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The community and public spaces: ecological thinking,ımobility and social life in the open spaces of the city of the future

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Abstract

The roots of the present crisis of public urban spaces in the modern and contemporary city can be traced back not only to the history of the early vision of the planning movement to which the city planning discipline dedicates much attention, but also to the history of scientific thinking, the measuring eye that all of us—specialists, administrators, intellectuals and citizens alike—have used on it from the 17th century up to the present day. Recognition of these roots allows us to distinguish the fruitful from the sterile among the many directions offered by the various projects for the city of today and the city of the future. In the recent emphasis placed on the concept of community—in the interpretation offered here—lies the basis and motivations of some of the most interesting guidelines for an in-depth study and really innovative approach to the problems of city traffic and the closely associated problems of the reappropriation of a social dimension of public space for the city of the future. © 1999 Elsevier Science Ltd. All rights reserved.

Can we actually "know" the universe? My God, it's hard enough finding your way around in Chinatown.

> Allen W. Getting Even. Random House, New York, 1966.

1. The assassination of the urban public space[1]

"In the history of the 20th century city an assassination has taken place. The name of the victim: the urban street." With these strong words Giancarlo Consonni recently

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[1] I am indebted to Giancarlo Consonni, Professor of City Planning at the Milan Politecnico, for the conceptual structure and many specific ideas of the first part of my essay, prompted by his works and several personal conversations. See in particular Consonni [1].

called our attention to the destructive action of modern contemporary practices of urban development in respect to the street as a synthesis of the "many ways of tampering with and degrading open public spaces that aim at murdering the living body of the city, taking away its very essence, what it represents in the history of civilization" [2](p. 91, 93). The opening words of Joseph Rykwert's contribution to the very well-known and, in many ways seminal, collection edited by Stanford Anderson, continue in the same vein: "For nearly a century, the street has been under persistent attack from several directions: the designers of Siedlungen and Garden Cities, the CIAM modern masters, and local government and welfare architects of Anglo-Saxon/Scandinavian countries have all attempted to postulate forms of urban settlement in which the street was deprived of its past function or analyzed out of existence. There has been a correlative attack by those followers of Haussmann who have subordinated all functions of urban settlement to the street itself, particularly to the street as a carrier of traffic." But on the other hand to attack the street means attacking "the most important component of the urban pattern: a pattern that is only consumed, learned, and acknowledged by its use" [3].

Even if the organization of culture has its degrees of autonomy and if the organization of administration and politics, as well as technology, have their own fields of autonomy, the convergence of all these towards such a generalized and profound phenomenon leads us to look for its causes in something other than a current of thought, even than such a powerful one like the architectural modernism. For that matter even the interpretation emphasizing the importance of technological innovation—in this case the invention of the automobile—is open to attack as a manifestation of a naturalistic approach to the social phenomenon [4,5]. If such a historical convergence has been able to surface, the reason should first be sought in the structure of thought rather than in that of economy. According to Carlo Sini, today we are living in the third phase of the history of the city: after the classical city—built as a materialization in stone and earth of a symbolic sacred order—and the medieval city, "a place of rhetoric, that is to say of the word",[2] today's third phase links the Baroque to the Enlightenment city and to the bourgeois city, up to info-city, the city of today. Ours is the city of writing: "The use of the alphabet, connected with the impact of the invention of printing, has been decisive in the origin of the world of communication. (...) (Here man) demonstrates he no longer needs a city of monuments or a city with space for orators and listeners because public communication takes place through writing and printing. Not to mention today, in the age of electronic communication" [6](p. 9).

Sini's synthesis allows us to sketch a broad, but correct, outline of the macrohistory of urban development and to find a beginning in the 17th century: the begin-

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[2] "To the city of monuments which has the sacral significance of man's life on earth and in the presence of the Gods carved in it, the city as a place of rhetoric, that is of the word, is now to be added (...) [Cities] are built with calculated distances, so that words exchanged can be heard. Houses talk to one another. Narrow streets, wide avenues are the places where public truth scores using the voice" [6](p. 8).

ning of Descartes' interpretation of the world as a machine,[3] which still guides us. We'll start from here focussing on the interpretation of two authors who in different ways and with different targets reflect on three decisive aspects of the newborn scientism: Giancarlo Consonni explains the central role of "separation" and "simplification" in Descartes, and Alexandre Koyrè describes "abstraction" in Descartes and also in Huygens. "The central indication of 'Discours de la methode' [10]—to reach elementary and absolute truths and on them to elaborate only those certainties that can be obtained through rigorous demonstration—offers for the first time one of the pillars of modern science together with two of its typical aspirations: to separate and simplify" [2](p. 31). To separate and simplify: first of all the subject from the object, the observer from what is observed, and ascribe to the domain of the mind the faculty of reaching truth by a method of reasoning based on the rationality of logical demonstration. A method that does not require any check in the field of perceptible experience, of "life-world",[4] of memory and of values. In the 17th century for the first time an image of the world appears founded on a few elementary ideas, thus summarized by Fritjiof Capra: "The vision of the universe as a mechanical complex made up of basic bricks (...); the corresponding conception of the human body as a machine, which is still at the basis of theory and praxis in medical research; the vision of social life as competition and struggle for existence (...); faith in unlimited material progress to be pursued via technological and economic growth" [14].

In particular, Descartes' interpretation of the world as a machine has led us for the first time to consider the destiny of nature as separate and conflictual with that of man; this separation is embedded within man as a distinction between "reason"—place of truth—and "emotional sphere", place of imprecision and error, of the irrationality we share with beasts, of the negative part of nature. From here derives the tendency towards the dominion of nature which draws on the rational spirit's desire for power. This dominion passes through a principle of access to the laws of nature, according to which there are no conceptual limits to the visual capacity of the rational eye which is able to see, know, discover and measure everything—and

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[3] Descartes' interpretation calls to mind not only the metaphor of the world as a machine but also his being the maker "of the first modern machine—the parabolic glass-cutter" [7]. For an interesting elaboration of the same metaphor, see the distinction between "banal machine and non-banal machine" analyzed in [8], and especially its application to the problems of land policies [9].

[4] Thus Husserl: "We have two different things: life-world and objective-scientific world, though of course they are related to each other. The knowledge of the objective-scientific world is grounded in the self evidence of the life-world. The latter is pre-given to the scientific worker, or the working community, as ground; yet, as they build upon this, what is built is something different. If we cease being immersed in out scientific thinking, we become aware that we scientists are, after all, human beings, and as such among the components of the life-world which always exist for us, ever pre-given; and thus all of science is pulled, along with us, into the merely subjective-relative life-world" [11]. The concept of life-world is at the center of the recent recodification of planning policies aimed at achieving structured interaction with social groups and consensus. In the vast bibliography available, we can quote in particular Innes [12,13].

therefore master it and forget nothing.[5] The metaphor of the eye has not been chosen by chance: the mind's eye looks beyond the limits of space and with it goes the measuring eye of geometry and lastly that of perspective which pursues and captures the infinite: "The perspective represented by 15th century artists anticipates the world discovered by the 16th century explorers and the universe studied by the 17th century scientists" [16]. Without the tension towards what Benevolo in his splendid booklet calls "capturing the infinite" we would never have registered in city planning the great geometrical and perspective layouts of the Baroque cities, nor the grid form imposed indifferently as a rule on cities, swamps and hills, so typical of US cities and there codified since 1573. But the rational eye is not only able to penetrate the static laws of nature, but also the dynamic laws, or rather history's evolutional laws on the basis of which future forecasts can be made. Even the threshold of time presents no obstacle for Descartes' interpretation of the world as a machine[6] which, thanks to rationality lead us to cross what Carlo Cattaneo, at the thresholds of industrialism, called "the two chasms of human strength, space and time" [18]. Consonni remarks that Descartes himself offers an extremely precise idea of what influence the predominance of his abstract logic, separation and simplification, may have on the territory and the city: "There is often not so much perfection in the works composed of several parts and done by different masters as in those done by one alone. Thus those ancient urban agglomerations which started as villages and in time became large cities are usually so badly distributed if compared to those geometrically neat places laid out by an engineer in his imagination that—although examining their buildings one by one we find much art in them, even more than in some others nevertheless, on examining their distribution (here a big one, over there a smaller one) and how they render the streets so winding and uneven—one would say they have been thrown together by chance and not by any plan of rational man" [2] (p. 31). The city is here seen as an individual creation of rational man—significantly identified with the new figure of the specialist in construction techniques, the engineer—a machine which must conform to the model through a single command. If and when reality differs greatly from the abstract model than it must be adjusted. Reality corresponds to evil, the abstract model to good. Nobody like Deleuze, in his interpretation of Nietzsche, has highlighted the fundamental opposition between knowledge and life which is caused by the inversion of values, assigning truth to the model and

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[5] Koyrè A. From the Closed World to the Infinite Universe, Baltimore, 1957, describes in a masterly fashion the history of the crucial passage from the pre-modern animated world to the infinite universe of science; naturally, the lack of conceptual limits in scientific vision is due to the tendency to ratify only acquisitions within a given paradigm. The scientist's approach to the world is "normally" what Thomas Kuhn has defined as that of a "puzzle solver" [15], that is of one who faces a problem being perfectly convinced that not only does the solution exist but he has all the conceptual instruments necessary to find it. For the puzzle solver, then, the limits to knowledge depend essentially on the lack of information or resources, nothing that cannot be remedied with more work, more time and more commitment.

[6] Abstraction, simplification and separation also involve the notion of time, quite separate from the identification with man's existence and the cycles of nature. The passage from a pre-modern concept of time as experience, life and divine gift, to the modern one of time as an abstract unit, an expendable value ("time is money", as the saying goes), has already been well described [17].

error to life to such a point that "life,becoming smaller and smaller, rolls further and further away".[7] An abstraction of reality, or of how it ought to be, dominates reality itself, or the way it is: and this also, according to Koyrè, is a historical product of 17th century scientism. In spite of the emphasis on experimental data, in fact, scientific thought puts "abstraction" and not "experimentation" at the center of the study of nature. "Not by observing the great lamp swinging in the Cathedral of Pisa did Galileo discover the isochronism of the pendulum, (...) but thanks to his mathematical studies beginning with the law of accelerated motion, which he had established by a rational deduction: the downward fall of bodies along cords of a vertically placed circle. Only then, after the theoretical deduction, could he consider verifying it experimentally (...). In exactly the same way, that is through purely theoretical study, Huygens discovered the mistake in the Galileian extrapolation and demonstrated that isochronism takes place not with a circle but with a cycloid.(...). At that same moment he was faced with the same problem as Galileo, the technical, or better the technological difficulties in the material realization of the model he had conceived" [10](pp. 110–111). Exactness, the reign of abstract thought and of mathematical language, for the first time ceased to be the prerogative of the heavens; science led it on earth, in its measurements and tools, it imposes its models on the irregular hills, the capricious swamps, the elusive flow of time and the irrational cities. Consonni notes again that the Descartes construction has fragile bases, assuming as it does that the geometrical city is more rational that the organic, medieval style one, taking a simple order—the geometrical—to be the only possible one, and a complex order— the organic—to be synonymous with disorder and chaos. This brings to mind the well-known comparison which Jane Jacobs used in the early Sixties when disposing of the "pseudo-science of planning", placing it on the same level as the "pseudo-science of bloodletting": "As in the pseudo-science of bloodletting, just so in the pseudo-science of city rebuilding and planning, years of learning and a plethora of subtle and complicated dogma have arisen on a foundation of nonsense" [20](p. 13). Jacobs' derogatory expression can be justified by the simple fact that Descartes' "machine-world" has come to us intact through history, in our routine, in technical knowledge, in work organization and public administration, so much so that it has permeated the style of intervention in public space throughout the 20th century. It has led to a systematic destruction of the complex life that historically took place in these spaces invoking the priority of circulation on life, on the social dimension of cities, on memory, in short on the many dimensions of man. Separation, simplifi-

cation and abstraction have led us to consider the problem of circulation as separate from that of socialization, and this separately from that of walking or of staying put.

In the same way the urban transport policies have been defined in total autonomy: for instance from the form of housing developments, the continuity of social networks, the historic-cultural values of urban fabric, of environmental values—in other words, from the complex processes of identification and integration of man in the environment he forms. The influence of mobility on economic interests has determined a significant pre-eminence of transport policy over any other aspect of community living. In the mid 19th century the efficiency dimension was already noticeable in the massive demolitions and in the cyclopic technological constructions of the bourgeois city (its slaughter houses, its cemeteries, hospitals, sewerage and lighting systems, railways and stations and its standardized working-class quarters); but at the same time it was still mitigated by the bourgeois tendency to find in the splendour of the city, hence in public space, a way of self-representation and social justification.[8] Public space in its "passages", "galeries", "boulevards", "promenades" and parks still represented and narrated the flow of history and in this specific case the arrival on the scene of the mass and of goods: it made the idea of bourgeois progress and its criteria of rationality seem a great manifestation of a collective nature. However, by the end of the century this precarious equilibrium was already disturbed and the complexity of public space, which up to then had been supported by its symbolic and spectacular aspects,[9] was definitively disintegrated by a radical functionalistic simplification: the street is just space for circulation, the square a junction; the criterion for judging what is good and what is bad is transport efficiency, that is the capacity to carry the maximum quantity of people and goods, considered on a par from their origins to their destinations, in the shortest possible time. Already at the end of the century the interruption of the historical dialogue between streets, squares and quarters had received the official blessing of urbanistic culture in the passionate vision of the fathers of German city planning, of the Italian Futurists, and lastly of the champions of the Modern Movement.[10] Now we can understand where these visions came from: this heritage is obvious in the words of the "Master" himself, so similar to those of the man of three centuries earlier, the philosopher who inspired him: "the harmonious city must first be planned by experts who understand the science of urbanism. They work out their plans in total freedom from partisan pressures and special interests; once their plans are formulated, they must be implemented without oppositions" [23] (p. 210). The assassination of the street, better of the "rue corridor"—that is the street as complex public space, seat of multiple human activities and multi-stratification of meanings and cultures—operated by Le Corbusier in 1931 [24–26], was, to all intents and purposes, "commissioned" by Descartes. (Fig. 1)

[8] Christian Norberg–Schulz, commenting the same passage by Descartes quoted by Consonni, focalized on a different meaning now crucial here: "Therefore in the Baroque city the single building loses its plastic individuality and becomes part of a superior system. This means that the space between buildings acquires new importance as a true element constituting the urban totality" [21].

[9] The persistence of the representativeness of the urban street as social scene even during the radical positivism of early industrialization is efficaciously described in [22].

[10] See [2] in particular chap. IV: "The street, between feeling and function".
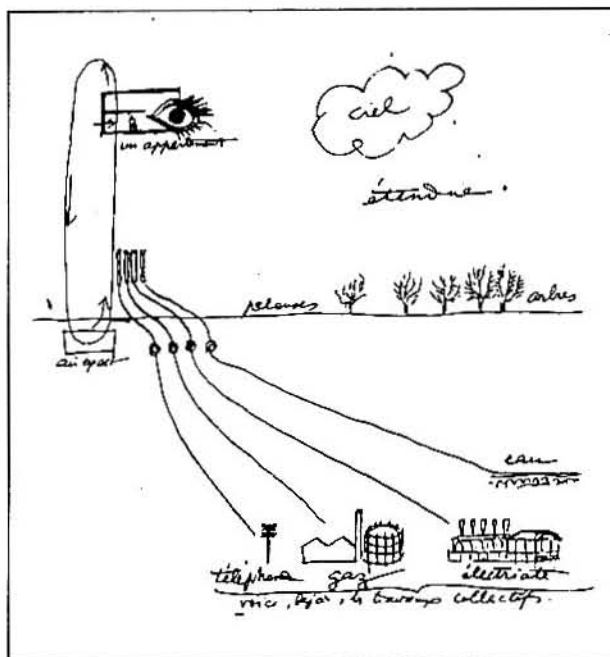
Fig. 1. In this image, housing is completely separate from all other urban functions. Moreover, it is the city itself that disappears in a utopia of isolated objects, linked only by technological and tele-info connections, symbolized by the elimination of the street. The machine-utopia here alludes to its possible late-modern results, to the cybercity of the present and that of the future. Jeanneret CE. "Le Corbusier". In: Benevolo L. La casa dell'uomo. Laterza, Bari, 1976.

2. Innovations in the forms of management of urban mobility

The question of urban mobility, seen in the light of this rapid digression in the depths of time, takes on a role which goes beyond the purely technical dimension. Urban mobility is the place where Descartes' machine-world has unfolded itself and permeated our lives, our very way of conceiving and using public space. The dehumanizing and destructive visions of the masters of the Modern Movement permeated by technicistic rhetoric, and also of those who were trying to recover the human dimension of space in the name of a reappropriation of the values of the neighbourhood and of nature, are based on the concept of the street as a mere "infrastructural corridor". These visions encouraged the separation of the function of "traffic" from that of "socialization" along the same lines as Howard's "Garden Cities" (1902), the Radburn "Super Block", the so-called "motorage suburb" (1928), Perry's "Neighborhood Unit" (1929) and the German "Siedlungen" in the Weimar Republic, the "Green Belt Cities" of Roosevelt's New Deal, the English "New Towns" of the immediate post-war period and the "corporate" US towns, concluding with the last season of Scandinavian and North-European "new-empiricism" in the Sixties and Seventies. Thus it was hoped to save socialization with the offer of naturalistic space—in parti-

cular parks—thus confirming the use of streets and squares exclusively for transport. Socialization, that is, the public and collective life of the community, was detracted from urban public space and moved to a completely different kind of public space, a suburban space. With their tendency towards simplification and separation, the distortion in Descartes' machine-world interpretations unconsciously triumphed in these models: here you have space for circulation but not for residence, there space for residence but not for socialization, farther on you can socialize but you cannot work, somewhere else you can work but you cannot consume. There is space for the car and for the bicycle, space for walking and for playing, but only up to a certain age, because after that there are other spaces, specifically "equipped" in another neighborhood, in another satellite city.

These models called for so many and expensive infrastructures that they were not feasible, save in some exceptional cases and even in these cases the space was unlivable and, ironically, led to social segregation. In a word, these models, in so far as they were general models, did not work in the real world of man, they only worked in the numerical world of the planners. The complex system of life and its aggregations rebelled: urban criminality increased where social control of public space diminished sensibly, recreation structures fell into disuse, poverty-stricken urban ghettos triggered off widespread social and environmental decay, people abandoned the streets and squares which were then filled with automobiles and trucks. The city structure spread out and fell apart under the assault of traffic facilities: parking areas, guardrails, freeways, gas stations, plurilevel junctions, each in turn worsened the traffic congestion. But the solution reproduced the cause of the problem: more space dedicated to traffic, a greater separation between the street and residential areas, between circulation and socialization and between one function and another. Enormous resources have brought both the urban structure and the community dimension of the neighborhood to a more marked collapse, and at the same time led to an environmental crisis in safety and even in the efficiency of traffic network. And that is not the end of the story. To this day abstraction, simplification and separation guide the answers to the new and important phenomena of uprooting due to the end of the industrial age and the entrance into the info age,[11] phenomena to be considered in some aspects as a continuity of the fundamental structures of economics and a past school of thought.[12]

An attempt to form a different culture starts in the Sixties, as part of a general revision of consolidated criteria of value and the explosion of a few contradictions

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[11] Manuel Castells writes: "Yet, what tends to disappear is the meaning of places in people's consciousness. Each place, each city, will receive its actual social meaning from its location in the hierarchy of a network whose control and rhythm will escape from each place and even more from the people of each place" [27]. Peter Hall summarizes the contradictions on the social level of such a move from an economy of "manipulation of goods" to an "informational" economy in two different crises on the labour market, a temporary and a structural one [23]. For a critical interpretation/reading of "Informational City" see also [28,29].

[12] "The growing disgregation of space into separate objects without a dialogue is at the same time accelerated and compensed by the enormous machine of the network of transport, communication and information, interconnecting all those objects. This machine tends to identify itself with the space of relationships" [2] (p. 27).

on the lines of unlimited progress with particular reference to the environmental crisis;[13] this will lead to an innovation in the models of urban mobility so radical in its fundamental contents as it is realistic in its solutions. The core of this culture is a new attention to the community: "The cost of mobility and the lack of consideration for the neighborhood were immediately evident. The less well-off were the first to rebel against the society of 'unlimited choices'. The neighborhood protests during the late Sixties and Seventies demonstrated the power of local groups against plans aimed at uprooting people" [36](p. 16). In two fundamental texts, both written in the early Sixties, the central themes of what is now a radically alternative systematic model of urban mobility management were extensively explained. The two texts are Traffic in Towns by Colin Buchanan, published in 1963 [37], and "The Death and Life of Great American Cities" by Jane Jacobs, 1961 [20]. The two themes are the "environmental area" and "attrition"; the body of technical culture I speak of can be defined as "Traffic Calming". With his "environmental area" Buchanan broke the autonomy of trasport engineering and indicated the need to verify street planning within the sphere of the environmental equilibrium of urban areas. According to the well-known metaphor of the corridor and the room, an "environmental area" is an urban area subtracted from crosstown traffic and only served by roads passing it, just as a room is served by a corridor.[14] This "area", or "room", has a capacity of its own to absorb a certain amount of urban and environmental problems and the evaluation of this capacity is to be given priority. "Even a minimum knowledge of present day conditions in our cities reveals that traffic congestion has already endangered the well-being of many inhabitants and the efficiency of many activities. Conditions are destined to become extremely serious in relatively few years unless drastic measures are taken against the potential increase of vehicles circulating in our streets" [37](p. 15). Moreover, Buchanan analyzes the situation of traffic in Great Britain, studies the implementation of the models normally used to separate vehicular traffic from every other human activity, verifies them within general dimensions, and reaches the conclusion that the infrastructural level requested in a future projection would not be proposable, not only for environmental reasons but for the limited resources of space and money. An integration concept is suggested instead of traffic separation while policies of intervention in the demand for mobility are put forward instead of the ever-increasing offers of street space. These policies involve a radically new solution: through traffic is deviated, bypassing the "areas" through a reorganiza-

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[13] This innovative culture of the city has today developed around a few concepts of great impact and depth, like the one of a "Sustainable City", of "Healthy Cities", of a "City of Children", and has to a great extent been confirmed by some important documents of European and World level: [30–35], and a large number of resolutions and deliberations in the same spirit.

[14] It is important to underline that in Buchanan's idea there is not a specific reference to the concept of an autonomous quarter or neighborhood unit. The "area" is defined only in terms of accessibility (you can get in and out, but not across it), not of services or correspondence residence-work. The city is not divided into urban autonomous and hierarchic units, as in the Garden Cities–New Towns tradition, but into road-traffic autonomous units. This way the city can still be considered substantially unitarian and physically continuous.

tion of the city traffic regulations based on narrowing the streets and a programmed reduction of the service level of intersections.

This is another revolutionary concept, in so far as traffic jams can be conceived as a positive instrument to discourage vehicular traffic. The operational capacity of a street no longer depends on the demand, on the contrary the demand is regulated through a deliberate policy limiting the network capacity.[15] Only two years earlier Jane Jacobs had reached the same conclusion following another line of reasoning.[16] According to "the Hudson street ballerina"[17] the urge seen at the basis of the economic vitality of a city is the same urge that renders its social life so agreeable: the co-existence of a variety of activities, characters, peoples, initiatives, relationships and the scenario of this extraordinary show is, and remains, the street and, in particular, the sidewalks. The conclusion, only an apparent paradox, is that the continuity of the connective tissue of sidewalks and public space is indispensable to allow the city of today to meet the changing general contest with flexibility and readiness in order to survive in the global competition. Incidentally, in my opinion, Jane Jacobs' theory is an extremely efficacious criticism of the scientistic interpretation of planning in a new "ecological"[18] vision where the conception of the urban phenomenon

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[15] This kind of argumentation is still periodically reiterated. For instance, "The answer to the traffic increase has too often been the construction/opening of new parkways which, in turn, have caused an increase in traffic. To keep up with demand of traffic increase is not the proper solution to the problem; traffic congestion represents, in some cases, a useful instrument of dissuasion. (...) The multiplication of roads, tunnels, etc. to face the increasing traffic, produces the bad effect of increasing pollution and noise. When the infrastructure is completed, traffic will increase rapidly so as to reach the saturation level which brought to the opening of new roads. (...)" [32]; "From the late 1950s onwards, the transport planning orthodoxy was that future traffic was forecast and then the road space built to accomodate it. (...) This 'predict and provide' approach has become largely discredited and the road programme has been progressively cut back. It is now accepted that road capacity cannot be matched to forecast demand and other solution have to be found. Quite apart from the environmental objections, funding from the public purse is strictly limited and it would be impossible to build roads to cope with the projected increase in the volumes of cars forecast. (...) It is not just the cost of building new roads which is under discussion, but whether they should be built at all. It is accepted, however, that more road capacity will only provide temporary relief to urban congestion problems, as the relief initially afforded will be eroded over time by enduced traffic" [38](p. 11). But even if these conclusions have now been accepted in scientific circles, they haven't yet acquired legitimacy in political circles and in a general awareness in vast areas of the progressive western world.

[16] This may not be entirely casual. Jane Jacobs had already known Buchanan's two winning ideas before he published them., the environmental area and the impossibility of the separation automobile/pedestrian as a long-range strategy. In her book she credits William McGrath, traffic commissioner in New Haven, with the first and Victor Gruen with the second, in his Fort Worth Plan of 1955. However, it was Buchanan's book that met international success in this matter.

[17] This was the nickname Morton Hoppenfeld gave Jane Jacobs in a mock review of "Death and Life...", in which Jacobs described the everyday life of the street where she lived, Hudson street, describing it as a "ballet" [39].

[18] On "ecological" thought I still refer to [14], while, for its anticipation in Jane Jacobs's book, it must be specified that, although she has frequently been accused of cultural solipsism, the whole 22nd chapter of her book-bearing the meaningful title "The kind of problem a city is"—has been dedicated to clarifying the most correct epistemological horizon; in this chapter there is one of the very few long quotes of the whole work, in which Warren Weaver illustrates his macro-history of scientific thought as a succession of three phases, identified thanks to the "types" of problem science has had to face in time: simple

starts from the strict interconnection of its innumerable aspects.[19] The sidewalk and the automobile dispute the same space. Both uses are and always have been naturally competitive, although both necessary. The conflict is not due so much to the presence of automobiles in the streets as to their "excessive number". Jane Jacobs' target therefore is to reach an efficacious equilibrium[20] between the needs of automobiles and pedestrians: "Attrition of automobiles operates by making conditions less convenient for cars. Attrition as a steady, gradual process (something that does not now exist) would steadily decrease the number of persons using private automobiles in a city. If properly carried out—as one aspect of stimulating diversity and intensifying city use—attrition would decrease the need for cars simultaneously with decreasing convenience for cars, much as, in reverse, erosion (of cities, by automobiles) increases need for cars simultaneously with increasing convenience for cars" [20] (p. 363). Although some experiments for local traffic deviation within gridiron urban fabrics had already been carried out in the US in the Fifties, it is with the Delft "Woonerven" in 1971 that the idea of "attrition" was carried out properly for the first time. Without going into the history of the tradition of "Traffic Calming"—for which a rich bibliography can be consulted[21]—it is necessary to clarify the main points of this history. The first point is that "Woonerven" started as a community movement. In fact, it was the citizens of Delft who imposed the idea that residential streets should be conceived in their entirety as spaces for children's games and socialization, space with pedestrian priority but with access for automobiles, spaced in which a controlled co-existence between automobiles and pedestrians should be imposed through a re-planning of the streets, change of levels, street furniture, green

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problems, complex disorganized problems and complex organized problems [40]. These last are "all problems dealing simultaneously with a sizable number of factors which are interrelated into an organic whole. (...). City, again like the life sciences, do not exhibit any problem in organized complexity, which if understood explains all. They can be analyzed into many such problems or segments which, as in the case of the life sciences, are also related to one another" [20](pp. 432–433).

[19] The direct consequences of the ecological thought on the government of the social system and physical world have been studied with a specific enphasis on "interconnections": "(...) there are no isolated acts. Just as there is no place to stand and observe that does not itself move as time unfolds, so there is also no protected place to act. All that we do and all that we fail to do affects everything. This understanding of interconnections is relatively new to the modern west, many of whose social, political and even medical theories are still based on a somewhat mechanistic, Newtonian world view in which subject and object are radically separate and 'objectivity' is possible" [41].

[20] The point of equilibrium, wherever it may lie, lies beyond the point where problems even more serious than traffic bottlenecks are generated. It lies beyond the point of safety from other human being for persons afoot upon streets. It lies beyond the point of casual city public life. It lies far beyond the point of any relationship between investment and productivity [20](p. 354). This reminds me of a recent remark by Allan Jacobs during a lecture on his work at the College of Environmental Design at Berkeley early in 1998. On that occasion Allan Jacobs told us (I remember) he had reached two important conclusions after long years of study and concrete planning on the subject of city streets: 1: traffic bottlenecks are no problem; 2: parking is no problem. In my opinion, this detachment from the traditional position emphasizing in traffic jams and parking, should be read as a just re-equilibrium of values, as a return of transport engineering to the field of the urban phenomenon in its entirety.

[21] A complete and updated bibliography on "Traffic Calming" can be found in [42], an excellent bibliography can also be found in [43], particularly at Chapter V, "Streets for Living".

areas, in short, through the capacity of facilities to influence social behaviour (both of the pedestrians and the drivers). This point is important because it reveals how deeply embedded in the concept of community itself is the complex and "qualitative" idea of the world, together with the tendency to consider relationship between the components themselves more important than the single components and lastly an attention for the "life-world" leading to a style of action just the opposite of functionalism and specialism. It was not by chance that the clear and revolutionary aim of the first generation of "Traffic Calming" was the "integration" of the different uses of public space. The modifications involved were the abolition of the sidewalk (street space was levelled, and was to be adopted promiscuously by the different users), the diversification of paving to indicate the different function of spaces, several types of embellishments, even botanical, zig-zag routes and narrowing of the traffic lanes, speed reducing devices (such as bumps) over long stretches, and play areas for children in the street itself. Besides these modifications the main administrative dispositions were the reduction of the speed limit to 30 Kmh and the abolition of the ban on children playing in the streets. The Woonerven experiment was highly successful because of its efficacy in reducing the aggressiveness of traffic in residential quarters[22] and in the Eighties it was adopted in many European countries with some interesting conceptual modifications which led to the definition of the second generation of "Traffic Calming".[23]

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[22] Much monitoring "before and after" has been done to check the validity of moderation in terms of security and environmental improvement; among the most important, the following are worth mentioning: County Surveyors' Society, " Traffic Calming in Practice", Landor Publishing Ltd., London, 1988 (a survey on 85 cases-reports in England, each one separately and systematically monitored "before and after"); Certu, Ville Plus Sûre, Certu, Lyon, 1994 (a survey on over 40 cases—reports in France, each one separately and systematically monitored "before and after"); Hoenig M, Sammer G. General 30 kph speed limit in the city of Graz, Institute of Transport Studies, University Bodenkultur, Vienna, 1995. A concise evaluation can be found in Associazione "La Città Possibile", La moderazione del traffico, Regione Piemonte: From the environmental point of view the effects of the measures for Traffic Moderation are now very clear, about 20 years after their application, and after experiments and survey of the before/after type: the number and gravity of car accidents decreases considerably (up to 70%). There is an important reduction of polluting emission; all exhaust discharge and gas consumption is drastically reduced (from 10 to 50%). Acceleration is in fact the greatest cause of pollution: in the change from constant speed to accelerated speed noxious emissions increase up to 10 times. The traffic flows more smoothly, and there is also a noise reduction up to 5 db, with effects equal to cutting by half the traffic volume. Architectonic barriers have been eliminated. According to research and experiments, the effect on the urban environment of extensive moderation of traffic is equivalent to a traffic reduction of up to 40–50%. A summarization of the subject for the European context, with wonderful graphic charts on German case-studies, is included in [44].

[23] This wave of revision of urban traffic policies and technical management between the second half of the Eighties and the Nineties has particularly interested France, Holland, Germany, Austria, Great Britain and, in part, Switzerland. Here it is worth mentioning the experiment of "Ville plus sûre, quartiers sans accidents", an interministerial program started in 1984 all over France which lasted up to 1992 in two phases and brought to 56 projects, 43 of which carried out; and also the realization in the Austrian city of Graz where a complex plan of ecological policies including every aspect of the economic and social life of the community has led to the generalized introduction of the 30 kmh limit in all built-up areas and a good management of the citizens' participation in decisional processes even about mobility.

In the context of the development of the afore-mentioned alternative urban culture, this second generation proceeded from a model based in single residential units to a generalized model aimed at the whole city. This model, on one hand, aims at cutting the costs of modifications, limiting them to a few specific elements (chicanes, chokers, gates, mini-roundabouts, raised platforms...), on the other hand, it aims at extending these modifications over wide areas of urban fabric through a network of 30 Kmh speed limit areas, the so-called "30 zones", and lastly the model aims to knit these areas in an urban system, such as the room-corridors mentioned by Buchanan, where the "30 zone" can be identified with the environmental area (room) and the crosstown streets (corridors) giving priority to pedestrians only at the crossing points from area to area or where there are specific activities on the street front.[24] The techniques of "Traffic Calming" have been differentiated according to the degree of moderation of traffic to be aimed at, in a hierarchy of a network that has many service levels. These techniques are implemented on all levels of urban streets and no longer only in residential areas. Two further points are to be underlined. Firstly the implementation of these strategies ends by offering urban socialization a consistent quantity of urban space subtracted from vehicular use:[25] from street space, a space of enormous value because adjacent to street level activities. This space is vital both for the construction of an efficient network of alternative mobility (particularly for bicycles) and more in general for the valorization of what best represents the collective identity of the community—the historical monuments, the city architecture, socialization spaces, parks, the seats of institutions and centers of public interest, which today are almost always reduced to traffic crossings. Secondly, these strategies have a privileged ground, the existent public space. They aim at the result of re-qualifying what is already there: the streets, the squares, the urban fabric. This in open contradiction to the usual policy of building new streets and new urban fabric. In a word, these are non-expansive type strategies.

Like on the corner of Powell and Market, we hear a blast from a pre-MTV past. Hard drivin' '60s R and B tunes are being played by a guy who looks like Fats Domino and sounds like him too, putting down a heavy beat on a set of rusty blue drums, singing with a deep bass voice that puts into songs the wail of America that

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[24] Schools first of all. The project "school routes"—see the initiative "Safe routes to school" started in England in 1995 by a pool of local authorities—aim at creating safe and pleasant pedestrian routes between home and school. It is a specific application of great importance since it works contemporaneously on three fronts: it has an intrinsic, indisputable value; it has great symbolic efficacy and is highly effective in involving the community; lastly it cuts urban traffic with direct intervention fighting one of its main components: the home-school trips.

[25] Transport engineers object: if cars are no longer running on these modified streets, where can they have gone? The most convincing answer to this question of "diversion", comes again from Jane Jacobs: "they have not noticeably gone anywhere else instead.(...) For is there no absolute immutable number of private automobile riders; rather, the number vary in response to current differentials in speed and convenience among ways of getting around" [20](p.362–363). The same conclusions are achieved by Elizabeth Deakin in her more recent and cases-based "Diversion Analyses" [42]. In more technical terms: the attrition policies at the same time are based on and stimulate intervention policies on modal split.

has traveled from the plantations of the southern delta to the slaughterhouses of Chicago, and met futurshock in SF, this city at the end of the western continental migration of the body. He's got two sidemen, both sitting on speakers, the car battery for their electric guitars inside a white plastic garbage can. A compact, wired guy steps up front and yells: "Just tell the story, brother, tell the story, tell the story, tell the story". There was something about the music that just pumped the cynicism right out of the air. And it did tell the story.

Kroker A, Kroker M. Singing the Blues in Cyber-City. In: Idem, Digital Delirium, St.Martin's Press, New York, 1997.

3. The study of socialization in public space: contributions and perspectives of city-planning

Up to now city planning has contributed little or nothing to this different interpretation of public space based on ecological thinking, the integration of various types of use, innovative management of urban traffic, emphasis on relationships and life-world. On the contrary, at the start this interpretation had to struggle against the dominant dogmas of city planning, which could propose nothing better than models of a specialistic-functional type. However, in the Sixties, one sector of urban theorists began to study themes dealing with the complexity and uncertainty of decisional and implementation processes, but the sector that was actually engaged in urban studies and design reacted to the Modernist crisis by taking refuge in the autonomy of architectural form. These contributions led to decisive progress in the relationship between architectural form, symbol and language, and to a revaluation of the importance of non-monumental fabrics, its types and rules, particularly in the context of historical European cities. Nevertheless, this sector has come in for much the same criticism that had already been expressed about some aspects of the Modernist heritage: its elitism, its abstraction, its basic anti-humanism, its prescriptive nature and its recalcitrance to social control.[26]

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[26] See again [2] (p. 19), for a criticism of "neo-rationalism", that is of the tradition of "Urban analysis" in Spain and Italy: "I acknowledge that in restricted space-time areas building types and regulations have left a decisive mark on some city parts. What I object to is the automatic transfer of this historical datum into the theory of architectural design to the extent that it becomes a fixed rule: the sore point is the relationship between history and planning. The presumed morphogenetic strength of the type—that is its presumed capacity to generate the shape of the city—is actually the fruit of the physical shapes assumed by a series of historical conditioning, ranging from economic and social structures to cultural and behavioral aspects. Now, attributing to buildings (presented as innovative and typical) the capacity to define the entire urban shape is the equivalent of formulating an abstraction. It is like attributing to an architect's proposal all the strength of that historical conditioning which, on the contrary, he faces when actually working". For a more specific criticism of the American version of this tendency see instead [45]. The notion of the continuity of the formalist "mainstream" with the "heroic" character of modernism is expressed in [46]: "Could it be that today's theory, which speaks first and foremost only to its own circle, is delivered from the same avant-garde as has been the case for the past hundred years? (...) Today's avant-garde falls into the same traps as did its predecessors, believing that it rests atop the pinnacle of history, poised as none before have ever been poised to leap into the future. Such a view

In my opinion it is necessary to highlight a line of research that historiography of city planning does not seem to read as a whole, limiting itself to partial contributions within specific historical circumstances.

This area of research, which I call "observation", emerged in the Sixties with Jane Jacobs' seminal text, The Death and Life of Great American Cities, and includes, among others, works by William H.Whyte, Oscar Newman, John Fruin, Clare Cooper–Marcus, Donald Appleyard, Raquel Ramati, Project for Public Space, Michael Southworth, Peter Bosselmann, Allan Jacobs and Jan Gehl. These studies bear the sign of tensions generated during the struggles for the defence of local communities against the aggressive "Urban Renewal" projects in the US. The aim was to revaluate the manifold wealth of human communities annulled in the name of abstract criteria and simplifying efficiency covering enormous real estate interests. Here too, as in the field of mobility, cultural innovation is guided by a renovated interest in the community. So it is no surprise then if the common characteristic is a considerable emphasis on the observation of human activities, on social relationships in public space, and on the tension between these and the physical shape of space itself. "Observation" is a central issue in these works: it is a kind of ethnographic observation, founded on what Nan Ellin called "immersion"[27] in the local context, and is strictly related to experience, to direct participant observation of the events of life, to interaction on the field.[28] So it is not scientific observation, involving data collection, a tendency to objectivity, the representation of reality through simplified abstract models, and specialistic language. In scientific observation the route is from abstraction to the realization of the model, in ethnographic observation the route follows a complex and personal interaction on the field,[29] and only subsequently concludes with tentative meanings. In fact, there is a dichotomy between the "ethic" or rational route, proceeding from abstraction towards reality, and the "emic" or

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was the principal cause of large blind spots scattered throughout the often brilliant histories and theories of Giedion, Pevsner and Le Corbusier, as well as the work of lesser purveyors of the modernist gospel" and in Nan Ellin says "Despite its efforts to counter the negative aspects of modern urbanism" ... "post-modern urbanism falls into many of the same traps. Despite its eagerness to counter the human insensitivity of modern urbanism, post-modern urbanism's preoccupation with surfaces and irony makes it equally guilty of neglecting the human component. By denying transformations which have taken place [in contemporary people's needs compared to those of pre-industrial ages], post-modern urbanism may even be accentuating the most criticized elements of modern urbanism, such as the emphasis on formal considerations and elitism" [47](p. 162).

[27] Ellin says: "The challenge posed to the scientific pursuit has rendered the method and theory implied by ethnography increasingly relevant to a variety of scholarly and professional undertakings. Traditionally a tool of cultural anthropologists, ethnography entails the close study of a group of people particularly through immersion (involving prolonged participant observation, language acquisition and unstructured interviewing) in order to understand the 'native's point of view'" [47](p. 251–252); on this subject, see the ten points for an "Architectural Ethnography" [48](p. 204).

[28] Peter Bosselmann's interest in simulation is founded on the concept of "experience"; thus simulation is seen as an instrument to increase the possibilities of pre-experiencing urban space as yet unbuilt [49](p. 204).

[29] The constructive character of the relationship between the observer and what is observed is fundamental in what, in more specialistic terms was "negotiation of meanings on the field" within "ermeneutic circularity between ethnographer and informer" [50](p. 205).

ethnographic route, proceeding instead from reality to a range of possible abstractions.[30] Even in the specific field of the relationship between space and activities, this dichotomy creates a subtle but fundamental difference between the previously defined "observation" and the wide area of Environmental Psychology, of E.D.R.A. (Environmental Design Research Association), that is to say of the methodological analysis of human behavior in space.[31] In the Fifties and Sixties the latter shared with systems analysis and regional sciences a dominating scientistic matrix experimenting it in the field of space/behavior relationship.

The result of more than thirty years' research in the "observation area" is a description of people's activities in city streets and squares, of how their social relationships start and how they change. Attention is always focused on how the shapes of space affect people's activities or on how people feel towards these shapes. In this way movements and activities in ordinary spaces and in everyday life have been examined in an effort to sort out the different themes and interpretations. Cooper–Marcus, Gehl and Whyte dealt with the configurations encouraging exchanges, contact and verbal communication; Allan Jacobs with the physical characteristics recurrent in urban spaces generally considered to be successful; Bosselman, Allan Jacobs and Southworth dealt with how to represent some space attributes generally overlooked, merely foreseen, or with the graphic confrontation of urban spaces; Whyte and P.P.S. (Project for Public Space), with innovative techniques of activity surveys; Appleyard, the didactic activities of Allan Jacobs and Bosselman at Berkeley with the specific relationship between some physical characteristics and some social indicators; Fruin with measuring pedestrian spaces and movements; Oscar Newman with environmental and physical factors favouring or contrasting urban criminality through social control; Bosselman with safety and climatic comfort in the streets; Cooper–Marcus with how to evaluate even socially the level of success or failure of a project after its realisation; Southworth with the relationship between the street pattern shape and the city shape and the specificity of public space and its use in suburbia; Ramati with the possibilities of renovating decaying areas through the requalification of public space and citizen participation. We are probably indebted to Jan Gehl for his systematic analysis of activities in public space [58–60]. His work, Life between

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[30] "An emic standpoint is one that is oriented toward the actors or subjects under study, and their interpretation of the events that take place. It is the classical anthropological approach. (...). The ethic approach, in contrast, is external or alien. The ethic standpoint calls for observations from the outside and from far enough away to see the shape of the events (...) even if the meaning of the same events to the 'natives' differs from yours" [51](p. 281). Once again, passing from the abstract to reality rather than from reality to the abstract in scientific research, see [52].

[31] For a synthesis see [51,53–55]; see also the fundamental contributions of the Proceedings of E.D.R.A. (Environmental Design Research Association) Annual Conferences, covering the entire period from the late Sixties up to today; an excellent introduction to the positive-systemic approach to behavior in architectural space is Bill Hillier's work, in particular [56,57]; from the early Seventies even the most fortunate of these studies met with doubts of legitimacy and efficacy of their scientific statute applied to social studies. The distinction between what can be called the "Behavioral Research Methods" area and what I have called the "Observation" area places the former in the field of scientific vision and the latter in that of ethnographic observation.

Buildings provides us with a general interpretative outline in which he recognises three types of human activities in public space: necessary, optional and social activities. People engage in the first type more or less when they are obliged to do so because of their jobs or studies, for shopping, for distributing mail, to wait for the bus, and so on. They participate in the optional activities if they feel like it, time and environmental conditions permitting, by taking a breath of fresh air, watching a street show, sunbathing. Social activities are to some extent an outcome of the previous one, since they depend on the physical presence of many people at the same time in the same space. This division into three types is aimed at understanding the possible relationships with the shape of the spaces. The shape of space, in fact, has little or no influence in the case of necessary activities, while it is crucial in optional ones. For example, if one is obliged to follow a certain route to get to work, one does so no matter what the environmental conditions are like, while this is obviously not the case when it comes to a leisurely stroll. The influence of environmental conditions on social activities is indirect owing to the different degrees of intensity involved, ranging from a simple human contact to a close friendship; and the passage from the lowest to the highest comes about spontaneously.

Most human contact that can be observed in public space are of a low intensity: seeing and watching others, a quick remark on the go, giving or receiving information. But this first step is fundamental to trigger off a variety of interpersonal relationships. A setting that favours optional activities also greatly favours the consolidation of widespread socialisation. Whenever a network of social contacts at the lowest level disappears from public space, it cannot be replaced otherwise: a formal invitation, in fact, establishes a more demanding relationship. The mere sharing of public space with other people offers low level contacts, potential growth of intensity for some of these contacts, to maintain previously established contacts to exchange information on the outside world, to be inspired by new and diverse ideas. Children playing is a typical example of spontaneous contact which can rise to higher levels, but is also exemplifies another important fact: people are attracted by other people. Just as children congregate spontaneously when a game starts, adults adore the sight of everchanging human activities. Children play more willingly in driveways and parking lots than in separate green areas, while adults invariably sit where it is possible to watch life go by, rather than in private back gardens or enclosed parks. Even city traffic is a great pole of attraction for adults and children alike, when it is not excessive. We can observe that chairs in sidewalk cafés are always facing the street and never towards the café or an empty space, people who stop to watch builders at work go away during work breaks, those watching a pavement artist walk over the picture without a second thought as soon as the artist leaves. More systematic observations accompanied by simple statistics confirm these results suggested by common sense but always ignored in city planning models. To get this virtuous circle of activities and contacts, the various kinds of activities have to take place in the same space. This co-presence is fundamental: people moving around for their jobs, stopping for a breath of fresh air or to meet someone at a café, sidewalk players, street vendors or children playing, each one of these activities promotes the others. City planning can do a lot to regulate human activities in space. Urban public space,

for instance, should not be too big so as not to inhibit the first level of optional activities, watching, listening to and being seen by others. This means that both horizontally—the width of the street—and vertically—the height of the buildings—distances must enable one to see and to be seen clearly, according to the quality which Sini has already noticed in "the city of words" of medieval times. This is connected to the need for social control of space, that is Jane Jacobs' "eyes on the street" and is confirmed by research carried out by Oscar Newman and others in the area of "Crime Prevention Through Environmental Design" and in the more comprehensive area of "Safe Cities" [61–63]. The possibilities of social contact can be inhibited by physical obstacles—preventing passing, stopping, seeing, playing—or they can be made possible or even promoted. It is vital that the sequence of urban spaces is as continuous as possible, without any gaps—from the more open public ones to the semi-public, to the semi-private up to the private inner space. The "interface" between public and private space should be a transitional architectural space, like the front porch, like shop windows, like walk-up entrances or like the wealth of details on front façades. Just noting which are the most or the least attractive façades at ground level in a city area can tell a lot about improvement policies for the future. Long series of blank walls or mirror façades or drab buildings without embellishments or lobbies are a powerful deterrent to the enjoyment of public space.

4. Conclusions

Considerations of this nature, and in much greater detail, could naturally be continued. They lead to a description of public urban space open to the establishment of social relationships. The allusion is to the policies of reintegretation of the human dimension in the city of today. These policies aim at the recuperation of subtle and multiform ties, at the formation of roots, forming a togetherness first of all within the community and then in the local area. The human being, independently of race, age or status, likes to have the possibility of socializing a lot in public space: he loves his city and his street and cares for them when this possibility of socialization is given. When the urban setting is friendly, streets, sidewalks and city-squares are crowded because man enjoys togetherness and the extraordinary variety of socialization that can take place only here. He appreciates its regenerating and pedagogic function and he cannot do without its incessant originality. It should be remembered more often that in order to move from one place to another—something ever more frequent in this age of generalized nomadism and global webs—places must still exist, rooted in their local dimension. This is necessary so that the info-man's growing tendency to move doesn't clash with this local dimension and its riches but, quite to the contrary, it draws on them and their infinite possibilities. This is a target to be kept riveted in our minds, so that the city of the future will not offer us as the one and only sight "los interminables trenes de leche,/los interminables trenes de sangre/y los trenes de roses maniatadas." of Federico Garcia Lorca's New York [64].

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