Dr. Jérôme Monnet, CEMCA (French Center for Mexican and Central American Studies, Mexico City)

FROM URBANISM TO URBANITY: A DIALOGUE BETWEEN GEOGRAPHY AND ARCHEOLOGY ABOUT THE CITY *

Introduction: The city is an Identifiable Socio-Spatial Object (ISSO)

This essay proposes a approach to the city as Identifiable Socio-Spatial Object (Monnet 2000). I postulate that the city can be considered an *object* because it possesses its own materialness, an exteriority in relation to the human observer. It is a *social object* because the city, above all, is a society, that is, an organized human group that has its own collective consciousness. Today I propose to center the dialogue between geography and archeology on the two final terms of the "ISSO" formula; as these disciplines take on the social urban object by intermediation of its "spatial identity", that is, in space and thanks to the space.

The dialogue between archeology and geography

Among all social and human sciences, geography and archeology share a commonality of taking on human societies by way of their material inscription in space. The materiality itself of the spatial forms that result from this is of scientific interest because they are given a temporal inertia that is much higher than those of the social phenomena and processes that are in its origin (circulation of property or of persons, diverse constructions, exploitation of resources, etc.). These forms have a stability in space-time that allows them to be studied beyond the moment in which they are produced: human geography can take hold of them in a few hours, just as archeology can rediscover them after millennia.

There clearly exist differences in the form in which both disciplines act, bound as much to their history as well as to their techniques: while archeology originally worked, in essence, at the level of the unity of excavation and was interested, above all in movable artifacts and in architectonic monuments (Schnapp 1993), geography, for its part, during much time gave importance to the inventory of the planet's natural resources and the study of nation-states (Bailly et al 1992, Claval 1995b). Yet the two sciences progressively have begun to converge. Associated with art history and epigraphy, archeology has been concerned for a long time with the meaning of objects and textual or graphic representations. Today, these latter areas are the concern of "human" or "cultural" geography which seeks to understand the relationships that societies establish with their surroundings (Tuan 1977, L'Espace Géographique num. 4-1981, Bailly & Scariati 1990, Claval 1995a, Berque 1996). While geography's work centers more and more on the microscale of the neighborhood, the village, agricultural exploitation or the domestic habitat (Pezeu-Massabuau 1993, Monnet 1999b), archeological studies integrate the "regional" scale and the contributions of environmental sciences (such is the case of various French projects funded by CEMCA in Mexico and Central America: see for example Arnauld 1986, Michelet 1992, Darras 1998).

Taking this into consideration, the research project "Urbanism in Mesoamerica" is original in that archeology turns to the conceptual and methodological assistance of disciplines

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such as sociology, political science, and human geography. Thus, it does not turn to geography in its role of natural science, but rather as a science of the society that has forged a significant body of work around the urban question and urbanism.

Speaking about urbanism in Mesoamerica

Here urbanism is understood as an object, not as a discipline: it is treated as a *spatial organization resulting from a system of social actors* (authorities, inhabitants, merchants, engineers, architects, laborers, etc.). I propose an analysis of geography that in the end methodologically supports the approach of the urban by archeologists. For the organization of the analysis, I ask the question: "How does one identify when a material space is urban?" Before responding to this question, it is necessary to specify that all concepts and all objects mentioned are historical and cultural, that is, the realities that the concepts designate change with time and according to the value systems of the distinct societies. Space, territory, society, power, city: these, among many others, are changing realities and concepts. The scientific challenge consists precisely in methodically establishing the relevance of the concepts used here and now in relation to objects that are far away in time and space. When we use the phrase "urbanism in Mesoamerica", we are postulating that we can correctly designate, in this way, a specific object: the city in this particular space-time. The principal objective of my contribution is to detail the basis of this identification process.

Qualifying the city as ISSO centers the attention on two dimensions: one spatial and one social. In a way, this is based on the modern dualism between subject and object (Toulmin 1990, Staszak 1997): the spatial would represent the "objective", given that it is exterior to us; and inversely, the social would represent the "subjective", that which can not be made exterior because it forms a part of us and we form a part of it. It has been shown (Berque 1990, 1996) that this dual vision is too reductive and inoperent to realize the totality of the reality; to disassociate its objective and subjective, or spatial and social dimensions is to garner artificial results. There cannot be a subject without consciousness of the objects that are external to it, just as there cannot be objects without a subject that recognizes them: the city exists because there are subjects that conceive it as a social and spatial object at the same time.

We begin, then, from a contemporary perspective that does not reduce the city to its spatial dimensions nor its social ones, but rather, that recognizes its reality as "trajective" (Berque 1990), that is, as a coming and going between the objective and subjective, the material and the ideal.

In the first part, we isolate the material objective features that allow us to identify a city in space. In the second, we return to these same features in order to reflect on the social realities that they can represent. I propose then, to go from urbanism, the material form of the city, to urbanity, which synthesizes the relationship that human beings support with the urban environment.

The city as ISSO, a "trajective" reality: objective and subjective, social and spatial

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I. URBANISM: A MATERIALIST FOCUS

We begin here with the result of a human action in space that created a material form whose temporal inertia is sufficient enough to be observed various centuries after the action. I propose a table of analysis that isolates six variables and allows the city to be identified as a "spatial object", with the understanding that this spatial object is no more than a scientific artifact to facilitate the analysis. We will return its social dimension in the second part. The six proposed spatial variables are: 1) discontinuity, 2) relativity, 3) density, 4) structure, 5) functionality, 6) hierarchy. The process is progressive and cumulative, due to the fact that the variables do not share the same conceptual nature: we begin with descriptive geometry which in turn will bring us to human geography.

I.1 Discontinuity

This variable is essential to the entire cognitive process: we can conceive of objects as distinct from others because of change and difference (Houdé et al 1998). For this reason, the scientific task grants a preponderant place to the identification of ruptures and limits. Day by day, for us, the city is above all a change in the organization of space. In order to speak of the city and of urbanism it is necessary for a space to appear that distinguishes itself from others. This differentiation is, to begin with, that which I call, in the tradition of geographers, spatial discontinuity. Geographic space is neither isonomic nor anomic, it is not homogenous or continuous, but rather, it is marked by changes and ruptures of all kinds. Between many other discontinuities, and interacting with them, the city and urbanism differentiate between particular spaces that appear in one site but not the other, that exist in one moment but not the other. Spatial discontinuity is, therefore, always and forever a chronological discontinuity.

It is to this end that the geographic debate has always concentrated, in part, on the problem of the limits of the city: to identify them and analyze them is a form of reflection on the nature and logic of urban space (Brunet et al 1992). Without a doubt, this is also the reason for which archeologists give so much importance to the most notable monuments; if we "notice" them it is because they introduce notorious ruptures in the surrounding space, for their volume, their height, their structure and their materials. The attention is centered on their appearance in the determined space-time, in contrast to the periods that precede them and those which follow them and with those surrounding spaces in which they do not appear.

To scientifically establish spatial discontinuity is a permanent labor, with important implications. For example, to raise the census of the population of a city in a given moment it is necessary to establish with exactness the boundary starting from which inhabitants will be included or excluded. As different sources do not use the same criteria to define their object, it becomes the case that their results do not concur. According to administrators and politicians, Mexico City had eight million inhabitants in the year 2000, since the criteria that they used is that of the administrative limit of the Federal District, which introduces a certain type of discontinuity of space. However, geographers, demographers, and economists calculate 20 million, since for them the valid criteria is the functional agglomeration of inhabitants, activities, and fluctuations that extend indifferently into various political-administrative entities. This problematic reappears when evaluating the pre-Hispanic population of Mexico-Tenochitlan: are we speaking of the inhabitants of a spatially determined area, or of those who depend on the competence, not necessarily divided in territories, of an authority?

In order to identify a city, it is thus necessary to indicate with precision the discontinuities upon which we base our analysis: for example,

- a) the existence of an "administrative" limit that separates two territories whose status may be differentiated:
- b) the apparition of a spatial and stratigraphic contrast un terms of density, structure and function:
- c) the employment of a specific concept to designate the object that we identify as urban,

Before passing to the details of these discontinuities, it is necessary to specify that discontinuity does not imply isolation: there is no space that does not have any relation with another space.

II.2 Relativity

The problematic of spatial discontinuity supposes a difference between at least two spaces: the limit, whatever its nature may be, separates them and unites them at the same time. In this way, every place holds relationships with other places and is inscribed within a spatial environment. As there does not exist a place that is completely isolated, all space is identified in relation to another: when we identify the discontinuity that is tied to the urban space, we do it in relation to a non-urban space. To recognize the relativity of all space implies the characterization of the existing relations between the differentiated spaces. These relations, that have a great variety of social meanings of which we will speak in the second part, can be objectified by means of the material differences between the spaces.

In Europe, the classic opposition city/country can be exemplified by determined physical features (closed/open, constructed/not constructed, not agricultural/agricultural, highly dense, sparsely dense, etc.) that bring us to ask about the relationships that each dichotomy implies. For example, the discontinuity agricultural space/non agricultural space implies a relationship in which the first term nourishes the second, that is, a communication and an interdependence that are based on difference. The dichotomy city/country in the European sense is not universal. In arid climates (the periphery of the Sahara, central Asia, Arid America, pre-colonial as well as contemporary) it can be more pertinent to employ the oasis/desert opposition: urban and agricultural spaces that are profoundly impenetrable are essentially distinguished from empty or "wild" spaces. It is possible to extend the generalization to the essential opposition that distinguishes a permanently occupied space from one of temporary occupation.

A determined space will be identified diversely according to its surroundings, even when it contains the same physical characteristics. In the urban space, a line of communication generally appears as an open or empty space within the constructed and more or less closed structures (there are exceptions, such as the suspended freeways over Los Angeles, that create a tubular network in which very open residential spaces are inscribed in "bas-relief" and where the limit between public and private spheres is vague). And, on the contrary, in the non-urban space the ways oppose tehir surroundings with their more "constructed" character. In this case, the "closing" of the surrounding space is not the result of human manipulation but rather of the absence of it (for example, in the jungle or in the marsh.).

With these examples we wish to demonstrate that it is not possible to define a space absolutely, without reference to another type of space, which gives it its context and its specificity. This complicates the researcher's task, since in order to identify some type of ISSO he must proceed to a relative "triangulation" that bases its differences as well as its relations on other types.

I.3 Density

The spatial discontinuity in the density of a phenomenon is one of the simplest indicators to utilize. Effectively, within an abstract geometric space it is easy to localize, with a system of spatial coordinates, any unit: living (or dead) beings, trees, countryside or forest clearings, property artifacts (walls, floors, roads, terraces) or furniture (ceramic, lithic or organic material). The median distance between these units, or the amount related to a surface, produces its density. And so, the experience demonstrates that there are no uniform median densities: the variations in density create spatial discontinuities.

Then, one must be precise in the measurements; the units that social sciences intend to enumerate in a given space often are movable: it is the case of human beings as long as they are not buried (funerary archeology presents advantages in this respect), that obliges one to calculate human densities to correspond to persons in fixed locales. It is in this way that population census in use by geographers count people as "inhabitants", in their place of residence. Yet research has shown as well that people spend less and less times in their homes, and increasingly in a variety of other places (work, school, commercial centers, services, entertainment venues and... in transit). Because of this, a map of the residential densities of the agglomeration of Mexico City shows that the Reforma-Zona Rosa central business district is less dense and the suburban municipality of Ecatepec is very dense. However, in the hours of activity the Reforma-Zona Rosa area is much more densely occupied that that of Ecatapec.

This is not an anecdotal problem, given that it has enormous socio-political implications: the administrative discontinuities that classify citizens as residents in distinct territorial entities, bases of local government and the loaning of social services, pose problems when it is a matter of organizing space in relation to its actual occupation (for example, in order to resolve traffic jams). For archeologists the problem consists of making inert densities (bodies, constructions) correspond to living densities (mobile and variable): to show a discontinuity in the density of buildings does not prove that urban space is detained in this discontinuity. Among the geographers the concept of "rurbanization" (live in the countryside and work in the city) and "exurbanization" (the installation of urban activities in the countryside) has served to capture the phenomena that transcend the classic dichotomies.

The example of density shows that the identification of the city cannot be reduced to the observation of a certain discontinuity, but rather that one should take into account the relativity of the indicator and of the relationships that the different spaces in question hold among themselves. Additionally, the density abides by only two forms of implantation of the phenomena in the space: it is a matter of counting units as if there were points (punctuated implantation) on a surface (areolar implantation). Now, these points do not only present the variations of density that they allow to define the areas and discontinuities between them, but rather, frequently their implantation is equally organized according to a third modality, linear, that on occasion allows for the perception of the structure of the space.

I.4 Structure

Another major discontinuity that allows for a particular space to be identified has to do with variation of the structure. Here I will use the term "structure" to refer to the regularity in the

spatial distribution of a phenomenon: equidistant points, regular lines or homogenous surfaces, including repetitive combinations of the three modes of implantation.

We classify here the observations of structural discontinuities in three forms:

- a) opposition absence/presence: in the context of an empty theoretical space, the appearance of a structure is already in itself a discontinuity; for example, in a human desert, a human characteristic that is repeated to the point of permanent conversion creates a structure (a path, a home, a city, etc.):
- b) change of structure: here the opposition of the structural configuration will allow the discovery of the discontinuity; for example, in an elevation, a hillock, or an excavation in a plane, or on the contrary, a planed surface in a bumpy surrounding; in a plane, the opposition between curved structures and rectilinear structures, or between different cardinal orientations:
- c) change in scale (variations in applied density to a structure): when there is continuity in the configuration, but discontinuity in the dimensions of repetitive motive, the density of the structure changes.

As is shown, the structural characterization of a space is always relative: the structure is larger or smaller than the other space; it has an orientation, regularity, or texture that distinguishes it from those that surround it. In the case of urban spaces its identification frequently is evident, thanks to the combination of various structural discontinuities whose limits more or less coincide. It happens that: a) the urban site opposes itself to a surrounding space because in it the structures of human origin are denser; b) it differentiates itself from the agrarian structures by the regularity of public thoroughfares and city blocks; c) it is distinguished from less important centers by its larger and taller structures. Yet at times the transitions between one space and another are so continuous that the exterior limit is not as easy to define as the internal discontinuities. Is this the case with Tenochtitlan, whose central ceremonial ground is notably distinguished from the rest of the "urban" space, while the limit between this and the surrounding agricultural space is not evident? But when we speak of the ceremonial and the agricultural, we enter into the terrain of functions...

I.5 Functionality

The geometric characteristics of spaces can be determinant factors for the functions that individuals wish to give them, or, rather, in general these give the spaces the geometry that allows them to be functional. And as different spaces are assigned different functions, the functional spacing is a fundamental factor of spatial discontinuity.

These postulations invite the observation of spatial structures in function of their character, open or closed, reduced or extended, precarious or solid, etc. As the disposition of these sites does not allow for all uses, it is admittedly true that every particular disposition is destined (in the case of creation) or adapted (in the case of reutilization) for certain uses and functions. The identification of an urban space rests above all on the relatively important density of certain functionally specific structures: the multiplication of these open spaces that allows for circulation in an agglomeration of closed spaces, the existence of extensive spaces that allows for the reunion of multitudes, the solidity of the constructions that supports the permanence of the structures, etcetera.

In Jerry Moore's study (1999) of the plazas in the archeological sites of the Andes, the author is supported by the concepts of proxemics (Hall 1966) and by the studies derived to take on the question of the functions of certain spaces. He begins with a geographic inventory that shows that in three civilizations situated in different yet close space-times the open plazas within the urban structures follow three different patterns:

Space-time	Median	Minimum	Maximum	Geometry of the plazas
	Surface	Surface	surface	
Pucara/Chiripa/Tiwanaku	927.1 m ²	90.0 m ²	2 091.0 m ²	Square, excavated in the
(600 B.C./1200 A.D)			(45x45 m.)	middle of a group of buildings
Chimu (900-1470 A.D.	2 482.5 m ²	2 014.0 m ²	11 200.0 m ²	Square/rectangular, enclosed
			(140x80 m.)	within an important
				construction
Inka (1430-1530 A.D.)	80 977.5 m ²	6 318.0 m ²	202 390.0 m ²	Rectangular, open, in the
			(500x400 m.)	center of an urban space

Thanks to the characteristics of these three physical patterns, the author then can analyze their determinant functions, that is, those that authorize or negate human use of the space:

- Do the dimensions and access allow for a large grouping of people?
- Do the distances and dispositions allow for facial expressions, details of clothing or individual gestures to be seen, or for a speaker to be heard?
- Do the dimensions allow only for the perception of masses and collective choruses?

Before even asking about the real social functions of these places, the attention that has been given to the structures allows one to approach its virtual functionality and to that end its eventual differentiation.

I.6 Hierarchies

All of the signaled spatial discontinuities, be it of density, of structure, or of function, are inscribed in a relative framework that implies spatially characterized relationships. One can speak of hierarchical discontinuity when it makes two spaces in the modality "more/less" correspond. This space is "more" or "less" dense, tall, large, closed, etc., than the other. This type of relationship situates spaces on scales that are relative but precise, that create a hierarchy of structures in a mutual relationship. Beginning with a geographical analysis of contemporary cities one can enunciate a series of identifying hierarchies of urban spaces, characterized by constructions or structures that are denser and more diversified, some that are taller or larger than others. The hierarchies can be combined in order to identify sites that are characterized by the concentration of structures that are "more", sites of mutual exclusion and sites of absence.

In a certain way, it is the establishment of hierarchies in a space that allow the researcher to tackle the prickly question of the studied object's limits: it is possible to discuss the election of a variable in order to define the discontinuity that is most adequate for the study. Returning to the example of Tenochtitlan, when the criteria of the volume of the structure is based on how much it holds, the main discontinuity will distinguish the ceremonial grounds from their urbanagricultural surroundings; when the selected criteria is that of structural variation, the limit will be made between the lakeside ("chinampas") and mountainside fields; it is thus the conjunction of the lakeside basin that must be considered as geographic unit. According to that which is favored by the study of the economic or religious foundations of the urban society, the researcher refers one selection or the other to his own hierarchies.

As we see, the course of reflection brings us to cross a limit on our own part, that which we have artificially raised between the physical city and the social one. In reality, the exercise of the factual description of the geometric properties of the studied spaces is generally accompanied by the formulation of a hypothesis about the social realities materialized in these properties. For that reason we will examine now the social content or the possible meaning of the proposed spatial variables.

II. URBANITY: AN APPROXIMATION TOWARD SOCIO-SPATIAL REALITY

The reality of the city is not in its forms but rather in the practices of its inhabitants. A fundamental postulation as much of urban geography as of archeology is that social uses "inform" spaces, defining, limiting, ordering and adapting them continuously (Monnet 1993). Consequently, our objective must be, beginning with a description and methodological analysis of the forms of the materials, that the spatialized artifacts express something of the intentions and practices of the social actors who produced them.

II.1 The social representation of discontinuity

If we take the point of view of the subject, we cannot speak of the city or of urbanism unless these notions are operants for him. There are abundant examples of the non-identification of an urban space or of the negation of a space's urban character based on the distancing between the observer and the ISSO: as the ancient Greeks and Romans did not conceive of the existence of urban forms that were distinct from their own, contemporary societies usually negate the quality of a city and objects that appear to be too far removed from their own concepts (see Los Angeles or Managua, qualified as "non-cities").

The analysis of the discourse and the disciplines that are interested in the social representations (see Jodelet 1991 for psychology and sociology; Bailly 1984, 1985, Bailly *et alii* 1992 for geography) show us that the conceptual identification of the city is only very partially founded on geometric criteria and objective data: "to be in the city", "to live in the city", "to love or hate the city" remits complex imaginaries around human relations. Paul Claval (1981, p.28) says that "the city is fundamentally an organization of space destined to maximize the most diverse interactions". The urban space conserves the material prints, which we can observe, of these social relationships that put them into play. This owes to a social dimension of the city that I call "urbanity", which sums up the relationships that people maintain among themselves by way of the intermediation of urban space (Monnet 2000). Yet as urbanity and the city are essentially contained in the relationships, it always is necessary to determine if the members of a given society are conscious of the existence of an ISSO as a city.

Our key instrument to take on this social consciousness is to identify the representations of the city: one must make a specific social representation correspond to the identified spatial object by way of a material discontinuity. Thus, from the moment in which we have access to the subject's verbal discourse, in which the cultural distance is not too big, the identification that goes with the generic word "city" is determinant, beyond the proper name that can be given to the place. The existence of a word that corresponds to a specific category of space creates a basic discontinuity in a world of non-identified objects.

The same thing occurs in the case of graphic representations, such as on maps, drawings, or scale models. A cartographic document is recognized with precision for these techniques that

allow for the classification of spaces with implantations that are marked, linear, or aerial, and that identify specific places with symbols, different structures, or names (see the Table of Peutinger, the Mesoamerican codex, etc. Pelletier 1998). The representations of the landscapes identify the urban spaces with the differences in the profiles of the structures. The models represent a specific space by selecting the geometric characteristics that make it recognizable: thus, for example, in the archeological site of Plazuelas (Guanajuato) the rocks were carved to represent dozens of different ceremonial structures, platforms, and pyramids.

It seems, then, that it is as easy to establish the existence of a spatial discontinuity as that of its social representation. The problem is in knowing what meaning to give them: just because a place has specific properties and a certain name we do not know whether or not the social category that contains it corresponds to the category "city" that we utilize. In the area of European languages there already exists a linguistic diversity that partially illustrates the complex semantic in which our experience of the city is inscribed (Monnet 1996b): roots that are Greek (polis), latin (urbs, civis, villa, status for the German Stadt), celtic (for town). We are supported in this diversity by continuously creating terms that are destined to designate new realities for those which the old words no longer seem correct: metropolis, megalopolis, "metapolis", conurbation, agglomeration, etcetera.

It becomes more complicated when the cultural distance is incremented in time or space: to what point can we make our concept of "city" correspond to the concepts in Nuahuatl, *altepetl*, or in Chinese, *chengshi*? For the Nahuas, the compound *atl-tepetl* ("water-mountain") allows for the designation of a city or agglomeration; more specifically, the material or monumental city is given the name *tetl-cuahitl*, "rock-wood"; the Otomies and the Totonacas employed similar compounds (Dehouve 1997). For its part, the Chinese expression that is also translated as "city" is formed by a compound "wall-market", *cheng-shi* (Berque 1998, p.106). One can multiply these examples that illustrate the adage "translator=traitor" with respects to the pertinence of the translation of the concept of city from one language to another or from one period to another. Nevertheless, there are also regular structures in the relationship that words hold with the urban ISSO in distinct languages:

- a) *elevation*: this discontinuity is signaled in the German *Berg*, in the Mixtec *yucu* or *yoco* (Dehouve 1997) or in the Nahuatl word that associates the city with the mountain;
- b) *confinement*: this discontinuity appears in Chinese as in Latin *urbs/orbs* (circle, enclosure) or *burgus* (fortification), Celtic *dun* (enclosure), and Spanish *casco* (shell, case);
- c) regulation of social relationships: this function manifests itself in the roots *polis* and *civis*, in the German *Stadt*, in the designation of the real nahua city (*tlatocayotl*, the seat of the ruler *tlatoani*; see Dehouve 1997).

We find, thus, the observable material discontinuities to be socially identified and represented, in the structures (whose height and confinement are distinguished on the horizon) and in the functions (that put into communication a large number of different people and interests), that refer to the relationships between the human beings by means of the spaces.

II.2 Relationships, specializations, and life in common

The relativity of the spaces brings human societies to organize spatial devices of control for the relationships, to impede them (walls, embankments, ditches) or to favor them (roads, bridges, doors, plazas). These relationships can be of exchange, dependence, subordination, admiration, fear, etc. In the city we usually find a combination of control devices. The

discontinuities between the city and its immediate surroundings, or in the heart of the urban space can be seen to be reinforced by the election of a specific topography (relief, island) or the creation of a particular device (walls), yet in this case the devices of access are very well marked (roads, stairways, doors). Internally, the clear or imprecise definition of spaces that are open or closed work together. Meanwhile, the clearer the definition, the easier it is to identify the spaces of relationship that favor the communication: doors and passageways that give access to the closed spaces, thoroughfares that allow for the circulation between different closed spaces, plazas that authorize the gathering of people, platforms and balconies that sustain a visual and audio communication between a scene and its public.

The relationships between spaces that are differentiated from one another imply the reciprocal specialization of these spaces: for example, the conceptual as well as the material differentiation (or indifferentiation) of the public and private spheres. Specific spaces are specialized as communicational, as with the access devices that put different spaces in contact. Other spaces allow for individuals outside of the sphere of intimacy or production to be put into contact with one another (plazas, meeting rooms, markets, commercial centers). These specializations create specific forms that we can observe. In the same way, when we are able to confirm a structural or functional specialization of a space, it necessarily implies the relationship with other specialized spaces that we can classify according to our contemporary concepts of different modalities, not exclusively one or another:

- supply/production/sale/consumption
- private/public
- lodging/work/diversion
- economic/political/religious/etcetera.

The urban space is characterized by the great diversity of observable specializations. We postulate that, the more densely populated a space, the more numerous and varied the relationships will be between the people and the places, as well as more specialized. The density of a population corresponds to the density of built structures, and both have social implications. The density implies the heterogeneous nature as much of the specialized spaces and functions as of the citizens. It implies the multiplication of the possible interactions between subjects or different interests.

As all of these interactions and relationships cannot be managed exclusively in an interpersonal form, the density of the urban spaces leads to a depersonalization and an institutionalization of the social, economic, and political regulations. The functional specializations result in a strong interdependence between all of the components and the spaces in which the city is inscribed; this interdependence obligates in turn the development of a system of regulation of the relationships that produce their own specialized spaces in the city (judicial, police, monetary or religious authorities, mass media, etc.). The urban space appears thus as a sophisticated instrument of the management of the capacity of a complex society to "live together".

One of the conceptual and spatial instruments of this management is *segregation*. This "policy" can be observed from archeological sites where specialized spaces appear, to the functionalist urbanism of the XX century, which recommends the separation of activities by zones, passing through different types of apartheid established between Indian and Spanish Republics in colonial America or between colored and white people in the United States or South Africa. The segregation tries to manage the heterogeneity by creating spaces that are differentiated by their specialty, at the same time regulating the relationships between them; some

communications and circulations are predicted and authorized and others controlled or prohibited; people and functions are assigned rights, duties, and specific places.

In this way, with the spatial apparatus of functional specialization it is possible to imagine the structure of the system of social regulation that has given birth to the material forms.

II.3 Urban centralities: scales and functions

In comparison to other spaces with which it maintains relations, the city is identified by economic exchange (market), symbolic communion (temple), protection (fortress), and/or power/counterpower (palaces, demonstrations). It is characterized by the *concentration* of these functions and by their articulation in the interior urban space. It is, then, denser, more complex, and it materializes relationships in greater measure than other spaces. This hierarchical difference manifests at once the importance of the urban buildings (more solid, more decorated, more extended, and taller) that give place to a centrality that is geometric as well as symbolic (Monnet 2000c) on different scales: in the interior of the urban space, in relation to the surrounding region, and in the relationships with other cities or regions. The recognition and instrumentation of the centrality for local society appears by way of the concordance of hierarchies: for example when the largest building is located on the highest platform, in the geometric center, and contains the most elaborate decoration, the richest furnishings, the most expensive vehicles, etcetera.

Returning to our initial variables in order to study urban centrality, we recall that the city is a *concentration* of buildings and people, paths of communication and means of communication, goods and activities, information and interests. The relativity of this space in relation to other spaces in its environment, near or far away, make it a center that is more or less important in comparison to its periphery and other centers. Given its functional complexity, its internal structure will always be arranged according to a *monocentric* model (where one space monopolizes the central functions: see the Plaza Mayor of the Spanish colonial city, or the ceremonial grounds of Teotihuacan or Tenochtitlan) or *polycentric* (when the specialized centralities are dispersed throughout the city; see Los Angeles or Tokyo). To illustrate how the centrality of an urban space presents itself and evolves we will take the example of Mexico City and Los Angeles:

	Mexico City	Los Angeles
City Center	Yes: but compound	The media and some geographers negate that it
		exists, but it is real (Downtown)
Historical center	Yes: recognized officially (zone of the	No: there is a small historical district "El
	historical monuments of the CHCM)	Pueblo", next to the civil center.
Political-	Yes: in the past (the Zocalo); today it has	Yes: Civic Center, a concentration of all the
administrative center	dispersed, the presidential administration	important administrations
	has moved to Los Pinos and various	
	ministries to the south of the federal district	
Business center	Yes: Reforma-Zona Rosa; it is dispersed	Yes: Central Business District (CBD), in
	toward the west (Polanco, Las Lomas) and	competition with the secondary business
	along the North-South axis (Insurgentes,	districts (Westside,
	Periferico)	Pasadena/Glendale/Burbank) and the activity
		zones of the edge cities (Orange County)
Commercial center	Traditionally, the historical center, along	Downtown, only for the categories of the poor
	with its peripheral neighborhoods (Tepito,	and ethnic minorities. Network of integrated
	Merced, Zona Rosa); compete with the	commercial centers (malls) throughout the
	developing commercial centers in the south	metropolis
	and west (supply center in Iztapalapa,	
	integrated commercial centers)	

Center of nightlife	Traditionally: Garibaldi and the Zona Rosa; strong dispersion toward the west and south	Traditionally: Hollywood
Center for Sunday entertainment	Traditionally: Alameda Central and Bosque de Chapultepec	Traditionally: the Pacific beaches (Westside)
Religious center	Bipolar: Catedral Metropolitana and Villa de Guadalupe	No: the "Pueblo" Historical District is a meeting place only for Mexicans ("La Placita" Church)
Center for mass media communication	No: in the past, the majority of the large newspapers were found around Bucareli	Traditionally: Hollywood
Center for the academic and scientific world	The historical center has been displaced toward the south, with the construction of the UNAM campus, around which the majority of developments have occurred in the past 50 years	No (relative concentration in the Westside)
Synthesis	Evolution of a strong monocentrality toward a policentrality arranged hierarchically around a precise, unfolding principal center (historical center/business center) and an imprecise secondary center (whose axis is Insurgentes Sur until Coyoacan and Tlalpan)	Old bipolarity that juxtaposes Downtown (with the civic center, the CBD and the historical district) and the Westside (universities, medias, entertainment); between the two appears an axis that could prefigure a metropolitan monocentrality

As we see thanks to these examples, the analysis of the urban centrality always entails the specification of two dimensions: Of which specialized centrality are we speaking, and in what scale are considering it? If we return to the example of Los Angeles, the sources usually recognize various centers of the city, such as Downtown, Hollywood, and the Westside (from Westwood to Santa Monica). Nevertheless, it is possible to consider that these are a matter of specialized neighborhoods of a large city center that function for the entire megalopolis, in the same way that in Mexico City the historical center and the Reforma-Zona Rosa area constitute two aspects of one single center. The exercise of subdivision, or of association, depends on the scale that appears to be most pertinent to the researcher. Thus, the current monumental zone of Teotihuacan, visited by tourists, can be considered as a diversified urban space, with specialized and more or less centralized subsets as well, or as a vast center for a larger urban space. For its own part, is the "acropolis" of Monte Alban in Oaxaca a city, or the center of a city?

It is precisely in order to respond to questions such as these it becomes interesting to follow the program "Urbanism in Mesoamerica" that today gives us the opportunity to make collaboration between archeologists and geographers, just as other specialists in the social sciences have done.

CONCLUSION: THE URBAN DYNAMIC AND THE QUESTION OF INTENTIONALITY

Urban space is inscribed in a lasting temporality: the multiple processes that we bring up here are produced and concentrated in a given space over the course of long periods, something that makes the city an important material accumulation whose prints can endure for millennia after the disappearance of the local social complex that produced it.

Yet this material "shell" should not make us consider the city as something inert (as it can be in an archeological vestige) nor as a stable space. It should be discussed as a dynamic system, in relation to other dynamic systems. The urban ISSO evolves, its limits change in space according to different factors, and it can come to displace itself (Musset 2002). The observation of material space allows us to reconstruct, at least partially, the processes of transformation that

are in play: superposition, restoration (maintenance of form), rehabilitation (modification of form), renovation (complete replacement of form), functional re-conversion, deconstruction/reconstruction that is progressive or brutal, etcetera (*Trace* n°43-2003).

These processes bring us to ask about the intentionality of the actors (Huot 1988) and the coherence that result in the joining of actions. It is already about the product of a conscious will. or not, the whole city is a representation of the world in which the builders live, as Italo Calvino has so eloquently illustrated (1972). The "worlds" of which we speak here, as with the city, are realities as much objective as subjective, as material as they are imaginary: the city offers thus an image, materialized in space, of a vision of the world (Monnet 1999a & 2000a, Nicolet et alii 2000). At times, this cosmologic dimension is voluntarily manifested, as is the case with the pre-Colombian, Babylonian, or Chinese cities that give shape to the order of the universe. In a way, the cities of ancient Greece or the Spanish colonies, with their geometrical regularity and theoretical rigor of their functional segregations, just like the "new cities" of the modern movement of the XX century, posess this cosmogonic character in which they expect that urbanism not only reflect the order of the universe, but also that it contributes to it. Yet, does not the same thing occur with the contemporary megalopolis, which has been accused of social and spatial chaos? Do these constitute something that is not a reduced model of the contemporary world? They concentrate all the riches and all the miseries of which our globalized world is capable of producing; they materialize all forms of living.

It is important to close with a question about the forces that regulate the production of urban space. At times, if we take the examples of Teotihuacan, Washington, or Brasilia, we could think that it is easy to understand these cities whose materiality appears to have sprung forth entirely from a powerful organizing will; and on the inverse, the least rigorously planned agglomerations seem to escape all comprehension and all intention. But we cannot forget that the truth of the city is in the face of its users, and not in its plan: each social use of the space obeys cultural logics, even if the intrinsic heterogeneity of the city makes it difficult to perceive these logics. After all, did not the central road of Teotihuacan appear to be total social chaos when it was utilized by the multitudes of its users? What part does real estate speculation play, founded in the culturally established value of that which is desirable, beautiful or beneficial, in the production of "monuments"? How are market forces, media impact, the management of public well-being combined in the dynamic of urban space – to employ contemporary categories? In trying to answer these types of questions, the study of urbanism in Mesoamerica will take on its true dimension in the social sciences.

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