

**Talking Squares - Grids and Grilles as architectural analytical and communicative tools**

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'Behind all this ... an echo of Patrick Geddes?' the late Peter Smithson ended his afterword in the catalogue to a recent British exhibition (2001-02) on the artist and photographer Nigel Henderson, an old Smithson friend from the early 1950s, the time of the Independent Group.<sup>1</sup> Smithson's afterword is very specific as to what he wished to connect to Patrick Geddes, the Scottish biologist, sociologist, and urbanist. First, there are the artist Nigel Henderson and his wife Judith Stephen, an anthropologist. After Nigel and Judith had married in 1943, they moved to Bethnal Green in London's East End in 1945, in order to allow her to participate in a sociological study of the district. Nigel Henderson likewise roamed through the East End to record photographically the urban life in what was then one of London's poorest areas. So we are dealing here with a combination of visual records of urban life, sociology, and, ultimately, architecture and urban planning. Second, with the two images in the upper margin of the two page afterword Smithson gives visual clues. On the left page is an image from the Smithson's own archive: a Henderson photograph of a street scene in London's East End mounted together with a textual explanation. The text refers to life in an urban setting, to the relation between the houses and the street; a relation that is essential to foster and sustain street life. The houses, the streets, and the life in and amongst them 'prove necessary to sustain physical and spiritual life'<sup>2</sup> the Smithsons typed in the margin. The right page presents an image with a similar layout, this time by the French architect Michael Écochard, who had worked in Morocco in the 1950s. The image shows traditional courthouses—'a Moroccan Medina' the text explains—, the urban fabric they constitute, and a contemporary equivalent in the modern idiom of the new Carrières Centrales in Casablanca.

Thus these two photographs illustrate *in nuce* what this paper is about. First, in opposition to Smithson's statement that with such observation as the Hendersons had conducted in London's East End 'Sociology had begun to emerge from the rain-forest into the street'<sup>3</sup> I will argue that there existed within the British debate about the modern city since the 1890s an approach that claimed an analysis based on visual observation to be an equivalent—if not better—to more statistical and factual ways of sociological inquiry. One root of this visual approach to the sociology of urban life are Patrick Geddes's observations and planning work in Edinburgh in Scotland; not exactly a distant land of a rain-forest, even though to some it may well appear like that even today.

Second, Peter Smithson also claims in his afterword that both the images and the analysis embedded in them represent a 'shift to the specific'<sup>4</sup> and, accordingly, away from the more general or universal even though Smithson did not expand on this point. And who wants to deny this claim? Clearly, the photographs record specific urban situations, for example, in London and Casablanca. However, both images are part of a larger presentation arrangement. In the Smithsons' case this particular photograph was integrated into the grid they exhibited at CIAM 9 in 1953. At the same meeting, Écochard represented the Moroccan CIAM group and his image was taken from their CIAM *grille*. Both of these larger presentations juxtapose photographs of specific urban situations with architectural design propos-

als that respond to the urban life that the photographs and their textual additions record and analyze. Furthermore, in both cases the framework for this visual approach to specific locations is the CIAM grid, a graphic means of classification that was conceived with the two-fold intentions of making different urban realities and designs comparable as well as helping architects and town planners to master whatever difficulties a particular city posed. Le Corbusier, who together with the French ASCORAL group had been asked at CIAM 6 to conceive a grid for the forthcoming CIAM 7 in 1949, is very clear about the purpose of it. He explains, 'When one is face to face with an actual town planning problem, the mass of material is very complicated. One has to put this in order, and therefore one proceeds to construct a mental architecture amid the chaos. This is difficult'<sup>5</sup>. What was difficult for Le Corbusier then, is still not easy for us today, especially as we are now face to face with two almost mutually exclusive claims. First, Smithson's call for 'a shift to the specific' versus Le Corbusier's demand for a viewpoint of a larger order than the one immediately given on the ground which he calls chaos. Second, a representation of a mental architecture versus, so to speak, the concrete one on site. Accordingly, the second issue this paper will address is the question if these grids actually mirror a specific urban locality in all its facets or if they rather constitute a larger, general, even universal urban order?

Rosalind Krauss once pointed out in her discussion of grids as a modernist artistic device, that the grid in paintings for example invites 'naked and determined materialism'. She continues to explain that such artists as Mondrian and Malevich, that make use of this device, talk about it in distinctly different term, viz. those of Being, Mind, or Spirit. Thus, she concludes, an analysis of grids in modernity faces the phenomenon that from the artist's point of view 'the grid is a staircase to the Universal', and that 'they [the artists, vw] are not interested in what happens below in the Concrete.'<sup>6</sup> By analogy, Smithson's and Le Corbusier's claims pose a comparable paradox. One way of putting forward an answer to this apparent contradiction is to look closely at how architects have actually used the grid. Adopting Le Corbusier's language, if the grid is essentially a construction of a mental architecture, then, it must be concluded, the grid creates a mental space that can be occupied by filling it with, usually, photographs, plans, and designs. That at least for Le Corbusier the grid was both a two-dimensional graphic and a three-dimensional, literally spatial ordering device becomes obvious when one compares the CIAM grid folded into a transportable package<sup>7</sup> with one of the many images of metal filing cabinets Le Corbusier illustrated as desirable type-objects in his *L'art decorative d'aujourd'hui* from 1925.

However, to fill the rows and columns of the grid requires that various records—visual and otherwise—of a specific location are collected, sifted and categorized, and, finally, placed in the space of the grid. Accordingly, almost by necessity any architect who works with the grid turns into a collector, a figure of modernity about which Walter Benjamin once remarked that everything that the collector as allegorist touches, is shattered and preserved at the same time.<sup>8</sup> Drawing an analogy between the architect and the Benjaminian collector poses again the question what these grids are: Are they an extension of heroic

modernism's claim to establish universal principles for modern architecture and urban design? Or are they a critique of this claim, especially of its alleged reliance on a *tabula rasa* as the foundation of a purified, modern environment? A critique that, however, creates its own *tabula rasa* not by rejecting but by collecting and appropriating all things historical, traditional, and of the everyday in order to overcome them by arguing that what the ancients could achieve, we, the younger and modern architects can do at least as well if not better. Leaving open this question for the time being, it can be stated that nowadays these grids are often considered to indeed depict the shift of post-World War Two modern architects to specific local circumstances. Accordingly, the grids illustrate an architectural gaze that appears to be sensitive to specific sociological facts and responsive to local needs, rather than being inspired by the abstract needs of the new man of the future that heroic modernism had proclaimed during the 1920s.

However, this positive view is occasionally contested, for example, by the British sociologist Ruth Glass. She writes in retrospect about the late 1940s and the 1950s: 'Sociologists can become amateur town planners; town planners ... are amateur sociologists. Many of them have their own brew of sociology—derived from the ideas of nineteenth-century utopias and social reforms; with seasoning by Geddes and Mumford ... The home-made brew of sociology ... is in keeping with the town planner's search for mechanistic explanations of cause and effect; it provides the formulae for which he is looking—simple, repetitive solutions to complex, diverse problems.'<sup>9</sup> We shall see later that Ruth Glass was temporarily closely connected with this home-made brew of urban sociology, but first of all, a much more appreciative quote about the grid by Le Corbusier: 'The Grid is but a tool, ... an instrument for thinking (a 'thinking-tool') ... Your silent problems lie displayed immediately before your eyes, and their environment is spread out before you ... There are different kinds of environment. There is the environment of a kitchen and the environment of a continent. But the environment affects the organization of a kitchen just as much as it does the organization of Europe, or even the world ...'<sup>10</sup>

Now, Ruth Glass refers directly to Geddes, though in a negative way, while Le Corbusier makes two indirect, but positive reference to the Scotsman. First, he claims the relevance of the CIAM grid to the planning of everything from kitchen to the world. This statement can well be understood as a reference to a grid Geddes conceived as early as 1881 in an essay on statistics in which he developed a table to classify biological forms of life under the three main categories of 'territory, occupations, and organisms'. More interesting is what he writes in the accompanying essay: 'It is one of the most marked advantages of the table that it would be easy to monograph on this principle a city or a village, a single household or even an individual, as well as a nation, to compare these facts of personal and domestic economy among each other, and to generalize bodies of these.'<sup>11</sup> Like Corbusier almost 60 years after him, Geddes claims that his grid can be applied to social units of various sizes—from individual human beings to entire nations—in order to, first, compare and then, second, to generalize from the local. Both men gaze at the local, but aim, ultimately, at an

image of the world.

The second Geddesian reference in Le Corbusier's text on the CIAM grid is the word 'Thinking-Tool'. It is known that Geddes was fascinated throughout his entire career with the visual ordering of things and life in grids and *grilles*. His most famous diagram is certainly the Notation of Life, which was published in 1927 but developed much earlier.<sup>12</sup> Interestingly, Geddes calls this diagram a 'thinking machine' or 'thought diagram' and claims in a related essay that it will help to understand many complex phenomena, including urban planning: 'If the reader be interested in Town-study and planning, he may use this [the Notation of Life, vw](even for planning).'<sup>13</sup> The Notation of Life is basically a square divided into four quadrants. It depicts a spiral progression from TOWN in the upper left quadrant, via SCHOOL and CLOISTER, to CITY IN DEED in the upper right corner; an upward movement that perpetually repeats itself in the development of human settlement.<sup>14</sup> This grid is for Geddes an analytical tool to access both humankind's material environment and non-material world, the world of myths and belief; for Geddes it is not a staircase but a spiral leading upwards to the universal, to paraphrase Rosalind E. Krauss.

The Notation of Life on its own does not say that much with regard to a specific city, for example Edinburgh. It requires to be read in parallel with other activities of Geddes, most notably his photographic survey of Edinburgh which was conducted since the 1890s.<sup>15</sup> Geddes was not the first who recorded photographically the urban environment in the nineteenth century, but to my knowledge he was one of the first who took specifically such photographs as the inspirational basis for architectural and urban design proposals for the improvement of a city's urban fabric. To give a brief example: when Geddes photographs Edinburgh children playing in a street in a slum area of the city, than he depicts the level of TOWN in the Notation of Life. However, when Geddes records with the camera children involved in the activity of gardening in one of the open green spaces he had installed in Edinburgh, he shows life lived on the fourth level of CITY IN DEED. In short, Geddes looks at specific urban situations in order to improve them. At the same time, he generalizes his observations and initiatives with the help of the Notation of Life into a systematic and universal approach to understand cities and life in them. Although both levels of analysis relate, even depend, closely on each other Geddes keeps them visually strictly separated. He does not transfer his visual observations of Edinburgh into the grid of the Notation of Life, even though the grid comes to life only when considered together with the images and vice versa.

Initially, Geddes developed the grid as a haptic thinking device when he was temporarily blind in the 1870s. He argues that one can assign a thought or any phenomenon to the panes of any given window and then can work out, by feeling the spatial relations between the panes, conceptual relations between thoughts or things put into the window. Things placed into the grids of windows also captured the gaze of Henderson when he photographed in London's East End. For example, in a shot of a shop in Bethnal Green it is thanks to the grid of the window that the accidental things of daily life appear to be in

place.<sup>16</sup> Another image of the everyday life in London's East End shows advertising posters pasted onto a wall in an orderly grid.<sup>17</sup> Urban life may appear on the first sight without order—Le Corbusier's chaos—but when looked at it this way there is no danger of suffering from an eye strain that would require the remedy that is praised on one of the flyers to be seen in the image.

Being thus back in Bethnal Green, a more conceptual and historical connection can be made between Geddes, the Hendersons, and, ultimately, the Smithsons than simply juxtaposing images of Henderson's photographs of accidental urban grids and Geddes's *Notation of Life*. This link centers around the horticulturalist and town planner Jaqueline Tyrwhitt (1905-1983) who had turned to town planning during the 1930s when she fell under the spell of Geddesian theory. There she remained throughout her career which took her from London to Harvard University in the 1950s, later to Toronto to collaborate with Marshall McLuhan, and finally, in the 1960s, to Greece where she worked with Doxiades on the well-known Ekistics grid, but this grid will be ignored in this essay. Before and during World War Two Tyrwhitt was in charge of a Geddesian planning group with the name Association for Planning and Regional Reconstruction (APRR). In the late 1930s, the APRR conducted a sociological survey of Bethnal Green, a project which employed among many others the earlier quoted sociologist Ruth Glass. Roughly at the same time, Tyrwhitt became a member of the MARS group, the beginning of her career in architectural modernism that culminated in her election as acting secretary to CIAM in 1951.

Various links can be drawn between all three, the Hendersons' and the Smithsons' interest in London's East End, Geddes's visual sociological-architectural approach to the city, and Tyrwhitt as a representative of the MARS group and CIAM. First, it is safe to assume that Judith Henderson when she began working on her Bethnal Green project will have been familiar with earlier surveys of the same district. Second, even the briefest glance at the MARS grid from c. 1951, an alternative to Le Corbusier's CIAM grid, shows a strong Geddesian input.<sup>18</sup> The left column, entitled 'The Region', and the column to the right, named 'The Core', center the MARS grid around the valley section and the spiritual heart of the city, two of the most important elements of Geddes's theory of the city.<sup>19</sup> Third, it was Tyrwhitt and the APRR who propagated in the immediate aftermath of World War Two Geddes's visual-sociological analysis of the urban environment. In 1947, Tyrwhitt published a slim volume entitled *Geddes in India*, illustrated with such images as for example people sitting on steps between vernacular houses.<sup>20</sup> These photographs are not by Geddes, but true to the Geddesian spirit they focus on social and individual life in the in-between spaces of the urban fabric.

What we can take from this digression is that the knowledge about Geddes's visual and diagrammatic approach to cities never disappeared from the British as well as the international debate about the city. Or as Ruth Glass writes 'For town planning, however, Geddes's 'sociology' ... remained the sociology.'<sup>21</sup> The same holds true for architects, one may want to add, including those of the generation from which Team 10 emerged. Nearly all the

ingredients that made up Team 10's early analytical gaze towards the urban environment—the emphasis on the specific location, the in-between of old and old as well as of old and new, the grid—had already been put in place by that earlier generation of architects and urban planners, members of the CIAM and otherwise, to which Tyrwhitt belonged. Rather than facing within CIAM a revolt of young against old and older, we seem to deal with, at least initially, a passing of the baton.

Coming to an end of my paper, I wish to briefly return to the earlier posed question about the oscillation of the grid between the local and the universal. Walter Benjamin charges collector as well as historicist historian with possessing an allegorical gaze.<sup>22</sup> That in itself is not a difficulty for Benjamin, but he takes issue with the consequences of this gaze which shatters and preserves at the same time. This gaze destroys because whatever it looks at becomes removed from its contextual reality and reified into an object of pure art, whose value derives from the eternal essence of art it embodies. At the same time, the allegorical gaze preserves because the reified object is easily integrated into a larger epic narrative of, for example, history or, in our case, the question after what constitutes a city. This removal from context offers one possible explanation for the usually wide gap between the analytical fields of such grids—these fields typically focus on historical and traditional urban architecture—and the proposed modernist designs depicted in other fields.

Consider the aforementioned Smithson grid.<sup>23</sup> The left side assembles Henderson photographs as the analytical half of the grid, on the right side architectural design proposals are presented, amongst them the Smithson's entry to London's Golden Lane Housing competition from 1952. But what actually have the images on the left to do with the outcome on the right? Is the visual analysis on the left really necessary to come up with the design schemes on the right? According to the Smithsons yes. They claim that it were Henderson's photographs of urban street life that made them realize the value of this social space and the life in it. Subsequently, the Smithson's put forward the idea of 'Urban Re-identification' as an alternative to CIAM's four functions of the modern city. The Smithsons' city emphasizes movement through urban space with all the possibilities for social encounter this may offer. But ultimately isn't this another claim to have found a universal law that makes cities work or tick, so to speak? The right half of the grid distills the Smithson's fascination with urban movement into a model of the city that is entirely based on patterns of human movement through urban space and that transforms the urban street into the open access deck of the high-rise slab. This is not a post-modern critique of mid-century modernism, but a questioning of the Smithsons' claim that in their use of Henderson's photographs these have still anything to do with a 'shift to the specific'.

This doubt becomes particularly obvious if one compares the juxtaposition of the Henderson photographs and the Golden Lane scheme as incorporated into the framework of their CIAM grid with another image of the Smithsons' entry for the Golden Lane competition. In a well-known perspective rendering of the Golden Lane scheme the façade of the proposed building constitutes a three-dimensional grid that is filled with photographic images of people

strolling through the imaginary urban realm of the street in the sky.<sup>24</sup> In the case of this perspective, the cut-outs are drawn from popular mass culture—a hobby horse of the Smithsons—including such pop icons as Marilyn Monroe (or whoever is actually depicted in that particular rendering). Yet, the photographs of children and people integrated into the CIAM grid are also images from a mass culture, but in this case drawn from that of the working class masses.

Henderson's photographs are almost true records of urban life in Bethnal Green, but placing them in the Smithsons' CIAM grid turns them into allegories of urban life as such. Of comparable allegorical character is the integration into the perspective of a photograph of "Marilyn Monroe", the most unlikely tenant who would have ever lived in the social housing estate. Furthermore, the chances of the children in the Henderson photographs to ever become such a well-known pop star were presumably rather slim, unless of course they had been born in Liverpool or would join a boy band in the England of the early twenty-first century. But that's not the main issue anyway. Important is that these allegories are exchangeable, because each photograph has been removed from its original context in order to illustrate the goal to define a universal human situation of urban life, that of fun in the street. And it is this interest that makes it apparently so easy to overlook the important differences between a Hollywood star about to hit town and working class children playing in the street as the only outdoor space they most likely had access to. Extracting from Henderson's photographs and other images an essential quality of urban life—movement through urban space—allows the Smithsons to make this allegedly eternal characteristic of urban life to the basis of many of their urban designs, beside the Golden Lane Housing estate—which by the way is not even located in Bethnal Green the site of Henderson's photographs—, for example the Berlin *Hauptstadt* competition (1957) and the exclusive space of the Economist block in London (1959-64).

To conclude, I do not think that the best way forward to enhance one's understanding of these grids is to compare grid with grid in order to work out which of them is more accurate, specific, or a better tool. Rather, the really interesting question is to ask what happens with the specific situations recorded by Geddes, Henderson, Écochard, the Smithsons etc. if and when they are placed in a grid? Geddes never framed images of Edinburgh or any other town in his diagram. His Notation of Life and the photographic survey were related but not identical tools for the urban planner. The Smithsons, other Team 10 members, and to a certain extent Le Corbusier and older CIAM architects worked differently. They placed specific images under the abstract categories of the grid. This appears to be systematic, is of course instinctive, but reaffirms in any case modernism's claim for universality. yet as Ruth Glass once observed regarding architects and planners working along these (Geddesian) lines 'Their universe was so wide as to be no longer verifiable',<sup>25</sup> and accordingly not specific.

- <sup>1</sup> Peter Smithson, 'Afterword', in Victoria Walsh, Nigel Henderson Parallel of Life and Art (London: Thames & Hudson, 2002), pp. 150-51.
- <sup>2</sup> Smithson, 'Afterword', p. 150.
- <sup>3</sup> Smithson, 'Afterword', p. 150.
- <sup>4</sup> Smithson, 'Afterword', p. 150.
- <sup>5</sup> Le Corbusier, 'Description of the CIAM Grid, Bergamo 1949', in CIAM 8, The Heart of the City: Towards the Humanization of Urban Life, ed. by J. Tyrwhitt, J.L. Sert, and E. N. Rogers (London: Lund Humphries, 1952), p. 172.
- <sup>6</sup> Rosalind E. Krauss, 'Grids', in Rosalind E. Krauss, The Originality of the Avant-Garde and other Modernist Myths (Cambridge, Ma.: MIT Press, 1985), pp. 8-22 (p. 10).
- <sup>7</sup> See Le Corbusier, 'Description of the CIAM Grid', p. 175.
- <sup>8</sup> Walter Benjamin, 'Central Park', New German Critique (1985), p. 41.
- <sup>9</sup> Ruth Glass, 'Uneasy Partnership: The Application of Sociological Knowledge to Regional and Town Planning', in Ruth Glass, Clichés of Urban Doom and other Essays (Oxford: Blackwell, 1989), p. 18.
- <sup>10</sup> Le Corbusier, 'Description of the CIAM Grid', p. 172.
- <sup>11</sup> Patrick Geddes, 'The Classification of Statistics and Its Results', Proceedings of the Royal Society of Edinburgh 11(1881), p. 316.
- <sup>12</sup> For an analysis of the Notation of Life see Volker M. Welter, Biopolis—Patrick Geddes and the City of Life (Cambridge, Ma.: MIT Press, 2002), chapter 2.
- <sup>13</sup> Patrick Geddes, 'A proposed Co-ordination of the Social Sciences', Sociological Review 16 (1924), p. 55.
- <sup>14</sup> Welter, Biopolis, p. 32.
- <sup>15</sup> Catalogue of the Archives of the Patrick Geddes Centre for Planning Studies, vol II, The Photographs for the Survey of Edinburgh by Sir Patrick Geddes, ed. by Sofia Leonard (Edinburgh: Patrick Geddes Centre for Planning Studies, 1998)
- <sup>16</sup> Walsh, Nigel Henderson, p. 52.
- <sup>17</sup> Walsh, Nigel Henderson, p. 63.
- <sup>18</sup> CIAM 8, The Heart of the City, p. 107.
- <sup>19</sup> Welter, Biopolis, chapter 3 for the valley section and chapters 6-8 for the concept of a heart of the city.
- <sup>20</sup> Jaqueline Tyrwhitt, Geddes in India (London: Humphries, 1947).
- <sup>21</sup> Ruth Glass, 'Urban Sociology in Great Britain: A Trend Report', in Ruth Glass, Clichés of Urban Doom and other Essays (Oxford: Blackwell, 1989), pp. 27-50 (p. 39).
- <sup>22</sup> Walter Benjamin, 'Eduard Fuchs: Collector and Historian' (1937), in The Essential Frankfurt School Reader, ed. by Andrew Arato and Eike Gebhardt (Oxford: Basil Blackwell, 1978), pp. 235-53.
- <sup>23</sup> Walsh, Nigel Henderson, pp. 38-39.
- <sup>24</sup> Alison and Peter Smithson, The Charged Void: Architecture (New York: Monacelli Press, 2001), p. 87 (top illustration)
- <sup>25</sup> Glass, 'Urban Sociology', p. 38.