

Interdisciplinary Vocabularies at the University of Toronto's *Culture and Communications Seminar, 1953-1955*¹

Media in Transition 6: stone and papyrus, storage and transmission
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Michael Darroch
Communication, Media and Film, University of Windsor

This paper focuses on the mutual influence of art, architectural theory, and urban planning on media studies in Canada in the early 1950s. The project has grown out of my interest in understanding transatlantic influences especially between some of Canada's early contributors to media theorisation and European scholars who shared concerns around communication, media biases, material culture and city life. In particular, I am interested in the wide-ranging influence of the architectural historian and cultural theorist Sigfried Giedion on the *Culture and Communication Seminar*, which formed at the University of Toronto in the early 1950s and was led in part by Marshall McLuhan. I am specifically interested in the relationship between Giedion and McLuhan and the influence of Giedion's principal methodology, which he called the study of "anonymous history," on the methodologies and pedagogical strategies employed in the seminar. Giedion's commitment to cross-disciplinary thinking was adapted by the diverse members of the seminar, particularly in their shared concept of "acoustic space."

The *Culture and Communications Seminar* was organized by McLuhan, the modernist urban planner Jaqueline Tyrwhitt (who was also Giedion's long-time collaborator and translator), political economist Tom Easterbrook, and the anthropologist Edmund Carpenter. Funded by a Ford Foundation Grant, and also

known as the *Explorations* group after the title of the interdisciplinary journal they co-edited from 1953-1959, these scholars worked to promote interdisciplinary methodologies and develop a 'field' approach to study the new grammars and environments created by electronic communications technologies. In McLuhan's well-known letter to his colleague Harold Innis of 1951, he noted that Giedion's books *Space, Time and Architecture* (1941) and *Mechanization Takes Command* (1948) were the central inspiration for this "experiment in communication."

Sigfried Giedion: Studies of *Durchdringung* and Anonymous History

McLuhan had studied Giedion's approach to art and architectural history well before Jaqueline Tyrwhitt took up her position at the University of Toronto in 1951. Correspondence between McLuhan and Giedion in the early 1940s suggests the extent to which Giedion's research interests and methodology had already begun to influence McLuhan's own studies, especially his fascination with synaesthesia, the interrelationship or interplay of the senses. In a letter to McLuhan dated August 6, 1943, Giedion discusses their shared interest in T. S. Eliot, whose writing he describes as "simple" and "'tiefsinnige' prose." Giedion's use of *tiefsinnig*, the German adjective for *Tiefsinn* or "profundity," is important, as it relates the many possible connotations of *Tiefe* (depth) and *Sinn* (senses; meaning; mind). According to Giedion, scholars need the clarity of Eliot's prose—what he describes as its "many 'senseness'"—in their own argumentation (Marshall McLuhan Fonds [hereafter MMF], MG31, D156, Vol. 24, File 65.)

These concerns are reflected in Giedion's call for a new style of writing tied to his call for a new methodology for studying art and material culture: the interdisciplinary study of "anonymous history." Giedion continued:

I do not like—as you know—the word style. Style is to [sic] personal, to [sic] narrow for such a thing as language. The only difference between a writer and a man confined to the day is, that the one is [...] able to choose words + expression, or 'combinations' as perhaps Eliot would say—I prefer, for my own purposes to say: 'interrelations'—so that they are shaped for many purposes[:] to go around.

Now, this is the trouble with translations. It is not so much that English does not possess the idioms + terms necessary, but that the busy translator takes no care or has no gift to find the manysidedness in his [idiom] and simplifies the text in a onesided manner, called—banalization (MMF, MG31, D156, Vol. 24, File 65).

Giedion's commitment to multifaceted examinations of artistic styles and material forms spans his lifework. In his book *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton* (1928), Giedion described the new technologies of iron, glass and concrete as forming the "subconscious" of architecture in the 19th century, but which would become the materials and techniques of building in the 20th. Key to understanding the importance of these new technologies of engineering were the interpenetration of forms and the modernist aesthetics of transparency. To describe these new conditions, Giedion employed the term *Durchdringung*, which implies the mutual interpenetration of an object and its environment, of a person and the ambience of a space, or of materialities and atmosphere: it suggests a constellation of overlayings and intermingling forms, of space and time, and an aesthetics of construction that uses transparency to accommodate these various interpenetrating forces.

The related study of "anonymous history" first emerged in Giedion's writings of the late 1920s. In *Bauen in Frankreich*, he described architecture as an "anonymous" and "collective" form. This concept appeared for the first time in

English in an article for the November 1943 issue of *The Technology Review*. Entitled “A Complicated Craft Is Mechanized,” the article details a portion of the study that would become Giedion’s classic *Mechanization Takes Command* (1948). At this stage, Giedion distinguished between European and American mechanization in the late eighteenth century. In Europe, Giedion argues, “simple crafts” were mechanized—such as mining, spinning, and weaving—all of which became synonymous with industry. In contrast, America mechanized “complicated crafts,” starting with the trade of the miller and ending with the job of the housekeeper in the twentieth century. In between, all those occupations concerned with the intimate sphere of private life had undergone the same process of mechanization: the tailor, the shoemaker, the farmer, the locksmith, the baker, the butcher. In Europe, these complicated crafts still formed important social strata, but they had nearly disappeared from American life, a shift that Giedion believed had enormous influence on communal habits and thoughts (Giedion 1943a: 3).

In Giedion’s studies, the seemingly fragmentary details of inventions and their everyday effects reveal the cosmos of a given historical period. Like his mentor Heinrich Wölfflin, Giedion was critical of studies that focus solely on specific social and economic conditions or events. In order to discern the historical consciousness of the day, attention must be paid to “phenomena themselves,” to the ways in which specific developments reveal the essential spirit of a period. This approach calls for insight into “the *anonymous history* of inventions and ideas, which are the tools that build the instrument of mass

productions,” for “inventions and the trends they reveal govern our present-day life” (Giedion 1943a: 3). Writing of the invention of the pin-tumbler cylinder lock by Linus Yale, Jr., in the mid-nineteenth century, Giedion claimed that “mechanization in the locksmith’s sphere is of historical interest only when it chooses the hard way: when it is achieved by creating new methods and new aims” (4). The pin-tumbler cylinder lock is not merely an object of technical curiosity; the advancement it represents “does not consist in merely producing by machine the parts that formerly had been made by hand.” Rather, the pin-tumbler delineates a shift in mechanical thinking and thus in the creativity of the craft itself: “the transformation of the whole interior organism of the lock, from its technical construction down to its key” (4). Giedion’s conceptualization of anonymous history thus proposes that objects are active and dynamic environments.

In a 1944 extract entitled “The Study of Anonymous History” (an excerpt read in the Culture and Communication Seminar a decade later), Giedion elaborated on his understanding of interdisciplinarity. He is critical of what he views as the disciplinary limitation of canonized fields, including history and sociology:

An inquiry into the historical basis of many of our modern modes of life can [only] be incompletely answered. While considerable research has been done in a number of circumscribed fields, these are seldom linked together in any way. The studies undertaken are usually from a specifically specialist point of view and are limited to a narrow area of inquiry. There have, for instance, been numerous research studies into the history and operations of various industries, inventions, sociological occurrences, gymnastics, the bath, communications, etc. (Giedion 1944: 1).

This approach, he argues, tends toward studies that focus on an “isolated comprehension of the techniques of a certain invention,” and thus an

unwillingness to extrapolate from these phenomena to the manifold relations of a given era (Giedion 1944: 1). “We must be able not only to give general and sociological explanations but also know HOW and WHEN certain phenomena arose which are of primary importance in modern life.” Here we glimpse the source of Giedion’s methodology in the contemporary artistic practices of the Surrealists and Bauhaus:

The modern painters have shown us through their art the uncanny power, the uncanny influence, exercised by the things of everyday usage, which are themselves symbols of our customers. The modern painter has been able to present us with a picture of our modern conception of the world by the use of these fragments: bottles, pipes, cards, pieces of wallpaper, or grained wood, scraps of the plaster decorations of a café (Giedion 1944: 1).

As a methodology, the study of anonymous history places the emphasis on everyday material culture: “If we wish to throw light upon the genesis of our age, we must research into the origins of everyday life, the origins of our own mode of life” (Giedion 1944: 2). Scholars have explored the political, economic, and sociological developments of the modern age, but a lack of contemporary historical documents frustrates the study of the structure of contemporary everyday life:

And yet this anonymous history is the basis and the foundation for all the political, sociological and economic events. But the history of the evolution of our daily life lies outside the sphere of research of the historian who confines his interests to the great developments, the great artists, the great inventors (Giedion 1944: 2).

These strategies, ahead of their time in many respects, would nourish Giedion’s idiosyncratic study *Mechanization Takes Command* (1948). His approach thus represents one of the earliest significant conceptions of material culture as a relevant source of evidence for studying cultural phenomena.

Giedion’s *Mechanization Takes Command* (1948) stands as a corollary to his earlier classic of architectural history, *Space, Time and Architecture* (1941),

and both became strong influences on the *Culture and Communication Seminar's* "field approach" to media and communication. Building on Giedion's earlier work, *Mechanization Takes Command* was intended to show "how badly research is needed into the anonymous history of our period, tracing our mode of life as affected by mechanization—its impact on our dwellings, our food, our furniture. Research is needed into the links existing between industrial methods and methods used outside industry—in art, in visualization" (Giedion 1948: vi). Giedion was thus committed to bridging disciplinary boundaries between science, technology, and art as a means of engaging with fragments of history as a living process of "new and manifold relations" (3). For him, the historian's role "is to put in order in its historical setting what we experience piecemeal from day to day, so that in place of sporadic experience, the continuity of events becomes visible. [...] The sun is mirrored even in a coffee spoon" (2-3). In a letter to his student Walter Ong, McLuhan criticized F. R. Leavis' elitist approach to culture as "forbidding him to look for the sun in the egg-tarnished spoons of the daily table" (McLuhan 1987: 166). Scattered across McLuhan's writings are numerous such instances where his debt to Giedion's concepts, his writing style and metaphors, and indeed his methodological approach to everyday life is revealed. Perhaps the most obvious of these is McLuhan's 1951 first book, *The Mechanical Bride: Folklore of Industrial Man* (2002), constructed, like *Mechanization Takes Command*, following a montage strategy, using excerpts drawn from newspaper and magazine advertisements to explore everyday cultural artefacts.

Tyrwhitt, Giedion and the Culture and Communication Seminar

As Giedion's colleague and translator, Jaqueline Tyrwhitt helped to facilitate the discussions around Giedion's works in the *Culture and Communication Seminar*. Correspondence between McLuhan and Tyrwhitt in the early years offers a particularly rich point of reference for determining how the seminar was conducted. In a lengthy letter to McLuhan dated 30 August 1953, Tyrwhitt wrote that a copy of the original proposal as submitted to the Ford Foundation

was now with Giedion (Doldertal 7, Zurich 7—though I rather think he is travelling about just now in the caves of France and Spain collecting material on 'the community of human experience'). After I received the programme I went to Zurich and had a talk with Giedion upon it. His first statement, with which we would all agree, was that it was not a very clearly thought out document, and that the actual programme of study still remained to be worked out and stated. He then proceeded to tax me with the question "Communication of What?" His own interests in this line are confined to the "expressive moments in a culture which reveal the inner nature of man"—in current parlance, the emotional pattern of our period.

This is a tall order, and I feel certain we must first establish a common vocabulary between the members of the group. To this end the suggestion in the programme of a pilot study confined to the University Campus seems to me excellent (Papers of Jaqueline Tyrwhitt, TYJ/18).²

Like Giedion, Tyrwhitt always sought to foster common vocabularies between established disciplines. Her proposal for a pilot study on the university campus appealed to Giedion, who had long advocated an "interfaculty methodology." This call for interdisciplinarity is articulated in the foreword to *Mechanization Takes Command*: "Nothing of the kind is earnestly provided for in the curricula of present-day universities. Chairs of anonymous history ought to be created, with the task not only of showing how facts and figures are to be gathered, but of showing their impact on culture and their meaning for us" (Giedion 1948: vi). Indeed, as early as 1943, when Giedion and McLuhan began to correspond, Giedion had advocated creating "Faculties of Interrelations" within universities to

allow communication between the sciences, arts, and humanities (Giedion 1987: 160). Giedion's purpose in promoting this line of inquiry, Tyrwhitt claimed in her letter, "is to show why it is that, for instance, mathematics and psychology are using similar methodological approaches." She and Giedion

agreed that, within the outline programme as it stood, there were two distinct studies: one at the level of the general public, the other within the university. The second could result in a study of methodological patterns leading to means of comparing results. The first would be a study of those expressive patterns which produce a direct re-action from the public. I remember Giedion remarked that abstract posters can grip the general public but not abstract painting because man has a direct approach to the poster—but not to the painting. The result of this study might be to bring into consciousness the main lines of the existing underlying unconscious pattern.

Tyrwhitt recommended starting with the pilot project "to be confined to the Toronto campus," which she suspected would resonate with both McLuhan's and Carpenter's areas of interest. At the same time, she was concerned that such an endeavour "would have to be studied by a group that was more closely knit and interwoven than ours is at present. It would be just too easy to get lost in one more field study, leading either to no conclusions, to platitudes or to half-baked novelties." Further to the concept of interfaculty relations, Tyrwhitt reported that Giedion had "worked out something in considerable detail, but it could not be applied easily in MIT because of the somewhat one-sided set-up of that institution. This would not apply to us, though our present group might need some strengthening on the side of physics or mathematics." This discussion led to two alternative programmes, which Tyrwhitt put forward for McLuhan's consideration:

- a) A comparison of methodologies employed in different disciplines within the University of Toronto with a view to discovering means of direct communication between them.
- b) The effect upon 'sense of time' (Innis) of the Toronto public caused by the present developments of mass communications (radio, television, newspapers, etc.)

On 14 October 1953, the day before the first group meeting, McLuhan wrote to Tyrwhitt confiding in her his latest concerns for the seminar's direction. He stressed his own interest in studying media effects on human sensibility, where media are understood first and foremost as "art forms." This line of inquiry, he claimed, differentiated his interests from those of Carpenter or Easterbrook. Carpenter, who was keen to initiate a "mag" (which would ultimately become the journal *Explorations*), was interested in the effect of new media on changing concepts of space and time and related shifts in understanding the self. Easterbrook was focused on Canadian–American relations. McLuhan set out to educate the group by collecting excerpts on theories of communication from a variety of courses, including works by Giedion, Eliot, and György Kepes. This collection would provide a common body of materials for the graduate students and allow the whole group to understand the languages of various media as well as the disparate fields represented by the group's members. Before Tyrwhitt's return, the students were to read, among others things, Giedion's key works and Tyrwhitt's *Heart of the City* (Tyrwhitt, Sert, & Rogers 1952).

On October 29, 1953, McLuhan wrote to Tyrwhitt that funds from the Ford grant, along with various released-time funds for group members, had allowed them to proceed with the publication of *Explorations*. Carpenter would act as editor-in-chief, with McLuhan, Tyrwhitt, Easterbrook, and Williams as associate editors. The first issue, to be released in November 1953, would have a print run of 1,000 copies. Six issues were planned in total, with the title *Explorations: Studies in Culture and Communication*. Initially, one whole issue was planned to

be dedicated to Harold Innis, and a second issue would be dedicated to Giedion. Changing concepts of space and time would be a central concern. McLuhan asked Tyrwhitt whether she would write something about her experience developing a United Nations exhibition on low-cost housing in India for the next issue.

McLuhan's interest in understanding the media as art forms and his hope of publishing an issue of *Explorations* on Giedion are reiterated in his correspondence of 8 December 1953. The second issue would contain more Ford project matter, while the third and fourth issues would still be devoted, respectively, to Innis and Giedion. At this stage, McLuhan hoped that Tyrwhitt would not only contribute her own work to the journal, but also provide suggestions for topics that graduate students of various fields could engage with. Giedion's works would be core readings, providing ties between students of psychology, economics, and anthropology. The journal in this sense not only involved graduate student research, but its composition was connected to the weekly orientation and organisation of the seminar.

McLuhan's correspondence with Tyrwhitt not only frames his concerns with media as art forms, but also underscores the importance of city life and urban history for the study of media and communication. He found it difficult to convince the group of his belief that the transition from primitive groups to urban conglomerations (the "urban revolution") was a consequence of the advent of writing. McLuhan suggested to Tyrwhitt that the initial social organization of city spaces was related to the translation of audible forms into spatial forms. The

result of this translation is “writing” of all kinds. In line with an Innisian understanding of media bias, he claimed that orality had previously locked society into a world of time, removed from any spatial control. Speech represented the greatest of all mass media. McLuhan expressed the wish to produce several issues of *Explorations* focused on the mastery of various media. They needed someone, he suggested, who could study the social impact of the road as an art form, similar to the work of Patrick Geddes on the transformation of city-states in the United Kingdom.

These many early reflections on the spatial organization of media and cities would play a profound role in the development of McLuhan’s thinking. The McLuhan–Tyrwhitt correspondence is particularly valuable, as it reveals McLuhan’s nascent thoughts about the effects of new media on the transformation of cultural space and related transformations in urban design. Most important in this regard is his suggestion that the organization of town spaces was related to writing, the translation of audible forms into spatial ratios. While not yet articulated fully, these reflections already imply the concept of “audible space,” which would become central to McLuhan’s analysis of media. Indeed, within a year, the concept of audible or “acoustic space” became a platform for the entire *Culture and Communications Seminar*.

Acoustic Space: A Framework for Interdisciplinary Dialogue

As I have argued with Janine Marchessault (2009), the concept of “acoustic

space” became an important structuring principle that grew out of the seminar. McLuhan drew upon a sound-based paradigm that was historically grounded, and directly inspired by oral cultural traditions. Juxtaposing the works of Adorno, Benjamin, Innis and McLuhan, Judith Stamps in her book *Unthinking Modernity* (1995) finds that these philosophers of modernity are “part of a larger Western project of rethinking the visual dimension of space-time relations by employing models built around the temporal qualities of sound” (Stamps 1995: 151). Arguably McLuhan, more than anyone else, was most inspired in his spatial metaphors by oral culture and by physics: acoustic space, non-linearity, centre without margins—all neologisms attempting to grasp the maelstrom of contemporary life. It was the temporal qualities of sound which McLuhan saw as connected with Giedion’s concept of anonymous history, with its manifold, integrated, intersensual relations.

McLuhan and Carpenter would describe auditory space (in the mid-1950s):

The essential feature of sound is not that it has a location but ‘that it be, that it fill space. Sound is an envelope. No point of focus; no fixed boundaries; space made by the thing itself, not space containing the thing. It is not pictorial space but dynamic, always in flux; creating its own dimensions moment by moment. It has no fixed boundaries, is indifferent to background; the ear favours sounds from any direction, it can experience things simultaneously.

Acoustic space is borne out of a productive cross-fertilization of ideas and disciplines, cultural studies and artistic practices. It drew on the radical anthropologist Dorothy Lee’s insights into the decentralized experience of nonlinear cultures, Gideon’s analysis of the dark spaces of caves and pyramids, and what Le Corbusier termed the “visual acoustics” of architecture. In the spirit both of what Giedion called *Durchdringung* or interpenetration and McLuhan’s

understanding of synaesthesia, Le Corbusier's "visual acoustics" concerned the dissolution of outside and inside, as exemplified in his chapel at Ronchamp (1955), and "the possibility of being able to sense—if not entirely to see—a building from every point" (Gardiner 1988: 54; see Cavell 2003: 114). Acoustic space was further inspired by Moholy-Nagy and the New Bauhaus. For Moholy-Nagy, *Vision in Motion* was "a synonym for simultaneity and space-time" (Moholy-Nagy 1947: 12). The *Explorations* group was also inspired by the experiments of the psychologist E.A. Bott on blindness and auditory space, by T.S. Eliot's concept of the "auditory imagination"—a particular inspiring concept for McLuhan. Many of these influences are incorporated in the special issue of *Explorations 8* (1957), which brought together all of these ideas in an ode to James Joyce: Verbi-Voco-Visual—an eye for an ear.

Writing many years later McLuhan explains how Bott discovered that acoustic space is "a perfect sphere whose centre is everywhere and nowhere" (McLuhan 1987: 368). Such a description no doubt influenced his notion that media of the electric age create "a centre-without-margins". In McLuhan's interpretation, a centre-without-margins is a theological space that also draws upon François Rabelais's description of "the intellectual sphere, the centre of which is at all points and the circumference at none, which we call God (Pantagruel V. 47) and Pascal, who describes nature as an 'infinite sphere, the centre of which is everywhere, the circumference is nowhere" (McLuhan 1987: 368). In the 1950s, a centre-without-margins was represented nowhere more clearly than in the simultaneous broadcast of live television. Writing in the early

1960s, McLuhan speculated that the experience of acoustic media architectures might have the same synaesthetic effect on the human sensorium as Le Corbusier's resonating Cathedrals:

[L]et us consider the hypothesis that TV offers a massive Bauhaus program of re-education for North American sense life. That is to query whether the TV image is, in effect, a haptic, tactile, or synaesthetic mode of interplay among the senses, a fulfilment on a popular plane of the aesthetic program of Hildebrand, Berenson, Wölfflin, Paul Klee, and Giedion (McLuhan 1961: 50).

Furthermore, it is essential to understand that the very germination of the idea of acoustic space was itself a product (in a Bakhtinian sense) of the dialogic, "acoustic environment" during the *Culture and Communications Seminar*. The article "Acoustic Space", accredited to McLuhan and Carpenter in the *Explorations* anthology published in 1960, was attributed to D.C Williams in the original *Explorations* issue in the mid-1950s. As Carpenter recounts, the idea of acoustic space itself was electrifying: "Marshall quoted Symbolist poetry. Jackie [Tyrwhitt] mentioned the Indian city of Fatehpur Sikri. Tom [Carpenter] saw parallels in medieval Europe. I talked about the Inuit" (Carpenter, cited in Theall 2001: 241).

McLuhan has recounted a slightly different version, relating his "first discovery of acoustic space" to a seminar discussion on Giedion's *The Eternal Present: The Beginnings of Architecture* (1964), in which Jaqueline Tyrwhitt presented the fact that the Romans were the first people to enclose space:

The Egyptian pyramids enclosed no space since their interior was dark, as were their temples. The Greeks never enclosed any space, since they merely turned the Egyptian temples inside out, and a stone slab sitting on two columns is not an enclosed space. But the Romans, by putting the arch inside a rectangle, were the first to enclose space. (An arch itself is not an enclosed space since it is merely formed by tensile pressure and thrust.) However, when this arch is put inside a rectangle, as in the sections of a Roman viaduct or in the Arc de Triomphe, you have a genuine enclosed space, namely a visual space. Visual space is a static enclosure, arranged by vertical planes diagonally related. Thus, a cave is not an enclosed space any more than is a wigwam or a dome. [...] At this point, Carl Williams, the psychologist, objected that, after all, the spaces inside a pyramid, even though dark, could be considered as acoustic spaces, and he then mentioned

the characteristic modes of acoustic space as a sphere whose centre is everywhere and whose margins are nowhere (which is, incidentally, the neo-Platonic definition of God.) I have never ceased to meditate on the relevance of this acoustic space to an understanding of the simultaneous electric world. (McLuhan 1997[1973]: 101)

Giedion's many concerns about the humanization of urban life, the human scale, and the core of the city, in combination with McLuhan's focus on media as art forms, transitions in visual and acoustic space, and the transformation of city spaces through new media, would all filter into Jaqueline Tyrwhitt's own scholarly writing during her years at the University of Toronto.

To be sure, the *Exploration* Group's focus on acoustic space was driven by Carpenter and McLuhan, and extended Giedion's paradigm of studying anonymous history from the mechanical age into the electric galaxy. For them, the study of anonymous history first required recognizing the prevailing acoustic bias of the age at hand. Both McLuhan and Carpenter were critical of Giedion at different times for remaining too trapped in the visual, in the age of Gutenberg. Thus acoustic space represented both a break from and an extension of Giedion's thought. To be fair, Giedion never viewed his own work as media or communicational analysis. As noted above, as Tyrwhitt reported to McLuhan in 1953, the first question that Giedion posed to her upon reading their Ford Foundation grant application to study "the effects of new media and communication" was: "Communication of what?" Such a question reveals a significant difference between McLuhan's more formalist understanding of the media of communication and Giedion's more art historical empiricism.

Media Cities

For Jaqueline Tyrwhitt, closer in spirit to Giedion, the idea of acoustic space allowed her to conceptualise the city itself as a medium and a work of art. In “The Moving Eye” (1955) she compares watching the city with its vistas and views, to watching film or television where the eye is transported across space and time. It is here that she uses the example of Fatehpur Sikri, as recalled by Carpenter, to trace historical shifts in urban perspective: from a visual understanding of urban space that was constantly changing, asymmetric, and scanning, to the static, linear viewpoint characteristic of the Western world and the science of optics:

It is very difficult for us to get away from the rules of the accepted vision of our Western culture and to realize, even intellectually, that this is not the only way of looking at things. For instance our eyes in the West have for five hundred years been conditioned, even governed, by another intellectual approach: the single viewpoint. This, though no more intellectual than the acceptance of the dominance of the vertical, is more readily grasped as an acquired characteristic of our vision. It is, however, peculiar to the Western world, where it followed the development of the science of optics: the study of the eye as an inanimate piece of mechanism pinned down upon the board of the scientist. The optical result was the development of linear perspective: the single ‘vanishing point’ and the penetration of landscape by a single piercing eye—my eye, my dominating eye. (Tyrwhitt 1955: 116)

In Fatehpur Sikri’s core, known as the Mahal-i-Khas, most of the buildings are “symmetrical in their design, but their spatial setting is never axial” (Tyrwhitt 1955: 116). The spatial composition of these buildings, rather, remains balanced from multiple perspectives, where the art of the “moving eye,” a constantly scanning outlook, evades any central objective. Tyrwhitt draws on examples from Chinese painting and classical Western art to distinguish how our Cartesian linear perspective is a “conditioned form of vision; limited and partial in its scope” (116). In a southern Italian classical painting depicting an “elaborate urban scene [...] the spectator grasps the scene from a series of viewpoints, floating about

somewhere in front of it, his eye now beneath an overhanging balcony, now above a projecting roof. But each 'eye-full,' each object upon which his eye momentarily rests, is drawn, as we might say, 'correctly'" (117). Around the Mahal-i-Khas, there are multiple stations for viewing the core, each presenting "a carefully balanced panoramic scene—not with a central objective, it is true, but with a single, co-ordinated sweep of vision or 'eyefull'. In each of these cases, the scene has a transparent center and equivalent, but not identical, objects of interest bounding the view to right and left" (118). The concept of transparency draws to mind both Giedion's and Moholy-Nagy's spatial conceptions, their emphasis on the folding together of inner and outer space. In this vein, Tyrwhitt argues that it is the

panoramic view presented to a moving eye that gives the modern spectator such a feeling of intriguing relaxation at Fatehpur Sikri. But another key to its composition lies quite certainly in the fact that all dimensions, whether of the fashioning of spaces by the disposition of structures or of the spacing of columns, or the size and shape of openings and panels, must have been adjusted to a regulating scale of proportions based certainly upon the square and probably upon the "golden section" (Tyrwhitt 1955: 118).

The "golden section," she goes on to write, is that ancient cross cultural methodology that Le Corbusier "recently redeveloped" under the name of the "Modulator." Le Corbusier applied the golden ratio in his Modulor system in order to calculate proportion. In the tradition of Vitruvius, Leonardo da Vinci's "Vitruvian Man," and the work of Leon Battista Alberti, the proportions of the human body were used to improve the design and function of architectural works. Yet it is not only human scale that interests Tyrwhitt in her project to reenergize urban planning, it is also the experience of space.

For Tyrwhitt, “the close relationship of the discoveries of artists and scientists is not fortuitous: they are fundamentally one and the same” (119). Giedion wrote in *Space, Time and Architecture*: “The artist, in fact, functions a great deal like an inventor or a scientific discoverer: all three seek new relations between man and his world” (Giedion 1982[1941]: 432). Tyrwhitt sees “the moving eye” as “closely with us in the movies and on television. We see the scene from a certain viewpoint, then go nearer—not gradually, but in one swoop—and then look at it again from a totally different angle” (Tyrwhitt 1955: 119). In the *Culture and Communications Seminar* meeting of 20 October 1954, Tyrwhitt expounded upon one student’s class presentation of Giedion’s analysis of movement in *Mechanization Takes Command*:

The visual analysis of movement and the simultaneous depiction of it has occupied both scientists and artists, and both have arrived at very similar techniques of presentation, the scientists in order to obtain a diagram from which one can understand rational procedures, the artist to chart the inner life of man: both give a spatial expression (the diagram) of movement (time), but it remains movement and is not arrested movement (the snapshot) (PJT, TYJ/17).

In “The Moving Eye,” she concludes by calling for a revision to our understanding of town planning in terms of sight and movement at the scale of everyday urban life:

Today we stand before Versailles and are outwardly—and rightly—impressed (but inwardly we find it rather boring). We move along Main Street at night and outwardly—and rightly—confess it is a chaotic mess (but inwardly we find it rather exhilarating). Here is our contemporary urban planning problem. How to find the key to an intellectual system that will help us to organise buildings, colour, and movement in space, without relying entirely upon either introspective “intuition” (“I *feel* it to be right that way”) or upon the obsolete and static single viewpoint based on the limited optical science of the Renaissance (Tyrwhitt 1955: 119).

These sentiments resonate strongly with the work of Moholy-Nagy, who made a similar plea in *Vision in Motion* (1947). “The renaissance and the baroque brought man into closer contact with the inside and outside of the building,” he wrote,

man's first attempts to integrate building and nature, not merely fit building into its surrounding. In our age of airplanes, architecture is viewed not only frontally and from the sides, but also from above—vision in motion. The bird's-eye-view, and its opposites, the worm's and fish-eye-views, have become a daily experience. Architecture appears no longer static but, if we think of it in terms of airplanes and motor cars, architecture is linked with movement. The helicopter, for example, may change the entire aspect of town and regional planning so that a formal and structural congruence with the new elements, time and speed, will manifest itself. (Moholy-Nagy 1947: 244-245)

In a section on social planning earlier in his book, Moholy-Nagy suggests that town planners are now proposing “the elimination of congestion by the planning of smaller townships on a human scale, embedded in green and connected by excellent traffic lanes with each other and with the places of work and the center of the replanned city. [...] The future of the city will be transparent, clean, hygienic” (Moholy-Nagy 1947: 109). McLuhan related these many concepts to the abolishment of writing and the reconfiguration of our cities as acoustic space. Emphasizing Tyrwhitt's connection between the moving eye and moving pictures, he suggests in “Five Sovereign Fingers Taxed the Breath” in *Explorations 4* that “movies and TV complete the cycle of mechanization of the human sensorium. With the omnipresent ear and the moving eye, we have abolished writing, the specialized acoustic-visual metaphor that established the dynamics of Western civilization” (McLuhan 1955: 32). McLuhan carried these thoughts into the suggestion that “the METROPOLIS today is a classroom; the ads are its teachers” (31). Similarly, in “Classroom Without Walls” in *Explorations 7* (Carpenter and McLuhan 1957), McLuhan and Carpenter stressed the view that electric media would reconfigure the parameters of education and learning, a claim McLuhan would expand in his co-published book *City as Classroom* (McLuhan, Hutchon, & McLuhan 1977; see also Marchessault, 2005).

The idea of using aspects of city life for a pedagogical program derived in part from the proposal for the intercampus study mentioned in Tyrwhitt's correspondence with McLuhan in early 1953. Such a study took place as an experiment that Tyrwhitt conducted with the psychologist D.C. Williams shortly before Christmas 1954, not at the University of Toronto, but rather at Toronto's then Ryerson Institute of Technology. Entitled initially "Perception and Use of the Environment" (on a copy of the questionnaire dated April 1955), the experiment consisted of a questionnaire of 24 questions, distributed to students attending the Ryerson Institute. The experiment's purpose was "to help us in understanding the perception of visual environment, and may be of value to those concerned with visual arts and education, such as architects, town planners, etc." (PJT, TYJ/18). The questionnaire asked general questions about students' background and interests (especially their use of various media during the day and as pastimes), their perceptions of how they commonly approach the Ryerson Institute, and a series of questions detailing their perceptions of the visual environment in the vicinity of Ryerson (advertising, street orientation, street furniture, trees, colours, and so forth). Tyrwhitt and Williams identified three categories: 1) observance of objects placed in order to attract and arrest attention (chiefly advertising); 2) objects of aesthetic interest, such as silhouetted views, colours of street life, "pleasant" or "attractive" attributes of buildings or the environment; and 3) utilitarian phenomena, i.e., knowledge of building locations or useful objects such as phone booths and mailboxes. At several points, students were asked to mark down their recollections on a map. The methodology and foci of this study—

identifying the perceptions and effects of objects and media in everyday life—once again resemble Giedion’s approach to the study of anonymous history. Tyrwhitt and Williams co-published an analysis of the study in *Explorations 5* as “The City Unseen.” The results indicated that the majority of students were largely oblivious to the details of the surroundings they passed through every day (see also Windsor-Liscombe, 2007: 92-94). Regarding the example of “aesthetic interest,” Tyrwhitt and Williams conclude that

the eye-catching appeal of buildings follows the order: direct utility, outstanding bulk or colour, and (a bad third) architectural merit or any individual characteristic of structure. This order should hold unless modified by: site activity (movement in contrast to the normally static building), novelty or change (a very temporary situation), and extreme strangeness (as in the case of the many-domed Orthodox Church). (Tyrwhitt and Williams 1955: 94)

Tyrwhitt and Williams suggested that “two distinct levels of perception” were at hand: “a very low level of consciousness” and “a fully conscious registration of objects of personal interest. Between them lies an extensive no-man’s land” (94). The first level was a “sensory level at which the eye, always open, photographs upon the memory impressions of colour and bulk—in other words the silhouette of a dark mass against a light sky—without the deliberate intervention of the will” (94). Some awareness of space, “of open-ness versus enclosure,” (94) must also be registered at this level, although their experiment did not point to this assertion in any detail. Nevertheless, in a commentary almost certainly added by Tyrwhitt, they claimed that “in town planning terms this may mean that those visual attributes that we can employ to create an environment that will unconsciously exercise a beneficial, or pleasant, influence rather than the reverse, are colour and silhouette, embracing of course space, without which neither can be perceived” (95). At the level of conscious interest, most of the

participants perceived the vicinity of Ryerson as unpleasant, if not sordid. “In other words, they held a certain picture of this downtown area which was probably connected with crowdedness, dirt and even vice: for them rundownness was equivalent to sordidness. They ‘know’ the heart of the city—apart from the main shopping streets—is an unpleasant place, therefore it is seen to be so” (95). Tyrwhitt and Williams finally suggested drawing a parallel with the Aristotelian trichotomy of sensation, perception, and ideation: “The sensory level and the immediately utilitarian level of perception both function, but, as these students are without any concept by which they can assess the aesthetic values of their environment, beauty passes them by unseen” (96).

Tyrwhitt developed her own approach to the media, seeing them as living and performative spaces deeply connected to place. In “Cores within the Urban Constellation” from the 8th International Congress for Modern Architecture which she co-edited (CIAM 8, in Tyrwhitt 1952), she wonders how the post-war metropolis might be reinvigorated to offer forms of sociability and spontaneity:

The Core is not the seat of civic dignity: the Core is the gathering place of the people. The location of the Core can be most easily seen when some collective emotion is aroused. Word goes round. Men leave their individual tasks or sectional interests and pour out into the street...and move forward towards...what? The market place? The Cathedral square? The city hall? The common? The crossroads? Somewhere, whether planned or not planned, a place exists that provides a physical setting for the expression of collective emotion. (103)

Tyrwhitt reminds us that the people “who lived through the last war in blacked-out cities know well that when advertising signs were again lit up (in Piccadilly for example) the psychological effect was enormous, and had nothing whatever to do with the subject matter of the advertisements. Light, colour, and movement must be part of the architectural composition of the core” (104). The

humanisation of urban design must incorporate “moments of repose” between activities, the play of light and shadow in order to enable and encourage the conviviality that was the hallmark of great cities. The city as an active environment is deeply connected to temporality, to precisely that which cannot be planned.

Tyrwhitt was critical of most contemporary approaches to urban planning, such as Kevin Lynch’s *The Image of the City*, which she saw as a static, atemporal conception of urban life and space that was mute on the question of architecture’s ability to delight. While delight may be a “slippery slope,” it is nevertheless an essential component of urban experience.

A clear and comprehensive image of the entire metropolitan region is a fundamental requirement for the future” states Kevin Lynch (110). But is this so? A graphic and pleasurable image of one’s immediate environment (one’s habitat); a clear knowledge of one’s regular areas to which one is going; these are certainly acceptable desiderata. But what can be the advantage of carrying around a mental map of the entire metropolitan region? (1960 npn)

Tyrwhitt adopts Giedion’s approach to time and the material culture of history, proposing that Henri Bergson’s notion of *duration* be conceived as an alternative to Lynch’s legible and clear map of the city:

It is just possible that an alternative, and conceivably more valid hypothesis for organising an image of the city might be Henri Bergson’s original notion of “duration”, or some of its later derivatives. This notion made a distinction between time and duration—which might, also perhaps be interpreted as impact. Thus, the mental impact entering into an urban space arousing an emotional response could seem to occupy a fuller amount of time—duration—then the time occupied in driving along several nondescript streets. Such a hypothesis could make allowances for the necessary psychological process of periods of rest—pauses—between moments of great visual awareness. It is only the complete stranger or mentally insane who make any attempt to give equal attention to everything they pass by... (1960 npn)

In treating the city as a continually mediated sphere of cultural life, Tyrwhitt proposed to study urban space in terms of a phenomenology, an active space constantly shifting and changing; she wanted to study the experience of living in

cities and not simply 'the city' as means to develop new forms of urban design that were inspired by modern aesthetic forms.

Conclusion

Tyrwhitt can be seen as a mediator between Gideon's conception of anonymous history and McLuhan's argument that the electronic media were creating an acoustic post-visual cosmos. In many ways, the *Culture and Communications Seminar* and *Explorations* journal was a manifestation of Giedion's project to establish "A Faculty of Interrelations." The notion of "auditory" or "acoustic space" concretized their search for common vocabularies, interdisciplinarity and comparative methodologies. The spatial theories and metaphors they drew from architecture, urban planning, psychology, physics, anthropology, political science, literature, art history, linguistics (and many more) reflect an academic promiscuity that was needed to create this new field of research.

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² Unless otherwise noted, all correspondence cited hereafter between Tyrwhitt and McLuhan is held in the Papers of Jaqueline Tyrwhitt, British Institute of Royal Architects, TYJ/18.