
The Charter of Machu Picchu

A document prepared by a group of architects, educators, and planners convened by the National University Federico Villareal, Lima, Peru

Lima and Cuzco, December 6-12, 1977

In December of 1977, a group of educators and practitioners in the fields of architecture, planning, and urban history traveled from several countries to meet in Lima and Cuzco, Peru, to seek a unifying theme for the professions most directly involved in designing the patterns and characteristics of human settlements. The group was convened by the Universidad Nacional Federico Villareal in response to a widely-held view that the potential of architecture, planning, and the related design professions for improving the quality of urban life is being dissipated, even as the demand for direct approaches to urban problems becomes more urgent throughout the world.

Relatively few of the design professionals assembled knew one another, but all shared a common commitment to the enlightened practice of architecture, planning, and urban design, and all shared a basic respect for the natural environment as part of the priceless heritage of all nations.

The group took as a point of departure for its deliberations the Town-Planning Chart of 1933, which later became widely known as the Charter of Athens. This document, prepared at the Fourth C.I.A.M. Congress and for many years a benchmark for higher education in the design professions in Europe and in some U.S. universities, served as the

focus for discussion and debate by the group in Lima and Cuzco, and served to catalyze many of the declarations and postulates of the Charter of Machu Picchu.

After a full week of lively debate, often in four languages, the group achieved consensus on the validity of many points originally asserted by the framers of the Charter of Athens. They also offered formulations for approaches to contemporary problems of urbanization that require facing factors unknown in 1933. The resulting document is the Charter of Machu Picchu.

On December 12, accompanied by many students of architecture and planning from Peruvian universities and by other witnesses, the group journeyed to the ancient ruins at Machu Picchu and signed the charter in testimony to their advocacy and pursuit of enlightened principles of planning and design in professional education and practice.

The Charter of Machu Picchu is intended to serve the design professions, not as a prescription, but as a stimulus to interdisciplinary review of professional objectives and performance. It is intended also to foster public debate and involvement in the policies and actions of governments that can and should be applied to improve the quality of human settlements throughout the world.

In one of his many brilliant metaphors, Pablo Neruda, the bard of Machu Picchu, described the lost city as "the tallest crucible that ever held our silence." We, a gathering of architects, educators, and planners, have undertaken the ambitious task of breaking the present silence; this document is the outcome of our first effort together.

Nearly 45 years have passed since the C.I.A.M. (International Congress of Modern Architecture) published a document on the theory and methodology of town planning, which became known as the Charter of Athens. The emergence of many new phenomena during recent decades demands a revision of the Charter. The resulting document should become the subject of international interdisciplinary analysis and debate, involving intellectuals and professionals, research institutes and universities of all countries.

There have been several previous efforts to modernize the Charter of Athens. This document is intended only as a point of departure for our undertaking. The Charter of Athens of 1933 remains a fundamental document for the present epoch; it

may be updated, but not rejected. Many of its original principles are as valid today as they were when first written, a testimony to the vitality and continuity of the modern movement in architecture and planning.

Athens 1933, Machu Picchu in 1977. The significance of these places is important. Athens was the cradle of western civilization, Machu Picchu the symbol of an independent cultural contribution of another world. Athens represents the rationality embodied in Aristotle and Plato, while Machu Picchu represents all that is not encompassed by universal illuministic mentality and cannot be classified by logic alone.

The following concepts embodied in the Charter of Athens are presented in an order of importance derived from debate and discussion of problems of urbanization common to many, if not most, countries of the world.

City and region

The Charter of Athens recognized the essential

unity between cities and their surrounding regions. Society's failure to face the consequences of urban growth and socio-economic change necessitates an urgent reaffirmation of this principle in the most vigorous and specific terms.

Today, because of the way in which the urbanization process is affecting countries throughout the world, the need to use available human and natural resources more effectively has reached a critical stage. Since urban planning provides the essential systematic means of analyzing needs, problems and opportunities, it is the basic responsibility of all governmental units concerned with human settlements to establish guidelines for growth and urban development within the limitations of available resources.

Planning must reflect, within the context of the ongoing urbanization process, the essential dynamic unity between the city and its surrounding region and establish functional relationships between neighborhoods, districts, and other elements of urban structure.

The disciplines and techniques of planning must be applied at all scales affecting human settlements—neighborhoods, towns, cities, metropolitan areas, regions, states, and nations—in order to guide the location, process, and nature of development.

In general, the objective of the planning process, including economic planning, city planning, urban design, and architecture, must be to interpret and respond to human needs. It should result in the provision of urban services, facilities, and forms appropriate to the needs of people in the context of available resources and cultural values. To achieve these ends, the planning process must be based on systematic and continuous interaction and collaboration between the design professions, city dwellers, and community and political leadership.

The general disjunction between macro-scale economic planning and planning for actual urban development has wasted scarce resources and reduced the effectiveness of both. Urban areas too often reflect the adverse secondary effects of decisions based on broad and relatively abstract economic strategies. Economic decisions at national and regional levels seldom include direct consideration of city priorities and solutions to urban problems, or of the functional links between general economic strategy and the planning of urban development. As a result, the potential benefits of systematic planning and architecture often fail to benefit the great majority of people.

Urban growth

Since the writing of the Charter of Athens, the world's population has doubled, causing a grave crisis in three important areas: ecology, energy, and food supply. Since the growth rate of cities has ex-

ceeded by far the natural increase of world population, urban deterioration has been especially severe. The undeniable results have been a scarcity of housing, a degradation of public services and transportation, and a general worsening of the quality of life.

The urban planning approaches offered in the Charter of Athens failed to reflect the relatively recent phenomenon of accelerated urban growth stemming from rural migration on a massive scale.

Two basic patterns underlying the chaotic development of cities may be discerned:

The first, characteristic of industrialized societies, has been an exodus, aided by the automobile, of more affluent members of society to the suburbs. Newcomers and those left in the central cities lack the means to support the urban structure and public services.

The second pattern is characteristic of cities in developing regions, where the massive in-migration of rural families crowds marginal settlements without public services and urban infrastructure. Management of this phenomenon lies beyond the scope of means currently available in the urban planning process. Present-day approaches are little more than improvisations to provide marginal services to such spontaneous settlements. Frequently, and paradoxically, such attempts to provide a modicum of public services, sanitation, and housing aggravate the general problem by generating still more incentive for in-migration.

Thus, for both patterns, the inescapable conclusion is that as the numbers of people increase, the quality of life declines.

The sector concept

The Charter of Athens assumed that the objective of urban planning was the integration of four basic societal functions—living, working, recreation, and movement—and that plans should provide for their interrelation and growth.

This led to subdividing cities into sectors or components, and thus an analytical process of clarification was pursued at the expense of an organic urban order. Consequences of this error can be seen in many new cities, where failures to consider human interrelationships have resulted in an anemic quality of urban life, where buildings become isolated elements denying the fact that human mobility requires fluidity and continuity of space.

Planning, architecture, and design today should not treat the city as a series of component parts, but most strive to create an integrated multifunctional environment.

Housing

In contrast to the Charter of Athens, we believe that human interaction and communication are the

essential reasons for the city's very existence. This reality must be reflected in urban planning and housing design. Equally important are the objectives of achieving basic quality of life and harmony with the natural environment.

Housing must no longer be regarded merely as a utilitarian commodity, but as a powerful tool for fostering social development. Housing design must be flexible and permit easy adaptation to changing social demands and encourage creative participation of the users in design as well as construction. There is also a need to develop low-cost building components readily available to people in need of homes.

The spirit of tolerance and understanding in human communication is a primary element of urban life; this should guide the location and design of residential areas for diverse groups without imposing distinctions incompatible with human dignity.

Urban transportation

Public transportation is a basic element of urban development planning and growth. Cities must plan and maintain public transportation systems in balance with the demands of urbanization and declining energy resources. The social costs of transport system alternatives must be evaluated and duly considered in planning for the future growth of cities.

In the Charter of Athens it is explicit that traffic circulation is one of the basic urban functions, and it is implicit that this depends primarily on the automobile as a means of personal transportation. Forty-four years of experience with classifying roads, adding lanes, and devising schemes for traffic intersections have shown that there is no optimal solution in these approaches. Therefore it is clear that future policies for urban area traffic circulation and movement should subordinate the private automobile to the development of general public transportation systems.

Urban planners and policy makers must conceive of the city as a structural system in a continuing process of expansion and change, one whose final form may rarely be seen or defined. The transportation systems form a series of interconnecting networks, helping to articulate interior and exterior spaces. Their design should permit constant experimentation with growth, change, and form.

Availability of urban land

The Charter of Athens asserted the need to establish a legal framework that would permit orderly and efficient ways of using urban land to meet the emergent needs of society, and assumed that private interests should be subordinated to public exigencies.

Since 1933, despite many efforts, the limited

availability of urban land has remained a basic obstacle to the realization of well-planned urban growth. Therefore, there still exists an urgent need to develop effective and equitable legislative solutions to this problem, solutions capable of producing substantial improvements in the near future.

Natural resources and environmental pollution

One of the gravest problems of today is the rapidly worsening contamination of our environment, now attaining an unprecedented and potentially catastrophic magnitude. It is a direct consequence of unplanned, explosive urbanization and excessive exploitation of the earth's natural resources.

The inhabitants of the urbanized areas of the world are subjected, at an ever-increasing rate, to environmental conditions incompatible with accepted concepts and standards of human health and welfare. These unacceptable conditions include the presence in excessive quantities of toxic substances in the air, water, and food used by city dwellers, as well as of harmful levels of noise.

The authorities regulating urban development must take immediate steps to prevent a further deterioration of the environment and to restore its basic integrity in accordance with acceptable standards of public health and welfare.

Similar steps must also be taken in economic and urban planning, in architectural design, in engineering standards and criteria, and in planning and development policies.

Preservation and protection of cultural values and historic heritage

The identity and character of a city result from its physical structure and sociological characteristics. Hence, it is necessary not only to preserve and maintain the city's historic sites and places, but also to conserve its cultural heritage in general. Values of fundamental importance in defining community as well as national character must be protected.

It is essential that efforts to conserve, restore, and recycle existing historic areas and architectural monuments be integrated with the process of urban development in order to assure their proper financial support and continued viability.

In the process of revitalizing and recycling historic zones, consideration should be given to including contemporary buildings of high architectural quality.

Technology

The Charter of Athens tangentially referred to technological processes in discussing the impact of industrial activities upon cities.

In the last 44 years, the world has witnessed an unprecedented development of technology. Technology has dramatically affected our cities as well as the practice of urban planning and architecture.

Technology has developed explosively in certain areas of the world, and its diffusion and effective application are among the major problems of our times.

Today, scientific and technological progress, as well as improved communication between peoples, should enable society to overcome local limitations and to offer ample resources to solve architectural and planning problems. However, the uncritical use of these resources regularly results in improper application of materials, technologies, and forms, either in a quest for novelty or as a consequence of cultural dependence.

Hence, the impact of technological development frequently results in the creation of architectural environments dependent upon artificial climate and illumination. Such an approach may be sufficient for certain specific problems, but architecture should be a process of creating spaces and environments capable of functioning under natural conditions.

It should be clearly understood that technology is a means and not an end. Its application should be the realistic result of serious research and experimentation with appropriate governmental support.

In some areas, highly mechanized processes, or construction materials demanding a high level of industrialization, are difficult to obtain and use. This should not be an excuse for diminished technical discipline or a less than complete architectural response to the problem at hand; it remains a challenge for architecture and planning to find solutions within the realm of the possible.

Construction technology should be directed toward economically sound ways to recycle materials and to develop construction elements from replenishable resources.

Implementation

Architects, planners, and concerned authorities should strive to make the public and governments aware that regional and urban planning is a dynamic process which should include not only the formulation of plans but their implementation as well. This process should be capable of adapting to those physical and cultural changes to which a city, as a living organism, is subject.

Moreover, appropriate norms and developmental principles should be created for each specific city and region in keeping with its natural environment, available resources and formal characteristics. This would help to avoid the copying of solutions derived from different circumstances and cultures.

Urban and architectural design

The Charter of Athens did not concern itself with architectural design. Its writers did not consider it necessary, since they agreed that "architecture is the masterly, correct and magnificent play of masses brought together in light." Le Corbusier's "Ville Radieuse" was composed of just such "masses." Its architectural language was related to cubist art and in perfect accord with the concept that partitioned the city into separate elements according to function.

In our times the main problem of contemporary architecture is no longer the visual play of pure volumes, but the creation of spaces in which people can live. The emphasis is no longer on the container, but on the contents, no longer on the isolated building, no matter how sophisticated and beautiful, but on the continuity of urban texture.

In 1933, the effort was directed toward dividing the city and its architectural objects into their component parts. In 1977, the objective must be to reintegrate these components which, having lost their interdependence and interrelationships, also have lost their vitality and significance.

This reintegration, both in architecture and planning, should not be compared to the "a priori" integration of classicism. It should be clearly stated that recent attempts to revive the Beaux Arts traditions are anti-historic to a grotesque degree and do not even merit discussion. Since they are symptoms of obsolescence in the language of architecture, we must guard against a regression to a kind of cynical 19th-century eclecticism, and instead proceed towards an era of new maturity in the modern movement.

Many of the discoveries and achievements of the Thirties, when the Charter of Athens was created, are still valid. Among them are:

- a) The analysis of the contents and functions of buildings.
- b) The principle of dissonance.
- c) The anti-perspectivistic space-time vision.
- d) The disarticulation of the traditional building-box.
- e) The reunification of structural engineering with architecture.

To these constants or "invariables" of the architectural language should be added:

- f) The continuity of space.
- g) The reintegration of building, city, and landscape.

The continuity of space is a major contribution of Frank Lloyd Wright and corresponds to the dynamic cubist concept of space-time, although he applied it to social values as well as to space.

The reintegration of building-city-landscape is a consequence of a unity between city and country. It is time to insist that architects recognize the history of the modern movement and cease to mul-

tively obsolete urban designs comprised of monumental boxes, be they vertical, horizontal, opaque, transparent, or reflective.

The new concept of urbanization seeks a continuity of the built environment, implying that each building is no longer an isolated object, but an element of a continuum, requiring a dialogue with other elements to complete its own image.

The principle of incompleteness is now new. It was explored by the Mannerists and, in an explosive way, by Michelangelo. Nevertheless, in our times it is not only a visual principle, but fundamentally a social one as well. The artistic experience of the recent decades in music and visual arts has demonstrated that artists no longer produce a finished object. They stop at the three-quarter point of the creative process, so that the spectator is no longer a passive observer of the work of art, but an active participant in its polyvalent message.

In the building field, the user's involvement is even more important and concrete. People must participate in all phases of the design process, permitting the user to become an integral part of the architect's work.

Focusing on the non-finite or "incomplete" should not diminish the prestige of the architect or planner. Theories of relativity and indeterminacy have not lessened the prestige of scientists. On the contrary, they have increased it, since an undogmatic scientist is more respected than the old "deus ex machina." If the public is drawn into the design process, the architect's relevance will grow, and architectural inventiveness will be enhanced and enriched. Once architects liberate themselves from academic precepts and the finite, their imagination will be stimulated by the immense heritage of popular architecture—the "architecture without architects" so much studied in recent decades.

Here, nevertheless, one must be careful. It should be recognized that, although vernacular buildings have much to contribute to architectural imagination, they should not be imitated. Imitation, though fashionable nowadays, is as absurd as were the copies of the Parthenon. The problem is quite different than that of imitation. It is evident that the maximum cultural impact of an architectural design can be attained when it blends naturally with the popular idiom. But this blending must be free of conventions such as Vitruvian orders, or the Beaux Arts, as well as the Five Principles of Le Corbusier.

Closing

The agricultural terraces of ancient Peru are admired throughout the world for their scale and monumentality, but also for their manifestation of respect for the natural surroundings. Their visual and spiritual expression is an imperishable monument to life. This Charter is submitted, modestly, imbued

with the same ideals. **JAR**

Key References

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The original document was signed, after having been read at the Eternal Intihuatana of Machu Picchu, on the 12th of December 1977 at 2:45 pm, by the following authors of the Charter: Arq. Santiago Agurto Calvo, Organizing Commission, Lima; Arq. Fernando Belaunde-Terry, Hon. FAIA, Organizing Commission, Lima; Arq. Felix Candela, Hon. FAIA, HM RIBA, University of Illinois, Chicago; Arq. Francisco Carbajal de la Cruz, Instituto Politécnico Nacional, Mexico; Prof. George R. Collins, Columbia University, New York; Prof. Leonard J. Currie, FAIA, AIP, University of Illinois, Chicago; Prof. Jorge Glusberg, Escuela de Altos Estudios del CAYC, Buenos Aires; Prof. Mark T. Jaroszewicz, FAIA, Dean, College of Architecture, University of Florida, Gainesville; Arq. Oscar Ladron de Guevara Aviles, Universidad Nacional San Antonio Abad, Cuzco; Arq. Alejandro Leal Garcia, Universidad Nacional Autónoma de Mexico, Mexico; Arq. Reginald Malcolmson, AIA, The University of Michigan, Ann Arbor; Prof. Dorn McGrath Jr., AIP, Chairman, Dept. of Urban & Regional Planning, The George Washington University, Washington, D.C.; Arq. Luis Miro Quesada Garland, Organizing Commission, Lima; Arq. Carlos Morales Machiavello, Organizing Commission, Lima; Arq. Guillermo Payet Garreta, Organizing Commission, Lima; Arq. Paulo Pimentel Morales, Ministerio de Desarrollo Urbano, Barquisimeto, Caracas; Prof. Felipe J. Prestamo, AIP, Associate Dean, School of Engineering & Environmental Design, University of Miami, Coral Gables; Prof. Hector Velarde Bergmann, Organizing Commission, Lima; Prof. Fruto Vivas, Facultad de Arquitectura, Universidad Central de Venezuela, Caracas; Prof. Bruno Zevi, Hon. FAIA, Universita di Roma, Roma.

The signatures were certified by Prof. Manuel Ungaro Zevallos, Chairman, Organizing Commission, Lima; Prof. Guido Tisoc Vásquez, Coordinator, Organizing Commission, Lima; Prof. Oscar Alvarez Bermeo, Assistant Coordinator, Organizing Commission, Lima.

The document was also signed by a distinguished group of guests, and by representatives of all the faculties of architecture in Peru.