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GROUNDING METABOLISM
NEW GEOGRAPHIES 06

NEW GEOGRAPHIES

GROUNDING METABOLISM

edited by **DANIEL IBAÑEZ & NIKOS KATSIKIS**

New Geographies 06 Grounding Metabolism

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Volker M. Welter

The Valley Region

From Figure of
Thought to Figure
on the Ground

*Historical analysis of
the development of the
regional concept in the early
twentieth century and its
influence as a spatial notion
linking metabolic processes
to geographic settings.*

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Since 1853, a camera obscura stands high above the city of Edinburgh at the upper end of the Royal Mile, just below the castle. In that year, Short's Observatory was established by extending upward a seventeenth-century tenement building. In 1892 the Scottish biologist, sociologist, and city designer Sir Patrick Geddes (1854–1932) acquired the building, kept the camera obscura at the top, but converted the remaining floors into a new type of regional laboratory for the citizens of Edinburgh.

Rechristened the Outlook Tower [Figure 01], the tower's viewing platform on the uppermost level, the camera obscura inside a small turret at its center, and the floor below now formed a comprehensive exhibition on the historic and contemporary conditions of the region around Edinburgh. Yet Geddes's imagination did not stop at the local level. Rather, each of the lower floors was dedicated to a larger geographical entity; a sequence that began with Edinburgh, moved from there to Scotland, the British Empire (euphemistically called the realm of the English language), Europe, and the world at the ground level.

Residents and visitors to Edinburgh were invited to hasten to the highest level; with blood circulation and breathing pattern speeded up, all sense organs were highly perceptive of the visual impressions offered by the camera obscura and the viewing platform. As one walked down the main stair, maps, topographical models, drawings, engravings, photographs, lantern slides, books, and other exhibits illustrated the range of geographical areas. A "thinking cell," a small darkened room with just a chair, enabled reflection on the ideas taken in before the real city was faced again.

Physically, Edinburgh may not have changed much during one's visit to the Outlook Tower. But residents returned to the city newly aware that the local and the global were indissolubly intertwined via a series of widening geographical frames of reference that

bridged the distance between Edinburgh as the smallest and the world as the largest entity. At the center of the Outlook Tower stood the reciprocal relationship between the local and the global, or, more philosophically stated, the specific (Edinburgh's region) and the general (the region as a basic building block of the world). The tower invited visitors to look at this relationship from either without or within, to paraphrase an essay title by Geddes.⁰¹ The view from without zooms in downward from the level of the world to that of the smallest unit—in this case Edinburgh in its region. The view from within looks upward from the level of a city toward that of the largest entity. The Outlook Tower made visible what was either too large to be grasped in its entirety by the human gaze or easily overlooked for being too small or too close to the human eye. Despite functioning accordingly as both telescope and microscope, the tower did not require selecting either instrument's point of view, because whichever way one looked, the region entered the viewfinder.

By bringing the region into focus, the Outlook Tower moved it from the level of, by analogy, a Platonic idea to that of reality. The camera obscura, assorted optical instruments on the viewing terrace, and geographical pointers to distant places carved into the terrace's balustrade visually establish the region as the frame of everyday life and the field for interventions by citizens. Accordingly, regions became "real" the moment an Outlook Tower made them phenomenologically visible as units that existed in space and time, in geography and history.

Geddes named the region as a geographical entity the "valley region." Strictly speaking, the word valley should be in the plural because this region encompasses a fan-shaped set of valleys that accommodates a network of human settlements. It begins uphill with isolated dwellings, continues downhill with a series of increasingly larger human

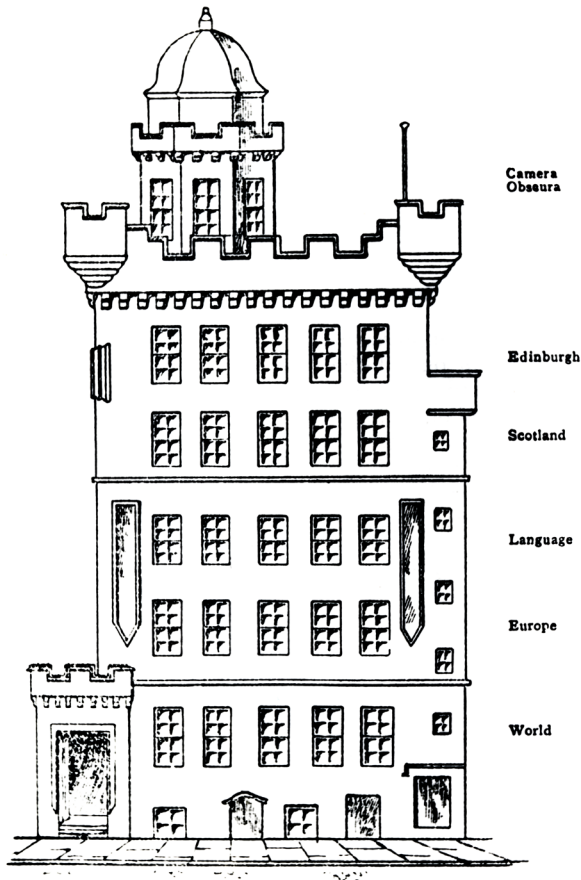


Figure 01. The Outlook Tower.

settlements (villages, foothill towns, market towns, etc.) that follow a river's course, until it culminates in a big city at the river's estuary. The valley region matches closely the region around Edinburgh, though Geddes never defined the physical dimensions of his model other than to the extent of what could be seen from the tower. Occasionally he referred to towns in the middle of the section as being "a day's march" apart, indicating that the spatial expanse of the concept was flexible.⁰²

Figure 02 shows an early rendering of the valley section, the diagram Geddes conceived to illustrate the valley region. Geddes published this version in 1909 and used it as late as 1925.⁰³ It includes all types of human habitation; yet since the mid-1950s the valley section is usually portrayed as an empty hinterland of a big city.⁰⁴ While this depiction may help to imagine the valley region as a planning unit, it eliminates many of its important geographical, ecological, and historical characteristics.

A series of pictograms in the lower margin capture the ecological implications of the valley region. They depict what Geddes called "natural occupations." Pickaxe, axe, bow, and crook represent miner, woodman, hunter, and shepherd. Hoe, plow, and spade refer to peasants working the land, while a fishing net closes the sequence at the coast. Each pictogram symbolizes a type of labor best suited for a particular area within the larger region. Geddes borrowed here from the work of French botanist Charles Flahault, who in the 1890s had surveyed the regional distribution of plants by identifying dominant tree species—"social species" that fostered a defined set of subordinated plants, increasing benefits for all plants in the region. Thus botanical regions were hierarchically structured and cooperatively organized to maximize the exploitation of regional conditions.

A comparable thought underpins the valley section because each natural occupation aligns with a particular type of human settlement. For example, to the hunters belong isolated huts, and to the peasants, villages and smaller towns. Ultimately the social organizations of these human settlements derive from the ecological adaptation of their related natural occupation to conditions in the sub-environments. Geddes summarized this train of thought in the triad of Place, Work, and Folk, a shortcut to the ecological reality of the valley section that he had adopted from French engineer and sociologist Frédéric Le Play (1806–1882). Sometimes Geddes substituted environment, function, and organism for Place, Work, and Folk, thereby moving from sociology to biology, specifically Darwin's theory of evolution. Viewed in light of evolutionary biology, the valley region acquires a distinct historical dimension.

The large city at the end of the valley is not aligned with a single natural occupation because "It takes the whole region to make the city ... each complex community, as we descend [the valleys], is modified by its predecessors."⁰⁵ Geddes thereby described a historical process, for considered collectively the sequence of natural occupations illustrates the progress of human civilizations, from primitive to complex societal stages. Geddes draws here on the Scottish Enlightenment, which had argued that humanity evolved through the stages of hunting and gathering, pastoralism, and agriculture, toward the commercial stage as the highest form of social organization.⁰⁶ Philosophers such as John Millar and

Adam Smith equated the last stage with civilized urban life, which depended on a high degree of specialization of labor and, deriving from that, a high degree of cooperation. As a truly enlightened Scot, Geddes claimed that the mixture of professions and types of labor in the commercial streets of a modern city were not only differentiations of the natural occupations but cooperatively created the city. Accordingly, the city could not be assigned a single natural occupation, as it condensed the entire region. It was, symbolically, the heart and head of a region.

Within a region, the city occupied a position comparable to that of a nucleus within a cell, which transmitted biological traits from one generation to the next; that precise mechanism was beginning to be understood within Geddes's lifetime. Cities passed on to citizens the cultural inheritance of a regional civilization; Outlook Tower, museum, and other cultural and educational institutions were some of the means, while current citizens were the agents of this process.

Already in 1895, the anarchist-geographer Elisée Reclus, a close friend of Geddes, had reflected along similar lines on the relationship between cities and regions. Envisioning a coming age of infinite regional growth of towns, Reclus was excited about the expansion's consequences for the historic city. Reclus imagined the historic city, abandoned in favor of suburbs and areas even further out, as the new core of the extended city: The new "heart of the city is the patrimony of all ... Every town should have its agora, where all who are animated by a common passion can meet together."⁰⁷

Geddes based his view of a city's central position within a region on a comparably organized hierarchy. When planning a region, Geddes focused on the

city. And when planning a city, Geddes concentrated on the cultural acropolis, a dense accumulation of cultural and educational institutions where citizens could cooperatively learn and reenact their city's and region's history while working toward their futures. Visually comparing Edinburgh and Athens [Figure 03], Geddes concluded that the cultural acropolis should be located on the highest available ground, making the appeal to the citizens a widely visible call to action.

Even though Geddes remained something of an outsider within his chosen professions of sociology and planning, his ideas about the region spread widely during the 1940s and 1950s. At least two channels of influence can be identified. There were those who knew Geddes personally; most famous among these is probably Lewis Mumford (1895–1990). Second, there were architects and planners such as Jaqueline Tyrwhitt (1905–1983) who became familiar with Geddes's thought as students.

Lewis Mumford's encounter with Geddes's writings from 1915 has been well documented by biographers.⁰⁸ A personal meeting furthered Mumford's critical and selective adoption of Geddesian ideas. Still, in The Culture of Cities (1938), Mumford offers a "Regional Framework of Civilization" whose structure recapitulates major stages of Geddes's intellectual progression.⁰⁹ From a discussion of the biological origins of life, which recalls Geddes's beginnings as a biologist, Mumford moves to the regional basis of human life, the equivalent of Geddes's valley section. He then looks at region and city as geographical facts, before he considers the earth as the home of man, thus adopting the basic structure of the Outlook Tower with its two outermost poles of region and world.

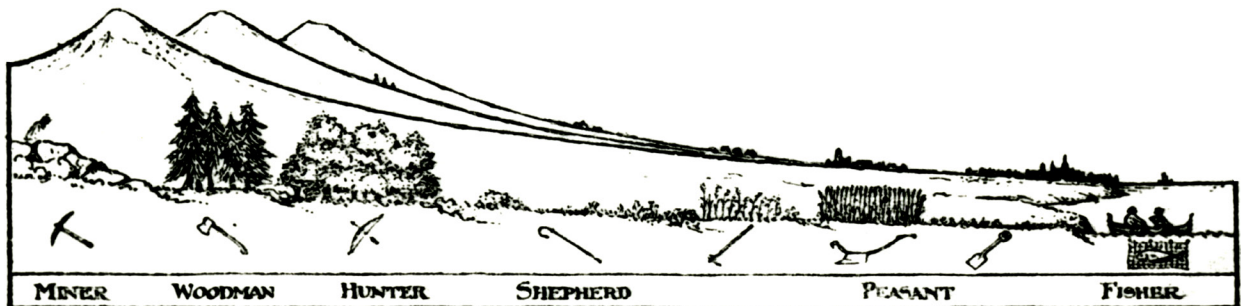


Figure 02. The Valley Section, c. 1909.

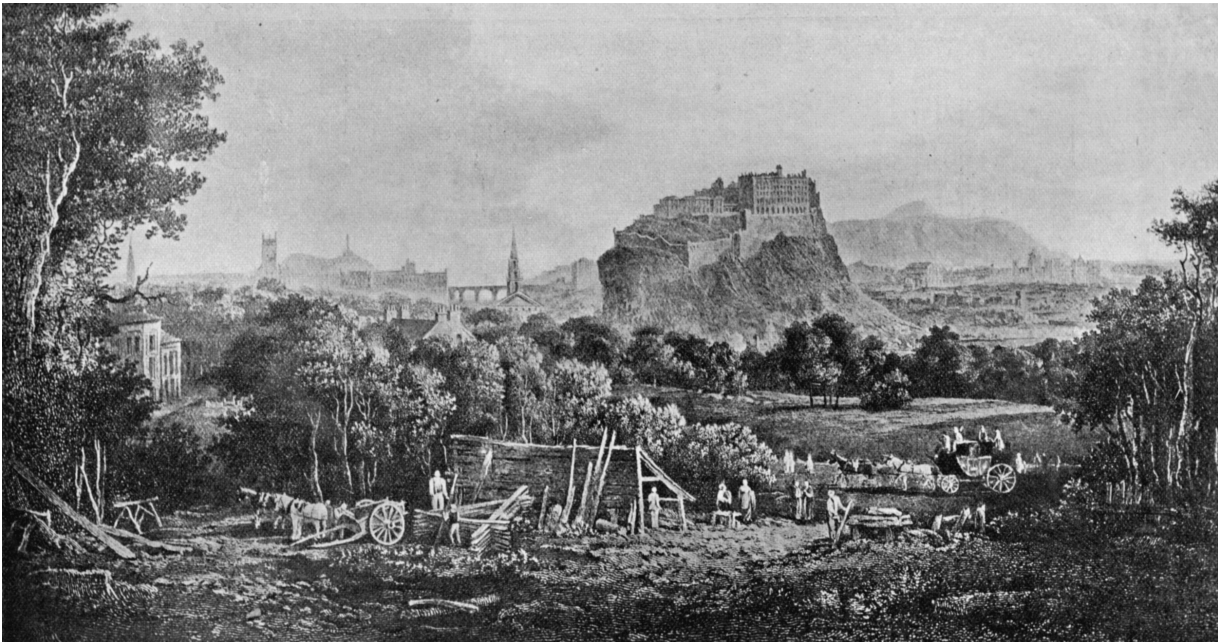
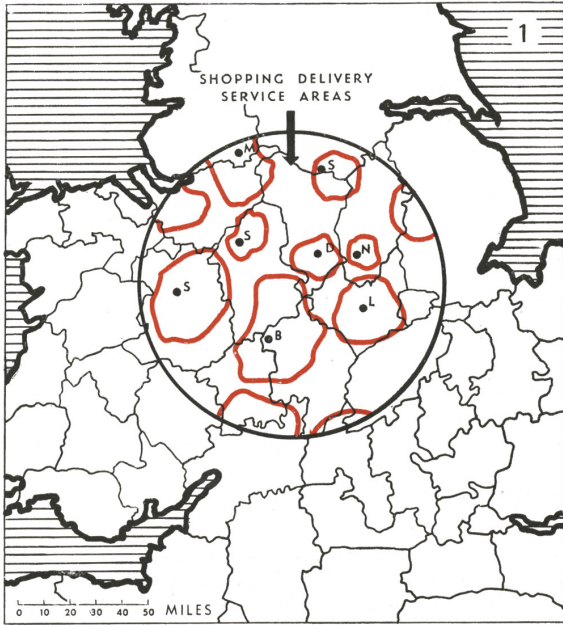


Figure 03. Comparison of the urban topography of Athens and Edinburgh.

The Indian social scientist Radhakamal Mukerjee (1889–1968) also belongs in this group. After meeting Geddes around 1914, Mukerjee later explicitly referenced his ideas when writing that regional sociology “will derive support from ... the school of Le Play, with its concrete treatment of the interrelations between Place, Work and Folk—an occupational analysis which has been endowed in the hands of Patrick Geddes with rich practical significance in a renewed application of sociological method to social life in definite cities and regions.”¹⁰ Like Geddes, Mukerjee refrained from defining absolute dimensions of a region. Nevertheless, he aimed to give it an empirical base in observable ecological facts of the Indian countryside.

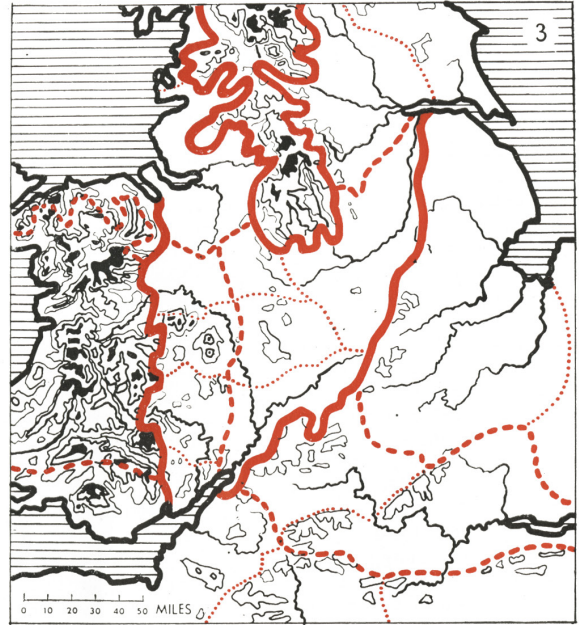
Mukerjee’s region may have thus been more tangible, but at the cost of losing Geddes’s imaginative combination of ecological thought, historical ideas, and a visionary and activist outlook toward the future.

The most prominent disseminator of Geddesian thinking was probably Jaqueline Tyrwhitt.¹¹ Trained as a horticulturist, Tyrwhitt learned about Geddes when she studied at the School of Planning at the Architectural Association in London in 1933. The school’s director was physicist and structural engineer Eric Anthony Ambrose Rowse (1896–1982), who was acquainted with Geddesian ideas from his time at the Edinburgh College of Art where



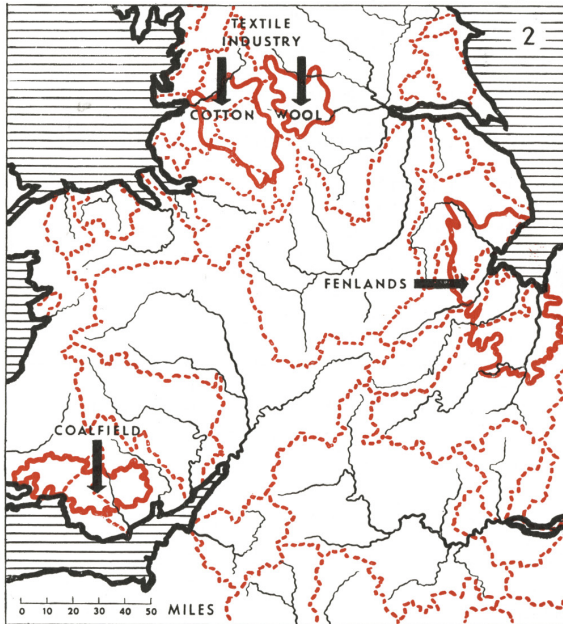
METROPOLITAN INFLUENCES

SHOPPING DISTRICTS DELIVERY AREAS | TOWNS (INITIAL LETTER) ●



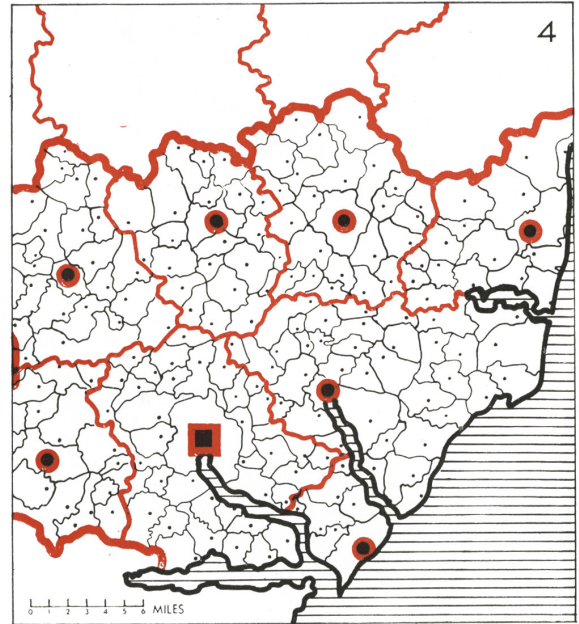
GEOGRAPHICAL REGIONS

AFTER J. P. UNSTEAD, M.A., D.Sc.
 MAJOR REGIONS | MINOR REGIONS



SINGLE FUNCTION AREAS

SINGLE FUNCTION AREAS | STATUTORY CATCHMENT AREAS 1930



THE CELL PRINCIPLE

BOUNDARY OF COMPLEX OF GROUPS OF CELLS | GROUP-COMPLEX NUCLEUS
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Figure 04. Association for Planning and Regional Reconstruction, Broadsheet 1: The Delimitation of Regions for Planning Purposes, September 1942, reprinted March 1943.

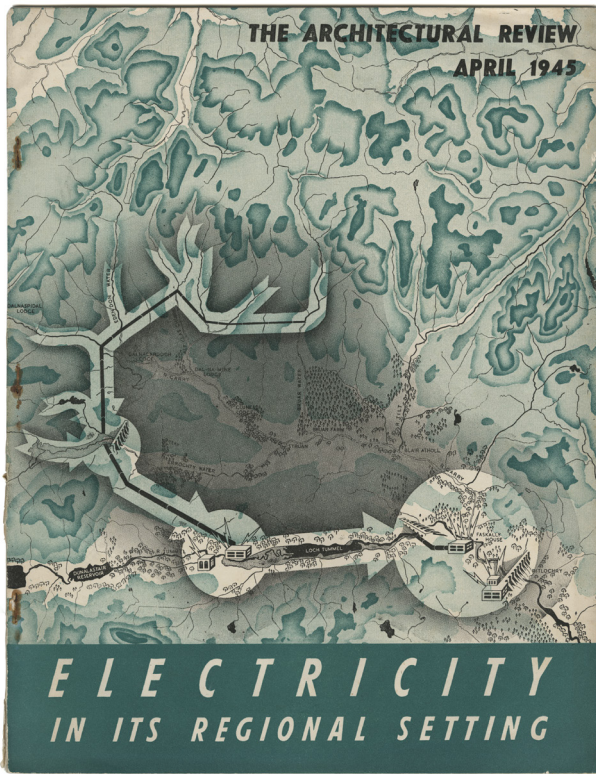


Figure 05. Cover for “Electricity in Its Regional Setting, prepared for the Architectural Review by the Association for Planning and Regional Reconstruction,” *Architectural Review*, April 1945.

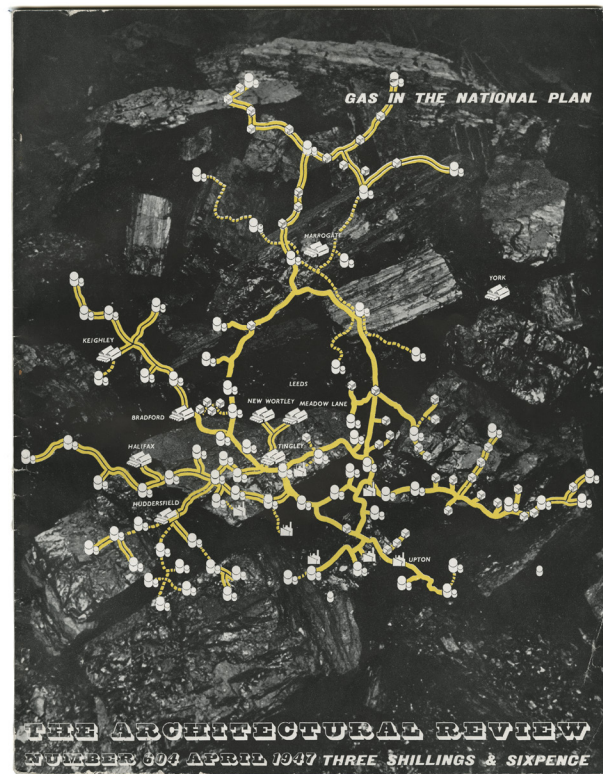


Figure 06. Cover for “Gas in the National Plan, a Special Number of the Architectural Review for April 1947 ... produced in collaboration with the Association for Planning and Regional Reconstruction,” *Architectural Review*, April 1947.

Arthur Geddes, a son of Patrick Geddes, was a lecturer in Geography.¹² From 1941 onwards Tyrwhitt directed the Association for Planning and Regional Reconstruction (APRR) while Rowse, its founder, fought in the war. At the request of the War Office, Tyrwhitt organized a correspondence course in town planning for members of Her Majesty’s forces and their allies. The importance of this course—allegedly 2,000 students enrolled, of which 170 men and two women completed their studies¹³—for the history of planning in Great Britain and beyond remains to be researched.

Tyrwhitt’s importance in making Geddes’s ideas known can be gleaned from her 1949 edition of his *Cities in Evolution*. Tyrwhitt included a text by John [F. C.] Turner (born 1927)—later the author of *Housing by People* (1976)—and Paffard Keatinge-Clay (born 1926) that analyzes the triad of Place, Work, and Folk as an expression of a holistic “life-motion of a unitary form of thought.”¹⁴

The APRR and Tyrwhitt were among the first to translate Geddes’s valley region into a planning figure on the ground. Anticipating large-scale postwar reconstruction, they developed many regional plans that combined surveys of land and resources, analyses of contemporary conditions, and projections of future needs with planning proposals. Their efforts came close to a comprehensive national plan of which numerous aspects were published in beautifully designed *Broadsheets* [Figure 04], special issues of the *Architectural Review* [Figures 05, 06], and essays in the *Architects’ Year Book* and the voluminous *Town and Country Planning Textbook*.¹⁵ The textbook drew heavily on teaching material from the correspondence course. True to Geddes’s preferred methodology of visual analysis, the APRR presented most of its surveys and plans in the form of maps and diagrams. Missing, however, was a contemporary version of the Outlook Tower, the one visual tool with which Geddes had defined the region and invited the active involvement of citizens.

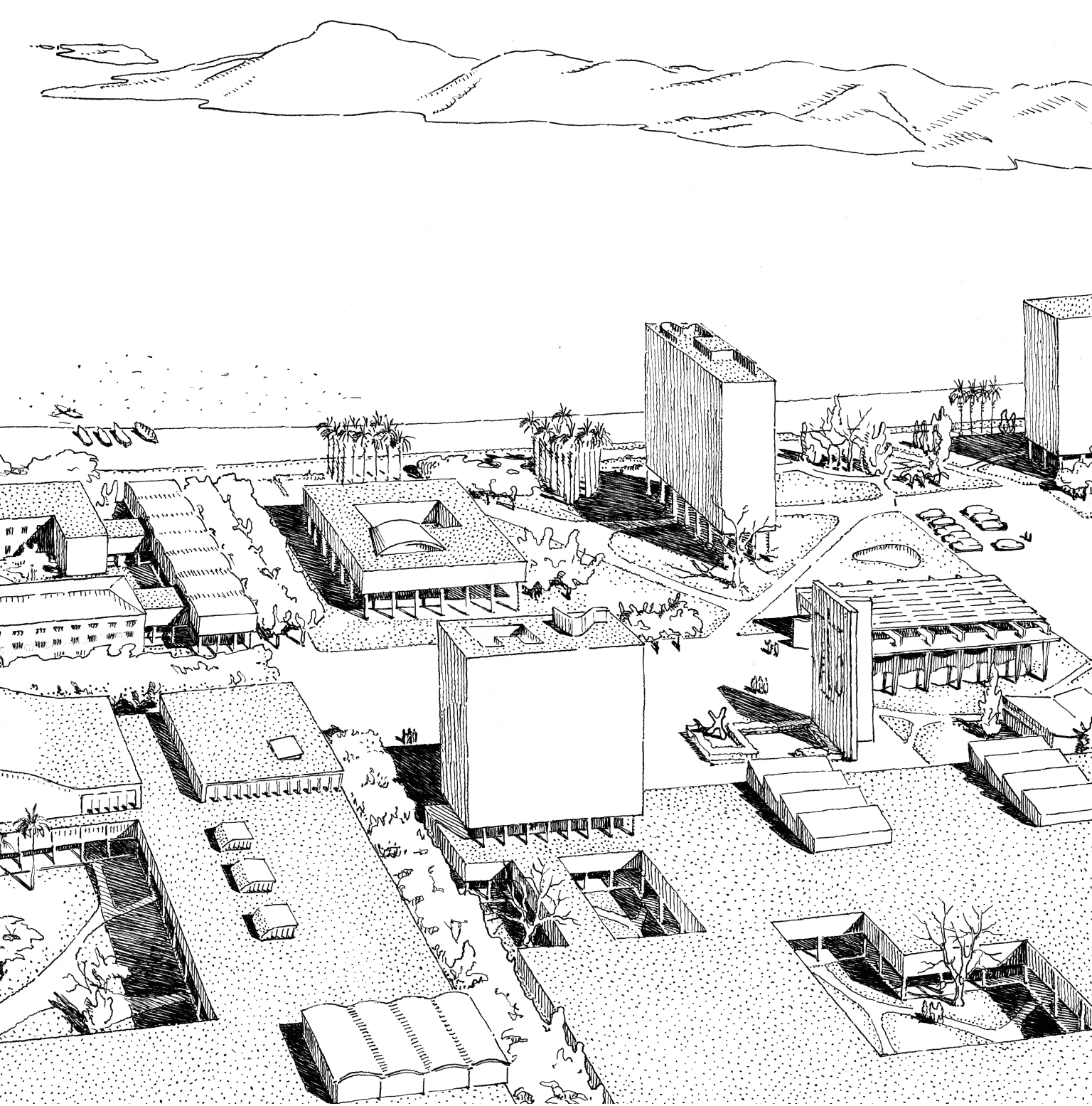
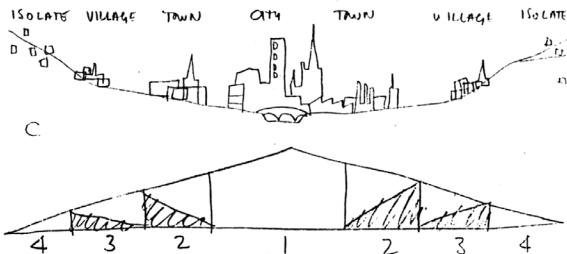
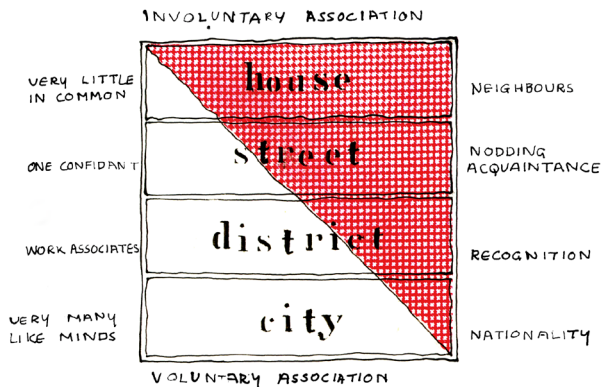


Figure 07. Josep Lluís Sert and Paul Lester Wiener, Civic Core for Chimbote, Peru, 1948.



THEORETICAL OUTLINE OF STAGES AND MAIN SUBJECTS OF SURVEY AND PLANNING OF REGIONS BY USE OF GEDDES' NOTATION OF LIFE.

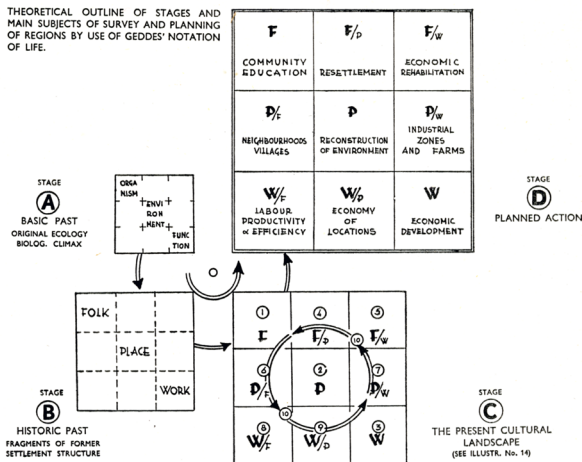


Figure 08. Alison and Peter Smithson, Diagram of Human Association, drafted for CIAM 10, 1953.

Figure 09. Alison and Peter Smithson, for Team 10, CrossSection through the Valley Region, Doorn Manifesto, 1954. The cross section references the types of settlement from Geddes's longitudinal valley section. The diagonal hatching in the sketch indicates levels of human association; see the diagram in Figure 08.

Figure 10. Artur Glikson, Theoretical Outline of Stages and Main Subjects of Survey and Planning of Regions by Use of Geddes's Notation of Life, 1953.

By comparison, Geddes's idea of a cultural acropolis fared better, briefly at least, among professional planners and architects. Largely organized by Tyrwhitt, CIAM 8 discussed "The Core of the City" when it met in Hoddesdon, England, in 1951. Geddes's idea resonated with CIAM members, as illustrated by the many modernist cultural city centers that Tyrwhitt included in The Heart of the City, the published proceedings of the meeting [Figure 07].¹⁶

The aim of CIAM 8 was to revitalize the aging organization. Yet to some younger attendees, such as Peter and Alison Smithson, two key figures of the emerging Team 10, the event may have appeared as barely more than a return to traditional city centers. Peter Smithson occasionally recalled that Geddes's urban thought was widely known during the 1940s and 1950s even at Smithson's alma mater, the University of Newcastle/Durham.¹⁷

Team 10 did not approve of CIAM's attempt to complement the Charter of Athens with an urban core: "CIAM elders no doubt felt they had said all there was to say on the four problems they have tackled in repetition since 1928. That is: the House/the Group/the Community/the Core."¹⁸ As an alternative, Team 10 emphasized the characteristics of communities and human associations specific to place and time, reprising two key elements of Geddes's theory. First, the Smithsons drew up a version of the spatial hierarchy that underpinned Geddes's Outlook Tower, but reinterpreted it as indicating levels of social association among humans. Yet as illustrated in [Figure 08], the Smithsons confined their gaze to a realm ranging from the house to the city and back; Geddes's far wider horizon that had connected the region with the world had been lost.

Second, Team 10 illustrated its Doorn Manifesto from 1954—the centenary of Geddes's birth—with a valley region, drawn in cross section rather than longitudinally [Figure 09]. The group understood the valley section as a depiction of the social structure of human societies, a model for architectural interventions, and a conceptual tool that directed the architect's gaze away from universal assumptions and toward local specifics. Broadly consistent with the legacy of Geddes, the reinterpretation nevertheless transformed the valley section into a tool for planners rather than a Geddesian call on citizens to act.

True to his anarchist leanings, the valley region and the other elements of his urban theory were for Geddes means to entice citizens to take charge of the future of their cities and regions. In the Outlook Tower the region that could be seen as a figure on the ground was brought together with its counterpart, the region as imagined, a figure of thought. From this union of the world without and the world within, citizens' activism would radiate into their surroundings.

For the APRR, CIAM 8, and Team 10, Geddesian thought became an alternative approach to their own professional work as architects and planners on behalf of the inhabitants of a city or region. Mumford had defined in the 1930s four stages of regional planning that culminated in a "plan proper" that required "intelligent absorption ... by the community and ... translation into action through the appropriate political and economic agencies."¹⁹ Israeli planner Artur Glikson (1911–1966) emphasized the shift from citizens as their own planners to the profession of planning when he reduced the triad of Place, Work, and Folk and its biological foundation in Environment, Function, and Organism—two pillars of Geddes's valley region—to ingredients in a four-step process of professional regional planning [Figure 10].²⁰

For Geddes the valley section was a figure on the ground and one of thought. To realize that both existed and had to be cultivated together required an Outlook Tower, with citizens as the agents of this process. Subsequent generations of planners and architects read the valley section as both model and tool for professional regional planning. Most ignored, however, the function of the Outlook Tower, and many of their regional plans and voluminous planning proposals have remained unrealized. They gather dust in archives and libraries, whereas Geddes's valley region continues to inspire, for it lives in the world of ideas.

Notes

01. Patrick Geddes, *The World Without and the World Within* (Bournville: Saint George Press, 1905).
02. Patrick Geddes, "Civics: As Applied Sociology, Part I," in *Sociological Papers* (1904): 105.
03. Patrick Geddes, "The Valley Plan of Civilization," *Survey Graphic* (Jun 1925): 288.
04. For example, Philip Mairet, *Pioneer of Sociology: The Life and Letters of Patrick Geddes* (London: Lund Humphries, 1957), 124.
05. Geddes, "Civics I," 106.
06. John Millar, *The Origin of the Distinction of Ranks*, 4th ed. (Edinburgh, 1806; Bristol: Thoemmes, 1990). Geddes owned a copy of the first edition of this book.

07. Elisée Reclus, "The Evolution of Cities," *Contemporary Review* 67 (1895): 246–264.
08. Lewis Mumford and Patrick Geddes, *The Correspondence*, ed. Frank G. Novak, Jr. (London: Routledge, 1995); Robert Wojtowicz, *Lewis Mumford and American Modernism: Utopian Theories for Architecture and Urban Planning* (Cambridge: Cambridge University Press, 1998).
09. Lewis Mumford, *The Culture of Cities* (New York: Harcourt, Brace, 1938; London: Secker & Warburg, 1940), 300–347.
10. Radhakamal Mukerjee, *Regional Sociology* (New York: Century, 1926), 236.
11. Ellen Shoskes, *Jaqueline Tyrwhitt: A Transnational Life in Urban Planning and Design* (Farnham, UK: Ashgate, 2013).
12. See Mary O. Ashton, "'Tomorrow Town': Patrick Geddes, Walter Gropius, and Le Corbusier," in *The City after Patrick Geddes*, ed. Volker M. Welter and James Lawson (Bern: Peter Lang, 2000), 191–210.
13. Jaqueline Tyrwhitt, "The School of Planning," unpublished typescript, 3 Mar 1953 (Archives of the Royal Institute of British Architects, London, TyJ/38/2/4).
14. John Turner and W. P. Keating Clay, "Part 2. The Contribution of the Diagrams towards a Synthetic Form of Thought," in Patrick Geddes, *Cities in Evolution*, ed. Outlook Tower Association and the Association for Planning and Regional Reconstruction (London: Williams & Norgate, 1949), 200–205.
15. "Electricity in Its Regional Setting," *Architectural Review* 97 (Apr 1945); "Gas in the National Plan," *Architectural Review* 101 (Apr 1947); Jaqueline Tyrwhitt, "Town Planning," *Architects' Year Book* 1 (1945): 11–29; APRR, ed., *Town and Country Planning Textbook* (London: Architectural Press, 1950).
16. CIAM, *The Heart of the City: Towards the Humanisation of Urban Life*, ed. Jaqueline Tyrwhitt et al. (London: Lund Humphries, 1952).
17. Telephone conversation with Peter Smithson, 29 October 2001.
18. Alison and Peter Smithson, "The Theme of CIAM 10," *Architects' Year Book* 7 (1956): 28–29.
19. Mumford, *Culture of Cities*, 379–380.
20. Artur Glikson, *Regional Planning and Development* (Leiden: A. W. Sijthoff Uitgeersmaatschappij, 1955), 83; Volker M. Welter, "Artur Glikson, Thinking-Machines, and the Planning of Israel," in Welter and Lawson, *City after Patrick Geddes*, 212–226.

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Figure 01: From Patrick Geddes, *Cities in Evolution: An Introduction to the Town Planning Movement and to the Study of Civics* (London: Williams & Norgate, 1915), 324.

Figure 02: From Patrick Geddes, *Country and Town in Development, Deterioration, and Renewal* (n.p.: n.d. [ca. 1909]), no pagination.

Figure 03: From Patrick Geddes, *The Civic Survey of Edinburgh* (Edinburgh: Outlook Tower, 1911), 544–545.

Figure 04: Association for Planning and Regional Reconstruction, *Broadsheet 1-The Delimitation of Regions for Planning Purposes* (Sep 1942, reprinted Mar 1943), 2–3.

Figures 05, 06: With permission of the *Architectural Review*.

Figure 07–09: Images courtesy of the Frances Loeb Library, Harvard University Graduate School of Design.

Figure 10: With permission of the International Institute of Social Studies, the Hague.