# CONCLUSIONS AND EVALUATION OF THE SYMPOSIUM ON "THE PROCESS OF URBANIZATION IN AMERICA SINCE ITS ORIGINS TO THE PRESENT TIME."\*

THE PURPOSE OF THIS SYNTHESIS AND OF THE EVALUATION OF THE RESULTS of the Symposium is to serve as a base for possible lines of investigation to those researchers interested in the analysis of the process of urbanization in America.

### THE PREHISPANIC PERIOD

# Session I—Terminology, Methodology and Definition of Concepts

After a brief word of greeting by Jorge E. Hardoy, General Coordinator of the Symposium, Richard P. Schaedel, Coordinator of the sessions dedicated to the prehispanic period, began by pointing out the inter-disciplinary value of the Symposium. He indicated that in order to derive all of the benefits from this approach, it was necessary to establish mutual lines of communication among the researchers. For this to be so, it was necessary to have a clear consensus regarding the terminology involved and he offered a series of observations concerning the concepts of culture and civilization, what is urban and what is rural, and the use of the words town and city.

He stated that he did not expect that in this Symposium there could be complete unanimity in regard to the utility and meaning of these terms; that it was important to use them in a specific sense during the sessions, and to discuss differences in the discussion sections.

He exhorted the participants of the session dedicated to the prehispanic period to take into consideration the fact that the materials under analysis, that is the prehispanic population centers, were rapidly disappearing, and that consequently they require abbreviated technical studies which will provide a basic knowledge of their essential characteristics with a minimum of study.

William A. Longacre explained a complex method used to determine the functions and social structure of a group. A detailed study from the southwestern United States was presented as the example. This same technique could be employed in prehistoric towns or cities to analyze the problems of varied magnitude.

\* Held at Mar del Plata as a part of the 37th International Congress of Americanists, September 4th through 10th, 1966.

W. J. Mayer-Oakes presented a valuable methodological approach in the following paper. He explained a model for the study of urbanization in the Valley of Mexico, using as the starting point the methodology employed by social anthropologists for the study of a complex society and applying it to the hypothetical society which inhabited the Valley of Mexico during the first millenium.

R. T. Zuidema demonstrated that even with very limited ethnohistorical data, the functions of certain urban architectonic complexes which appear in the Incaic population centers could be defined.

The animated discussion, well directed by Chairman Ralph Beals, fully demonstrated the desire of the participants to break out of the barriers imposed by the different disciplines concerning urban terminology. In a discussion of the relation between civilization and urban revolution, Pedro Armillas indicated the necessity of re-evaluating the concepts promulgated twenty years ago by Childe. The discussants distinguished between civilization and urbanization and there was a modicum of agreement to the proposition that the *beginning* of urbanization marked the advent of civilization as an evolutionary process of a prehistoric culture. This, however, did not mean that the full-blown city represented an indispensable component of civilization. Sanders isolated three urban characteristics which could be used as a scale for measuing the degree of urbanism of a given prehistoric conglomerate group. These characteristics were: socio-cultural differentiation, nucleation and population density. The proposition that the number of inhabitants in a population center be used as a criterion to define a city was rejected.

The discussants emphasized the recognizable factors of the pattern of the prehispanic population centers that made it possible to differentiate between those population centers essentially rural and those specifically urban. Afterwards, some of the transitional forms were analyzed, particularly those forms that could be considered *aldeas* (or nucleated villages). The possibility was also discussed of using modern inferences derived from sociology, concerning processes of group formation and fissioning, in order to understand the phenomenon of prehistoric nucleation. Later, an attempt was made to discriminate between generic urbanization, which develops only once, and the phenomenon of the implantation of urban centers as a mechanism of the state or a complex society, for which the descriptive term of "derived urbanization" was suggested by Ralph Beals.

John Murra concluded the discussion on a note of appreciation for the significance of the new methodological contributions made by the three speakers who showed how a much more precise reconstruction of prehispanic social life was possible than had been the case until recent years. Also, the door was

now opened to the possibility of complementing archaeological works with those of the historians and social anthropologists.

# Session II—Incipient and Peripheral Forms of Urbanization

Melvin Fowler demonstrated how two prehistoric population centers of different cultural areas could be compared. He did this by using an example from the middle Mississippi region with another from Central Mexico. Both examples represented incipient types of urbanization which had been designated as temple-town communities. In one of the examples (Cahokia) the process of urbanization remained truncated while in the Mexican area the process continued evolving.

In further treatment of this topic, three reports were given upon the late aspects of the Andean urbanization process. Donald Thompson showed how the early urbanization process had been imposed by the Inca state in two provincial centers. The author explained the similarities and architectural differences of both groups. He indicated that the centers were probably not densely populated. The expansion of permanent population centers toward the edge of the jungle in southern Peru was analyzed by Duccio Bonavia (paper 1). The presence of this type of village in this zone, which since then has been a sparsely settled area, was related to the advance of the Inca Empire.

Guillermo Madrazo dealt with a clarification of the urban conglomerates of the Northwestern Argentine. The author showed that the advent of these population centers was somewhat earlier than the arrival of the Incas. He went on to say, that at a later stage, which might be called "indirect derived urbanization," there appeared forms with northern characteristics clearly of Inca date.

One part of the discussion was centered on the significance of the ceremonial center as the prototype of urban beginnings in America. Chairman Gordon R. Willey, upon summarizing recent evidence, offered the proposition that this sequence only obtains in Meso-America, and that in South America prototypes of urbanization could have been population centers nucleated from the beginning.

The discussion then centered upon the interpretation of these nucleated population centers. Schaedel underlined the absence of factors, which could properly be called urban, as opposed to the great extension of these communities. Also emphasized was the fact that during the first millenium A.D. the ceremonial center was the form of settlement pattern which dominated the entire Peruvian Coast and those areas so far known in the highlands. This lead the participants into a discussion of which locality was probably the first urban manifestation in the area. Some of the discussants held out for Huari and the southern highlands, while others were of the opinion that it was a site in the coastal region, probably the product of the conflict and occupation of a coastal center by a highland group.

Another part of the discussion terrolved anound the significance of these manifestations of derived urbanization. The difference between an imposed urbanization and an indirect urbanization was clearly demonstrated. Finally, the importance of the new discoveries of urban centers on the edge of the jungle in the North, Central and South of Peru was stressed. This implied an important extension of the settlements of Andean culture, not only during Incaic times, but in earlier epochs.

# Session III-Planned Urban Centers in Central and South America

This Session was opened with the presentation of two complementary works on Teotihuacán. William Sanders analyzed the ecology of the city and its changing role during its growth, its peak of civilization, and its gradual abandonment, giving as an example the position which Teotihuacán held both as the capital and the axis of the Valley of Mexico over a period of 1,000 years.

The strictly urban phenomenon was explained by Rene Million who showed how the city had evolved from a group of semi-rural communities into an architectural conglomerate 22 kilometers square and housing 65,000 to 75,000 inhabitants.

Horst Hartung analyzed the various aspects in the design of different architectural complexes of the Mayan civilization, and indicated certain principles which may have influenced their orientation and relationships.

Erwin Palm read a paper on Tenochtitlán. The author indicated that *chinampas* were not peculiarly Aztec, and that similar methods of cultivation appear in other parts of Asia and America under similar geographic conditions. He then analyzed the symbolic and directional importance of the diagonal line in the plans of Tenochtitlán and other Aztec population centers.

Antonio Rodriguez Suy Suy reported on Chan Chan, analyzing proofs of the existence, not only within the city itself, but also in its environs, of a prior occupation (pre Chimu). New evidence was offered of the probable functions of some of the installations and of the roads within the immediate ecological zone of the city. This evidence was deduced from present-day accounts given by the descendents of the Chan Chan population still living in adjoining areas.

Chairman Jorge Hardoy sought to focus the discussion on the extent and the meaning of planning and hence how to identify it when found in the prehispanic cities. He indicated that the criterion would be too limited when the complex was associated with only regular outlines. He went on to say that because of environmental or technical reasons, or simply because of their own volition, certain civilizations could have adopted pre-conceived urban patterns which did not necessarily conform to a regular layout. The participants dis-

cussed their own investigations which implied emphases on a pre-determined plan or design, but the main point was not fully discussed. The discussion was terminated in an exchange concerning the function of the exaggerated wall development at Chan Chan and in general in the urban centers of the Peruvian Coast, in which the arguments for defense against people viz a viz wind were aired.

# Session IV—Dynamics and Ecology of Urbanization

Due to special circumstances, this Session was a short one. Pedro Armillas described a study, which he had almost completed, concerning the ecological bases of the urban centers of the Valley of Mexico. He analyzed various forms of intensive cultivation with examples of diverse types of irrigation such as chinampas, irrigation canals, aqueducts and examples of terraces.

Duccio Bonavia in a second paper referred to the aforementioned extension of urban centers in the zone near the jungle frontier. In this case, illustrations were analyzed from the south, central and northern parts of Peru. The speaker indicated the appearance of a new type of population center in the north (Pajaten) which implied a new variation of incipient urbanization previously unknown in a zone presently uninhabited; and with a type of architecture completely different from that of other parts of the Andes. Further, it brought out the necessity of ascertaining the changes in ecology which made possible this development and later its disappearance.

Emilio Harth-terre focused on the significance of the plaza and the concept of delimited space which had an important role in the urban design of the last epochs of prehispanic Peru.

Melvin Fowler and Donald Thompson underlined the significance of the contribution of each speaker. The discussion was reduced to a minimum due to the pressure of time. The archaeologist-discussant (Thompson) seconded the suggestion expressed by the architect-speaker (Harth-terre) that both disciplines should combine their efforts for the purpose of extending and improving the studies of prehistoric urbanization.

### EVALUATIONS OF THE SESSIONS ON PREHISPANIC URBANIZATION

Taking into consideration the objectives which the Symposium had originally set as its goal, the following considerations were drawn:

1. A good exposition was made concerning the present state and level of the investigations regarding the process of prehispanic urbanization. It was shown that studies in the United States and Mexico are more advanced than in South America. It was emphasized that there is a necessity to concentrate greater effort in this latter area, and that work should be done in the areas intermediate to those occupied by the principal American civilizations.

2. Of those areas in which important prehispanic urbanization processes took place, Tiahuanacan-highland and Mayan civilizations were the least represented at the Symposium. As for investigations in general, illustrations of incipient urbanizations in the sub-Andean zones were the most inadequately investigated. Research in the southern, sub-Andean region requires greater emphasis. Although the quantity of archaeological material on urbanization is considerable, with most of the effort having been made within the past ten years, it represents only a small sampling of what is yet to be done. The necessity is stressed of multiplying these studies.

3. It is necessary to have at the disposition of the researchers a better systematization of urban terminology and a more detailed cartography of archaeological works in order to compare them with historical documents.

4. The weakest part of the Symposium was that referring to the dynamics and ecology of urbanization. The importance of these themes lies not only in explaining the urbanization process, but also in the greater possibilities of interdisciplinary collaboration in the future. In the meantime, it is proposed that this be the main theme of the prehispanic sessions of the next symposium, and that, if possible, it be extended into the colonial and modern eras.

### COLONIAL PERIOD

# Session V—Elements of the Colonial City Within Geographic, Economic and Social Contexts

The first three papers were centered around aspects of Colonial urbanization in Argentina, and especially in the littoral zone. Augustín Zapata Gollan analyzed urban characteristics of the first founding of Santa Fe. Federico G. Cervera presented detailed demographic and sanitary statistics of the same city. Víctor F. Nícoli presented the historic variation of the magnetic declination of Santa Fe and Buenos Aires. This opened useful perspectives for future cartographic studies on the Colonial Period.

In the last paper, Jorge Hardoy revealed the first conclusions of an investigation on urbanization in prehispanic America up to 1600. Two aspects were particularly emphasized: The general and particular characteristics of urbanization, and the relationship between scales of the cities and the functions which were fulfilled in them. The methodology employed in this research was similar to that used in studies of systems in contemporary cities.

Almost the whole discussion revolved around this last work which was received with interest because of the possibilities of coordinating the information. It paved the way for wider research in the studies of prehispanic and colonial urbanization. The significance of the term *vecino* and its use as a

criterion of size for urban populations and the definition of a city were analyzed without arriving at a consensus about their use.

# Session VI—Colonial Institutions and Their Influence on the Process of Urbanization

Three papers were read in this Session. Charles Gibson gave a detailed analysis of the role of the local government during colonial times in relation to ownership of land, control of services, and the function of contractual institutions. The work was focused on New Spain and demonstrated institutional changes brought on by changing social conditions.

Ralph Gakenheimer explained the role which the recorded sessions of municipal councils played in the structuring of urban forms in the Viceregency of Peru during the 16th century. It included some interesting illustrations particularly detailed in the case of Lima.

In the absence of Gabriel Guarda, Hardoy read his important paper concerning the influence that the defensive aspects of the territory had on the formation of Chilean cities. This work also pointed to new evidence regarding the continuity of territorial occupation and of prehispanic and Colonial foundings.

Discussion in this Session was made difficult by the variety of themes presented. Nevertheless, the information presented in the first two papers allowed for comparisons to be made between the existing institutions during the Viceregency of New Spain and Peru. The last paper opened new possibilities for the study of the role which defenses played in urbanization. This type of study could be extended to other territories of America.

## EVALUATION OF THE SESSIONS ON COLONIAL URBANIZATION

These sessions were marked by a lesser attendance than the ones on the prehispanic period. The most significant conclusions are:

1. No papers were presented on the Colonial Period of Brazil or on the English, French and Dutch colonies of the Americas. At future meetings, it would be desirable to include such reports and as subjects of special interest those which allow for comparative studies of the economy, social structure and urban forms of European powers in the American Colonies from the 16th to the 18th centuries.

2. An analysis of urban regional continuity or discontinuity between the prehispanic and colonial periods should receive much more attention in the future than it has up to now. The 16th century is the key to the American urban spatial structure. It would indubitably appear that the persistence of basic localization principles throughout the two periods is a result of the continuity of essential aspects of the economy and of the institutions.

3. It became clearly evident that it would be necessary to intensify comparative

demographic and functional studies as a general frame of reference for the colonial urbanization process. In this manner, local studies will acquire more significance.

4. It was suggested that there was a necessity to intensify the research in and publication of urban cartography, especially that relevant to the formative decades of the internal structure of the colonial city.

5. Experimentation with known and used methodologies by researchers working in inter-disciplinary aspects of contemporary urbanization opens the possibility of a wider focus. It also stresses the importance of each city and each function. In this manner it should be possible to select subjects for detailed study within the framework of a common statistical systematization.

#### THE 19TH AND 20TH CENTURIES

## Session VII—Formation of the Contemporary City

Urban development in Latin America during the 19th century, more precisely during that period between the middle of the 18th century up to about 1940, is little known.

There were three papers read on the 19th century. These three were relevant to Argentina and southern Brazil. They offered valuable information to the participants. Because of their interest and wide scope, they opened good possibilities for future discussion on typological, theoretical and comparative aspects. Lamentably, the discussion could not be continued due to lack of time.

Richard Morse, despite having concentrated his research in Brazil, suggested the possibility of a generalized model or series of concepts valid for the analysis of the social structure and development of the Latin American city. He showed similarities between the urban phenomenon in Brazil and the sugar-growing zones of the Caribbean; of the northwest Argentine and the southeast of Bolivia; of Paraguay and of Venezuela. He also presented an interesting parallel between Argentinian *caudillismo* and Brazilian *coronelismo* and their effects on the stagnation of the interior of these two countries. This facilitated the urban development of certain centers.

Patricio Randle presented a detailed analysis of the role of urbanization in the changing frontier of 19th century southern Argentina. This was a theme which suggested comparisons with studies of Monbeig in São Paulo and of Wade in the United States.

Forces provoking changes in the social structure, and particularly the effects of European immigration in the city of Buenos Aires between 1880 and 1910 were analyzed in James Scobie's paper. It also demonstrated the author's preoccupation in relating the above aspects with the scheme of urban growth and with the variations in the land use of the central *barrios* of the city.

The only paper read on the 20th century was presented by Adolfo Critto on migration toward Cordoba and included historical implications and con-

clusions of present-day interest. The analysis of interrelationship between traditionalism and change served as a reminder that until now the majority of the studies on Latin American cities of the 19th century had given the false impression of a uni-directional modernization.

Three works were not read due to the absence of the authors (T. Lynn Smith, Lazaro Devoto and Michael M. Kane) although the principal concepts of each were briefly summarized. One of the papers reached the hands of the Chairman only a few hours before the Session began.

The complex problems presented by contemporary urbanization, such as the analysis of the formative period of the present-day city received scant attention. In spite of the Symposium Coordinator's efforts to bring together specialists working on various aspects of urbanization in the Americas, the results obtained leave much to be desired. He sent a number of invitations, not only to individuals but to international organizations as well, with the objective of attracting their attention to the importance of analyzing the phenomenon of urbanization through time and to provoke discussion and exchange of methodological approaches between those who study the past, those who analyze the present, and those whose studies project into the future.

There could be various reasons for the lack of interest of specialists in the field of contemporary urbanization to attend scientifically organized meetings held within the framework of a congress that up to now has not analyzed contemporary urban-industrial societies. We believe that the opposite could very well have been true had archaeoogists and historians been invited to a meeting of regional and urban planners concerned only with present and future problems within their field of specialization. Furthermore, there are few planners interested in archaeological and historical problems and vice versa. This obvious disparity in scientific gatherings between those who concentrate on an analysis of dead or currently marginal cultures, and those who concentrate on the complex phenomenon of little-understood contemporary urbanization, should be overcome. The benefits of these meetings would be numerous and varied, and it is indisputable that an exchange of views regarding the techniques of investigation would be mutually advantageous.

#### AN EVALUATION OF THE SESSION OF THE 19TH AND 20TH CENTURIES

1. An analysis and presentation of statistical information which would permit at least an approximation of a comparative index of Latin American urbanization during the period studied would be a valuable addition to the knowledge of spatial and structural dynamics of urban society.

2. Guidelines of the interrelationships of the social classes which inhabited these early American cities during the researched period is little known to us.

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Nevertheless, it was during this period that the role of the city in the diffusion of culture change was established. Also extended were the perspectives of greater social mobility in a vertical sense and the participation of the lower and middle classes at first in urban and later in national politics.

3. We know very little of the economic conditions which contributed to or produced urbanization, not only for its historical context but also as a base for better understanding of the structural and functional changes in contemporary cities.

4. Novelists, travelers, poets, and in general contemporary writers, have frequently offered a varied and penetrating picture of the relationship between social classes, of their attitudes toward present-day problems, the aspect of the cities, and their impressions of urban life in general during their own lifetimes. The use of these sources of information has received scant attention by scholars on urbanization in America during the 19th and 20th centuries in spite of their documentary value.

5. Little is known regarding the impact of technology on the social and physical structure of the cities during the 19th and the first decade of the 20th centuries. We would understand urban development much better if one knew more about the impact of the street cars and railroads on urban expansion; of water services, drainage systems, electrification in augmenting the density of the city, or of the gradual regionalism produced in some countries as a result of the construction of means of regional transportation.

6. Very useful would be actual comparative studies of the urban structures of Latin American cities with studies of other contemporary cities of the different traditions. In this manner, certain particular characteristics of Latin American cities would become evident and topics of interest for a detailed analysis would be disclosed.

7. The majority of the studies of this period were concentrated in one city. Very few researchers have attempted to locate this city within its regional dynamics, and its reaction to political-administrative changes and external forces. An analysis of the nature of the components of urbanization during this period and the impact of the city upon internal migrations in relation to the development of inter-regional commerce, transportation routes and industrialization, for example, would constitute a valuable contribution to the social and economic history of our countries.

## GENERAL CONCLUSIONS

1. The Symposium represented a strong effort at uniting researchers in American urbanization, working on distinct concepts and periods. There was a wide exchange of ideas among archaeologists, art historians, architects, urban

planners, anthropologists, social historians and sociologists. Sociologists and art historians were not numerically well represented. There were no economists present.

2. The roles which the different disciplines could play in the inter-disciplinary studies of urbanization were not decided, nor were better methods for their action analyzed. The two papers on Teotihuacán which were read in Session III demonstrated the apparent advantages of collaboration among the disciplines, especially between the archaeologist and the historian, and to a lesser extent with the architect and the art historian. The study on Teotihuacán can be considered as a model for investigations of other prehispanic cities.

3. Although complete unanimity of ideas was not arrived at, discussion between the various disciplines served to demonstrate the mutual benefit which can be attained by combining methodologies. For example, the methodology of rural sociology could be combined with the methodology of archaeology in order to establish the differentiation between rural and urban. The contemporary urban planner's concept of planning was analyzed in another session, and this produced a reaction and an attempt to modify the same concept as used by the archaeologist.

4. In Session V, a variant was presented of the methodology used by planners when analyzing urban characteristics of the cities in a contemporary region as a form of analysis of urban characteristics of colonial cities. It was considered that both archaeologists and historians could use some form of this methodology as a basis for a macro-project of urbanization through time.

5. The following lines of research would be of particular interest:

a) An analysis of areas which permit a better understanding of the systems of cities during the prehispanic period.

b) The continuity of economic, institutional and spatial prehispanic and colonial urbanization.

c) Studies concerning the socio-economic structure of the Colonial city (not only of the Spanish and Portuguese influence, but of the English, French and Dutch influences as well) with special emphasis on the living standards of the most numerous groups in the populations.

d) Cartographic and statistical analysis and systematization with the objectives of obtaining collections of maps and series which would permit a better comparative knowledge of the urban process through time and for different regions.

e) An analysis of the formative period of the contemporary cities.

f) An analysis of possible forms of application of the methodologies utilized heretofore in isolated cases and periods, for utilization in an inter-disciplinary effort.

g) A re-evaluation of the concepts habitually used in this field of study including those used in the sciences which have traditionally not contributed to it.

6. The Symposium made evident the fact that researchers from the different disciplines did not know of the research and projects of their colleagues. In this sense, the Symposium made it possible for them to be together for the first time and showed the wide latitude of theoretical interests which exists. Continued exchange of ideas among the participants of the Symposium should serve as a substantial basis for future meetings.

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The text of this synthesis was drawn up by the following:

Ralph A. Gakenheimer—University of North Carolina Jorge E. Hardoy—Consejo Nacional de Investigaciones, Argentina Horst Hartung—Universidad de Guadalajara Richard Morse—Yale University Erwin Palm—University of Heidelberg Richard P. Schaedel—University of Texas

### PROGRAM OF THE SYMPOSIUM-Coordinator, Jorge E. Hardoy

# PREHISPANIC PERIOD-Coordinator, Richard P. Schaedel

Session I—Morning, September 5, 1966 Terminology, Methodology and Definition of Concepts

Chairman: Ralph L. Beals (University of California at Los Angeles) Discussants: Pedro Armillas (University of Southern Illinois) John Murra (Institute of Andean Investigations, New York-Lima) William T. Sanders (Pennsylvania State University)

Papers Presented:

- 1. Richard P. Schaedel (University of Texas) "On the Definition of Civilization, Urban, City and Town in Prehistoric Amerca."
- 2. William A. Longacre (University of Arizona) "Urbanization in Pre-Columbian America: Some Methodological Suggestions from Non-Urban Research in the Southwestern United States."
- William J. Mayer-Oakes (University of Manitoba)
   "A Model for the Study of Pre-Spanish Urbanization in the Valley of Mexico."

4. R. T. Zuidema (Holland—Universidad de Huamanga, Peru) "The Relation Between the Prehispanic Settlement Patterns and the Principles Derived from the Inca Social Structure."

Session II—Afternoon, September 5, 1966 Incipient and Peripheral Forms of Urbanization Gordon R. Willey (Harvard University) Chairman: Discussants: William T. Sanders (Pennsylvania State University) William A. Longacre (University of Arizona) Papers Presented: 1. Melvin L. Fowler (University of Wisconsin, Milwaukee) "The Temple Town Community: Cahokia and Amalucan Compared." 2. Donald E. Thompson (University of Wisconsin, Madison) "Provincial Incaic Installations in the Huanuco Area." 3. Duccio Bonavía (Museo Nacional de Antropología y Arqueología, Lima) "Population Centers on the montaña frontier of Ayacucho." 4. Marta Ottonello de García Reynoso y Guillermo Madrazo (Museo Etnográfico, Buenos Aires) "Types of Prehispanic Centers on the Argentine Puna and its Borders." Session III—Morning, September 6, 1966 Planned Urban Centers in Central and South America Jorge E. Hardoy (Consejo Nacional de Investigaciones, Argentina) Chairman: Discussants: William J. Mayer-Oakes (University of Manitoba) Pedro Armillas (University of Southern Illinois) Papers Presented: 1. William T. Sanders (Pennsylvania State University) "Growth and Subsequent Course of Urbanization in the Valley of Teotihuacán." 2. Rene Millón (University of Rochester) "Latest Conclusions on America's Earliest City." 3. Horst Hartung (Universidad de Guadalajara) "Urban Interpretations of Tikal, Copan, Uxmal and Chichen Itzá." 4. Erwin Palm (University of Heidelberg) "Observations Regarding the Plan of Tenochtitlán." 5. Antonio Rodriguez Suy Suy (Universidad Nacional de Trujillo) "Chan Chán: An Adobe Metropolis, Its Ecological Base." Session IV—Afternoon, September 6, 1966 Dynamics and Ecology of Urbanization Chairman: Richard P. Schaedel (University of Texas) Discussants: Donald E. Thompson (University of Wisconsin at Madison) Melvin L. Fowler (University of Wisconsin at Milwaukee) Papers Presented: 1. Pedro Armillas (University of Southern Illinois) "Ecological Factors in the Development of the Advanced Civilizations of the

Valley of Mexico."

- 2. Duccio Bonavía (Museo Nacional de Antropología y Arqueología, Lima) "Towns of the Late Horizon on the Jungle Fringe of Peru: Some Observations."
- 3. Emilio Harth-terré (Lima, Peru) "The Plaza and its Socio-Religious Function in the Incaic Centers."

COLONIAL PERIOD-Coordinator, Ralph A. Gakenheimer

Session V—Morning, September 7, 1966

Elements of the Colonial City Within Geographic, Economic and Social Contexts

Chairman: Ralph A. Gakenheimer (University of North Carolina)

Discussants: Woodrow Borah (University of California at Berkeley) Charles Gibson (University of Michigan) Richard P. Schaedel (University of Texas)

#### Papers Presented:

- 1. Agustín Zapata Gollan (Museo Etnográfico, Santa Fe, Argentina) "Urbanization of Old Santa Fe."
- Fedérico G. Cervera (Santa Fe)
   "A Sanitary and Demographic Study of the City of Old Santa Fe, Argentina— 1573–1660."
- 3. Víctor F. Nícoli (Museo Etnográfico, Santa Fe, Argentina) "Observations Regarding the Magnetic Deviations of the Plans of Santa Fe and Buenos Aires."
- 4. Jorge E. Hardoy (Consejo Nacional de Investigaciones, Argentina) in collaboration with Carmen Aranovich "Urban Gradations and Functions in Hispanic America *circa* 1600—The First Results."
- Session VI—Afternoon, September 7, 1966 Colonial Institutions and Their Influence on the Process of Urbanization

Chairman: Jorge S. Hardoy (Consejo Nacional de Investigaciones, Argentina) Discussants: Horst Hartung (Universidad de Guadalajara) Richard Morse (Yale University)

## Papers Presented:

- 1. Charles Gibson (University of Michigan) "Spanish-Indian Institutions and Colonial Urbanism in New Spain"
- 2. Ralph A. Gakenheimer (University of North Carolina) "Effects of the Municipality on the Growth and Pattern of the XVIth Century Peruvian City."
- 3. Gabriel Guarda (Universidad Católica, Chile)
  "Military Influence on the Cities under Chilean Rule."
  (A summary of this paper was read by the Chairman of the meeting)

THE XIX AND XX CENTURIES—Coordinator, Richard Morse

Session VII—Morning, September 8, 1966 Formation of the Contemporary City

Chairman: Jorge S. Hardoy (Consejo Nacional de Investigaciones, Argentina) Discussants: Roberto Cortes Conde Tulio Halperin Nicolas Sanchez Albornoz

Papers Presented:

- 1. Richard Morse (Yale University) "Cities and Society in XIX Century Latin America: The Illustrative Case of Brazil."
- Patricio Randle (Consejo Nacional de Investigaciones, Argentina)
   "Cities and Frontiers (1779–1879): A Century of Urbanizing the Desert of Buenos Aires."
- James R. Scobie (Indiana University)
  "Changing Urban Patterns: The Porteña Case, 1880–1910)
  (A summary of this work was read by the Chairman of the meeting)
- 4. Adolfo Critto (Instituto de Sociología, Córdoba, Argentina) "Analysis of the Country and of the City after the Migration from the Country to the City of Córdoba."
- Although the authors were not present, the following papers were received: T. Lynn Smith (University of Florida)

"The Changing Functions of Latin American Cities."

Lazaro Devoto (Cordoba)

"Communication and Creation of the City."

Michael M. Kane (United States)

"The Role of the Participants of the 37th International Congress of Americanists in the Development of Urban Planning and Architecture of Today and Tomorrow."

GENERAL CONCLUSIONS OF THE SYMPOSIUM

Session VIII—Afternoon, September 9, 1966

Chairman: Jorge E. Hardoy

During this session a report on the Symposium was presented and the conclusions generally discussed.