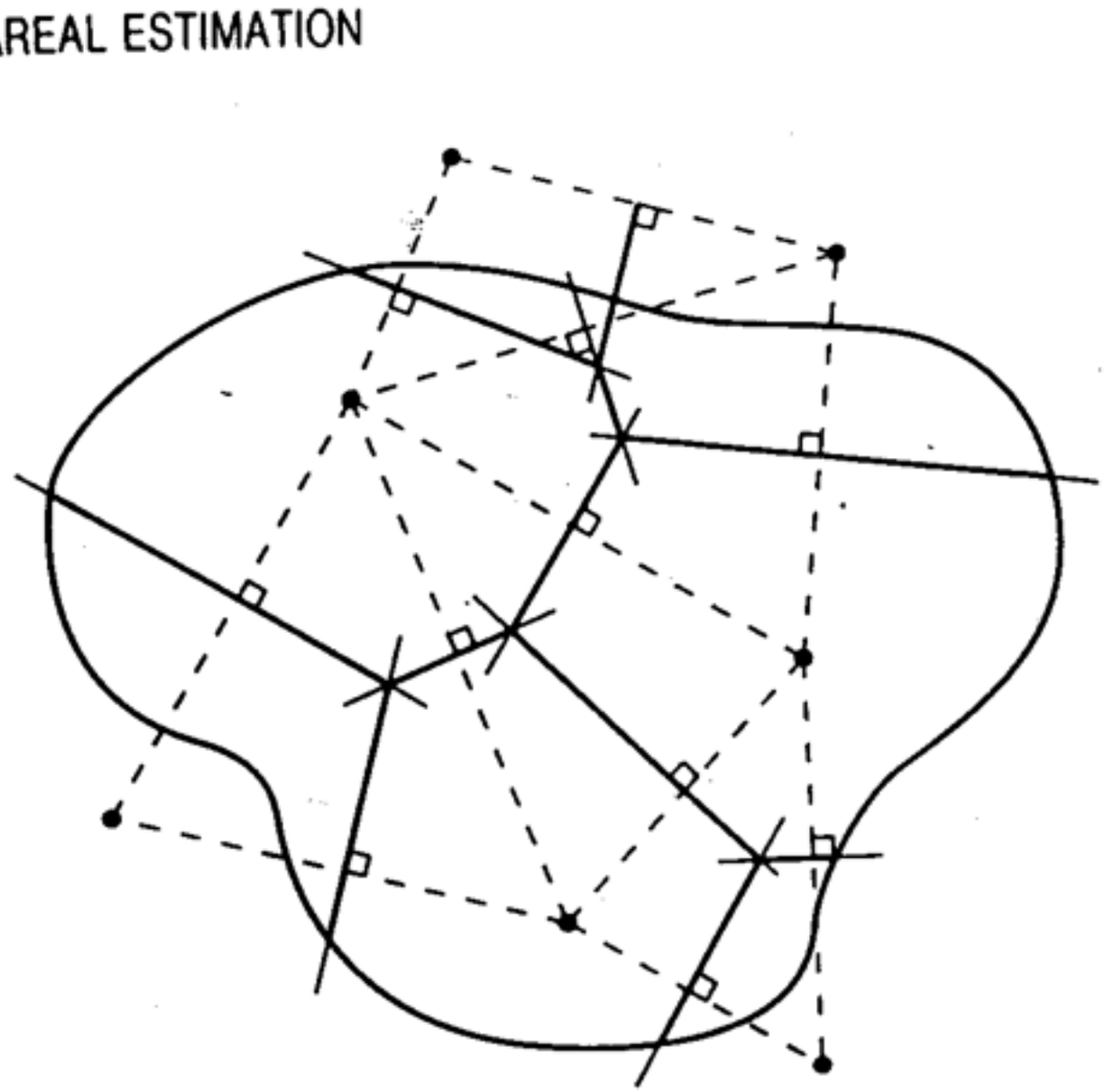
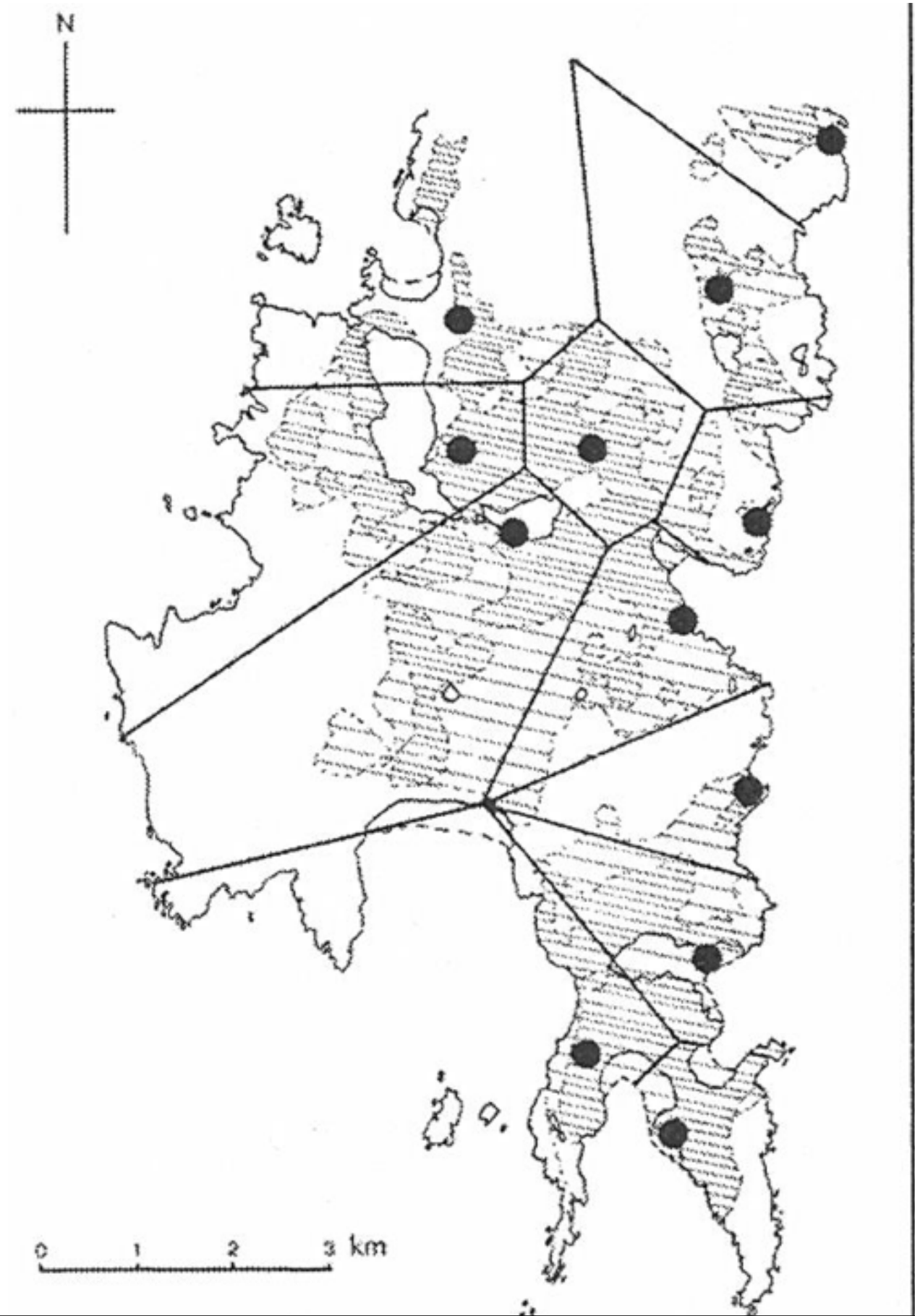
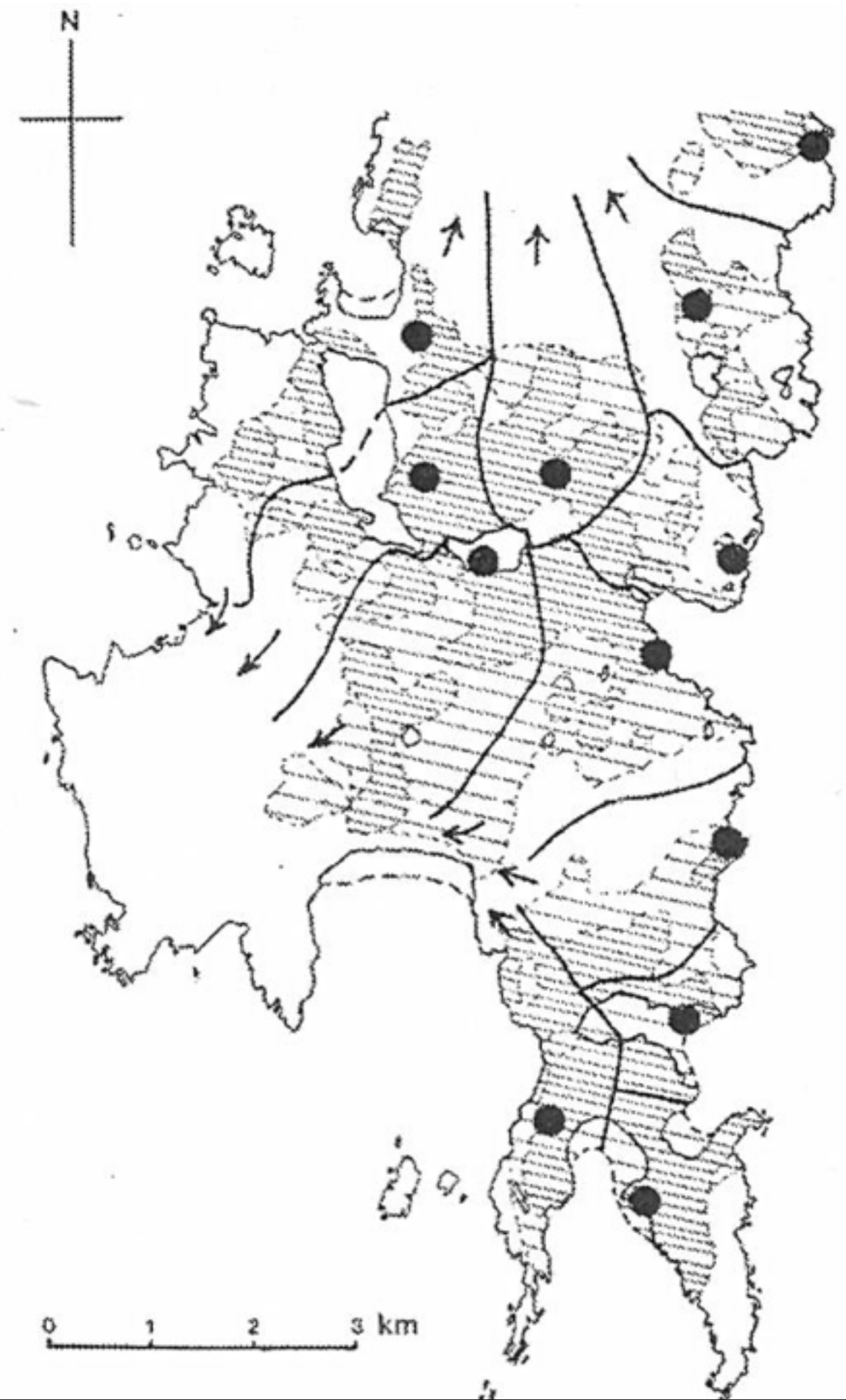


FIGURE 4-22
Construction of Thiessen polygons. The short dashed lines connect adjacent gages, the solid lines are perpendicular bisectors of those lines, and heavier solid lines are the portions of the bisectors that constitute polygon boundaries. Points in each subregion are closer to the gage near the polygon center than to any other gage.

(Dingman, 1994: 113)

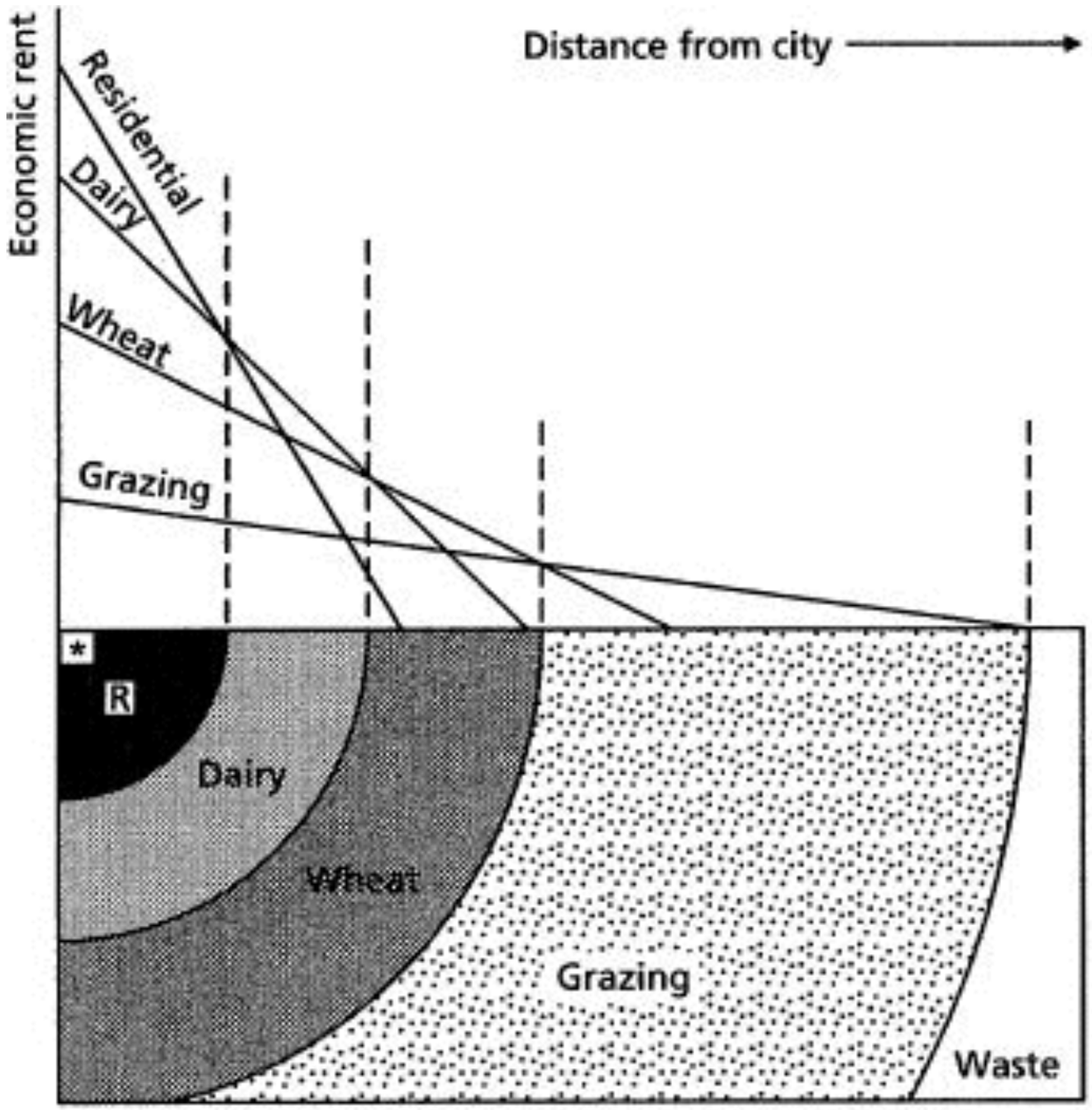
Določitev teritorijev





von Thünenov model

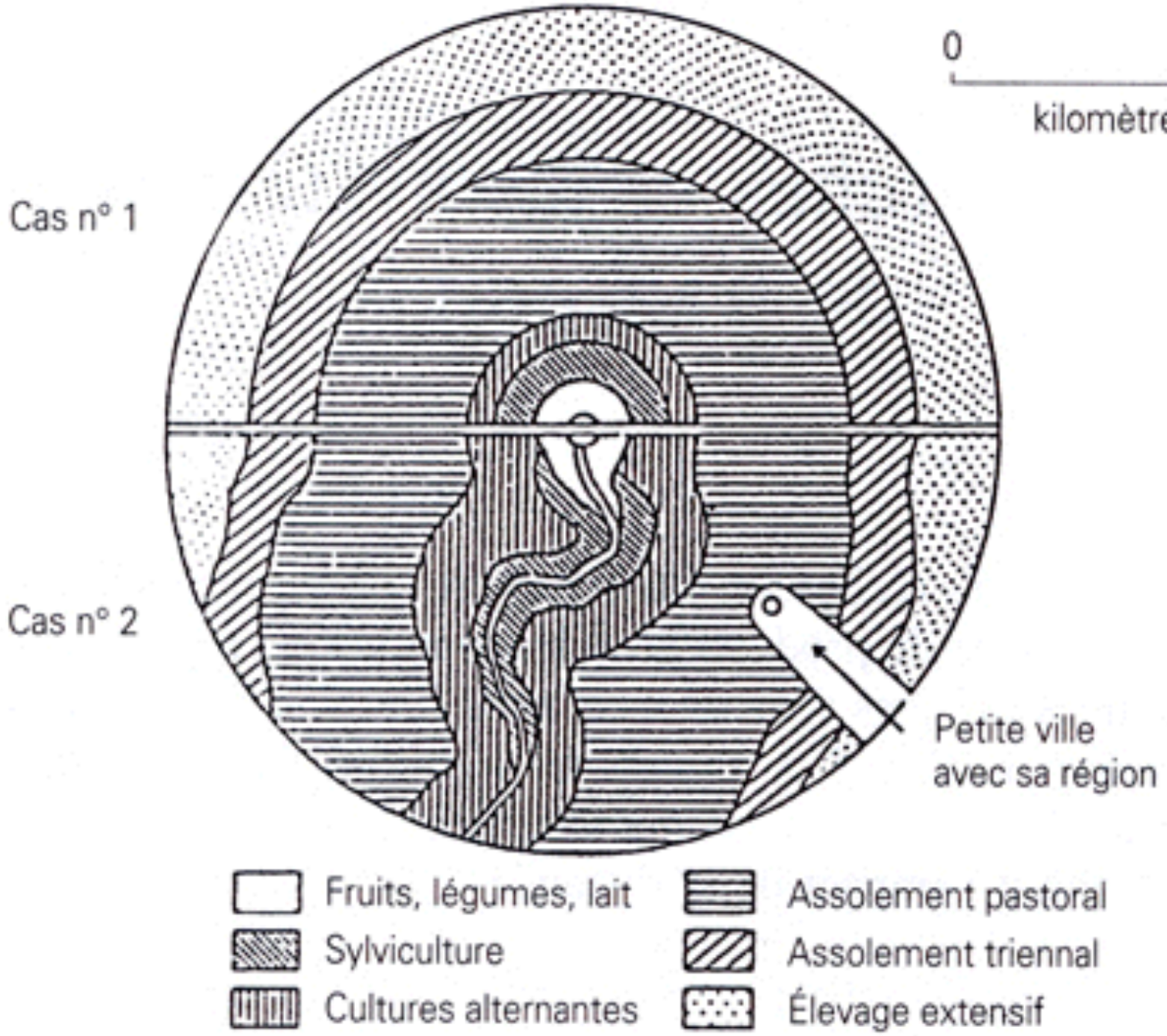
Der isoli[e]rte Staat in Beziehung auf Landwirtschaft und Nationalökonomie (1852)



R Residential

* City centre

Le modèle d'utilisation du sol de J.H. von Thünen



Source : W. Smith « Agricultural Marketing and Distribution » in M. Pacione, *Progress in Agricultural Geography,* Londres, Croom Helm, 1986, p. 221.

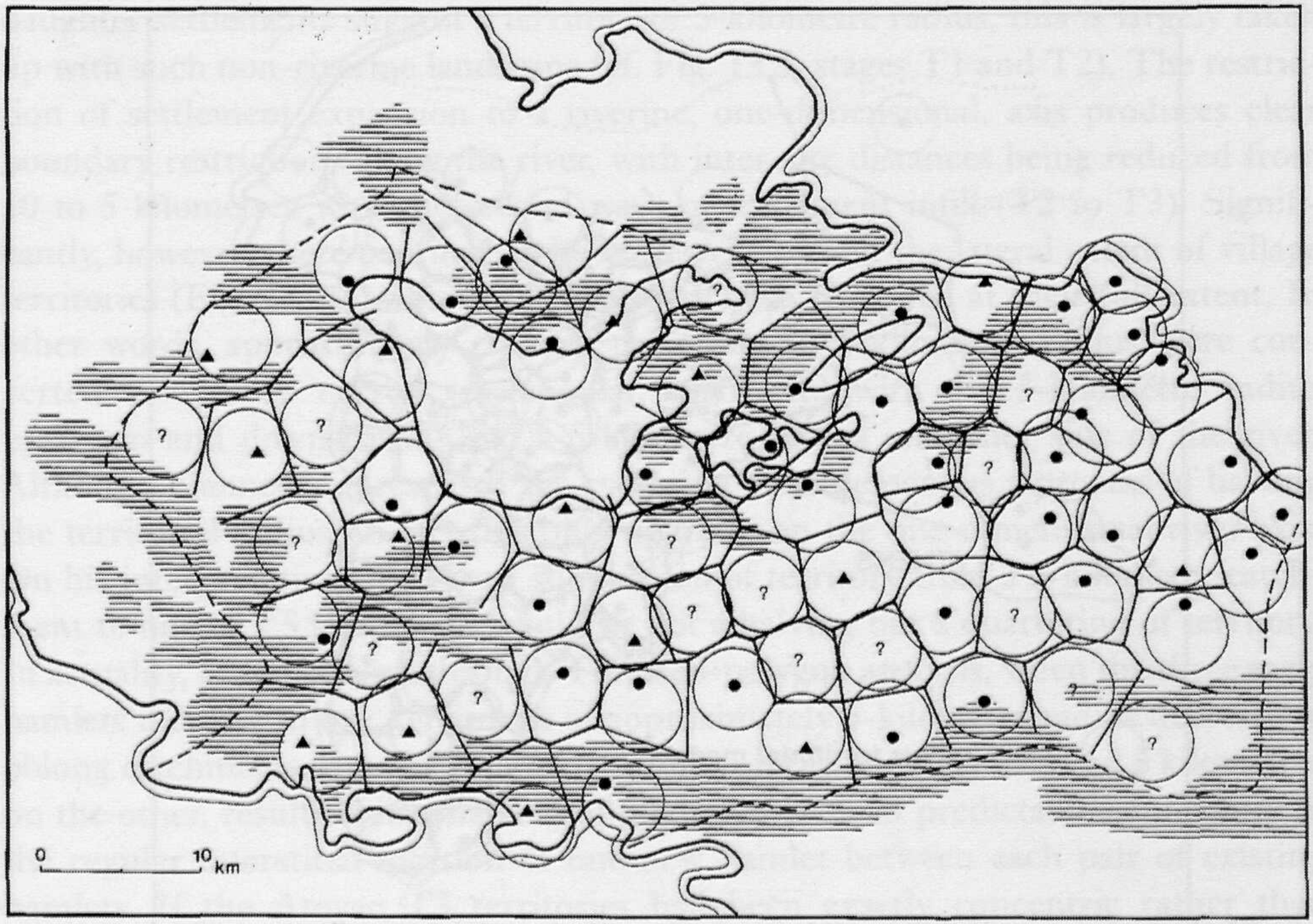


Figure 13.5 Known (solid symbols) and hypothesized (question-marks) nucleated settlement system in the classical era for the region of Boeotia, central Greece; cities are indicated by triangles, villages by circles. Best-fit circles of 2.5-kilometre radius have been fitted within village–city subsistence territories first defined through Thiessen polygons (the solid line cells). Shading represents infertile uplands. Source: J. Bintliff 1994.

Hierarhija naselij

Walter Christaller

Die zentralen Orte in Süddeutschland (1933)

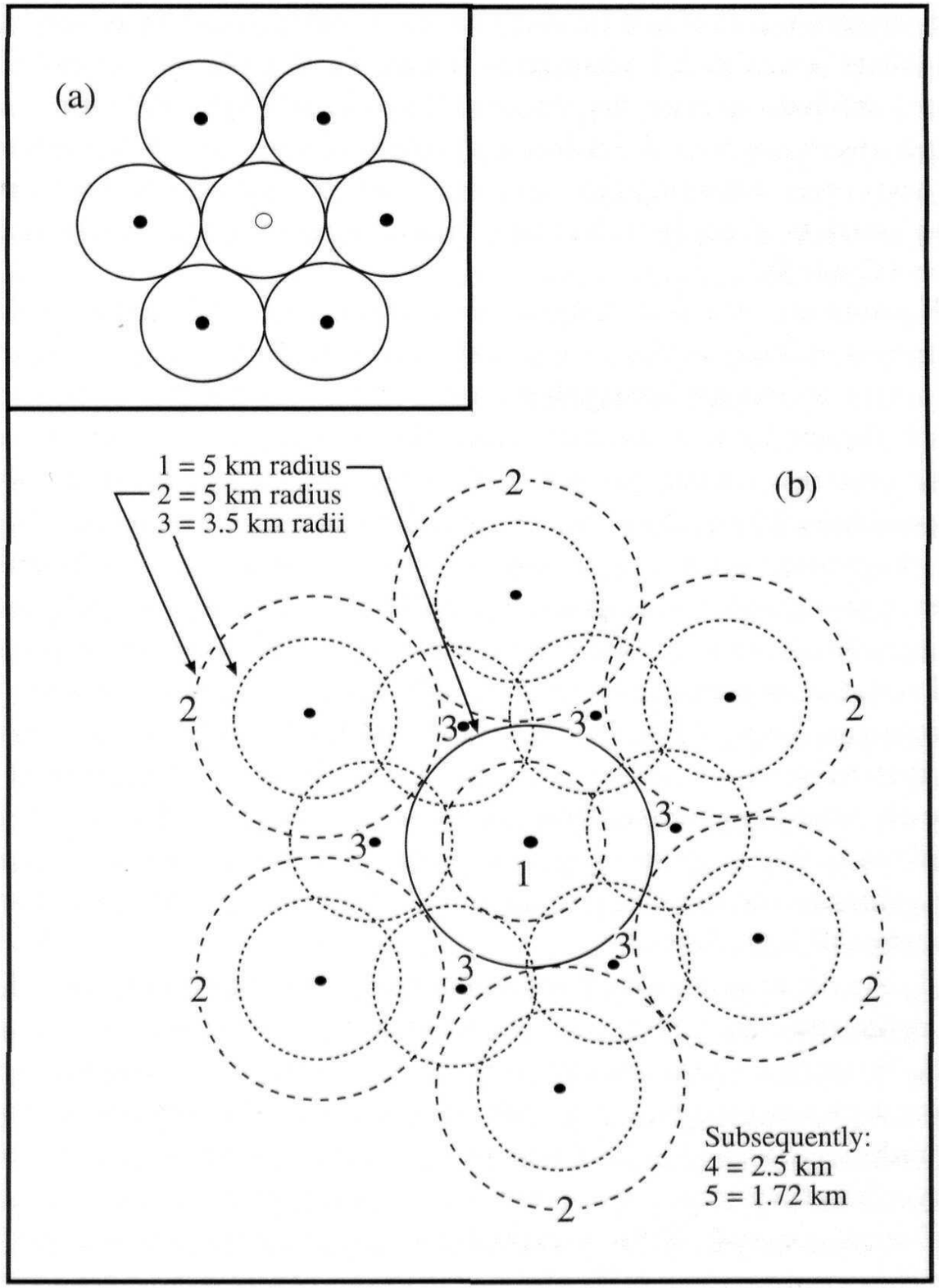


Figure 13.8 (a) Two-dimensional settlement expansion model (re-drawn from Ellison and Harriss 1972: fig. 24.16); (b) model of secondary expansion 2 from primary settlement 1 followed by tertiary interstitial infill 3. Source: J. Bintliff.

The crystallization of mass around a nucleus is, inorganic as well as organic nature, an elementary form of order of things which belong together - a centralistic order. This order is not only a human mode of thinking, existing in the human world of imagination and developed because people demanded order; in fact it existed out of the inherent pattern of matter (Christaller1966 :14) .

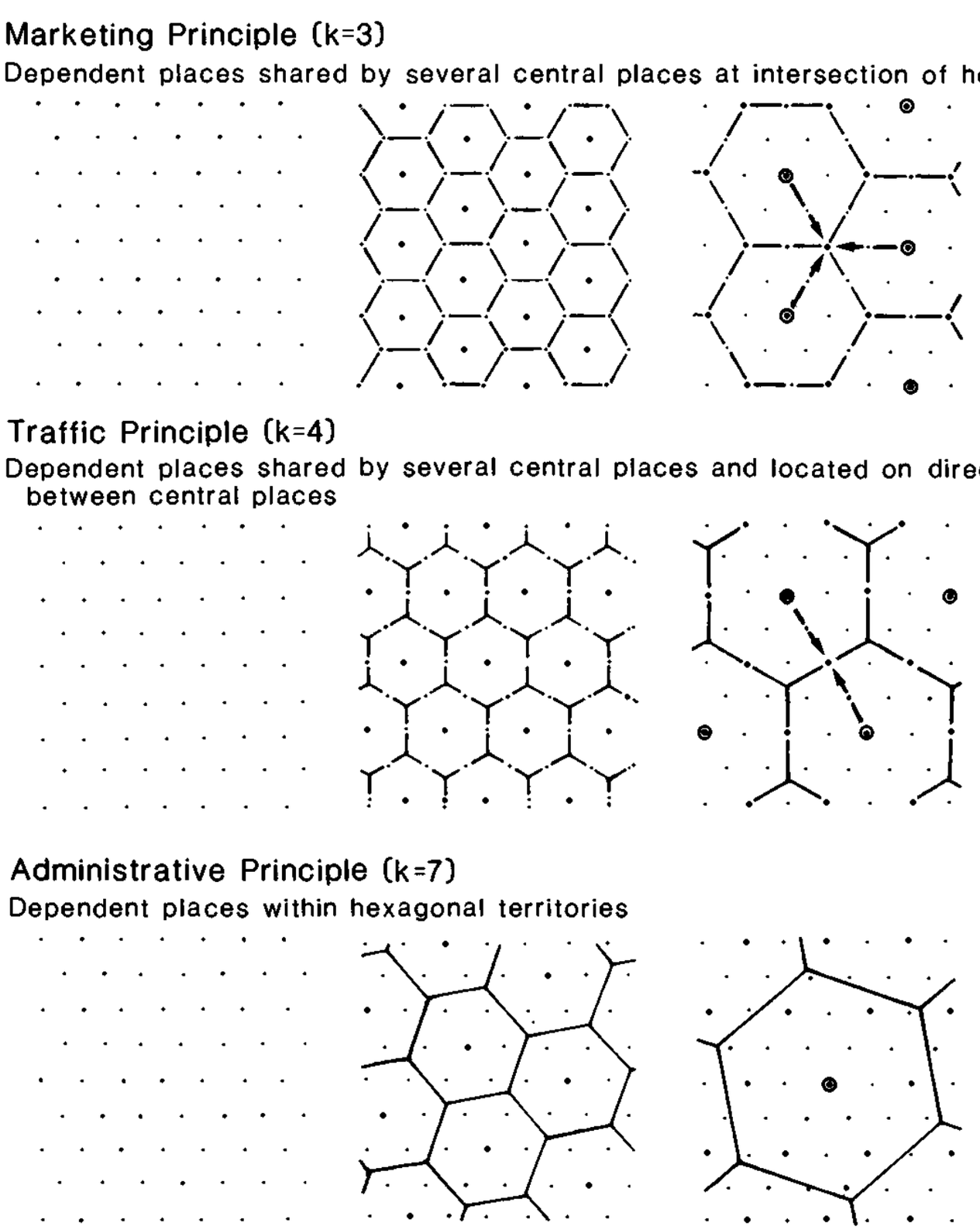
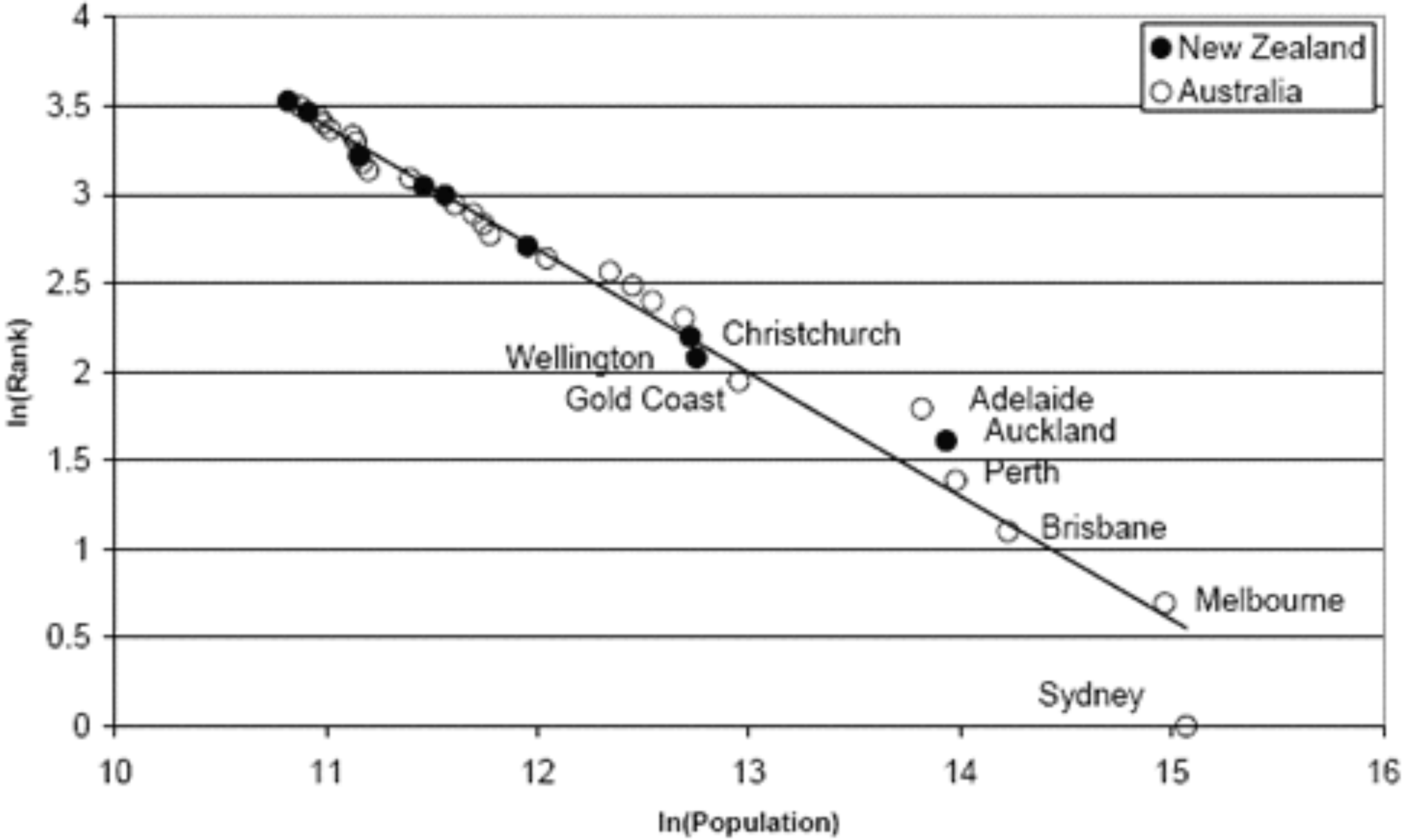


Figure 12-1. Three-stage hierarchies for Christaller central-place networks with k = 3, k = 4, and k = 7. Modified from Haggett et al. (1977:Figure 57).

Pravilo ranga (rank size rule)



Zipfovo pravilo (Zipf's law)