

# Bridging Urban and Media Studies: Jaqueline Tyrwhitt and the *Explorations* Group, 1951-1957<sup>1</sup>

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*Abstract:* This article examines the collaborations between Marshall McLuhan, the architectural historian Sigfried Giedion, and the modernist town planner Jaqueline Tyrwhitt in the 1950s. Giedion's studies of everyday material culture and his concern with the human scale of cities became central to McLuhan's proposal for studying media. Through a historical analysis of Tyrwhitt's papers and correspondence, the paper documents her role in mediating a dialogue between McLuhan and Giedion and in co-founding, with McLuhan and others, the *Explorations* Group at the University of Toronto. Drawing upon Giedion's concern with the humanization of urban life, Tyrwhitt helped formulate a methodology that used the urban environment and architecture as the framework to analyze the effects of media. The paper argues that Tyrwhitt's own contributions to the *Explorations* journal took up both Giedion and McLuhan's focus on media and material culture and their commitment to interdisciplinarity in examining the mediated experience of urban life.

*Keywords:* Canadian media theory; Architecture; Town planning

*Résumé :* Cet article examine les collaborations pendant les années 50 entre Marshall McLuhan, l'historien de l'architecture Sigfried Giedion et l'urbaniste moderniste Jaqueline Tyrwhitt. Les études de la culture matérielle de tous les jours effectuées par Giedion et son souci d'assurer une dimension humaine aux villes sont devenus des éléments centraux dans l'approche aux médias proposée par McLuhan. Cet article, au moyen d'une analyse historique des archives et de la correspondance de Tyrwhitt, recense le rôle que celle-ci a joué pour encourager un dialogue entre McLuhan et Giedion et pour établir, avec McLuhan et d'autres, le groupe *Explorations* à l'Université de Toronto. Tyrwhitt, s'inspirant de la volonté de Giedion d'humaniser la vie urbaine, a contribué à l'élaboration d'une méthodologie qui se rapporte à l'environnement urbain et à l'architecture pour analyser les effets des médias. Cet article soutient que les contributions de Tyrwhitt à la revue *Explorations* ont tenu compte à la fois de l'accent mis par Giedion et par McLuhan sur les médias et la culture matérielle et de leur

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engagement interdisciplinaire afin d'étudier les expériences médiatisées de la vie urbaine.

*Mots clés* : Théorie canadienne sur les médias; Architecture; Urbanisme

This article examines the role of the town planner and architectural historian Mary Jaqueline Tyrwhitt in facilitating interdisciplinary links between urban studies and the emerging field of media research in Canada in the 1950s. Jaqueline Tyrwhitt's many affiliations across the arts and humanities included town planners and architectural historians such as Lewis Mumford, Constantinos Doxiadis, and Sigfried Giedion; Bauhaus figures such as Walter Gropius and László Moholy-Nagy; and anthropologist Edmund Carpenter, as well as culture and communications scholar Marshall McLuhan. It was McLuhan and Carpenter who, along with Tyrwhitt, political economist Tom Easterbrook, and psychologist D. Carl Williams, co-founded the *Explorations* Group and the Ford Foundation Seminar on Culture and Communication at the University of Toronto in 1953. These friends and colleagues afforded Tyrwhitt a unique position among contemporary thinkers in art and architectural history, urban planning, and media studies.

Drawing on original archival research of Tyrwhitt's papers, this paper reflects upon her mediating relationship between Sigfried Giedion and Marshall McLuhan and their theoretical and methodological approaches, and finally upon her own contributions to bridging urban studies and media theory. Like Giedion, Tyrwhitt was concerned constantly with the human scale of urban life in a changing media environment. As the sole town planner in the *Explorations* Group, Tyrwhitt advanced this concern continually. In this way, she helped to shape their interdisciplinary methodology as a "field approach," where the urban environment and architecture were used as the framework to analyze the effects of media.

A few historical notes on Jaqueline Tyrwhitt's years prior to her time in Toronto will help set the stage for her later contributions to urban and media scholarship. First trained as a landscape architect and horticulturalist, Tyrwhitt attended the London School of Economics briefly before pursuing a career in city and regional planning. In 1937-1938, she studied town planning for nine months at the Technische Hochschule in Berlin, followed by two years of study in London at the School of Planning for Regional Development. In 1941, she was called upon to replace the head of the School of Planning, E. A. A. Rowse, who had been summoned to military service, and was appointed Director of Research to the newly formed Association for Planning and Regional Reconstruction. Also in 1941, she became a member of the Modern Architectural Research (or MARS) Group, the British section of the *Congrès internationaux d'architecture moderne* (CIAM) founded by Giedion, Le Corbusier, and several others in 1928. This was the beginning of her most formative and influential years.

Giedion was the Secretary-General of CIAM, and over many years of close friendship and collaboration, Tyrwhitt became intimately involved in his life works as principal translator, re-writer, and editor of eight of his books published in English between 1951 and 1970. It is arguable that portions of Giedion's works were indeed more the product of collaborative writing between them, for which Tyrwhitt took little credit. In 1947, she edited a volume of the writings of urban

theorist Patrick Geddes on his time in India (Tyrwhitt, 1947). In 1948, she took up a visiting lectureship in the New School of Social Research in New York, followed in 1951 by a short-term visiting professorship at Yale University. Two further, interrelated events took place in 1951. First, she played a central role as acting secretary of CIAM's eighth meeting and co-edited, with J. L. Sert and E. N. Rogers, the proceedings as the *Heart of the City: Towards the Humanisation of Urban Life* (published in 1952). Second, she became a visiting professor at the University of Toronto, where she helped establish a graduate program in city and regional planning (see Ladas & Nagashima, 1985; Shoshkes, 2006; Windsor-Liscombe, 2007).

### Giedion and McLuhan

McLuhan had long studied Sigfried Giedion's approach to art and architectural history before Jaqueline Tyrwhitt took up her position at the University of Toronto. 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 later, fundamental concern with synaesthesia, the interrelationship or interplay of the senses (McLuhan, 1964). 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 'sensesness'"—in their own argumentation (Marshall McLuhan Fonds [hereafter MMF], MG31, D156, Vol. 24, File 65). Equally influential is Giedion's objective of incorporating a vivid awareness of historical time into his methodology and writing:

We have to express us so, that our problems are not limited, are not fixed by the day + the year we are writing. We have to shape our words, as the sculptor has to shape [his] material, that means so that you can go around and [that] it looses [sic] from no side its artistic consistence [sic]. Our medium is time, when time goes on our words should still be consistent + reveal another dimension, fitting in other circumstances and other angles of observation. (MMF, MG31, D156, Vol. 24, File 65)

These concerns are reflected in Giedion's call for a unique style of writing closely 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 term "anonymous history" was first published in an article in the November 1943 issue of *The Technology Review*. The article, entitled "A Complicated Craft Is Mechanized," details a portion of the study that would become Giedion's classic *Mechanization Takes Command* (1948). At this stage, Giedion distinguishes 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 concerned to a certain extent with our intimate life had undergone the same process of mechanization: the tailor, the shoemaker, the farmer, the locksmith, the baker, the butcher. In Europe, most of these complicated crafts still form important strata of society. That they have nearly disappeared from American life has had enormous influence on habits and thoughts. (Giedion, 1943a, p. 3)

Giedion's study of mechanization seeks to treat historical periods integrally, peering into the details of invention and their everyday effects. In line with his teacher of art history, Heinrich Wölfflin, Giedion is critical of studies that merely seek to grasp the social and economic background of a period. For him, in order to discern the historical consciousness of the day, attention must be paid to "phenomena themselves," that is, to developments that 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, p. 3). In this article, Giedion focuses on the invention of the pin-tumbler cylinder lock by Linus Yale, Jr., in the mid-nineteenth century. His claim is 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" (p. 4). The pin-tumbler cylinder lock is of interest not because it represents a new stage of mechanization; the change it represents "does not consist in merely producing by machine the parts that formerly had been made by hand" (p. 4). Rather, the pin-tumbler delineates a shift in mechanical thinking and thus in the creativity of the craft: "the transformation of the whole interior organism of the lock, from its technical construction down to its key" (p. 4).

In a 1944 extract entitled "The Study of Anonymous History," an excerpt that McLuhan would distribute to the Culture and Communication Seminar a decade later, Giedion further develops his own special brand of interdisciplinarity. He is critical, once again, 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, p. 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, p. 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” (p. 1). 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, p. 1)

Giedion’s approach is one of the first elaborately developed understandings of the study of 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, p. 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, p. 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 bottom-up approach to cultural research and as a relevant source of evidence for 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 McLuhan’s “field approach” to media and communication. In McLuhan’s well-documented letter to Harold Innis (March 14, 1951), in which he first proposed the *Explorations* seminar, he noted famously that Giedion’s two tomes were the central inspiration for this “experiment in communication” (McLuhan, 1987, p. 223). 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, p. 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” (p. 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” (pp. 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, p. 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 artifacts.

Giedion’s approach to “anonymous history” was a methodology that would converge with his role over many years as secretary general of CIAM. It was predominantly in this capacity that he addressed approaches to the “humanization of urban life” and the significance of the “human scale” of visuality in planning urban environments. The goal of CIAM, as Giedion wrote in 1943, five years before the publication of *Mechanization Takes Command*, was to raise awareness about the need for transforming urban life and urban space, “to arouse public consciousness as to the present state of our urban agglomerations. Until people become aware that decent living is impossible within our intolerably chaotic cities, no real transformation can take place. . . . Cities would never have been so degraded to their present state if such a consciousness had existed” (Giedion, 1943b, pp. 44-45). In large measure, *Mechanization Takes Command* traced the disruptive infiltration of mechanization into every aspect of urban life—assembly-line production and changes in agricultural labour, breadmaking and meat-packing, household comforts and mass produced furniture, the mechanization of laundering and cleaning, food preparation, and even the bathroom. In a text composed between 1951 and 1952, Giedion would write that the “humanization of urban life” meant the “relation of the parts to the whole, the contact between the individual and the community” (Giedion, 1958, p. 126). McLuhan respected highly this “insistence on organic interconnections among cultural phenomena,” (Cavell, 2002, p. 12), which represented, as he later stated in the *Gutenberg Galaxy*, “configurations rather than sequences” (McLuhan, 1962, p. 216) of events: a dynamic rather than static approach to history. In a later interview with G. E. Stearn, McLuhan would state that “Giedion began to study the environment as a structural, artistic work—he saw language in the streets, buildings, the very texture of form” (Stearn, 1967, p. 270; see Cavell, 2002).

Giedion's 1950s reflections on the humanization of urban life came to the fore at the eighth meeting of CIAM in 1951, overseen by Tyrwhitt, with its post-war focus on the "Core of the City." Nevertheless, he already suggests this direction in the conclusion of *Mechanization Takes Command*, subtitled "Man in Equipoise." Here he calls for "re-establishing [a] dynamic equilibrium" (Giedion, 1948, p. 723), a "new balance between the individual and collective spheres" (p. 721), since "before our eyes our cities have swollen into amorphous agglomerations. Their traffic has become chaotic, and so has production" (p. 717). In writing about the "heart of the city," Giedion suggests that "interest in the core is part of a general humanizing process; of a return to the human scale and the assertion of the rights of the individual over the tyranny of mechanical tools" (Giedion, 1958, p. 127). He viewed the city as an "expression of a diversity of social relationships which have become fused into a single organism" (p. 130-131). The concept of the "core" or "heart" of the city thus meant for Giedion not only the planning of a civic centre, but also, and more importantly, the "right of the pedestrian in the center of community life" (p. 128).

McLuhan hoped that Giedion would play a direct role within the *Explorations* Group at the University of Toronto. For his part, Giedion also clearly hoped to exert some influence on the group's direction, for it was Giedion who suggested to McLuhan that Jaqueline Tyrwhitt should be included in the *Explorations* project. In a letter to his mother in November 1952, McLuhan noted: "Tonight we are having in Jacqueline [*sic*] Tyrwhitt visiting professor of Town Planning in the School of Architecture. Siegfried [*sic*] Giedion wrote me about her when thanking me for the book *The Mechanical Bride*" (McLuhan, 1987, p. 233). It was thus that McLuhan, Carpenter, Easterbrook, and Tyrwhitt became the four original co-applicants for a Ford Foundation grant to study the "effects of media." Shortly thereafter, however, Tyrwhitt was asked by the United Nations and the Indian Government to develop a seminar and exhibition on low-cost housing in India. She spent most of the year between 1953 and 1954 living and working in New Delhi, during which time the Ford grant was awarded.

### **The beginnings of *Explorations*: The McLuhan-Tyrwhitt correspondence**

During Tyrwhitt's year abroad, a number of letters passed between McLuhan in Toronto and Tyrwhitt in New Delhi, from where she began to facilitate a broader dialogue between McLuhan and Giedion. At the same time, she established herself quickly as a key member of the Culture and Communications research team. While we should recognize that McLuhan and Tyrwhitt each had agendas of their own (it seems quite likely that McLuhan viewed Tyrwhitt, at least initially, as the most direct route of access to Giedion, and Tyrwhitt, for her part, hoped to use the grant as leverage in negotiating her continued appointment as Visiting Professor at the University of Toronto), their letters attest not only to their mutual excitement about the project's orientations, but also to an appreciation of each other that went well beyond instrumentality and institutional wrangling. These letters (many of which, to my knowledge, are as yet unpublished) give uncommonly clear shape to the concerns pervading the *Explorations* Group and detail the importance of Giedion to McLuhan's expanding areas of inquiry.

Tyrwhitt's first correspondence on the matter of the Ford grant was a telegram sent on July 17, 1953:

JUST RECEIVED PRESIDENTS LETTER ABOUT FORD GRANT CONGRATULATIONS WOULD LIKE DISCUSS OUR PROPOSALS WITH GIEDION IF POSSIBLE PLEASE AIRMAIL COPY REACH ME BEFORE JULY 26 CIAM CONGRESS. (Papers of Jaqueline Tyrwhitt [hereafter PJT], TYJ/18)<sup>2</sup>

McLuhan responded on July 24, 1953, that he would present Giedion and Tyrwhitt to the group and asked whether he might represent both of their interests. It would take time, he suggested, to educate one another. In a lengthy letter dated August 30, 1953, Tyrwhitt wrote that a copy of the original program 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.

Tyrwhitt claimed that a pilot study on the university campus also appealed to Giedion, who had long advocated an "interfaculty methodology." This call for interdisciplinarity is articulated in his approach to anonymous history in *Mechanization Takes Command*. "Nothing of the kind is earnestly provided for in the curricula of present-day universities," he wrote in the foreword. "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, p. 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, p. 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 remem-

ber 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.”

In the same letter, Tyrwhitt also mentioned that she had met two Canadian students while in India who were interested in the “Communications Seminar.” She noted that for one of them, the “idea of a comparison of methodology was quite new” and suggested that

if the group did decide to pursue this line it might be worth while trying to get Giedion over to help frame the programme. I know he really has 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, et cetera).

On October 14, 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).

A few weeks later, “Carpenter’s mag” came to fruition. 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 deriving from her position and experience 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 December 8, 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.

McLuhan’s letter begins to frame not only his concerns with media as art forms, but also 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.

By May of 1954, Tyrwhitt was preparing her return to Toronto. A year earlier, the University of Toronto had reneged on its commitment to reinstate her as a visiting professor, proposing instead that she be given an assistant professorship for no more than three years, at a salary of \$4800—\$200 less than her salary as a visiting professor. By April 1954, this offer had also fallen through. However, her connection with the Ford Foundation grant permitted Tyrwhitt to negotiate a position at the university as a research assistant. On May 10, 1954, she communicated the details of this new role to McLuhan:

I suggest that I come to Toronto in September (earlier if possible) and concentrate on sorting out, assembling and editing the work you have already collected together in some form or other, so that during this win-

ter we do produce something that can purport to be an ‘inter-faculty’ study, and that does ‘say’ something that could not have been said by an independent study by just one of us. I also badly want to get some of my own ideas down, but I am sure the most important thing is to produce the results of some group work.

Committed to the concept of an interfaculty study, Tyrwhitt continued to facilitate a dialogue with Giedion while staking out plans to develop her own lines of study. Several days later, on May 16, 1954, she wrote:

I have plenty of ideas, but don’t at the moment see how they fit into what has already been done. The only absolutely fixed idea is that we must produce something! Something that is not just an interesting collection of essays, but does obviously achieve some sort of synthesis and state some sort of a theory. How another *Explorations* around Giedion fits into this I am not clear, though I am by no means against this. In fact not only am I not against it, but I think it could be excellent, and this is the first thing I would like to discuss with you in June as I know I shall be seeing Giedion this summer in Europe. We are both taking part in two conferences (one run by the Université de France and the other a CIAM show) and I have to spend some time with him on the translation of his book on Gropius which I am now doing. If we can get the outline of the Giedion ‘Explorations’ set before I go over (on June 17th) I could use some time in Europe with him to develop some aspects of it—and this could perhaps also be ‘counted in’ as project time, i.e. qualify in part for Summer pay!

In an undated letter, likely from late May 1954, McLuhan expressed his hope that Giedion would still become involved with the *Explorations* Group. Nevertheless, he had clearly also begun to see distinctions between his own burgeoning interests in synaesthesia, especially in the work of the Symbolist poets, and Giedion’s understanding of media and communication. Giedion’s approach to architectural theory and cultural history supplemented his own interests, McLuhan claimed, but Giedion was oblivious to the role of words, spoken or written, as part of the greater communication nexus. While it is true that Giedion’s scholarly pursuits largely neglected the histories of language and literatures, his early correspondence with McLuhan about Eliot’s prose and his own concerns with style and translation demonstrate a much greater awareness of language than McLuhan acknowledges here.

The Giedion issue of *Explorations* never came to fruition, although Giedion did publish a subsequent article on “Space Conception in Prehistoric Art” in *Explorations* 6 (1956), a pre-study for his later two-volume work *The Eternal Present* (1962, 1964). However, his 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 (and after Tyrwhitt’s return from India), the concept of audible or “acoustic space” became a platform for the entire *Explorations* Group. Edmund Carpenter has commented on the origin of this focus in the early days of the *Culture and Communication Seminar*:

The humanistic approach ultimately led to friction within the seminar, but not at first. Tom Easterbrook took Harold Innis as mentor. Marshall McLuhan saw poetry as the sap of life. Jacqueline [*sic*] Tyrwhitt regarded architecture as a holy pursuit. I thought of anthropology as art availing itself of scientific findings. Carl Williams, however, sought to refine psychology to an objective science. It was for this reason he was invited to join the group. We felt we needed his bias to balance ours, and also to get Ford funding.

Carl provided the first breakthrough. He used the phrase “auditory space” in describing an experiment by E. A. Bott. The experiment itself was more roadblock than bridge. But the phrase was electrifying. Marshall changed it to “acoustic space” and quoted Symbolist poetry. Jackie mentioned the Indian city of Fatehpur Sikri. Tom saw parallels in medieval Europe. I talked about Eskimos. (Carpenter, cited in Theall, 2001, p. 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], p. 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.

### **Jaqueline Tyrwhitt's contributions to Explorations**

In her own contribution to the CIAM publication *Heart of the City*, Jaqueline Tyrwhitt took up Giedion's concern for the human scale, explaining that the "core [of the city] is the gathering place of the people," a planned or unplanned "physical setting for the expression of collective emotion" (Tyrwhitt, Sert, & Rogers, 1952, p. 103). She noted that after wartime blackouts of city spaces, the lighting up of advertising had an enormous psychological effect that "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" (p. 103). This focus on the "core of the city" accompanied her throughout her *Explorations* years and contributed substantively to the group's concern for the effects of media and technology.

In her letter of May 16, 1954, Tyrwhitt mentioned to McLuhan that in developing a seminar for graduate architects, they "shall treat the theory of the 'core' applied to tropical conditions and a self-contained rural tradition being invaded by technology, but still bound by a primitive economy, and still with a very full range of social obligations and customs." In *Explorations 2*, Tyrwhitt published an article she had likely been working on prior to and throughout her sojourn in India. Entitled "Ideal Cities and the City Ideal" (Tyrwhitt, 1954), this, the longest of her contributions to *Explorations*, consists of her own historical account of the evolution of cities and utopian visions of urban life, supported by multiple fragments of texts throughout Western history, from the sixteenth century to the 1940s. Many of her original notes and translations for these fragments are held in her papers, along with a two-page document of critique that, while difficult to decipher, I suspect to be in the handwriting of Sigfried Giedion. "Ideal Cities and the City Ideal" reveals Tyrwhitt's own desire to trace and build upon their joint commitment to the "humanisation of urban life." "To write a Utopia," she begins, "to live in an imaginary world, implies a dissatisfaction with one's immediate environment, and the periods that have produced the greatest number of Utopias—of visions of an ideal environment—have all been periods of upheaval" (Tyrwhitt, 1954, p. 38).

Tyrwhitt traces utopianism through several stages that she sees as revolutions: the Renaissance "revolution of learning," starting with the writing of Thomas More and extending through Tommaso Campanella, Johann Valentin Andreae, and Francis Bacon; the "revolution of religion" of the seventeenth and eighteenth centuries, with the founding of "perfect" communities in Europe and North America by the Mennonites, Shakers, Rappites, and others; the "revolution of industry," including "Robert Owen's New Harmony, settlements inspired by the writings of Charles Fourier and Etienne Cabet and the careful plan of J. S. Buckingham's New Victoria"; to our own period of "Ideal Cities" in the "revolution of movement" (the "Lineal City of Soria y Mata [1882] and the Garden City of Ebenezer Howard [1898]" (p. 41) and the dawning age of the "revolution of humanism" glimpsed in Le Corbusier's Radiant City (1935) and Frank Lloyd Wright's Broadacre City (1937). Utopias related to the revolution of humanism, she claims,

are still rare. They can be glimpsed between the lines of S. Giedion's *Mechanization Takes Command* (1948) and they run like a gleaming thread through the CIAM discussions on the 'Heart of the City' (1952). They become translated into vision upon the drawing boards of the student architect, the essays of the student political scientists, the sketches of the student artist, but most of the world around us is still inspired by the Utopias of the *revolution in movement* of which we are now in the third phase, the post-war period. For instance, the ideas of Ebenezer Howard are still the main force behind Britain's New Towns Programme, under which fourteen New Towns have already been started. [This idea], so revolutionary at the turn of the century that those who accepted it were dubbed the 'reds' of that period, is now the respectable ideal, and the schemes of Le Corbusier and Frank Lloyd Wright are still 'visionary', 'totalitarian' or 'socialist' according to one's personal background of prejudice. (Tyrwhitt, 1954, p. 50)

In perhaps her most interesting contribution, "The Moving Eye" (Tyrwhitt, 1955), Tyrwhitt took up McLuhan's call to write something based on her experiences in India. 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, p. 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, p. 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" (p. 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’” (p. 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” (p. 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. Accordingly, Tyrwhitt writes, “it is now nearly half a century since Western artists and scientists started to break away from the tyranny of the static viewpoint—the conception of a static object and a static universe—to rediscover the importance of vision in motion” (p. 119), a clear reference to Moholy-Nagy’s book of the same title, *Vision in Motion* (1947). For Tyrwhitt, “the close relationship of the discoveries of artists and scientists is not fortuitous: they are fundamentally one and the same” (p. 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], p. 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, p. 119). In the Culture and Communications Seminar meeting of October 20, 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, p. 119)

These sentiments resonate strongly with the work of Moholy-Nagy’s, who made a similar plea in *Vision in Motion*. “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, pp. 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, p. 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, p. 32). McLuhan carried these thoughts into the suggestion that “the METROPOLIS today is a classroom; the ads are its teachers” (p. 31). Similarly, in “Classroom Without Walls” in *Explorations 7* (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 Marchessault, 2005).

The idea of using aspects of city life for a pedagogical program derived in part from the proposal for an intracampus study mentioned in Tyrwhitt’s correspondence with McLuhan in early 1953. Such a study took place as an experiment that Tyrwhitt conducted 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). 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 co-published an analysis of the study with psychologist Carl Williams in *Explorations 5* as "The City Unseen." They identify 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. 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). 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 & Williams, 1955, p. 94)

In their final conclusions, Tyrwhitt & 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" (p. 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" (p. 94). Some awareness of space, "of openness versus enclosure," (p. 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" (p. 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 rundown-ness 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" (p. 95). Tyrwhitt & 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" (p. 96).

A manuscript for a television broadcast of the same title, "The City Unseen," dated January 1956, is also contained in Tyrwhitt's papers at the Royal Institute of British Architects. At one point, an anonymous interviewer poses the question: "Suppose we lived in an ideally beautiful city. Would we see any more?" (PJT, TYJ/18). Tyrwhitt's response recalls her position in *Heart of the City* that the core should be a "physical setting for the expression of collective emotion" where "light, colour, and movement must be part of the architectural composition of the Core" (Tyrwhitt, Sert, & Rogers, 1952, p. 103):

If by this you mean an even distribution everywhere of whatever is meant by beauty I certainly do not think we would. But I do think that people who live in a clearly articulated city consistently and consciously notice more beautiful things more often. I mean cities where the dynamic areas are clearly defined—have a beginning and an end—and stand in strong contrast to the quiet areas. This can be illustrated on a local scale by the contrast of a busy shopping centre with nearby quiet (and I mean quiet) residential streets or in central areas by the contrast of an active business district with the peace of an adjacent park. What I am really saying is that I think we see more in those cities where we know when it is really worth while to keep our eyes open and when we can safely give them a rest. In other words, when spaces and buildings that are used by, more or less, everybody are concentrated together and not dotted among buildings that are only used by limited groups it is possible to build up different points of urban crystallization. These are sometimes called precincts, sometimes cores. In these places columns can be stronger, shapes bolder, detail richer and public spaces larger. Such precincts or cores exist in many cities of Europe and also over here. It is usually necessary for us to recognize them, to demarcate them, and to give them the space, form and colour that they need to develop their full richness and beauty. (PJT, TYJ/18)

In a short article of 1957, entitled "Across the Street," Tyrwhitt reflected upon similarities between the results of the Ryerson experiment and the ideas she put forward in "The Moving Eye" (1954). She recounted how the Ryerson study's results "seemed to show that objects in the environment only can be recalled to memory if they are directly interesting to the observer; if they are novel or unexpected; or if they present a particularly large silhouette against the sky or are of a strong color" (Tyrwhitt, 1957, p. 9). According to Tyrwhitt, the "third group—objects of strong silhouette or strong color—is probably the most interesting to the urban designer" (p. 9). Urban space is of fundamental concern, because "space is requisite for the perception of any object in the landscape, and it is by the quiet or dramatic placing or separation of larger and smaller spaces, emphasized or de-emphasized by the presence of structures bold in silhouette or color, that the urban designer can encourage people to alert their perspective powers, or to let them rest" (p. 9). She suggested, for example, that by deliberately grouping street furniture, "these anonymous objects of public use," it may be possible to create "small spatial oases amid the impersonal urban grid" (p. 10). Concerned with whether "a man's perception of his environment is conditioned by his prior

conception of it” (p. 10), Tyrwhitt—who had by this time moved to Harvard University—tested out her hypothesis with a student. Both attempted to describe one particular approach to Harvard’s campus, through Harvard Yard. In both cases, she suggested, “our imaginative vision had leapt ahead of actuality. We were sure we saw what we already knew to be there. We neither of us impartially observed the scene as it was” (p. 11). Both the Ryerson and Harvard experiments indicated that “we only remember those aspects of the environment with which we have been able to make some personal contact” and that “movement” is a fundamental factor in our perceptions and mental images of urban space (p. 11). Here, Tyrwhitt’s thinking clearly draws a parallel with her analysis of vision in motion at the Mahal-i-Khas in Fatehpur Sikri:

While both of us would normally be obliged to pause at the exit from Harvard Yard before we could actually traverse Massachusetts Avenue, neither of us in fact took this into account as an actual stop—as a visual vantage point. Our minds, our bodies and our eyes moved on—and our memory of the scene at that point was in fact of a memory of the superimposition of a sequence of scenes (of “stills”) seen over a period of about a second and covering a distance of some thirty feet. (Tyrwhitt, 1957, p. 11)

For Tyrwhitt, the eye “cannot help but be constantly selective,” while the photographic lens, and even the “moving camera” are “incapable of excluding anything that falls within its field of vision” (p. 11). In recognizing these moments of the “city unseen,” and by becoming aware of the eye’s constant and selective movement as a source of the vitality of street life, Tyrwhitt envisaged a methodology for urban design driven by her commitment to the “humanisation of urban life.”

A realization of this can immediately affect our attitude towards the visual arts—painting, sculpture, architecture and urban design. Once we accept that we do not—that we cannot—see “what is there” we can become interested in what it is that we do in fact see. Three hundred years of training our eyes to appear to work within certain mechanistic limitations (the single static viewpoint of both perspective and the camera lens) and to encompass both the minutiae and the overall impression of the scenes that pass before us in a determined hierarchical order (the nearer objects larger than the further ones and the hinder objects invisible except by X-rays): this long period of conditioning is as difficult to overcome as the training of Pavlov’s dogs. But it is no nearer to the truth about what we actually see than the sound of the bell to the dog’s dinner. (Tyrwhitt, 1957, p. 11)

For her own part, Tyrwhitt never engaged explicitly with the concept of acoustic space. Yet her concern with hybrid city spaces and dynamic visual experiences of city life deriving from movement and mobility articulate an important bridge between Giedion and McLuhan. Giedion himself never committed to the idea of acoustic space with anything like McLuhan’s fervour. During his one visit to the Culture and Communication Seminar, on February 23, 1955, Giedion

famously “refused to be drawn into a discussion of acoustic space until he had given the matter greater consideration” (PJT, TYJ/17). In his monumental *The Eternal Present*, he devoted only the shortest paragraph to the concept. In a letter to McLuhan on September 6, 1974, Tyrwhitt acknowledged her own hesitation to commit to McLuhan’s pronouncements about the distinction between visual and acoustic space:

I have never commented on your strictures of Visual Space versus other aspects of space. Of course you are right, but the only space architects can handle is physical space, which is basically visual space, though this does not mean static one-directional space, but dynamic space—remembered and anticipated, before and behind—but still ‘physical.’ (MMF, MG31, D156, Vol. 39, File 59)

Despite these reservations, Tyrwhitt’s understanding of non-static or dynamic visual space and her exposition of Giedion’s theories of movement and architectural space for the *Explorations* Group helped stimulate the group’s dialogue about acoustic characteristics of space in the electric age.

Giedion’s call for research into the links existing between industrial methods and methods used outside industry in art and visualization took shape in Tyrwhitt’s scholarly activities, especially in conjunction with McLuhan’s keen interest in changing capacities for perception. Giedion and Tyrwhitt’s joint conceptions of humanization in all forms of urban daily life were highly informative for McLuhan’s interdisciplinary and transhumanistic approach to media research, informing his notion of the global village and, in particular, his emphasis on using city spaces as learning environments. In a letter to Tyrwhitt of December 23, 1960, several years prior to the publication of *The Gutenberg Galaxy* and *Understanding Media*, McLuhan expounded on his understanding of the city as *sensus communis*, a cultural space that fosters the constant and simultaneous interplay of our senses:

Now that by electricity we have externalized *all* of our senses, we are in the desperate position of not having any *sensus communis*. Prior to electricity, the city was the *sensus communis* for such specialized and externalized senses as technology had developed. From Aristotle onward, the traditional function of the *sensus communis* is to translate each sense into the other senses, so that a unified, integral image is offered at all times to the mind. The city performs that function for the scattered and distracted senses, and spaces and times, of agrarian cultures. Today with electronics we have discovered that we live in a global village, and the job is to create a global *city*, as center for the village margins. The parameters of this task are by no means positional. With electronics any marginal area can become center, and marginal experiences can be had at any center. Perhaps the city needed to coordinate and concert the distracted sense programs of our global village will have to be built by computers in the way in which a big airport has to coordinate multiple flights. (McLuhan, 1987, pp. 277-278)

In one of Tyrwhitt’s last volumes, *Human Identity in the Urban Environment*

(co-edited with Gwen Bell, 1972), McLuhan summed up these connections between media, the city, and the human scale:

Electronic technology has extended the brain itself to embrace the globe; previous technologies had only extended the bodily servants of the brain. The result now is a speed-up of information that reduces the planet to the scale of a village—with this difference, that the volume of information movement is on a planetary rather than village scale. A global consciousness thus becomes the new human scale. . . . What does this imply in terms of human settlement when *learning a living* supplants earning a living? Production itself is left to automated machines and the workforce withdraws from the factory to the seminars for programmers of computers—seminars that can be dispersed, decentralized, without need for large agglomerations of population. Since the central purpose of human settlement in the electronic age becomes learning, human settlement must be a projection, a multi-dimensional model of our new global consciousness. (McLuhan quoted in Bell & Tyrwhitt, 1972, p. 527)

Jaqueline Tyrwhitt's many achievements in bridging urban and media studies have been neglected by these very disciplines that she helped initiate, especially in the Canadian context. Her self-appointed role as a networker, her devotion to pedagogy, and her commitment to the improvement of human settlements accompanied her to Harvard in 1955, where she remained an associate professor in the School of Design until 1969, and finally to the Athens Centre of Ekistics, until her death in 1983 (see also Shoshkes, 2006; Wigley, 2001). This paper is a first attempt to recover some of her contributions as a scholar and educator to the collaborative environment of the *Explorations* Group, which marked a significant turn toward interdisciplinary urban and media studies in Canada.

## Notes

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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.

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