# **UC Santa Barbara**

# **CSISS Classics**

# **Title**

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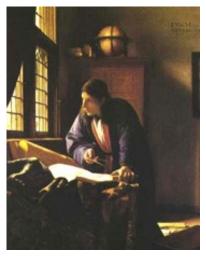
# **Publication Date**

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# CSISS Classics

# **Linked Index to e-Scholarship**

The foundations of spatial analysis span many disciplines over many generations of researchers and practitioners. *CSISS Classics* provides



summaries and illustrations of major contributions to spatial thinking in the social sciences. Primary emphasis is given to research before 1980, with an attempt to capture and acknowledge the repository of spatial thinking in the social sciences for the last few centuries. The summaries, along with key references, are intended as guides for those interested in exploring intellectual inheritance from previous generations.

Your help is requested in suggesting topics, key papers, and schools of thought that should be represented in this collection. If you wish to submit a manuscript for consideration, please contact the *CSISS Classics* editor, <u>Don Janelle</u>.

The following selection of CSISS Classics (vignettes about innovative scholars, each linked to the e-Scholarship collection) were developed over the period 2001–2006 as illustrations of spatial thinking across the social sciences. Most of them were researched and written by students participating in the CSISS program at UC Santa Barbara. By downloading this content listing, users are able to link directly to individual selections located at escholarship.org.

The model for Johannes Vermeer's painting of *The Geographer* (above) is believed by some scholars to be Bernhard Varen (latinized to Varenius), author of the *Geographia Generalis* (1650).

#### **Charles Booth**

Title: Mapping London's Poverty, 1885–1903

Spatial Concept: Mapping and social surveys, neighborhood effects

Discipline: Criminology, Demography, Geography, History, Law & Society, Political Science, Sociology,

Urban & Regional Planning, Urban Studies

#### **Walter Christaller**

**Title:** *Hierarchical Patterns of Urbanization* **Spatial Concept:** Regions, hierarchy, distribution

Discipline: Area Studies, Economics, Geography, Regional Science, Urban & Regional Planning

# **Grady Clay**

Title: The Reading of the American City, 1973.

Spatial Concept: Spatial metaphors for interpreting landscape change

Discipline: Urban & Regional Planning, Urban Studies

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#### **Alice Coleman**

Title: Design Disadvantagement, 1985

Spatial Concept: Built-environment-behavior relationships

Discipline: Criminology, Urban & Regional Planning, Urban Studies

#### **Patrick Doreian**

**Title:** *Modeling Sociological Processes Using Spatially Distributed Data* **Spatial Concept:** spatial autocorrelation, regressive-autoregressive modeling

Discipline: Sociology, Statistics

#### **Constantinos Doxiadis**

Title: Ekistics, 1968

**Spatial Concept:** Scale consideration in settlement systems design **Discipline:** Urban & Regional Planning, Urban Studies, Other

#### Vernor C. Finch

Title: The "Fractional Code" for Land Use Mapping, 1933.

**Spatial Concept:** Multi-variable mapping and land use classification **Discipline:** Area Studies, Environmental Studies & Policy, Geography

#### **Leonhard Ludwig Finke**

**Title:** Leonhard Ludwig Finke: Medical Geography

**Spatial Concept:** Global perspective **Discipline:** Geography, Public Health

# Robert W. Fogel

**Title:** The Argument for Wagons and Canals, 1964. **Spatial Concept:** Distance buffers, Spatial econometrics **Discipline:** Economics, History, Regional Science

#### **Joel Garreau**

Title: Edge Cities and the Nine Nations of North America

Spatial Concept: Regionalization and regional synthesis of change

Discipline: Area Studies, Demography, Geography, Regional Science, Sociology, Urban & Regional

Planning, Urban Studies

### **Peter Gould and Waldo Tobler**

Title: An Experiment in Geo-Coding

Spatial Concept: Place-based search, geo-coding, geographical coordinates

Discipline: Communication Studies, Geography

#### **Zvi Griliches**

Title: The Diffusion of Hybrid Corn Technology, 1957

Spatial Concept: Innovation diffusion, Spatial diffusion, Logistic growth processes

Discipline: Economics, Regional Science

# **Edward T. Hall**

Title: Proxemic Theory, 1966

Spatial Concept: Proxemic Theory, Social distance, Personal space, Spatial perception

Discipline: Anthropology & Archaeology, Communication Studies, Linguistics

#### **Torsten Hägerstrand**

Title: Time Geography.

Spatial Concept: Spatio-temporal constraints on human activity patterns and individual space-time paths

Discipline: Geography, Regional Science, Urban & Regional Planning

#### **Mark Jefferson**

Title: "Civilizing Rails," 1928.

Spatial Concept: Buffer zone, Catchment areas, Zones of impact

Discipline: Geography

#### **Florence Kelley**

Title: Slums of the Great Cities Survey Maps, 1893

**Spatial Concept:** Pattern analysis mapping of social conditions, maps for social advocacy **Discipline:** Demography, Public Health, Sociology, Urban Studies, Women's Studies

# **Valdimer Orlando Key**

Title: Mapping Southern Politics, 1949

Spatial Concept: Electoral geography, spatial redistricting, ecological inference

Discipline: Demography, History, Political Science

#### **Hans Kurath**

Title: Linguistic Atlas of the United States

Spatial Concept: Geographical linguistics, Isogloss mapping, Speech areas and speech boundaries

Discipline: Anthropology & Archaeology, Area Studies, Linguistics

#### Colin Loftin and Sally K. Ward

Title: Application of Spatial Autocorrelation in Sociology

**Spatial Concept:** Spatial autocorrelation, spatial processes, neighborhood effects, scale dependency,

weighting methods, spatial interaction

Discipline: Demography, Public Health, Sociology, Statistics

#### **Kevin Lynch**

Title: City Elements Create Images in Our Mind, 1960

Spatial Concept: Place legibility, spatial imageability, cognition of urban built environment, mental maps

Discipline: Geography, Regional Science, Urban & Regional Planning, Urban Studies, Other

#### **Bronislaw Malinowski**

Title: Identifying the Kula Ring of the Trobriand Islanders: The Role of Ethnographic Field Observation in

Pattern Recognition

**Spatial Concept:** Distance and social interaction, pattern recognition

Discipline: Anthropology & Archaeology, Area Studies

# **Henry Mayhew**

Title: London Labour and the London Poor, 1861

**Spatial Concept:** Choropleth mapping, Ecological relationship

Discipline: Criminology, Sociology, Other

# **Ian McHarg**

Title: Overlay Maps and the Evaluation of Social and Environmental Costs of Land Use Change

**Spatial Concept:** Overlay mapping, Multi-criteria route selection

Discipline: Environmental Studies & Policy, Urban & Regional Planning

#### Melinda S. Meade

Title: Medical Geography and Human Ecology, 1977

Spatial Concept: Cultural ecology, Population movement, Spatial patterns of disease

Discipline: Environmental Studies & Policy, Geography, Public Health

#### **Richard Meier**

Title: Communications Theory of Urban Growth, 1961

Spatial Concept: Spatial agglomeration, spatial interaction, urban centrality

Discipline: Communication Studies, Sociology, Urban Studies

# **Charles Joseph Minard**

Title: Mapping Napoleon's March, 1861

Spatial Concept: Flow map, thematic mapping

Discipline: History, Statistics

## **Robert Park and Ernest Burgess**

Title: Urban Ecology Studies, 1925

**Spatial Concept:** Urban Ecology, spatial differentiation, concentric zone theory

Discipline: Sociology, Urban & Regional Planning, Urban Studies

#### **Pablo Picasso**

Title: Cubism—A Revolution of Spatial Presentation in Artistic Expression (with parallels in cartography)

**Spatial Concept:** Multiple Perspectives in Two-Dimensional Visualization

Discipline: History, Other

#### **Claudius Ptolemaeus (Ptolemy)**

Title: Representation, Understanding, and Mathematical Labeling of the Spherical Earth

Spatial Concept: Equal Area Projection, Longitude and Latitude, Sphereical Earth Representation

Discipline: Geography, History

#### Friedrich Ratzel, Clark Wissler, and Carl Sauer

**Title:** *Culture Area Research and Mapping* **Spatial Concept:** Culture Areas, culture hearth

Discipline: Anthropology & Archaeology, Area Studies, Ethnic Studies, Geography, History

# **Ernest George Ravenstein**

Title: The Laws of Migration, 1885

Spatial Concept: Distance decay, migration, spatial interaction, movement, spatial dispersion

Discipline: Demography, Economics, Geography, Statistics

### **Ellen Churchill Semple**

**Title:** *The Anglo-Saxons of the Kentucky Mountains, 1901* **Spatial Concept:** Human-environment interactions, Place

Discipline: Area Studies, Environmental Studies & Policy, Geography

#### Clifford R. Shaw and Henry D. McKay

Title: The Social Disorganization Theory

Spatial Concept: Spatial association and causation, urban area and neighborhood effects, urban social

ecology, concentric zone theory

Discipline: Criminology, Demography, Ethnic Studies, Law & Society, Sociology, Urban & Regional

Planning, Urban Studies

#### **Georg Simmel**

Title: The Sociology of Space

Spatial Concept: Sociology of space; social distance

Discipline: Communication Studies, Sociology, Urban Studies

#### G. William Skinner

Title: Marketing in Rural China, 1964-1965

Spatial Concept: Centrality, settlement hierarchy, range of a good, periodic markets

Discipline: Area Studies, Economics, Urban Studies

#### Lou Skoda and J.C. Robertson

Title: The Isodemographic Map of Canada, 1972.

**Spatial Concept:** Spatial data visualization, cartogram, isodemography

Discipline: Demography, Geography

#### **John Snow**

Title: The London Cholera Epidemic of 1854

Spatial Concept: Spatial pattern analysis, Inference of spatial process

Discipline: Demography, Public Health

#### **Alma and Karl Taeuber**

Title: Residential Segregation in U.S. Cities, 1965

**Spatial Concept:** segregation indices, mapping racial composition and change **Discipline:** Demography, Ethnic Studies, Sociology, Statistics, Urban Studies

#### **Charles M. Tiebout**

Title: A Pure Theory of Local Expenditures, 1956

Spatial Concept: Residential sorting due to differences in local government services; spatial spillovers

Discipline: Economics, Regional Science, Urban & Regional Planning

#### **Edward Tufte**

Title: The Visual Display of Quantitative Information, 1983

**Spatial Concept:** Informational graphics

Discipline: History, Statistics

#### **Rupert B. Vance**

**Title:** *Space and the American South* **Spatial Concept:** Region, spatial integration

Discipline: Demography, Geography, Sociology, Urban Studies

# Johann-Heinrich von Thünen

**Title:** Balancing Land-Use Allocation with Transport Cost **Spatial Concept:** spatial gradients, spatial optimization

Discipline: Economics, Geography, Regional Science, Urban & Regional Planning

#### **Sam Bass Warner**

**Title:** Modeling the Streetcar Suburbs, 1962

Spatial Concept: Urban accessibility and social class associations

Discipline: Demography, Economics, Geography, History, Urban & Regional Planning, Urban Studies

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#### **Alfred Weber**

Title: Theory of the Location of Industries, 1909

Spatial Concept: Industrial location, minimum-cost location, optimal location, agglomeration economies,

Verignon frame

Discipline: Economics, Geography, Regional Science, Sociology

# **Gordon R. Willey**

**Title:** Settlement Patterns in Archaeology

**Spatial Concept:** Settlement patterns as clues to socio-political structures.

**Discipline:** Anthropology & Archaeology

# **John Kirtland Wright**

Title: Early Quantitative Geography, 1937

Spatial Concept: Measuring trends and inequalities in spatial distributions

Discipline: Geography, Sociology, Statistics

#### Lotfi Zadeh

Title: Fuzzy logic-Incorporating Real-World Vagueness

Spatial Concept: Boundaries, regions

Discipline: Geography, Linguistics, Statistics, Other