## OPINION

### In favor of a reasonable architecture

Through this last century, the architecture has come over a long path in which, apparently, the different options taken after the discussions posed at the beginning of it over several problems, have been dissolved. If it is true that, originally, the historic avant garde stated that it was necessary to recover not only a kind of pragmatic rationality but even certain civic morality, as a fundamental basis for the erection of the contemporary building, nowadays it is clear for us that we must look back to other ways then opened and early abandoned without further investigation.

In those days, as we can see now, the question was not so much the "style mixing" as its possible incoherence; and that what was truly undesirable was the result of a more serious than it was thought to be value crisis. Today, it seems possible for us to notice how history repeats itself. Again, conflicts born out of the senseless usage of forms, with so much self-satisfaction and from so many places, bring us that old sense of uncertainty and displeasure. Once the Norm underestimated and forgotten, Reason is not to be found in exorbitant Form.

Even those who made offerings, indeed a short time ago and so enthusiastically, before the altar of Postmodern, seem now to be the victims of an amnesia from which they invoke the origins they never listened before.

It seems necessary to me to try, once more, to make a break. And with the same tools that have pass through the terrible experience of being used to justify, ideologically, arbitrary developments.

Circumstances, nevertheless, ask for moderation and tolerance as much as constancy in effort. That's why it seems convenient to me that the urgency of Reason in controlling Form wouldn't be solely a way back to the kingdom of Norm.

The fact that our dominant culture is involved in a disintegration process that makes it express itself as fragmentary does not imply that the "collage" technique is the necessary consequence of a mere arbitrary way of knowledge.

To find just banalities in the results of the social estrangement of the architects could be more than just a consequence of ingenuousness and imprudence. Perhaps it is something far more serious. A lucid search of the paths of understanding, to follow humbly but without giving up anything our common trail, could be the way for attaining a reasonable autonomy...

We should share the "others" experiences for a better understanding of our own conflicts and state, with tolerance, that a regeneration of our own conscience based on the meditation over past errors can't be postponed.

As "nobody is perfect", everything is perfectible. So let's seek our freedom and poetry only there where it is possible; in rigor.

Ethics and Reason as the pillars of a truly expected and necessary reasonable architecture.■

**Miguel Angel Baldellou**

### Architecture and the architect

As time passes I'm more and more persuaded that the architect, in the way as we have known him for five hundred years, must disappear and will disappear" (Brian Henderson.)

"The architecture in the future should not be able to keep in pace with artistic-artisan patterns, regardless the fact that the architects now keep on designing and constructing as the builders of El Escorial" (Dieter V. Schwarze.)

"The sense of "handmade" tends to disappear. Circumstances in today's world are different. Changes born out of technological and industrial progress, along with deep and manifest transformations in social matters, force us to reconsider all our methods and principles in architecture. It is indispensable to change our way of thinking" (Oscar Barahona.)

"Most of the so called modern and technological architecture is really thought and solved with methods older than the industrial revolution. Its technology, in most cases, is reduced to a mere substitution of artisan materials and methods of construction by industrial ones, without the true transformation of the architect's thinking and methodology required by the new age" (Adolfo González Amezqueta.)

"The future efficiency of the architect's work relies perhaps on his being able to work in harmony with other fields and levels." (Helena Iglesias.)

"The architecture is nowadays a romantic and reactionary activity; it isn't anymore in touch with the real situation of the community." (José Ramón Sierra.)

"Of course architecture is thought of in ancient terms." (José A. Fernández Ordóñez.)

"The matter should be, of course, to make the best architecture possible, but with a previous, everyday, cultural answer to the question: What is architecture today?" (Manuel de Solá-Morales Rubió.)

"We keep close to the non systematic, the self-education, rejecting, in the name of the so called artistic values, every kind of investigation or scientific effort." (Eduardo Amann.)

"The latest works of architecture mean an outrageous regression in the evolutionary development of architecture." (Joaquín Gili.)

"Our society has no interest in promoting groups which could cause the crisis of its own basis." (Per Studio: Bonet, Tusquets, Cirici, Clotet.)

"Knowledge and technology instead of being of service to everyone, are usually nothing else than merchandises exploited, on behalf of just filthy lucre, by the monopolies and corporations" (Arturo Soria y Puig.)

Those were some of the commentaries included in an inquiry published by the "Hogar y Moda" magazine (a quarter of a century ago) on the topic "Architecture and the architect" in which expert opinion was required about the role that both parts (architecture and architects) should play in a society in which deep and irreversible transformations began to come about. The inquiry began with an specially critical article by George Candilis in which commentaries of the following kind could be read: "Architects are of no use in today's circumstances. Worse: they are the conscious or unconscious means for the degradation of their own profession. Just a commercial element that orientates his own architectural production towards his own mercantile interests. Suffocated by a system of contradiction, confusion, ignorance and camouflage, the architect appears to be in a ludicrous position as a relic of a long lost past. It is considered either an artist, accepted solely to find the plastic touch in the built work, or a sub-technician taken more or less seriously by the specialized technicians."

I myself, the instigator of the inquiry, couldn't get away without discussing this delicate topic and tried to make my position clear:

"If the architectural work were not to include any humanistic or cultural value, it wouldn't be architecture anymore. It has been repeatedly stated that humanity wouldn't be enough salified being solely provided for material necessities. Which, of course, doesn't imply that material problems should be omitted. It is essential that we find a new general concept for architecture, capable of harmonizing with the new technology and scientific progress of every kind and, at the same time, incorporate a new humanism born out of a society well on its way to the evolution towards another that could be considered different. The requirements of this growing Humanity shouldn't make of the architecture a mere mechanical and technological process, but it should still less allow it continue to be, as it has so far been, a restricted artistic-artisan activity performed by an selected minority for another selected minority. It becomes clear that the architect's mentality should change sensibly and the same about his professional structure if it is true that the vital transformation needed should take place at all. If it isn't so it is clear that we'll have to expect that in a more or less near future, society itself will obliterate the architect as a useless piece of its own mechanism."

To recover (now that "Arquitectura" begins a new age) this kind of questions, today forgotten or left aside (even not fashionable anymore), could be the expression of a utopian mentality in that one who brings them to life after so many years; but the truth is that those questions are not yet solved and, which is worse, are not the object of any interest anymore. The fact that everything related to architecture and its sense is today thought of in the same terms as fifty or a hundred years ago (leaving aside the mere style) should make us think. The teaching methods and programs are manifestly deficient and erroneous; some building systems, rudely artisan, are still most frequent, even in countries considered as advanced; the use of new techniques becomes the theme of isolated and spectacular works, promoted by mercantile reasoning; the new processes and possibilities of the machine, including those born out of electronics and cybernetics, are usually underestimated (and consistently rejected or poorly used) by the architect, who keeps looking at himself, as Daniel Fullaondo put it in that same inquiry, "as an uncertain figure, unsteady and split into superficial engagements; a bit of a technician, a bit of a merchant, a bit of an artist, a bit of a public relations expert..."

Perhaps it is not useless to think about the contents of these thoughts and ideas brought from past times, and consider whether this attempt of bringing them again into discussion is based on a justified interest and real validity or is nothing else than the consequence of a delusory and longing vision of that one who (once more) tries to discuss them.■

**Carlos Flores**

## Hushing Passions

It seems an almost compulsory rule that when a new Edition Board begins its work in a magazine that already has seventy five years of history and represents a professional group like ours, it should offer some kind of meditation justifying its project. This kind of exercise, nevertheless, usually becomes an arbitrary one. Besides, it should be possible that, regardless the fact that we are stating our opinions at the beginning of a new period, we gave some kind of guaranty to the editor as well as the reader that the next issues will not be "self-explaining", nor will produce their effects only in suitable circumstances, nor will this effects be of unrecognizable importance. Consistently I have serious doubts about this kind of prologues.

Hushing passions could be for me a most important point in order to avoid misinformation or the fall into what we could call "vanity interferences".

It should be possible that as individuals we were capable of remaining trustworthy enough to express the "secret" to be published without deforming it, making space for the beliefs and offering ideas, showing in a graphic format what could not be said.

In the present moment, at the end of the twentieth century, and even if we can not believe it, the architecture endures an increasing process of permanent publicity, not only within specific architectural circles, but even between the very citizens that either passive or actively consume information. It is a world of ever changing values that totally affect the architecture and that, in my opinion, induce a modification in the traditional role of the architectural critic, who is not anymore just a judge but an interpreter. It is now time to repress an absolute dogmatic attitude towards aesthetic values in architecture bearing in mind the ideologic complexity in which we perform our work and the current weakness of architectural theory.

My own interest could be that of being true companions to the planning process of the works published in our magazine, keeping the dialogue alive in every level, achieving a very recreation of the work and thus defining its validity and current importance.∎

**Aurora Herrera Gómez.**

## The architetct we need

A magazine allows us to analyze again the reality in which the architect dwells, his situation and work environment and thus to find perhaps the answer to many questions we pose today and which so few seem to be interested in explaining. We will not ignore the political and social problems that our culture endures, the dramatic transformations and frustrations of the fundamental organizing models of this century, bearing in mind that those, either have collapsed or live in a period of critical solitude which will soon induce new changes.

All this facts have produced the development of a new individualism, the desperate search of personal solutions as an answer to an increasing and unstoppable economic and cultural internationalism. The extinction of the social welfare system is loudly announced though we never now what will replace it. The old craft of the architect has bore so many interferences due to the current industrial development, that it seems difficult to establish a kind of link with the most recent architectural

culture, that of the thirties or fifties.

We have no defined ideological references and everything must be new, as in a post war situation. In these circumstances the value of the liberal conception will have again a main role. The historical determinism of the interventionist economic models would be replaced by what Isaiah Berlin called a "basic decency", that means, the defence of the individual responsibility against the void left behind by the events.

Again it seems necessary, away from any dogmatic attitude, to search; to search deep within the rests of a left aside humanism, bering in mind that the past is always present, establishing at the same time an analytical filter for what appears in a novelty language, abandoning expressions like "funny" or "beautiful", stating the right for distrusting any manifestation or idea that would not create deep and independent links, give an ethical answer though be it impossible to fathom.. As Wittgenstein said "this fighting against the very walls of our cage is totally desperate...ethics are like a document, a tendency of the human spirit".

The ideals of our masters in the modern movement seem to be unbearable in a world of powerful interchange, in which this "ethical tendency" of the architect is used at best on behalf of a formal investigation as a mean to affect aged superstructures. It is in this aspect that the architect role has gained a new market value with no apparent agreement with its real social utility. That which never seemed possible "the revolution based in the art" is now the unconscious aim of many architects and a commonplace to critics and merchants.

The publications of architecture have promoted this attitude. The architectural critic has tried to find in the products symbolic or metaphysics values, always derived from second or third readings, or simply interchange or mercantile values, or in most cases to describe in the old language of Rubert de Ventós its self-reference, its value as an object that rejects any further interpretation. Never before was so recurrent the use of other artistic works of literature or cinema to be companions of the "haute couture" architecture, in Quetglas' words. The photography has played thus a main role in the absence of an analysis of what is thought, produced or constructed.

It is difficult to make this style compatible with a personal responsibility independent from the many conflicts left behind by the recent changes: the deficient communication between architecture and society, the teaching of architecture or the relation between architect and construction process, this latter so involved with sophisticated aspects of complex and advanced production processes, on which one has to rely with no alternative. The construction has become a pharmacopoeia of which we can just know the compatibilities.

In the sixties there was a large amount of architectural issues full of political thought, we said "politicized", we had "political urbanism" (a conflictive mix), architecture intended to solve urban problems, housing problems, they talked about typologies, they found out, from a critical or ideologic attitude, the values of the past, the sense of the recovery of the old city instead of its speculative annihilation.

Many of those battles were lost. Some were completely mistaken, impossible, utopic. What was

intended was the creation of a certain kind of professional, far removed from that of today, poorly ideological . The critical power of that generation disappeared just as a sugar cube. The urban planners became urban designers, the urban sociologist just disappeared, they died with each political party, with each commission, each appointment. The most beautiful architectural utopias also died, the new models for the cities, the structural investigation, etc. Those architects forgot that society was something else than the sum of its political organizations, perhaps because of the fact that they never understood it.

Their place was quickly taken by architects who give no answer either to the old questions or the contemporary ones. Their silence is part of their cultural point of view and should be respected. They are introvert artists, at least those who can be called so, regardless the fact that they fully occupy the media. So let us open this magazine to other type of architects, since we are also interested in them.

This tolerant attitude can not just mean the inclusion, within the same frame of every single reductionist approach of the current critic that, promoted by the media, tries to describe architecture not just in a trivial tone, but even with a vision near that of the frivolous press; inducing a restricted selection of architects on behalf of a mercantile use of culture, strangling in the obscure silence hundreds of young architects just when their vision is most necessary, tempting others with vulgar spangles. We should not give up the noble art of architecture for the sake of trivial languages and positionings that can not be justified, not even in the name of divulging.

Correct examples, though, of this divulging mission can be found in the today classical works by Zevi or Hitchcock. It seems, therefore, essential to think in the necessity to promote, from this issue, the architecture and architects we need, capable of giving solutions to the new problems as well as the old ones, today ignored, of enduring an uncertain but attractive future, attractive as always is the hazardous and generous life of those who try to come in advance of their own time, sacrificing themselves and taking every risk, and making mistakes too.∎

**Salvador Pérez Arroyo**

## Anniversary

### "Arquitectura"
### Three quarters of a century.

In this year we have celebrated the seventy fifth anniversary of the birth of "Arquitectura", organ, in its origin, of the Central Society of Architects, a publication that, after a long life full of oscillations and shocks, interruptions and changes of name, spectacular times and others not so spectacular, has been gathering and publishing, up to this same moment, most of the ideas and professional work of the spanish architects, and thus has become a valuable archive for documents and data related to them.

"Arquitectura", one of the oldest "now available" architecture magazines in Europe (probably the second one after "The Architectural Review", founded in 1897),

began with a first period that lasted for seven years (may 1918-december 1925), which is now, no doubt, most unknown and forgotten in spite of its interesting global contents. In contrast to what was to happen subsequently (specially in its most recent periods) "Arquitectura" will keep along this first stage (eighty numbers) the same format, pagination and structure in relation to its journalism and graphic arts. It will also keep its orientation within the currents of the then unavoidable eclecticism, though trying to promote at the same time the avant garde present in the works of personalities as Torres Balbás, Gustavo Fernández Balbuena, Fernando García Mercadal, Teodoro de Anasagasti, Luis Lacasa, Manuel Sánchez Arcas etc, that will have an important place in the magazine. Anyway they will try to maintain their own motto established in the leading article of the first number: "Look back to our past without forgetting our present".

If it is true that, from its publication, Gustavo Fernández Balbuena will appear as its editor in chief, very early indeed his health problems will force him to assign some of his duties to other members in the edition committee; most of the responsibilities went to Leopoldo Torres Balbás, a wise and humble man who, in fact, was to be its editor and who left in it the ineffaceable testimony of his broad knowledge and brightness up to the last issue before the civil war (may 1936). From that moment the publication is interrupted temporarily but the absence of the remarkable contributions of don Leopoldo will be permanent.

From the issue number 82 (january 1926), "Arquitectura" will perform a transformation of its formal characteristics to adapt itself to the new image of modern spirit and rupture promoted by its new editors; they made a drastic break with the former image (old fashioned and antique from the beginning) and accentuated their identification with the european avant garde, supported as much by the its old upholders as by the new voices. At the beginning of this second period, the Edition Board of "Arquitectura" was composed by:
President: Luis Bellido.
Secretaries: Bernardo Giner de los Ríos and Rafael Bergamín.
Vocals: José Yárnoz Larrosa, Benito Guitart, Luis Lacasa, Manuel Sánchez Arcas, Luis Blanco Soler, Teodoro de Anasagasti and Modesto López Otero.
Publication Delegate: Leopoldo Torres Balbás.

The outbreak of the civil war will result in the interruption of the magazine that only after five years will be able to recover in some way its life in the so called "Revista Nacional de Arquitectura", whose first issue appeared in 1941 as the organ of the Dirección General de Arquitectura and which will be assigned, from 1946, to the Colegio Superior de los Colegios de Arquitectos and published by the Colegio de Madrid. From january 1959, the magazine will become, definitively, the organ of the Colegio de Arquitectos of the capital, recovering its original name and establishing a link with the last issue before the war in 1936.

From july 1948 the "Revista Nacional de Arquitectura" had had a new editor in chief, Carlos de Miguel (elected after a excellencies competition), who will be in charge for the indeed most long period of twenty five years. During his term the "Revista Nacional de Arquitectura" will become the less pompous "Arquitectura", a change that, nevertheless, wouldn't

result in noticeable transformations at least for the moment.

The role played by Carlos de Miguel as editor in chief was much more that of a manager or promoter than that of a guide or theoretician, but he, nevertheless, managed to overcome the thousands of difficulties that found the monthly publication, aggravated by the fact of a very low budget. In 1950, Carlos de Miguel promoted the creation of what he called Sesiones de Crítica de Arquitectura, of which up to ninety would actually take place and whose summarized publication (from january 1951) will bring the magazine a discussion and critical element of the utmost interest. These sessions made possible the inclusion of analytic and "spicy" elements in an issue dominated by an excess of explanations and eclecticism. Besides, this achievement was attained by De Miguel without any changes in the budget, just with energy and work. Thanks to these "Sesiones" we can now learn about the opinions of the most representative spanish architects on some of the most remarkable works of that period. In all the long period in which Carlos de Miguel was the head of "Arquitectura" this was surely its most stimulating enterprise, though the collaborations of the scholar and architect Luis Moya are also worthy of the utmost praise, a theoretical contribution that played a similar role as that of Torres Balbás in the first period; both important personalities with a broadly acknowledged prestige.

During the latter twenty years (Carlos de Miguel resigned in the issue of february 1973), the "Arquitectura" magazine will suffer important changes in its contents and format; a number of important changes, six different editors in chief or edition boards; each time with different understandings of what the architecture and architectural publications should be. The level of the critical and speculative articles on architecture will constantly increase during these two decades, as it is to be noticed a greater contact with and knowledge of the works and dominant ideas in an international context in the people in charge of the magazine. From being a markedly national (and even local) magazine, "Arquitectura" has come to pay much more attention to what happens abroad, perhaps just because spanish architects are now much more in touch with (and related to) what happens there.

To analyze every one of these different periods would be out of the scope of the present article; it is a task for another opportunity. So now just: "Arquitectura" 1918-1993; new paragraph...■

**Carlos Flores**

# MADRID

## Madrid in search of a plan

When, after an invitation of the Major of Madrid, José María Alvarez del Manzano, I did accept the appointment as Manager of the Town Agency that was to be in charge of the elaboration of the Revised Version of its General Plan for Urban Design, I didn't have any doubt about the necessity of such a revision. Nevertheless, I did assume, and I do now, that, conceptually, it might be possible to disagree with its necessity. In fact, within society, within political groups and, of course, within professionals of the architecture, voices might be heard against the usefulness of having our General Plan revised; thought I personally

feel that, as the work has been progressing, these voices have talk with less and less strength and intensity. Consequently, the Town Agency for the Plan (OMP), has considered of the greatest importance that the Advanced Sketch of this Revision included a reasoned justification of the arguments in favour of its being made, that is, the fundamental criteria in which it is based.

These criteria can be divided into two types: legal and those based in reality. Leaving aside the first ones, that are to give response to demands in the new land law, we will concentrate on the second ones because of its direct relation with the reality of our contemporary city.

In our opinion, the 1985 General Town Plan was born being already outdated by reality from the very moment of its approval. The hypothesis, taking account of which it was elaborated, of a structural crisis in the capitalist development model, as would be demonstrated a few months later of its taking effect, was just a momentary situation as much for the world economy as for the Spanish one, and even more, precisely, for the madrilenian one.

Even more, the motionless vision of demographic and economic dynamics which served as fundamental criterion for a series of important decisions, was greatly outgrown. The real facts of these last years, especially form 1986 to 1989, have demonstrated that, though the rate of population increase has been maintained, the city has, nevertheless, grown especially with housing, offered employment and substructures, and, something perhaps more important, has suffered a great transformation becoming again the engine of the economy for its own region and for the whole nation. One only has to remember the importance of the promotion of building industry produced at the end of 1985, as an answer to a radical change in the character of the demand, this fact resulted in an spectacular raise of the land prices which, apart from other factors, was also a consequence of certain rigid criteria of the very General Plan.

This raise in the land prices, along with legal uncertainty created by the imposed qualification for Officially Protected Housing (VPO) in the land that was to be urban, tended to paralyse the erection of these VPO, forcing an important section of the population to live in nearby boroughs.

On the other hand, according to the same General Plan 1985, Madrid already had a "sufficiently effective substructural capacity" and, consequently, not only was the then working network reduced but indeed "there would be no land reserved specifically for the road network apart from the existing in the built lots". Everyday reality would demonstrate that this was a wrong direction. In December 1988, there was an Agreement signed between the Town Hall, the Ministry for Public Works and the Regional Government of Madrid that tended to reduce, in some aspects these problems, though the four years delay had already resulted in important consequences of difficult evaluation. The fundamental modification of the road system included in this Agreement brings a new vision over important parts of the city structure, due to the formalizing and organizing effort made in it, which, again, is clearly another reason for the demand of a revision of the general foundations of the plan.

Neither was attained another important aim of the General Plan 1985 that was to obtain a distribution of 80%-20% in the private-public transportation habits, since the real situation after eight years reflects a distribution of

between 50%-50% and 60%-40%, according to several sources, which causedes a worrying increase in the city traffic. Delays in the execution of the projected investments to boost public transport (mainly trains and underground), along with deficiencies in our existing road network, have been the decisive factors of our presently serious problem.

In addition to these aspects based on reality, there is another circumstance to take account of (which might be, of course, discussed as it is a conceptual remark, though with real grounds in the opinion of the managers of the OMP) and that is the fact that the general planning developed in Spain in the 80's has been outdated by the actual events and has become unsuitable to the real Spanish society. Consistently, I think that the people of Madrid, in particular, demand for their city a new type of general planning and urban design whose detailed fundamental characteristics are defined in the Advanced Sketch of the Revision in the following terms:

- The new General Town Plan for Madrid tries to keep itself unbound to rigid or dogmatic assets in order to allow a flexible management and execution in a continuous process of evolution. This fact requires, on one hand, an open and flexible document from the moment of its elaboration; and, on the other, the achievement of a broad support within society by means of the promotion of the participation of this same society in the whole management.

- The new General Plan seeks, fundamentally, to obtain a substantial increase in the quality of life in the city based in a greater equilibrium in every of its levels as a result of the improvement of its urban structure. Both aims should be achieved in order to get a harmonic whole which would reflect the importance accorded by society to the careful management of the urban context.

Likewise, it is considered of the greatest importance to recover a metropolitan and broader vision of the city, though the planning is limited to the borough of Madrid, and this requires the cooperation of the different Administration implied.

It is also considered essential to recover the equilibrium between the proposed actions for short and long terms, keeping the priority in the formal treatment of the city and, consistently, reinforcing the role of the urban design, though with the necessary structural component in mind.

The General Plan presently applicable in Madrid was written in the belief of a existing failure in the development model and a structural crisis that would continue for a long time without any visible solution, not even a middle term one. Reality has proved that the whole proposition was wrong. And the new General Plan does not want to make the same fault as we are again planning in the middle of a new crisis.

The OMP has considered essential, having on mind the physical reality of the present occupation of the urban space in our borough, to analyze, without limits of time, how it could be and should be the future Madrid and which could be the reasonable limits, in terms of urbanism, of its capacity of bearing new settlements within the municipal boundary, not forgetting the metropolitan area.

We try, as well, to maintain the importance of the proposals made on the development of the existing city, which is our basic criterion to obtain an improvement in the quality of life. In this sense, it is easily understood that, talking about the erected heritage, the principal problem is not anymore to prevent its destruction but, as the very

society is demanding today, obtain a complete recovery of the buildings as well as of a sufficient quality life in the historic centres.

**Geographic and Referential context**
The first question that one may ask himself when one undertakes the Revision of the General Plan for the Urban Design of a city like Madrid is what should be its role in the geographical context in which it is placed.

And a first approach to the answer requires the expression in specific terms of the functions that Madrid presently performs. In relation to the State to which it serves as capital, the Advanced Sketch identifies the following:
- Centre of education, training and technological development.
- Centre of financial decisions and operations.
- Main role in the industrial production of Spain.
- First centre of communications and intercommunications between regions, peripheral cities and abroad.
- Importance in the production and circulation of culture.
- Principal centre of enterprise decisions in the country.
The present situation of Madrid and of its environment in relation with the rate of real execution of this main role in the nation is defined, summarily, in the following terms by the Advanced Sketch of the Revision:

Madrid has known an economic development of extraordinary importance in the second half of the decade of the eighties... (it) was possible due to the advantageous situation of Madrid, capital of the State, centre of political, financial and enterprise decisions,... and its situation as a centre of national and international communications...Nevertheless the specific characteristics of this economic development, the situation abroad and the fragility of the theoretical model did not succeed in promoting with the same intensity the coordination of industrial, agrarian, commercial and logistic investments in order to achieve a long term model of harmonic growth...(which resulted in, taking in account) the international situation and the rigidity of the processes of achievement of logistically valuable land... an important raise in the costs that will have serious effects, for a long time, in Madrid's economy... The best contribution Madrid could offer to the recovery and posterior consolidation of the spanish economy would be, counting on the promotion of the international and geostrategic aspects of Madrid, as well as on its potential strength as a management and decision centre, to be capable of expanding the commercial power of the whole country and serve as a competitive and effective headquarters for the circulation and distribution of merchandises..."

With this analysis in mind, a urban society like the madrilenian, at the end of a century, can make an approximate consideration of its role in the Europe of the cities which it has just politically joined.

The European Commission, consistently with its studies, considers that the dynamics of the development of this Europe is orientated and promoted by an actual "Megalopolis" spread from the italian Lombardy (Milan and Turin) and Switzerland (Geneve, Zurich and Basilea) to England (London and Greater London) that includes a large extension of Central Europe with important cities (Munich, Frankfurt, Stuttgart, Koln, Brussels, Amberes, Amsterdam, Rotterdam and Paris within others). This great axis of growth is interwoven with another one with a transversal direction along the mediterranean coast

(Alicante, Valencia, Barcelona, Marseille, Genova); precisely, this two axis have a meeting point in the city of Lyon that, as a consequence, is becoming, gradually, a logistic center (interconnection and interchange of fluxes) between both axis.

If one wants to define precisely the role of Madrid in this Europe it is necessary to accept its peripheral location. Nevertheless, as it is assumed in the Act of Intentions of the Advanced Sketch "this circumstance wouldn't be of so great an importance if one would avoid this eurocentric vision and, through a zoom lens, be capable of observe, at the same time, Northern Africa and South America", and as it is pointed later "The possible role of Madrid as a link between these areas and the axis of development should be based on its ability and opportunity to take advantage of those markets if it is true that it is suitably supported by the most convenient and competitive means (services and substructures)".

The conclusion of the Advanced Sketch is that Madrid so far as it relates itself in the international context solely with Europe, would continue to be in a peripheral position, with permanent difficulties to join the main axis of dynamic development in the future. On the contrary, as it would be capable of a projection towards America and Northern Africa "its peripheral role will decrease and it will locate itself in a new centrality of interconnection between the areas of future development and those already developed in Europe".

This is the analysis and the conclusions related to the future of the city and its region given by the Advanced Sketch of the Revision to be considered to the citizens of Madrid in order to get some knowledge of their opinions to be able to elaborate a concrete territorial strategy more adequate in the new General Plan. The preparation of these considerations has been brought about by accepting from the beginning points of discussion in the whole treatment of the matter and, consistently, with an open mind eager of studying the social response it might produce.

However and in order to promote the understanding by the society of this direction, we add the precise priorities in which the Advanced Sketch trusts to achieve the development of the opportunities required by Madrid in order to become a new center of international relevance:
- Development of Barajas as a huge base of operations with passengers and, especially, merchandises by means of an airport city to be built in its surroundings.
- Increase in the connections between Barajas and the city.
- Promotion of zones for the modal interchange of merchandise transportation.
- Improvement in the efficiency of the distribution of merchandises in the city.
- Increase in the rail connections and improved access by the radial web.
- Improved accessibility for Madrid, essentially from the mediterranean coast, axis Barcelona-Zaragoza-Madrid and Lisbon-Madrid-Valencia; as well as from the Atlantic Coast as a way of connecting the commercial and economic opportunities that will occur as a result of the construction of tunnel under the English Channel.
- Land reserved and promoted to develop activities associated with the logistic dimension of the future Madrid.
- Land reserved and promoted to expand and improve the universities system.
- Design of proposed spaces and equipments that would

improve the environmental quality making the city a nice place to live and work in.
- Stronger efforts in the recovery of the historical and cultural identity of Madrid, as a qualifying and differential factor.

## Fundamental Proposals of the Advanced Sketch.
We'll finally expound in a summarized way, as they become the object of a detailed analysis in the number 20 of the Urbanismo/COAM magazine, the principal proposals included in the Advanced Sketch of the Revision, in order to give a global and complete vision of what kind of future is promoted by it for the city of Madrid.

## Metropolitan Context
The Advanced Sketch of the General Plan tries to recover a metropolitan view with to proposals for the whole territory in which Madrid is located:

### _ The North Crown
Taking in account the circumstances involved and the operations that are now in progress (conclusion of the M-40, PAUs in Arroyo del Fresno, Monte Carmelo, Las Tablas y Sanchinarro, enlargement of Barajas and its airport city and the development of a big urban park in the territorial void of Valdebebas) the proposed design suggests that the metropolitan limit in the north might be more than a addition of the different works in progress. The contents of our proposal is what follows:
- Creating two juxtaposed networks (road web and free spaces and equipments) that guarantee the connection and permeability of the whole system, specially in the East-West direction.
- Reorganization of the North Node between the motorway of Colmenar and the National Road I Madrid-Burgos.
- Complete the urban structure of the Polygon 18 of Alcobendas in its extension within the borough of Madrid.
- Creation of a suitable limit in the south of the urban development of the residential area of La Moraleja.
- Definition of a city of services in Barajas, creating a link between it and the Campo de las Naciones by the means of an articulating piece of metropolitan equipment.
- Design of the urban park of Valdebebas and its prolongation towards the south connecting with the Park of Juan Carlos I.
- Define the proposed site for a university campus supported by an area of Technologic Park by the West limit of the park in Valdebebas.
    - Design the treatment for the initial part of the future motorway between Guadalajara and Zaragoza proposed to be a park-road with a urban character.
- Define the limits of the urban area of Barajas y reorganize the Carcavas area.
- Promote the rail network, increase the underground web and define two systems of "light transport", one from Plaza de Castilla to Alcobendas and San Sebastian de los Reyes and the other, forming a loop from the Gran Vía de Hortaleza to Barajas.

### The Southwest-South-Southeast Crown
The fundamental element of this vast territorial strategy is the creation of an important artery of a urban nature (following the known models of the Paseo de la Castellana or the Arturo Soria axis, but adapted in scale to the Crown, and therefore in any way conceived as a M-45) in an intermediate position between the M-40 and the M-50 which, beginning in the Barcelona road, would cross over the Valencia and Andalucia roads and then, already out of

the limits of the borough, over the Toledo and Extremadura ones, attaining at the end the road to La Coruña. This artery would be the basis for the design of the urban limits of existing cities or districts like San Fernando, Coslada, Vicalvaro, Getafe, Leganes or Majadahonda, and the articulation and creation of new opportunity areas for the establishment of new developments in peripheral zones, some of which could be new centres of equipment that would liberate and help to the decentralization of the services sector of the central "almond".

## Structural Proposals
In addition to the metropolitan proposals that obviously are also structural, the Advanced Sketch defines four important Structural operations: a new centrality in the East side, define the limits in the Southeast, abortion of the Chamartin zone and Transformation of the South.

### _ The new Centrality in the East
Located between two important structural axis of transport (the alternative N-II, M-40, prolonged axis of O'Donell and Classifying Station and the Joint Centre for the International Transport in Coslada) and very close to Barajas, it appears as a unique place to promote the settlement of different specific uses required by the city.

We have already proposed two units. The north one, intended to become a sports park in addition to other installations belonging to the CAM and to the Spanish Football Federation, in order to make possible the reorganization of the whole area with a group of installations at an olympic level. The South unit, on the other hand, is divided into four polygons intended to bear, essentially, residential areas, a university campus, a technological park and industrial area.

### Definition of the limits of the Southeast
The objective of this operation is to control the natural growth of the districts of Aluche and Carabanchel Alto and in general of the whole zone in the southeast of Madrid. Included in this proposal are the PAU II-6 New Expansion of Carabanchel, the Intervention Area in the Arteaga Headquarters-Coach Station of the EMT, the reorganization of the Cuatro Vientos area and the Campamento Operation.

### Abortion of Chamartin
The railway station of Chamartin and its surrounding area are nowadays an area completely enclosed within the city; however in a urbanistic sense it is not really absorbed by it, since it is clearly disordered, as much within itself as in its relation, devoided of any structural sense, with the adjacent areas. The operation Abortion of Chamartin should give a solution to this important "wound" presently open in our city, allowing, at the same time, the establishment of a new centrality in the north of it based in the development of a group of mixed uses, residential, services, commercial and equipments.

### Transformation of the South
Also known as the Mendez Alvaro Operation, it is intended to perform a transformation of a confusion of different uses into an organized formal system. It includes the following proposals:
- Organization, possibly including tertiary uses, residential and equipment and recovery of the industrial axis in the streets Tellez, Adelfas, Mendez Alvaro Avenue, Embajadores-Legazpi and the districts of Las Chinas and

Las Carolinas.
- Definition of the uses and street system for the extreme of the Cordoba Avenue.
- Global study of the reform of the Abroñigal and Contenedores Stations, recovering them for the city use.
- Design of the North area of the Parque lineal of Manzanares Sur.
- Creation of a big center of important activity in the urban space between the bounds of the borough and the node of the alternative Andalucia road.

## The Pattern for Mobility
The Advanced Sketch proposes a pattern for mobility whose aims are the following:
- Discourage the drivers of private vehicles circulating towards the centre from the peripheral areas by offering them attractive alternatives, combining nodes for changing public transport with dissuasive parking lots in metropolitan and urban areas.
- Promote the multimode phenomenon with the development of a large system of interchange between different types of transport.
- Develope systems and substructures of public transport and improve its efficiency, in relation to its connection capability
and its adequacy to the fluxes of demand.
- Find a selective equilibrium in the road network, promoting the interconnection.

Consistently, the Advanced Sketch, within the context of this adopted pattern of mobility, defines the following basic strategies:
- Network strategy based on a model of polynuclear centrality.
- Promotion of public transport.
- Multimodal transport strategy.
- Taking in account the structure of the urban grid.
- Improvement of the parking policy.
- Improvement in the operations of loading and unloading of merchandises.
- Promotion of the pedestrian mobility.

The proposals for the street grid and public transport given by the Advanced Sketch try to articulate this sought pattern of mobility and every basic strategy and cope with all its consequences.

The treatment for the historical centre and the recovery of the traditional identity of the city.

Using as our tool the Special Planning programme, we have been performing, during the period of elaboration of the Advanced Sketch, a detailed study of the historical centre, as well as of the historical housing colonies and the centres of the old villages absorbed by Madrid. Afterwards, the use of this same planning has been widened to cope with the Madrid's Expansion, in order to achieve its completeness at the time of the second phase of the new General Plan. Being the historical centre a finished zone of the city, the Advanced Sketch includes, consistently, a suitable diagnosis of its state as well as the pointing out of specific possible proposals. The goal of all this should be the recovery, restoration and a new enlivened use for our historical centre.

To achieve this goal, the advanced Sketch specifies the following general aims:
- Maintain and recover the residential use as main activity.
- Improve quality of life of the inhabitants
- Re-establish a diversified housing supply for new residents.

- Recover environmental quality.
- Harmonize the efforts made in conservation and change.
- Protect urban space and the valuable built heritage.
- Define the function of the centre in relation to wider contexts, taking special account of its national and even international contexts and promoting its equipments.
- Promote the activities of a central nature, those that serve the population of the same centre.
- Establish the solid basis for a coordinated investment in public and private sectors.

The possible proposals to be considered by the population include: an specific pattern for the mobility in the historical centre, in which the essential aim is to achieve a classifying divison of the street system; operations on the urban structure, divided into operations within blocks and others in districts and peripheral areas; and isolated operations over public or institutional lots.

Within the operations proposed for the districts and peripheral areas, we distinguish between Global Operation Areas (Universidad-Amaniel, San Mateo-Escuelas Pias, Reina Sofia, Casino de la Reina and the surroundings of the San Fernando Market), Preferential Restoration Areas and Differential Treatment Area. We specify nineteen isolated operations over public equipment or institutional lots, nine over existing equipment lots, seven over free spaces for public use, and three over substructures.

It is clearly seen that we have a broad variety of proposals with a common intention: to create, in isolated points of the urban web, a system of attraction poles for social and urban life that would serve for its regeneration and as an essential encouragement to activate a general process for the restoration of the architectural web, enlivening, in this way, both webs and establishing the solid basis for the recovery of life in the historical centre.

As it has been already pointed out, this strategies, goals and objectives are now being applied to the Madrid's Expansion, especially in the protection programme for the Paso del Prado and its surrounding area (Colon-Atocha) an emblematic area in Madrid that has to be treated with care and concern by all the madrilenians.

Enlivening our historical centre (old centre and expansion) will allow the recovery of Madrid's identity. It will play an important role in the protection of the historic heritage, including natural elements, landscapes, buildings, parks and gardens.

In relation to these later two, the Advances Sketch of the Revision specifies the general criteria in which its protection can be based. Protection for which we have the tools of the general planning, that will set the bounds for the special protection zones (those considered as a whole, as there are equal problems in every part of them) and elaborate an specific planning that would give response to its problems, and the specialized catalogue studies.

The main tool for the protection of the heritage would be, consistently, the Protection Catalogues, of which we have specified the following:
- Protected Buildings Catalogue, classifying them into different levels, specifying the possible works within them in order to avoid the loss of valuable elements
- Interior Architectures Catalogue, that will specify, with two different levels of protection, the elements inside the buildings that could be more valuable than the outside ones.
- Singular Elements and Public Monuments Catalogue, that will include all of them that present an autonomous and independent character, fountains, sculptures... and will serve

as the basis of its recovery and its reutilization by the city.
- Finally, the Parks and Gardens Catalogue, that will include both the public and the private ones, classified into two categories: historic gardens and interior gardens, with an specific regulation and treatment for each of them.

Essentially and in a summarized way this is the main group of fundamental proposals included in the Advanced Sketch for the new General Town Plan of Madrid, that is now offered to the citizens to be studied following the regulations about citizen participation, within which I would like to include this article, as it is my opinion that it can be a contribution to a better knowledge of the plan by an specific group, that of the architects, qualified and prepared to give an opinion about the future of our city. ■

Luis Rodríguez-Avial Llardent
Architect
Manager of the Municipal Office for the Plan

## What kind of land project is suitable for Madrid?

Within the cultural circles of the urban planners of the eighties, the city was considered as a space in which transformations could be performed. But the growing complexity of the metropolitan matters requires more and more a careful consideration of the whole territory, taking in account the problems born out of the combination of the different scales and different polities related to the configuration of the urban phenomena.

In relation to the big and sparse city, the traditional plan, as a fixed model of its long term equilibrium, is a very limited tool for the real organization of the territory. As an alternative, an strategic approach becomes necessary, more suitable for the heterogenous metropolitan spaces and their possibilities to become the objects of transformation operations, and not so conscious of abstract ruling systems. A "dynamic" approach, capable of combining the "hard" urban objectives and the "open" methodology required by them. A urban planning, in short, more interested in how the territory should be built than where it should be built.

### The age of dis-territorialization

The recent territorial organization of the metropolis is rather opposed to the old ideas in which the urban planning tools as well as our own concept of urbanism were based.

The image of the traditional city was built upon the idea of boundary, either the physical limit of the urban enclosure (materialized in gates, walls or sentry walks), or the much more idealistic discrimination between an artificial and ordered universe and the world of the organic and natural: just remember the baroque systems and foundational grids. The modern metropolis, as it has destroyed any a priori sense of boundary, opens what Georges Teyssot calls the "age of disterritorialization". The lack of identity of the blurred and broken peripheral spaces has invaded the whole of the metropolis.

The city doesn't appear anymore to its contemporaries as a coherent form, suitable for being apprehended by experience and analysis. On the contrary it appears as a discontinuous sequence of different spaces, themselves fragmentary, in which a daily routine of gestures takes place. We can't pass over the fact that Madrid is always considered as a provisional city, a "camp-city", unfinished metropolis, as the subjective reflection of a time in which the intensity of changing makes that "everything which is solid apparently

dissolves itself in the air".

It is inevitable to compare this situation with another special one: that of the emergency of the modern metropolis at the beginning of the century. Georg Simmel knew exactly how to express the amazement of the urban citizen in the presence of the universalization of the monetary economy and the uninterrupted sequence of contradictory stimuli as characteristic of the metropolitan life. The insensility before the differences between things was then the spontaneous reaction of a person weary of a world in which "every object swims with a same specific gravity within its wave in constant movement". Today this experience of fragmentation is probably the most notorious feature of metropolitan life. We will see, however, that the visual fragmentation is just a symptom of deeper wounds in functional and social aspects of urban reality.

The urban planning culture and tools came historically to life within the context of the traditional delimited city and the old aim of harmonizing the formal growth of the virgin land outside its boundary. This was a common concept as much between the theoreticians of the "Grosstadt" (the big city that grows continuously) Baumeister or Eberstad..., as between the dreamers of the ruralist growth, as Howard or Arturo Soria. Both lines considered the existence of a central city as a previous condition for the addition of new urban pieces or the creation of peripheral nuclei. The urban discussion remained thus for many years as a choice between the supporters of an extensive and ordered growth and those in favor of setting bounds to this growth by the decentralization.

A clear and ingenuous option for the second choice was the concept of "organic" growth, expressed by the Bidagor Plan for Madrid made in the forties: "It is essential to complete a central nucleus, limited by a ring of green zones and a high speed road. Around this nucleus, the existing suburban nuclei will be completed as well and new satellite villages will be created in order to obtain a unity whose general structure will be that of a planetary system." This idyllic image of a continuous center in which we find placed the executive activities, surrounded by green zones, orbital motorways and satellite cities, has been that of the urban planners and citizens thinking about a metropolis that is not anymore in their hands. And even now it expresses the ideal concept of the supporters of a city organization based in the use of the car. But the only truth is that this ideal model has had little to do with the real processes of metropolitan Madrid's growth and it would should ask ourselves whether it has been an obstacle to the possibility of a better comprehension (and planning) of the real growth.

### The paradoxes of metropolitan growth

The Madrid's urban agglomeration was neither the result of an "oil stain" growth of its central nucleus nor of the alternative planetary scheme. The growth of the metropolitan periphery was discontinuous, reaching by successive degrees further and further urban crowns and subsequently drawing back to fill in the empty spaces and revaluated intersticial lands. Always based on massive settlement about the radial roads the fragile preexisting rural nucleus. In this whole process the official planning, when to just broken, has played more the role of a mere chessboard for the real-estate strategies than that of real model for the occupation of the territory.

Once the limits of the urban center of the 1946 Plan surpassed, the Metropolitan Plan of 1963 stated an ambiguous pattern based on the growth of the central nucleus but without rejecting the academic image of the

"planetary" system. New green rings and beltways far removed from the center replace the original ones. New residential and industrial decentralization nuclei replace those absorbed by Madrid.

Meanwhile, contrarily to the plan, the conditions of growth had changed radically: the process for the creation of metropolitan suburbs had begun. Instead of the expected quantitative growth in the city of Madrid (four and a half million citizens in the year...) what really happened was a much more important qualitative transformation. From the sixties, the urban center (the so called central "almond") alters its morphology to make room for new tertiary activities and an increased Public Administration. Within this process the modern structural axis began to appear (Castellana, with the help of AZCA and Principe de Vergara); as it happened with the not yet finished transformation of the Expansion Zone into a tertiary area, and the evolution of the most traditional industrial areas, especially Arganzuela (for which there exists an ad hoc by-law to encourage this process) and Tetuán.

And taking in account a metropolitan scale, the effect of the migratory fluxes towards Madrid together with the tendency to concentrate the executive and employment activities in the central zone, produced a functionally specialized and socially discriminated territory. In the southwest-southeast crown we find the industrial employment together with the lower income population, mostly alien. The executive center moves towards the north of the "almond", and at the same time a process of loss of population and subsequent impoverishment of the old center takes place. In the west a residential low density suburb for the upper income classes begins to emerge.

This kind of growth is nothing similar to the anglosaxon suburb or the parisian "banlieu". With the exception of the fragmentary area of single family housing in the west, in the rest of the nuclei the new growing areas are shaped like fragments of urban districts of the first periphery: high densities, community housing and a serious lack of basic infrastructures services and suitable open spaces. This deficiency is even more critical in the successive generations of industrial settlement moving from the traditional areas in the East and South boundaries to the new less priced spaces in the metropolitan border (Arganda, Fuenlabrada, Humanes,...)

Due to the lack of transport substructures (as the beltways have no real life apart from the plans and a true suburban rail web doesn't exist), the growing areas are dependent of the existing radial roads, and the growth takes a tentacular form, perhaps more extensive in the South-West and the Henares Valley.

The resultant space is consistently overpopulated and deficient from the beginning:
- Functional and social segregation;
- Subordination to a metropolitan center;
- Lack of a public transport system;
- Deficient basic structures;
- Rigidity of the real-estate market.

We might say, and it is not an exaggeration, that we have been for several decades paying the delayed bill of the disorganized growth of the sixties and seventies, materialized in structural deficits in the branches of transport, substructures, services and housing, with the resources that in other circumstances would have been applied to the obtention of human resources and environmental improvement, some aspects that in a near future will be of the greatest importance to bear the

economic concurrence with a high quality of life.

**The reform urban planning**
During the eighties the urban planning operations concentrated, in Madrid and other places, over the emergency of revising structural aspects of the real-estate deficiencies just described in three essential points:

Productive substructures

Transport

Housing

The local administration operations concentrated in the recovery of social elements within the city (just remember that public services, utilities and basic urban conditioning, were the most urgent citizen demands at the moment) together with the creation of the basis for more ambitious urban improvement policies. Beyond its legal features, the Urban Design Plans made in those years played a possibly unique role as the product of a certain alternative idea of the city and especially as a reference concept for the different public operations and even the very civil society.

The General Plan for the Borough of Madrid made in those years was assuming as a given datum the impossibility of an immediate change in the inherited metropolitan structure. That is way it stated as a basic criterion of its urban strategy the "transformation" of the existing city, performing operations within the capillary scale of the different grids, the structuration of whole pieces and redefinition of structural elements in the city. With a fragmentary, unfinished and deficiently equipped urban periphery, the Plan decided that its immediate objective should be the achievement of a physic continuity and services equilibrium between the different parts of the city. The project for this sparse operation enclosed the concept of official works as resulting in urban transformation, from an strategic point of view and a vocation very near that of the big special projects then appearing in the rest of Europe based on the possibilities of renewing obsolete or empty urban spaces.

The limitations of the 1985 Plan have nothing to do with a priori ideologies and much more with the defensive approach due to the circumstances in which it was made. The "remedy" approach of the moment results in certain introspective and immediate vision on the part of the Plan. That means that the Plan states as a priority to find a solution for the specifically urban problems of the borough, leaving aside a more open interpretation of the territorial transformations provoked by the very crisis and the new institutions then arising: autonomy of the regions within the State and the membership of the EC. This is the reason why the Plan pays little attention to the opportunities given by the new metropolitan area and to the concept of the very city as a competitive resource for economic recovery.

The territorial policies, the state ones as well as the regional, concentrated, during the last decade, on the economic and substructural aspects of the metropolitan deficiencies. This process of "district restoration" is a so far unique operation, due to its scale and the volume of the investments, over the large units of poor housing still present in the periphery of Madrid's borough and is the final step for the creation of the metropolitan space. The creation of an integral public transport system induces that of an institutional unified authority for the regional transport which is the Consorcio that has had such an importance in the different investment plans for the rail network and enlargement of the underground.

The construction of peripheral motorways deserves as

well a decisive boost to make possible at the same time the works for closing the M-30, those that would make accessible some parts of the M-40, and the beginning of the M-50.

The Comunidad de Madrid encouraged, just after its establishment in 1983, specific polities to promote substructures and productive utilities: institution of industrial land, recovery of deficient industrial areas... As the political scenery changes, this sparse polities become concrete and global strategies for the structuration of the territory. Particular operations are decided as operative tools for these polities, that might be able to encourage, because of their contents and location, processes of deeper transformation of the metropolitan space, and of which we will give a more detailed account later on.

**The new dimension of growth**
Problems born out of "genetic malformations" in the metropolitan development will be an obstacle, no doubt, for many years for the possibilities of modernization of Madrid. Even more, they seem to restrict a conscious perception of the most urgent transformations.

The successive Advanced Sketches for the Revision of the Plan for Madrid had been limited by the belief that Madrid's problems were originated by the restrictions made by the 1985 Plan for the settlement within new lands and the building of new main roads and, therefore, it was possible to overcome these problems by a generous extension of the permitted rate of population and the project for new substructures.

As I said before, in my opinion, the limitations of the 1985 Plan have the same origin as its best guesses: a turn over the problems of the existing city, in which we find the real inhabitants with their concrete problems. This is the reason why two thirds of the 180000 proposed dwellings were located within urban land and just one third in new expansion areas. The unequal circumstances of both types of land and the poor development of the "land to be urbanized" reveal several facts. On one hand, the existing difficulty within the world of the real-estate business to cope with the expenses of creating new lots and the subsequent advantages of working within urban environments. Secondly, that the real bottleneck in the urban design process is not the qualification of new land (which would be easy to solve), but in the complex procedure for the very production of urbanized land, that means in the management and urbanization. Finally they expose the fact that a certain "mature" age is now beginning in the metropolitan development: the number of dwellers in the center diminishes, and the incipient tertiary saturation induces the metropolitan decentralization of services.

The limits of the present meditation prevent me from explaining in detail the two first aspects, regardless their close relation to the present discussion about the role of the public instances in the real-estate market. I will, therefore, concentrate on the last one that exposes the spatial aspect of the problem. The return towards an extensive growth that would fill in the vacant spaces within the borough, recovering our concentric model, appears as a common feature of the Advanced Sketches of 1991 and 1993. Wouldn't this choice produce the same errors of the 1963 Plan? What effectiveness might have today the logic of the growth "by fits and starts", a characteristic feature of this period of the shaping of the urban agglomeration? Before giving an answer to this questions it is essential to analyze some aspects of the current metropolitan scenery.

The profound transformations that have taken place within the most important european metropolis during the last decade persuade us to think that the changes produced in the markets and in the very structure of the production will affect substantially the territorial organization of Madrid.

The new scenery is defined by the globalization of the economy as one of the steps towards an internationalization of economic circuits. Within this context, the metropolis are not just a mere space for the activities as they must become the centers for the meeting of the markets, now working with the whole planet in real time. The transport connections and the new media and telecommunication technologies will play an important role in the new possibilities for unifying the territory. The industrial crisis has provoked the creation of new flexible organization systems and the development of different kinds of production services. At the same time the mobility of economic activities has increased. It isn't anymore just the population moving towards the centers of decision or production. The very activities are geographically located so as to find market opportunities, different economies or more advantageous environments

The concurrence between different urban regions for the accumulation of these investment fluxes has induced the phenomenon of the "urban marketing". The cities are considered engines for the economic growth and they make an effort to solve their deficiencies and offer an appropriate image of their potentialities, especially in aspects like "efficiency" (technological development and communications), "human resources" and "environmental quality".

This economic transformations, however, tend to induce new disequilibria and inequalities, intensifying certain social and spatial fissures. The european population gets older very quickly in a moment in which the possibility of new massive migrations from other countries around the EC appears as evident. The financial crisis of the states hinder the compensation mechanisms of the "Welfare State", provoking the development of marginal population. The stabilization of a high rate of unemployment, fragmentation of the social system and deficient state of the dwellings have induced the phenomenon of the so called "urban uneasiness" into the peripheral areas and spoiled centers of the metropolis, which eventually could take on the form of violent convulsions, as the recent ones of Paris or London or, in other context, Los Angeles.

There are also other risks in the spatial aspect of the problem that could cause difficulties for a sustained development.

Efficiency as well as quality of life is decreasing in the large urban agglomerations due to the tendency to overburden its economic structures, provoking the development of "ineconomies". This mobility of the economic activities could result in dramatic damaging processes within the urban areas from which industrial utilities have fled to settle in new economic spaces. The substructure development and land occupation have definite limits as they could cause damaging effects in the ecological and landscape resources of an area (which are competitive values) and high energy costs.

The new approach to urban planning that, with slight variations, we find in the big european metropolis, focuses on several points that might give an answer to these problems: urban traffic control and projects for new public transport systems, recovery of urban centers, restoration of damaged areas, projects for natural and agrarian spaces within the metropolitan territory etc. Finally, it is to be remembered that

the concurrence between cities would inevitably generate its "winners" and "losers", successes and defeats, and those will be determinant factors in the new opportunities of economic development with aggravated spoil and impoverishment problems.

**The polycenter metropolis: ¿metaphor or reality?**
The spatial result of all these structural transformations has induced a deep reconstruction of the metropolitan space, whose most remarkable features , in the Madrid's case, could be the following elements:

- Generation of new "peripheral centralities" and alterations in the role of the "central centrality".
- New types of suburbanization in housing and business developments.
- Increasing and specialized demand for mobility.
- Tendency to transform the metropolitan hierarchical and functionally specialized model into a more complex polycentered structure.

From the point of view of the transformation of the territory, the first question is whether those changes would be beneficial to overcome structural pathologies in metropolitan growth or, on the contrary, would aggravate the existing inequalities and agglomerations. The answer is nothing simple, in fact, we have no answer yet. It will mainly depend on the capacity of Madrid to generate strategies and manage the spontaneous tendencies in order to achieve a suitable project for the territory.

The decentralization of economic activities is the kind of growth distinctive of a mature age in metropolitan agglomerations, usually a consequence of the suburbanization of the dwellings. The overpopulation in the central nucleus, the generalization of the accessibility and telecommunication technologies, the territorial opportunities, make possible that an increasing number of services, industrial land public facilities would rather cope with the distance costs than with the spoilt economies of the central location.

This process, however, so much acclaimed, brings some risks: on one hand, this dissemination increases the consumption of land; on the other, this process of dis-urbanization could result in the decay of the city or even induce dis-territorialization phenomena.

We should remember the metaphor on the illegibility of the suburban areas that we find in the description made by the fictitious S. Narcisus of Thomas Pynchon: " as many other places in California, it was less an identifiable city than a group of concepts: the lists of census, districts with defined aims, a commercial nucleus... everything intertwined by access roads to motorways".

Moreover, there is an obvious tendency to conceive the periphery as the new paradigm of what is urban, which means a diminished concept of the city as a mere group of different pieces and objects scattered over the space intertwined by various urban system networks. The space between the objects is conceived, strictly, as a void, that means, as lacking any historical, geographical or architectural reference.

In Madrid's case this tendency to decentralization has been lately increased by the transition from the radial communication system towards a new concentric model, after the recent construction of the metropolitan ring roads. In the absence of a capillary network, the new orbital roads have opened the new "metropolitan border". This fact will augment the tendency towards an increasing number of

suburbanization low density nuclei, today all clustered in the west area and arising around the rural villages of the northeast and southwest, and will induce the generation of spontaneous centralities in the nodes of the main artery roads.

This type of urban growth is the consequence of a complex group of tendencies:

- The central city maintains its life as a cultural and decision center , though this functions move towards the north of the central "almond". In this context we find a continuous process of transformation of the dwellings into tertiary use spaces so as to reach a high rate of occupancy. The most evident feature of this process is the congestion of the traffic and the extraordinary raise in the real-estate costs in the most emblematic locations.

- The old center begins to decay though this phenomenon doesn't affect in the same manner the different districts. While some of them accommodate the returning higher income urban population, others endure a continuous process of environmental decay and social decadence as to become real impoverishment urban areas.

- The mature metropolitan periphery created around the rural nuclei of the second and third metropolitan crowns, has overcome an initial shortage in facilities and is now the location for an increasing number of economic activities, with a progressive evolution towards the generation of a more balanced cities system.

- The urban periphery in the south of Madrid, on the contrary, suffers a progressive decline in the conditions of its housing and environmental quality, defined by the stabilization of unemployed and marginal population.

- The low density suburbs of the west expand towards the Sierra de Guadarrama, promoting the transformation into "first dwelling" of the traditional secondary ones. The most urbanized areas endure an extraordinary growth of tertiary and commercial activities. Large facilities aspire to quality environments within the boundary areas. The whole process causes the revitalization of the nuclei but threatens the environmental stability.

- New activity nuclei and residential suburban areas appear spontaneously around the locations made most accessible by means of the public transport system of metropolitan road network.

- The whole process brings the highest rate of consumption of land since the seventies. Inducing an expansion not caused by demographic growth.

Summarily, it is not possible anymore to speak about a dichotomy between Center and Periphery. The "central centrality" endures economic and functional transformations of yet uncertain extent. At the same time the generation of peripheral "centralities" around new activities nuclei, results in variations of the traditional dependency relations.

The very idea of periphery should be replaced by that of peripheries. Not just because of the fact that the spatial laws of the periphery seem to invade the whole city, but because beyond this concept we find very dissimilar realities. The periphery is the place for decay and dependency but at the same time that of the suburban Arcadia (the "middle landscape" of Peter Rowe) or the birth of the new "centrality".

Within this context we find as much threatening those polities that would try to recover the "growth by fits" as those that would mistake the concrete dissemination of activities for decentralization.

In the first place, to conceive the growth of Madrid as a mere juxtaposition of new expansion areas that would fill in the empty spaces between the immediate urban periphery

and the constellation of peripheral settlements, would not only be against the concept of a new more flexible metropolitan structure, moreover it would possibly cause the intensification of the above described problems of the Urban Center. The effect of the new residential areas, reliant on the radial access, be them roads or public transport systems, will probably result in an increased congestion and overpopulation of the tertiary areas of the "almond". At the same time, as the residential dynamics tend to converge into the periphery, this could strengthen the process of decay and abandon of the decadent central areas.

On the other hand, as it was recently stated by William Alonso: "the metropolitan expansion, to be of any use, should be something more than global "cloud" of peripheral extension. If it is to serve its objectives it requires certain structural conditions. For example, productive activities in the periphery, offices, workshops, hospitals or warehouses, should be materialized as a group of subcenters".

It is not enough to increase the economic operations in the periphery to achieve a balanced territory. It is also necessary that these should be coherently harmonic in order to create new "centralities". Moreover, the existence of a previous network of peripheral cities recommends the configuration of these new "centralities" around the existing urban nuclei. This idea will not only result in an efficient use of the available substructures, it would also be the better option for social integration. To establish a new "centrality" means thus to promote the transformation of an space reliant on a metropolis into a harmonic system of cities. From a broader point of view, this cities system shouldn't be confined to the geographical boundary of the Comunidad de Madrid. In the latest years the great european development "axis" have been a common reference for the interpretation of the economic transformations within the Continent. The evident fact that these axis are far removed from Madrid, seems to be an unavoidable obstacle for its competition and development opportunities. There are, nevertheless, other opinions about this particular topic that might modify the diagnosis. Even if we acknowledge the possible advantages of the proximity and urban alignment for an efficient use of the traditional transport systems, this is not a decisive condition for the efficiency of air line communications, high speed trains and new information processing and transmission systems. On the other hand, a determinist understanding of the role of these axis, would not be able to explain the real dynamics of Madrid as a financial and advanced services center, the second industrial nucleus of Spain.

It seems therefore that it could be more profitable to examine the nature of the opportunities of this metropolis within its real conditions. Madrid has played so far an essential role in two complementary aspects: as a connection element within national economy and as a link between national and global economy.

This role could be even more prominent if, in the future, the synergy of a solid cities system were to be fostered. There has been much discussion about the phenomenon of paris and the "french desert", but Madrid runs also the risk of becoming a "cathedral within a desert". The choice of the project of regional cities system should include that of an intermediate system of nuclei outside the Comunidad de Madrid (Guadalajara, Toledo, Segovia,...) that would facilitate the connection with the main urban regions of the Peninsula. The "border effect" observed in the immediate boundaries of our Comunidad would be minimized by the presence of strong nuclei capable of harmonizing the growth of the

subregions connected with Madrid.

This growing tendency towards the creation of a system of "centralities" should not make us forget the particular problems of the "central centrality". The urban Center (Old Center, Expansion Area and Castellana urban Surroundings) keeps the greatest rate of activity, lodging the most qualified tertiary facilities: 80% of puclic and private offices within the borough; 91% of the hotels; 85% of the advanced tertiary sector and 83% of the interprise services sector (data obtained from a recent record by Francisco Pol and Enrique Bardají). To which we have to add the specific fuctions of the political and cultural capital and that of its emblematic historical center.

Any choice made in order to achieve a balanced metropolitan space requires the patronage, within the "central centrality", of its organizing fuctions. If we want to establish a harmonic system of cities, nothing would be worse than the functional abandonment or social disintegration of the central space. Moreover, the tertiary agglomeration within the central areas not only diminishes the oportunities of the new m,etropolitan "centralities", it is at the same time a serious threat to the efficiency and habitability conditions of the very central city.

Nowadays, in the Center, we find a growing tendency towards the spatial polarization. The Centre is an essentially heterogeneous space as a consequence of its historical shaping togheter with the social and functional division of its parts. Any attempt to overcome its problems by the means of mere regulation or to concentrate the urban planning discussion exclusively on the more or less rigour of the Catalogue woukld result in a complete failure, as the nature of the problems involved is neither uniform nor restricted to a mere question of environmental preservation.

Within the traditionally residential areas of the center, the primary question remains the proggressive decline of its habitability conditions. The dwellings are in a state of physical decay and, which is more serious, most of them do not qualify for the standards currently required. We should just remember that, acording to the latest census, there are more than 15000 dwellings with less than 30 m2 within the districts of Centro and Tetuán and that more than 23000 dwellings of the central area have no private facilities. We have, therefore, a hidden quantity of poor housing which can not be avoided by means of an sparse restoration policy. The question becomes more intricate if we consider the fraily of the social configuration (25000 dwellings in the centre are inhabited by one person. This "environmental decay units" are also "impoverishment units" and subsequently "marginal population units", as the original population is replaced by a growing number of itinerant inmigrants.

Any attempt to achieve a partial new official qualification of this areas would possibly result in the induction of a "border effect" within the surrounding areas with just the displacement of the problem. It is, therefore, essential to find a global strategy, consisting on a series of partial operations that would cope, at one time, with the problems of environmental quality, buildings decay, lack of substructures, services and open spaces. Not forgetting specific operations to achieve economic recovery and social integration, that are, obviously, out of the urban planning scope.

Within the most dynamical areas of the urban center, the convergence of tertiartiy uses is begining to induce agglomeration problems. The accessibility, as a particular characteristic of the central space, is being rather diminished by the congestion of the current substructures and the grwing

difficulties for mobility. At the same time, the expansion of the tertiary activity to the detriment of housing is a serious threat for the equilibrium of the different uses, intensifying the problems born out of functional fragmentation. It is essential, therefore, to control this process of dwelling replacement and decide the exact location and role of the required efficient managing center. In such a way as to obtain a siutable location for the development of central activities compatible with a residential use.

**Main Points for a Territorial Project**
This complex metropolitan scenery requires, in short, a new approach to urban planning. To confine the operations within spatial or sectorial bounds would possibly result in an intensified and unpredictable urban pathology. If the official new qualification is restricted to certain parts of the metropolis, the rest could be sentenced to the most peripheral state.

In the same way, if urban regeneration is confined within the spatial and functional limits of the current problem, the disintegration and social segregation processes could be intensified.

It is, therefore, essential to undertake a simultaneous and coordinated operation on this problematic areas:
- Ecological or rural areas menaced by the suburban growth.
- Central locations suffering from saturation or congestion or with a deteriorated environmental or social status.
- "Internal" periphery affected by obsolete plants and deteriorated conditions in large residential complexes.
- Suburban peripheries affected by the establishment of new "centralities" and urban axes.

This operations will require an integrated approach; that is to say, a "hard" territorial strategy capable to include different levels of intervention, different actors -public and private- and different sectorial policies related to building: infrastructures, economic activities, housing, social policies, .

The strategic objectives in this approach need to provide a broad frame of urbanistic operations for the 80s as a general alternative to the changes in the metropolis in all four topics considered:
- A new harmonic equilibrium between natural and urban environment.
- Structure of the regional area, based in an efficient transport scheme and new urban "centralities".
- A better habitability and an adequate offer of dwelling coherent with the population needs.
- Modern productive, educational and cultural structures, as key factors for competitiveness.

The first aim would include an adequate distribution of growth among different towns and a reinforced territorial polarity as an alternative to the growing demand of land on the periphery, specially North and West to the city. This, in turn, will imply the growth of already existing cities with medium densities, against the tendency to create new isolated locations with low densities. It also means the adoption of strategies to protect valuable environmental resources, not only with a legal defence but with a positive integration of empty areas in the metropolitan area, specially in degraded environments. In this context we should notice the preservation of mountain areas and valleys Tajo and Tajuña, together with the creation of a system of large metropolitan parks along rivers Guadarrama, Jarama, Henares and Manzanares. This system would include the foresting on empty areas to get green locations beside the urban areas.

The structure of the regional area is a more ambitious

aim than the mere development of metropolitan mobility. It implies the decision to favour the change from a concentrated and saturated metropolitan model to a multipolar system based on the existing towns. To get a better equilibrium between jobs and lodging is something more than understanding the area as an aggregate of self-sufficient compartments. On the contrary, it implies a growing relation and complementarity among the different towns.

The key for the development of relations among the metropolitan system and the exterior towns is based on a efficient and flexible transport network, capable of providing transversal connections among towns and a good accessibility to the Center.

It is also important to reinforce the "decentralization" tendencies with new projects on "hard" points of the area so that they became new "centralities". This plans affects infrastructures, economic activities, dwellings and equipment as levers to get the change of the metropolitan area. Up today the most important ones are the Ciudad Aeroportuaria and the Ciudad Lineal del Sur. Though essentially economic in character, both operations show the tendency towards a better urban integration.

A better habitability of the city should be understood as a general task. We must remember the risks of a partial conception of rehabilitation operations. It is necessary to operate simultaneously over center and periphery. In the Town Center, rehabilitation means reinforcing historic, cultural and economic centralities and preserving a good habitability for the residential boroughs. It is necessary to make compatible operations in declining -or marginated- areas with the control of the "terciarization" process in saturated areas. The urban periphery shows two kinds of problems: industrial obsolescence as a result of crisis and sector restructuring; and debasement of the environmental quality as a result of the physic damage of residential locations and more complex process as social and functional fragmentation. The existence of void areas or areas with obsolete activities (inadequate or declining industries, infrastructural facilities underused, old military quarters, etc.) with an strategic location value offer an opportunity to create new "centrality areas" (with the help of service and equipment decentralization) contributing to more ample process of re-urbanization. A better "habitability" means requalifying urban areas (creating real collective spaces and rehabilitated residential areas) and social integration.

All these steps will demand a reorientation of social dwelling policies, which at the time concentrate in providing urban land. A dynamic market for second hand houses and rehabilitation should be additional aims.

Finally, a better competitiveness in a domestic and global context will require an effort to modernize all available resources. The most important one, no doubt, is education and capacitation for the population of Madrid. This strategic priority leads universities and scientific and technological innovation centres to act as powerful requalifying elements, strongly related to the possibilities offered by the new information and communication technologies. But this attention to the innovating process should not result in an abandonment of the more general productive resorts. Modernizing and rehabiltating the industrial locations is an undeferable need that should be combined with the creation of new spaces for economic activities in the frame of more general strategies for the reorganization of the metropolitan area.■

**José María Ezquiaga Domínguez**
**Architect**

## The architecture of the other city.

**S**cience fiction writers ideas about the classical city and its future are very clear. From Asimov to Philip Dick (author of the famous "Do androids dream of electric sheep?", which in turn is the base of Ridle Scott movie "Blade Runner") they all describe a world full of social conflicts and dangers. Violence cuts across a urban world, contradictory and fragmentary as a postmodern speech. Corrado Augias asked himself just the same thing in a recent article (1) in which he comments the new novel by Gibson "Virtual light", the same kind of story, prophetic and pessimistic. Gangs of hooligans vandalize the area where "AIDS has been defeated, but the ozone gap causes even more victims, a great proportion of the population lives tragically crowded in poor conditions", technological knowledge in this world could not avoid superstition, and atavic fears find its reason of being in a reality full of danger, from environment to human beings that do not have limits or civic behavior anymore where it would seem out of place, fighting internal wars as a new expression for the class struggle.

It is characteristic that all these films use images from the past for their future scenarios in films or comics. The streets in Blade Runner are just like Soho in London, and the only difference you can see are the big skyscrapers, in fact not very different from others in other parts of the world. Death and androids prosecution ends in desert boroughs similar to those in our suburbs or in the old victorian boroughs.

At the end of the film we can see clear and endless landscape, when the main characters flies away. This unconscious revelation (nature as an utopian image is also present in the famous novel "Soilent Green") as opposed to the classic overburden and juxtaposed city should not be forgotten and is to be analyzed as an evidence of the lack of confidence that the old types of exciting city arise in those thinking of the future, and which are considered reasonable by the public. More over, what is characteristics in these writers is their perfect identification with the "popular taste", the sense of a mass poetry linked to utopian images, many of them not so far from the first urban plans by Le Corbusier.

It was again Win Wenders in "Until the end of the world", who has created a powerful city image, as close as possible to near future. Endless agglomerations in cities, specific ways of communication, the car as living room, the earth eroded to build underground cities, old objects cohabiting with new ones, and a delicate international order base on credit cards and electricity. Huxley images are new and realistic.

Javier Echevarría talks about the concept of "teletopía" as "the structure of distant places that is now operative and valid" (2) what he means is a new agora, a new way of communication and interchange, that is to say, a new idea of the city. The tree image of a city connected trough the communication network and electronic means, a changing and decentralized geography, etc. In other science fiction works (v. gr. Clifford D. Simak) we find an opposite reaction of what could be called "agorafobia", fear of open spaces, of large concentrations of population. The idea of periphery for the Central Europe culture or american is older than it is in our country, where this tradition is developing with some peculiarities. Periphery can be as important as the city and may develop its specific relations for a life plain of

interchanges, as it was traditional for the classic city. This concept of a region-city is nothing new and therefore we should consider that the regional future of our community is increasingly urban in character, a region with a high socialization with distant and blurred bounds as the relation and productive systems come closer to Echevarría's ideas.

The unbalanced factors that contribute to the destruction of the traditional city life contribute to socialize the periphery. We could say that our currently growing periphery is at least a contemporary way to use means and ways of transport, communication and production which the traditional city can not cope with.

We do not have anymore those images of agglomeration in the urban periphery being a result of the 50s and 60s development; those boroughs with an agrarian working force trying to became citizens, and adopting -themselves or their children- new ways of social relations and new behaviors, and a new nationality. We must remember "Les altres catalans" by Busquet where we find a description of the quick integration in Catalonia of immigrants from Andalucia, specially in the urban areas. Whatever was built in the rims of the city had, right from the beginning, a provisional image something that would never mean a challenge to the official city and where we could find (in the best hypotheses) the same rural values they originally possessed.

The ideas coming from a "rossian" view of recovery of the city and its building types, in "Scritti scelti sull'architettura e la città" (3) or in his classical work "City architecture" do not provide us with any suitable tools, either for our near future, or our present situation in the periphery, more complex and rich. The types then developed are useless in the new spaces, in the new and vast urban periphery. Rossi studied this problem in terms far removed from the concepts what we are now interested in. The classical city or its growing scheme were for him, and ever more for his followers, a discourse that could be extended towards infinity, the periphery destiny was to become city. "The periphery, as typical phenomenon of contemporary city, is a consequence of the increasing change in the population and settlement of facilities more or less related to the different industrial processes". The recovery of boundary industrial sites, their domestication to form part of the city is very frequent in our days, showing our concerns about the industrial culture and its archeology.

Periphery was for Rossi not an incomplete city, but a territory where we could detect its absences. It is waiting to became a real city without the natural landscape harmony and "without ar spacial and volumetric structure as the urban landscape from last century". These areas suffer from rarification, as an absence of the ruling urban oxygen and of those elements of social structure from the traditional way of life. Rossi's discourse about the city was understood in his time as the best solution for the historic centers and, as a consequence, for all that was inhabited. The orthodoxy of the city architecture becomes at the same time an obstacle that makes new proposal impossible. The city would not need, according to the opinion of many urban planners, new solutions. Typological studies used for composition, as a methodological system capable to compensate the current lack of capability or just pessimism, approved by the most conservative and even reactionary view, were used to build within the old areas of the city or even the new ones

that would have thus the same image. Nothing could be expected from the ideas of the post war period or those previous to the war, conceived in an euphoric age of the modern movement and which had been already proved unsuccessful or just useful for speculative groups, as was noticed by the critics who, nevertheless, tended to generalize their concepts, within a dynamic and euphoric society as that of those years.

Today, data talk about a new kind of urban agora related to communication, mass media and transport, very different from these classic texts. But we should not think that the periphery described by Rossi as a failure of city, a city not even born, as a result of social and economic inequality is now a balanced settlement; that is not the question. We should now study a different periphery, far removed from those already described, those built by migration or industry, the residual and closed periphery in concurrence with the unsuccessful utopy of the saturated and perfect city, as a Renaissance dream implied by the General Plan for Madrid, 1985.

We do not posses texts or studies about the present peripheral and sparse city. The vast and massive building activity in the surroundings of the big cities, Madrid included, is born without a theory to follow or without keys for its interpretations. It is not a new version of the dreamlike garden city, or of a poor or marginal periphery, or suburban colonization in the american way, or the rural transformation of the urban population. It is the settlement of an enormous quantity of citizens, expelled from the city for economic reasons or at their will, or as incompatibility of some description. The periphery is a dark and forgotten page where architecture builds without any tradition reference to the american or european examples.

For the same reasons we can distinguish -following Aurora Herrera- inner peripheries and peripheral peripheries.

The periphery is the other city where everything changes. The big city passed long ago the critical dimensions for pedestrians or just economical rationality, and made necessary the development of new settlements keeping a love-hate relation whit the older. José María Ezquiaga talks about an increase in occupation without increase in population. This fact has not received enough attention from urban planners as in the case of peripheral colonies. New building structures in which life develops in a different way, with new relations, rites and behavior. We still do no have sociological studies on this very important areas. Unfortunately, sociology and inquiries have tried to prove in these years what they had a priori established, strongly conditioning public opinion in such a way that today it is difficult to understand the distance from what the media say about method, population rites and ideas about urbanism and the reality one can guess in young people and in so many people using and seeking environments and urban spaces stigmatized by the "official" description of the opinion in papers and other media.

It is because this internal contradiction, the death of the historic city which this very media and opinion agents would not assume, what provokes the flight and the search for new urban formulas. But it is not simply a negative option, we find a need to leave -whenever it is possible- a way of life that is probably worn out in a culture without local references as that developed in Europe. There is a real attraction in mobility and anonymity with its impression of freedom. The big city

grows, no doubt, inducing a kind of contradictory exploitation of its own limits and accumulation unsolved problems. It is not mere fiction that Madrid is destroyed in the Tirso de Molina area, or that the little mercantile business have disappeared, or that there is not anymore an architecture understandable for a pedestrian, or the problems in trying to walk trough an increasing traffic that makes unbearable the dwellings and public areas, the heterogeneous occupation of the highest storeys of the buildings or the creation of a new urban hierarchy.

The periphery is a voluntary option of a new city culture, of a new way of using it which is not afraid of distance. It could seem common place to talk about the younger's interest -capable of moving easily and with access to the means offered by the mercantile society - in these new periphery areas where you can find at the same time the degraded remains of the first colonization and the results of the new migration with their new formula for landscape and territory. The subtle relations and aesthetic values of these new geographies -data bases from different origin- what is old and what is new, archeology and experimentation create a different sense of space that is not urban or extra-urban that we will just for this time call "social-territorial", spatial.

The catastrophic views and the science fiction literature developed over the old formula of the city refer as well to this part decentralized of the city, vast and with estrange and complex perception values. The city pessimism can be transmitted to the new places but there is a difference, we do not find the characteristic oppression of its classical discipline. Recognition and search, orientation without references, all that is characteristic of the periphery comes to be equally difficult and complex when the old remains of the family culture have disappeared. Every one is an stranger or at least someone whose origin or dwelling nobody knows. The city has lost its historic coordinates, those of the grid or the ones of the restricted renaissance universe. So that anonymity is still present in the big city.

It is not estrange that we find a new interest in architects about buildings without conventional typological references and where a complex juxtaposition leads them to a "building-town" concept. Self-sufficient entities that create spaces for autism in an empty area without reference to the history of architecture. Users that go there, sometimes from far removed places, will disappear in the motorway network around the classic city.

Blind dates in road milestones and meeting points to move to different bases. Mobility and distance create a new sense of space.

The revolution is so intense as it was in its time that of abstract art, the old city, the classic urbanism is the equivalent of figurative art and this new spaces in which new buildings create a "collage" are only understandable for those acquainted with this new grammar. The stains, the emphatic strokes, the action, will replace the naïf architecture that, save certain exceptions, is used to solve these buildings, a mix of trivial and vulgar references, capitals, frontispieces, fountains, light works. Old dreams from a classic city in a world where it is not possible anymore. Classic temples as memories come out from their exile in an turned page.

The exterior of these buildings, mute, closed, without domestic forms, has signs, posters thought to be red from distance and at certain speed. The lowest level references, those thought for the pedestrian that were

essential for the commercial city in the 19th century will not have the least importance. Anyone who is next to the building knows from far away what he will find inside. Other buildings, open, designed for the car, meet new demands from passengers, gas stations with shops, restaurants, clubs, etc. make mobility sacred.

Dominique Perrault described his remembrance of the building in Bruneseau st. in Paris as a "white square over a black background" a work -as he said- "without site references or quiet theories as those of a city with parks and gardens", not that he did not like parks, but to show his liking for anonymity, so characteristic of someone who is looking again for freedom in an closed and structured world of conventional cities.

The poetry about this absolute occupation of the territory may be rightly criticized, might even be just common place induced by the images by Antonioni and Wenders. Anyway it is a reality that will influence on Architecture, that will open doors to a new architecture far from the traditional urban size. It is possible that our ideas about most of the American architecture are uncompleted as far as we have not understood the complex world were it develops. A sense of publicity very far from our classical culture, a need to open a bridge in an active and sparse universe, with feeble historic references. In Europe the communication networks over the territory are an example of the web system we are to approach.

Periphery and classic city are the two faces of the same reality that shows a new coexistence. The city will not be anymore a single spot in the landscape and will even loose its centrality. Other sparse centers, the administration with no bounds, the large market areas, will create a new territory more easily readable. The general socialization of the territory will allow to state new urban design concepts.

I also keep in mind images form Fellini's "Ginger and Fred", an end for this paper while the master waits for his own end.■

**Salvador Pérez Arroyo**

(1) Culture pages in the newspaper "República", 10-9-1993.
(2) "Telépolis", Javier Echevarria in "Claves de Razón Práctica", n. 28.
(3) Clup Ed., 1975, Italy.

## The plan of the plan

The new General Plan for the Urban Design being now elaborated for Madrid is intended, logically, to direct our city towards its best, promoting its capabilities and using its urban heritage, a vital part of its buildings.

The importance of this heritage is not based solely on the fact that it is actually the core or cell of the city, in which takes place the main part of the life of the citizens, though this is, definitively, the raison d'etre of this organism, but also on the lack of any other urban element that could say so much about the culture, the specific and differential character, actually unique, of a country.

Any sensible spirit would desire a long life to such rich an element, that would twine each generation with a tangible past, known and loved by their seniors; and it is the Land law that offers us an specific tool with the Protection Catalogues that regulate the protection of the buildings of such characteristics.

But Madrid has many buildings and, if one looks carefully at it, ones are more necessary than others to serve this function of a local memory, and that is why the

Protected Buildings Catalogue ought to be, out of its own nature, a limited selection of those that would be worth enough to survive its useful life.

Identify the interesting values, quantify them in every building and even locate them precisely within each one of them to reduce to a minimum the rights of property affected, providing the homogeneity and coherence of the process, distinguish in a word the grain from the hay, this is the very delicate job in which the Municipal Office for the Plan is now involved.

The identification of the values nowadays acknowledged in buildings to be saved for future generations was the first of our precious metaphysical meditations, whose conclusions, obtained in cooperation with a group of experts responsible for the homogeneity and coherence of the results and assumed by the new Plan, are specified in the Advanced sketch published in the last month of june and now exhibited for public opinion (1).

To measure them and fix the "quantity" of each value present in each building of our city, we created a detailed record card that forced the expert to decide with a critical vision on a large quantity of value measurements before having a global vision of the whole building, allowing, in this way, a minimum subjective component in the argumentative decision and encouraging posterior revisions to give homogeneity and coherence to the works of the different groups implied in the analysis.

The location of each value with the required accuracy, as we are talking about architecture, forced us to elaborate a detailed plan of each analyzed building, which plan, taken in account the enormous quantity of buildings studied in the process and the little time left to do it, was drawn at a scale of 1/500.

As we were studying at the same time singular architecture and the whole city, since our reflection is a part of the studies for the Revision of the General plan, it was perfectly obvious form the beginning that from the juxtaposition of singular plans we would be able to obtain a plan of wider range, as it is that of a block; and that from the composition of the block plans, that of the urban lots, the city plan, an essential tool for the Plan.

As our analysis is previous to the resultant classification, our plan should cope with the whole city, but elementary problems have reduce its scope, at the moment, to that of a partial plan, as the very scope of our studies has been previously limited.

To set some limit to the scope of our analysis taking in account the allowed time, resources and necessities, and thinking that it would be better for our study to leave aside the present mess, we composed a list of recent architectural paradigms to give them a fixed maximum level protection in order to reduce our data to the so called historical buildings, that is those that have outlived our past civil war (2).

In the areas outside the historical centre, that, for our Plan, is defined as the Inside Part of the Second Ring (more or less limited by the Castro Plan), and with the exception of the absorbed villages and the historical garden colonies with an specific analysis, the historical buildings appear as isolated items identified by the former Catalogue which is therefore for us a guide to this architecture that allows a first analysis of it and marks the areas for the recovery of the forgotten ones.

On the other hand, in the centre, the massive accumulation of interesting buildings, provides the different values of the homogeneous groups, a fact that was already detected in 1977 when the process for the protection of the whole Central area as a Historical and Artistic Unit was begun, though it had them different limits than the area considered nowadays, so it is of the great importance to perform a detailed analysis to regulate its conservation that should be able to convince of its necessity to our present society, perhaps not so sensible to the architectonic values of the city buildings as it is to the prices of the lots in the real estate market. But this Centre, and specially its core, the old Centre, is now really degenerated up to seriously alarming levels, a diagnosis confirmed not only by our studies, but accepted by every voice we have heard; which is the nearest we can be to the truth, as we are talking about urbanism, a discipline in which the ideologies and prejudices have so much influence.

One of the most indicative facts of the degeneration of the Centre is the state of the historical buildings.

Obviously, when the Plan would make its specific proposals to find a solution, there will be some disagreement; but, at least, we will have been using the most accurate tools now available to the planners, since the Centre, the historical city, is now being studied in an Special Plan intended to regenerate it without destroying it, in a way that it would be possible for Madrid to recognize itself as a whole when the process would be finished.

For this historical buildings, the Plan would be the guide for its conservation by the means of regulations that unify the protection of the existing values in each element and its renovation; that means, the buildings that are to be healthy, clean, strong and inhabited by happy dwellers, should be, sensibly, the same that are now unhealthy, without adequate services, dirty with smoke from the traffic, and in a terrible state of conservation, inhabited by marginal population.

As the analysis performed in this buildings that are to be included in the Catalogue would also serve as data to the urbanistic decisions taken on the consolidated urban grid, that can result in damages to the actual buildings but are indispensable for the reorganization of the Centre to achieve a level of quality demanded by the dwellers, we have already included the plans of every existing building in the old Centre, using the cartographical data of the Revised Official Plan, and elaborating two sections one at ground level and another at typical floor level.

The same process is now in progress with the wider scope of the whole centre, though, in this case, the ground floor plan is limited to the buildings of an architectonic value recognized by the working groups on site, first level for the classification, and using the same cartographical base.

In this way we have obtained a collection of plans, provisionally named Building Analysis, in which, in fact, we have defined the actual state of the citizens heritage with an accuracy never achieved in the history of our city's cartography and I would say, taking in account the scope of our representation, never achieved anywhere.

From the obtention of the data on site to the final result there is a long way, not yet completely transversed, in which, besides, difficulties may appear in relation to the time available established by the Plan, in which time we would like to have all the plans presented in their final version.

The old centre was divided into seven areas, each one assigned to a group of site work to obtain the required data (records, photographs and plans) and a first classification of its values (3), and each one assigned, at the same time, to a planning group to be the interpreters of the urbanistic information obtained from different sources and to offer their proposed operations in the city (4).

The field groups included more or less seventy professionals qualified by the Office for the Plan to give them credit before the neighbourghs, to obtain data from the 6.429 buildings situated in this centre, in record cards that were returned to the planning groups, one of its jobs was to compose the plans of the different buildings to elaborate the Building Analysis plans in the assigned area.

The different expansion areas, also divided and assigned to seven planning groups (5) required, nevertheless, due to their size, a greater division for the field groups that made a new distribution into sixteen groups of the 11.489 buildings studied. In this case, the Office had to authorize around two hundred professionals (6).

Now with the field work almost finished, an identical process as that followed with the old centre will allow the obtention of seven other plans that will cover around 2000 Has and 17.918 buildings of the Centre, whose final composition will be made by the Municipal Office for the Plan.

The final version of this plan will be edited in electronic format which will be the embryo for a new system of geographical information for the proposals of the new Plan that would affect the singular buildings and even parts of them, as is the elaboration of the Protected Buildings Catalogue.■

**José Miguel Rueda Muñoz de San Pedro**

NOTES

**1.- Identification of values**

We think of the buildings as fragments of the urban reality whose values are important to a community that, therefore, is compelled to protect them.

The identification of these values is very complex due to the large quantity of elements that require analysis, the different qualities and the influence of different factors external to the element.

However, if we realize that the objective of such a protection is the conservation of the urban site as a whole and its historical memory and that of its most significant elements, we will be able to specify and give protection to the following values:

**Environmental value**

The value obtained by an element as it belongs to a wider range unit which is valuable in itself for one of the following reasons:

_ Homogeneity of the areas intertwined with public space, where the value is given by the addition of coherent elements classified here:

- Environments with formal homogeneity.
- Articulating environments.
- Transitional environments.
- Environments with the later characteristics mixed.

_ Homogeneity of units defined as continuous solids, that could be completely or partially included in last section and possibly isolated within the public space.

_ The inclusion within the physical environment of superior range elements.

**Intrinsic value**

The value pertaining to an specific element in relation to its own characteristics as being of such a nature as to be worthy of individualized protection, so much because of the existence of a valuable aspect in its highest degree of development for the apparition of several different. We will specify the following aspects:

**Historic**

As being relevant to the historic memory of the city or being the living reference to an important historical fact.

**Singular**

As being built for an special function or institution or being an odd element within the urban grid.

**Exemplary**

As being an architectural paradigm with a quality supported by

history.

**Predecessor**

As being and example that helps the understanding of the processes of evolution of the architecture of our city.

**Typological??**

As being a finished element of a historic typology??, included with some coherence in its environment

**Formal**

As representing quality compositions, intrinsic (construction or ornamental details, space composition) or urbanistic (significant urban solutions)

All these factors, considered of a great relevance for catalogued buildings, should serve to classify them into a hierarchy of excellencies and assign them, consistently, gradual levels of protection, but, in addition to this, they must be corrected, at least when they are less apparent, by the following considerations that will act as weigh factors:

**Positive factors**

Age of the building, a factor that would increase the interest of the work by means of a geometric progression, except for the case in which its historical, typological?? or environmental realities wouldn't qualify to be of any relevance.

The existence of values relevant for the traditional culture of our people in any aspect, material, social or cultural.

The uniqueness of any of its significant elements.

**Negative Factors**

The unsuitability of the building to be used with a real actual programme compatible with its original use and fundamental value.

The negative impact over the surrounding valuable urban network.

The impossibility of attaining a minimum of hygienic conditions without being profoundly transformed in its structure.

Revised General Plan for the Urban Design of Madrid. Advanced Sketch 1993. Madrid 1993. Town Hall of Madrid, Municipal Bureau of Urbanism. Municipal Office for the Plan.

2.- "Thinking on recent architecture, regardless its position within the city, a systematic research has been performed on specialized bibliography, from which it is our intention to elaborate a list of architectonic present paradigms that would bear the maximum protection for the moment, though this situation might be revised when future processes of urban restructuration?? may demand it."

Revised General Plan for the Urban Design of Madrid. Advanced Sketch 1993. Madrid 1993. Town Hall of Madrid, Municipal Bureau of Urbanism. Municipal Office for the Plan.

3.- The leaders of the seven field work groups, classified according to the areas assigned to them, have been the following professionals:

Area 1. José Luis García Grinda.
Area 2. Carlos Pérez Fernández.
Area 3. Juan Guzmán Pastor.
Area 4. José López Arranz.
Area 5. Antonio Vivanco Herrero.
Area 6. Gonzalo García-Rosales.
Area 7. Dolores Alcocer Fernández

4.- The following architects were responsible for the planning groups in each of the areas in which the old Centre was divided:

Area 1. Universidad- Malasaña.Gloria Alcázar Albajar
Area 2. Justicia. Luis Moya González
Area 3. Gran Vía. Manuel Guzmán Folgueras.
Area 4. Palacio-Muralla.    Juan López Jaén.
Area 5. Cortes. Berta Brusilovsky Filer
Area 6. Embajadores. Fernando Contreras Galloso.
Area 7. Puerta Toledo. Eduardo Amann Sánchez.

5.-The leaders of the planning groups in the Expansion Area have been.

Area 8. Gaztambide-Argüelles. Alfredo García Alba.
Area 9. Vallehermoso-Ríos Rosas. Vicente Sánchez de León.
Area 10. Arapiles-Trafalgar-Almagro. Fernando Pulín Moreno.
Area 11. Castellana/Lista-Goya/Recoletos-Ibiza.Justo Usle Alvarez.
Area 12. Alfonso XII-Retiro. Municipal Office for the Plan
Area 13. Niño Jesús-Pacífico. Juan A. Hernanz Morales.
Area 14. Arganzuela. José Luis Candeira.

6.- The leaders of the field groups in the Expansion Area have been.

Area 8.1. Argüelles Angeles Gonzalo Refusta.
Area 8.2. Gaztambide Carlos Fernández Díaz.
Area 9.   Ríos Rosas Estudio 6.
Area 10.1 Arapiles. Adelaida Martínez de Ibarreta.
Area 10.2 Trafalgar. Rafael Hernando de la Cuerda.
Area 10.3 Almagro. Antonio Azcona de Olivera.
Area 11.1 Castellana. Daniel Ruiz Souza.
Area 11.2 Lista. Luis Rodríguez-Cueto Ferrándiz.
Area 11.3 Recoletos. Francisco J. Redondo Zapata.
Area 11.4 Goya/Ibiza. Iberaq, S.L.
Area 12 Alfonso XII/Retiro. Javier Herreros.
Area 13 Pacífico/Niño Jesús. Esmeralda Burgoa Vela.
Area 14.1 Arganzuela Pedro Villahermosa Moraleda.
Area 14.1 Arganzuela María Teresa Muñiz Gutiérrez
Area 14.1 Arganzuela Vicente Gorriz Burk
Area 14.1 Arganzuela Eva Mejías Amat.

# A catalogue for Madrid

It was  in the month of september 1992 that the first works for the revision of the Madrid's Protected Buildings Catalogue began. Behind this fact, that could have been just a headtitle  in the local pages of a newspaper, included in a vast group of different works for the revision of the General Plan, there exist an ambitious challenge unsolved for about fifteen years.

**A brief history**

The so called Pre-Catalogue, a document that was approved in a municipal plenary session in september 1977, is the first predecessor in recent history of the recognition of the necessary protection and conservation of the built heritage of Madrid.

In this predemocratic period of the seventies, the citizens sensitivity with regard to the destruction of the inherited city was developed with the crisis of the old regime. Professional Colleges, citizens associations, cultural personalities, all of them stated their opinions about the approval for the Torre de valencia, the blowing up of the Olavide Market, a work by Javier Ferrero, the operation of the Diagonal Gran Vía in the Malasaña Plan, the destruction of the petrol station in Alberto Aguilera, a work by Casto Fernández Shaw, or the transformation into a shopping mall of the isabeline district of Pozas, along with the missing Laurel de baco and Buen Suceso church in Princesa street.

The Pre-Catalogue was a list of interesting buildings over which the possible authorisations for demolition were paralysed for a period of one year. It was a previous work for the elaboration of a new catalogue of interesting pieces which were to be carefully located and studied. In the words of its own instigator, the then Architect for the Historic-Artistical Area, Juan López Jaén, it was due to lack of time and personal and economic resources  so much as to the worrying wave of demolitions that this provisional document had to be elaborated (1).

The Pre-Catalogue was replaced by the Special Plan for the Protection and Conservation of Buildings and Units of Historic or Artistic Interest in the Village of Madrid, approved by a municipal plenary session in november 1978.

The new local goverment (U.D.C.) directed by Alvarez, accepted the Pre-Catalogue approved by the Arespacochaga goverment, thogh promoting its transformation into an Special Plan. The process of its elaboration was really complicated since, while an initial

commission was made to a private firm, they decided to create a technical bureau (2) with municipal technicians and outside experts, and with the colaboration of Fine Arts and COPLACO technicians, and a never summoned Control Commission for the Plan, with representatives of the political parties and civic and cultural institutions.

This was the starting point for the Special Plan for the Protection of the Urban Assembly of Madrid, PEPCUM, with ideas and objectives well above the expectations of the local goverment (3). This Plan was rejected in october 1978; and again a commission to a private firm was performed. This firm made the work by taking advantage of the first document already elaborated and named Special Plan for the Protection and Conservation of Buildings and Units of Historic or Artistic Interest in the Village of Madrid.

The PEPCUM  promoted the idea of an increased protection for the urban assembly of the city, going well beyond the concept of historic-artistic and expanding that of protected good by means of establishing the Urban Good Estatute. The ideas proposed by the document pointed out the necessity of promoting construction and urban developement, without a substitution of the old city, trying to maintain the existing population and using as a tool the architectonic restoration. Everything in line with the contemporary Conference in  Quito in 1977 and the Amsterdam Statement, in which the concepts of protection of architectonic assemblies were broadened, taking in account every building with some significant cultural value, from the most prestigious to those most modest, in exact words, and with restorations that wouldn't modify the social composition of the inhabitants.

This "non nato" plan included two catalogues. The first one, the information one, included every building already protected by the Artistic Treasure regulations or by the Pre-Catalogue or previous plans, and others of which there were bibliographic references or were included in other lists. And a second one, normative, in which the protected buildings were identified and especially those not protected but belonguing to homogeneous units for which the regulations could be adapted according to their types and functions.

This was a negative catalogue that excluded, according to the results of the field works, those elements that could be demolished and replaced, while it took advantage, for the positive part, of the work already done, specially the Pre-Catalogue. The whole document being limited by the short time spended in its creation.

The Villa de Madrid Plan was a clear simplification of that one, establishing three protection levels: Global, Structural and Enviromental. It was finally approved by COPLACO in october 1980 after a long process and many modifications that actually improved the insufficient first attempts, that took to much of the original document. The Plan was completed by a catalogue which was basically a transcription of previous planning elements and studies like the Pre-Catalogue, the lists of Declared Historic-artistic monuments or those that were to be approved by the General Bureau for the Artistic Heritage, Archives and Museums and the Sketch for a Catalogue presented by the COAM. It took all this material and assigned it to the three protection levels, after an insufficient field review that never went beyond an exterior vision of the architecture from the public road.

But in spite of its limitations and some corrupted aplications born of it contributed, without any doubt, to spread the idea of the existence of a historic centre with architectural values that had to be protected.

The fact that it was conceived as a mere defensive document, due to the historic moment of its elaboration, brought the new local goverment of Tierno Galbán to approve new positive operations that would complete an extensive restoration policy, like certain operations of a paradigmatic character or limitations in the traffic.

During the four years in which the Villa de Madrid Plan was operative new kinds of construction operations were promoted in the very core of the city, in a gradual process in which each year the number of operations in buildings with global and structural protections increased, attaining a volume of operations four times the one achieved in the first year, thogh yet not a large number, around 2500 approved works a year (4).

The curtain-façades sustained by an alternative structure, to be the enclosure of a new built body, new floors added to the little buildings to reach an allowed hight, like giants over lilliputians, this are some of the controversial images typical of the plan.

The approval given to the General Plan of 1985 will just be the excuse to include in it the Special Plan. The only new point was the impossibility of demolitions within the areas specified in it, with the exception of those buildings whose state would made of them almost free lots. A modification inspired in the first rejected Special Plan. The opportunity to renovate its contents was left for a better occasion, a contradiction with the very text of its second basic objective which said: "protect a built heretage whose early and indiscriminate destruction is a social waste and a cultural outrage" (5), within a urban policy based in the city and its problems.

And it was thus that, during the last years, all the urban operations have been made according to a catalogue that hasn't have more ducumentary studies than those of the seventies, and that has been constantly modified.

It is to be remembered that in the management of the Special Plan for the Villa de Madrid and its consecuences an important role has been played by the Commission for the Control of the Plan, making decisions not only on the suitability of the architectural projects but on the uses, catalogues and institutional processes, with the colaboration of politicians and technicians from the Town Hall and the Ministry of Culture. These latter responsible for the elaboration of the report by the Commission of Fine Arts, that reviews every project as the area of the special plan is a declared Historic-artistic unit (6). And, in this way, the reports have been more and more complete with ducumentation, contributing with new data about the buildings to suffer any works and pointing out more and more frequently the necessity of a new catalogue.

**The revision of the catalogue**
It was essential to recover the credibility lost by the present catalogue, and it was a job that represented a true challenge in the present architectural moment of the city. The revision of the catalogue began at the same time, a year ago, of the division made by the Special Plan of the central "almond" of the XVIII century city into seven areas: 1.Universidad, 2.Justicia, 3. Gran Vía, 4. Palacio-Muralla, 5. Cortes, 6. Lavapiés and 7. Puerta de

Toledo-Embajadores, with a total number of 6429 lots cataloged, some of them with more than one building.

Afterwards the division in areas was extended to the expansion zone with the following areas: 8.1. Argüelles, 8.2. Gaztambide, 9. Ríos Rosas, 10.1. Arapiles, 10.2. Trafalgar, 10.3. Almagro, 11.1. Castellana, 11.2. Lista, 11.3. Recoletos, 11.4. Goya-Ibiza, 12. Retiro-Jerónimos, 13. Pacífico-Niño Jesús, 14. Arganzuela, divided into three subareas: 14.1. Imperial, 14.2. Acacias, 14.3. Moguer and 14.4. Chopera, with a total number of 11489 cataloged units.

Other catalogues with particular interests will be added to this same revised catalogue, like the Monumental Architecture Catalogue, containing the monuments and urban elements of the city, or the Interior Architectures Catalogue, containing the architecture built inside other architecture as could be commercial lots or theatres.

While these lines are being written the work has already been completed for both urban areas (the central "almond" and the Expansion) and the results are going to be handed to a Commission of Experts. This organism was created in order to give advice in the elaboration of the catalogue and, specially, to specify the limits for the different criteria used in the catalogue and decide about the controversies or conflicting ways in the use of this criteria by a large number of groups, more than twenty, working in the obtention of data. The work in the other areas and different catalogues just mentioned is now begining to be organized, and its results will be added to the whole process of the revision of the plan.

There were basically two possible options in conceiving the revision of the catalogue. According to the first one, the own catalogue would play the main role in relation to the elaboration of plans and regulations, that is, it would be the intrinsic architectonic value of the building that would determine what could possibly be done with it. This was the argument behind what had been done so far. But, on the other hand, it could be that the very planning, taking in account the most general circumstances and analysis, were to determine and specify the character of the catalogue, this latter becoming a subordinate document serving the aims of the former one, that is, the intrinsic architectonic value could be modified or completed by other urban aspects or necessities of the plan.

In this lines, no doubt, the possible relations between the catalogue and the planning are summarized. But the very planning by specifying its objectives and ist way of developement can modify these relations. And here we have no certain knowledge as the character of the old Special Plan as a mere protector is overcome in the continuous changes made in the planning. Neither we can forget, in all this dilemma, the character of the planning made independently of the catalogue, and valid according to the Land Law.

Thus, the chosen option has been that of trying to give the catalogue the importance required by the inclusion of an extensive documentation. But, at the same time, the coordination with the planning and even the control exerted by the latter over the former, have resulted in certain modifications of the evaluations already performed, in a process of going and coming between both figures.

This has made possible the necessary correction of

the evaluation of each building, taking in account the the specific place and enviroment in which it is located. This late aspect is indispensable to allow the correct evaluation of the role of the repetitive building units, of a non singular character, in the urbanistic shaping of significant parts of the historical centre of Madrid. Without this meditation it would be impossible to understand the genesis of some parts of the present distrct of Maravillas, built on the old grounds of the Monteleón palace or the Salesas district, built on the free grounds of this monastery, as paradigms of architectural homogene units built in the last third of the late century , that have survived up to our time almost complete.

On the other hand, it would be necessary to point out the last rests of domestique architecture earlier than the XIX century which, thogh with a popular and modest character and a limited architectural value, are the last remains, authentic and isolated, of the building types that have created our urban history and, therefore, are indispesable to a better educational and cultural understanding of our city.

**Contents and architectonic documentation**
The documentation of the catalogue includes a written part in the form of record cards divided into several blocks, in which the characteristics of the cataloged buildings and elements is specified in a prefixed way. And two graphic parts containing the plans and photographs.

The initial form of the record card tried to find a structure for the evaluation of each part and aspect in the building, by the means of a mechanical process that, by assigning positive and negative points, was able to reach a global evaluation and classification, with the clear aim of creating a catalogue that would be a truly independent document. The very reality of the process corrected and made more flexible these mentioned partial evaluations in order to allow a better dialectic relation with the planning.

The structure of this record card was conceived, as it was the rest of the graphic documentation, to allow ist transcription into electronic form that would result in a better management of the information within the present technological possibilities. We have to go back up to the seventies to find the first spanish attempts in the usage of electronic technology in the special planning field. One of the most important of these attempts was the Centro de Burgos Plan of 1974, in which an electronic programme and documentary data card for field architectural work were created in order to have all the information in an electronic format (6).

Our record card includes seven different sections. The first one, Identification, contains the exact location, name, date and legal data about the usage of the building. The second one, Lot, is intended to contain the characteristics of the unbuilt lots, its existence and the interesting elements in them: walls, vegetation and secondary elements, specifying which are to be protected and giving other data about their form, structure, location and size. The third section, Building, copes with the form, location and lot occupation of the building, along with its original and present functional type. The fourth, Compositive Values, analyses the different general composition treatments and the structure of the building in relation to: volumetric

composition, hight, plan arrangement, access, vertical conections, façades (composition, fenestration, finishes, ornamentation and top treatment) and roof. The data for all these four sections are obtained in every single building in the area assigned to the catalogue, those that are protected and those that are not, while the three remaining sections are reserved just to the first ones.

The fifth section, Structural Value, is intended to analyse and evaluate the structural arrangement of the building and its actual state in relation to the following items: general distrubution, partitions, access system, vertical conection clusters, wall structure and roofing. The sixth section, Architectonic Language Evaluation, includes a detailed account of the formal and phisycal arrangement of the access systems and comunication clusters, walls, floors, ceilings and carpentry, stairs elements, elevators, façades, roofing materials and composition, structure and finishes, along with the description of singular elements.

The last and seventh section contains different aspects from the possible historical references of an element, the modifications undertaken on it, to the most negative aspects observed that are to be corrected in the protection plans.

In each of this analytic sections an specific aspect is evaluated in order to establish if it is to be protected or not and, therefore, specifying its true architectural value in the context of the whole building; for a better understanding we have included specific blocks for notes, as the fixed pattern of the record card requires frequent clarifications of the given answers. There is obviously a global evaluation of the building at the end of the card characterised by the mentioned levels: global, structural and enviromental, with subdivitions into two ranges to achieve a better accuracy. There has been suggestions in favour of another protection level made by the groups working in an specific area of the catalogue, Universidad, as it is Global Retrievable, for the interesting buildings that have lost some of its organizing elements and in which some effort could be made in its retrieval.

To complete the record we have included a summarized account of the different elements to be protected in the building in a summary sheet in which the possible operations allowed in relation to the phisycal state, composition and architectural value acknowledged in the building, are specified. This sheet, which is not intended to be in electronic format, is a work document for the achievement of a true homogeneous result in the different areas of the Plan.

The aforementioned analysis, description and evaluation of the different external and internal aspects of the building, specially accesses, stairs and courts is completed by the ground and typical floor plans all in the same 1/500 scale, in which the common organizing parts are specified.

This limited scale of the drawings, based on the present official lot plans which have been corrected when necessary, is obviously the reason why the plans are conceived as schematic plans, thogh they serve to identify and explain the basic arrangement of the buildings. The arrangement of the different elements in the free lots is added.

Finally, a minimum series of six photographs, digitalized into an electronic format, completes this

account of the external and internal elements of the building in relation to its characteristical arrangement.

The architectural documentation is, therefore, abundant and accurate and makes of this catalogue a perfect tool for a better knowledge of our city architecture. There has been, however, a clear limitation in the case of the graphic documentation of the buildings, as an area like the centre of Madrid brings some difficulties related to the size and arrangement of its architecture, and, thus, we gave up from the begining a generalized access to the private spaces within housing areas.

There are some examples of exhaustive studies for the elaboration of catalogues, planning or restorations in those made for the restoration plans of historical rural or urban centres from which we can point out the only one that has achieved a complete representation of every building in a historic centre, more than one thousand, and even drawn with a 1/200 scale, as it is that of Arcos de la Frontera (7), due to the complex arrangement of its architecture, the lack of true lots as the houses are located one over another due to the pitch of the land, and possible thanks to the open character of its population.

**Beyond the Catalogue.**
One of the first visible results of all this tremendous documentary work, has been the elaboration of a plan of the city in which its complex architectonic arrangement is clearly seen in the unit formed by all the drawn floor plans.

This can be seen as a revision of the never enough praised plan by Ibáñez de Ibero and is a work that will enter the history of the cartography of our city as we hope with a careful edition and in this way it will be the source, as its predecessor, of future studies on missing buildings of which we will have no other information, as our lack of tradition in historic documentation is well known.

But this whole process of a revised catalogue has allowed, by the means of an exhaustive work, the detection of up to now concealed phenomena. We found a surprising fact in our study of part of the old district of Maravillas in which we learnt that where ten years ago most of the buildings had a unique owner, and the main problem was, therefore, that of the owners with low rent tenants, the great majority belong now to the different dwellers, a fact that was not officially registered.

This phenomenon, accelerated over the past five years, has been mainly caused by the loss of speculation possibilities generated by the protections imposed by the late Special Plan, so it would be sensible to extend this protections to the whole historic centre, since this would result in important changes in the management possibilities of the Special Planning of these districts.

A negative aspect, and very frequent, is the agressive character of most of the restorations, specially in relation to the accesses and common stairs. And again this is a factor that shows us the necessity of specifying, form the very planning, the possible operations that are to be made over these elements, in order to avoid undesirable effects. Behind this problem we find the lack of knowledge, within professional groups, of the traditional arrangement of this elements in Madrid's buildings, according to their different ages, in

relation to their composition, construction and materials.

However, the basic documentation included in the catalogue will serve as starting point for a series of monographic studies that will allow a better knowledge in the operations undertaken on these old architectures, though trying not to fall in the easy

pastiche and promoting a dialogue between the old and the modern architecture.

The role of the Catalogue and its documentation as a source for the studies on our city and its architecture is clear in the review, now with a global approach, of the essential function

of the so called "corralas" in the urban whole.

The different examples show the possibilities of a morfotypological classification that would make clear the evolution of the types. From the models earlier than XIX century, with its masonry full balaustrades to the vast variety of last century and its survival in the age of the iron architecture in the begining of this one; with examples of glass galleries or paths between blocks instead of the traditional corridors, ventilating the stairs clusters, and others in which the corridor is now just a cantilevered footpath in the court as a basic conection. And if we also look at the different treatments on the main façades we will realize that there is a controversial lack of correspondence up to being impossible to learn if a building has a "corrala" without entering it.

On the other hand we have been able to learn other aspects of buildings not unknown but more or less forgotten. A good example is that of the old and illtreated University of San Bernardo. By going through its courts we have been able to find the remains of the old jesuit monastery, as some of the old vegetation and even a barroque octogonal fountain remain there. Or rediscover the splendid solution in iron of the Natural Sciences Cabinet of the Instituto Cardenal Cisneros built for a pupil of this institution. Or the old wings of the conventual areas, now transformed into comercial lots at ground floor and deserted above. Or the idyllic space in the curious garden of the Palacio de Parcen or Siete Jardines palace, completely isolated form the noisy urban enviroment in which it is located and enclosed by the singular greenhouse as an example of iron architecture of the XIX century, supported by a previousy existing fountain, a built example of the possible juxtaposition of different architectures, that could serve as a model better than any regulation of the relation between the old and the new.

These are some of the thoughts caused by an experience which will be, no doubt, important for the future of our historical city, (even if its first steps were undertaken with the economic municipal help refused), as will the very revision of the generel planning which, again no doubt, has and will have polemic points.∎

**Jose Luis García Grinda**

NOTES
(1) Juan López Jaen, "La historia reciente", in Conservación o Destrucción de los Centros. La Batalla de los Planes Especiales de Madrid. R. CAU. No.53. February, 1979. page 38.
(2) The Technical Bureau was composed by Juan Enrique Balbín (technical secretary) the architects in the Municipal Office for Urbanism: Enrique Bardají Alvarez and Javier García-Quijada Romero and outside technicians: Carlos Alfonso Gómez, Alberto Humanes Bustamante and Luis Moya González.
(3) Basic contents explained in the mentioned articles in the R.CAU No.53.
(4) "Plan Especial en números", in Plan Especial de la Villa de Madrid. "4 años de gestión". Ed. Gerencia Municipal de

Urbanismo. Ayuntamiento de Madrid. Coordination by Javier Alau Masa and José Luis García Grinda. pages 18-31.

(5) Eduardo Mangada. "Dialogo: política urbana y revisión del plan", in "Criterios y objetivos para revisar el Plan General en el municipio de Madrid". Ed. Gerencia Municipal de Urbanismo. Ayuntamiento de Madrid, 1981.

(6) Angel Sanz D'Asteck. "La gestión del plan especial", in Plan Especial Villa de Madrid. Op.cit. pages 14 and 15.

(7) The Plan Especial Centro de Burgos was directed by José Luis García Fernández and josé Ramón Menéndez de Luarca; the person responsible for the electronic work was Gerard Lloch; the team for the obtention of the data was composed by Roberto Cespedosa, Alfredo García Alba and Francisco Jaraba Melgarejo.

(8) The basic souce of information for the study of the historic centre of Arcos de la Frontera (Cádiz) was a report made by the MOPU and the Junta de Andalucúa during the years 1983-86, under the management of José Luis García Grinda and the colaboration, in the basic team, of Sebastián García Carril, Teresa García Grinda, Isabel García Jiménez, Fernando García Sanz, Carmen Martín Garrido and Antonio Macias Guerrero.

# GRAN VIA

## The Gran Vía, the last of our streeets.

The Gran Vía of Madrid is more than a simple street, and indeed the last of our grand streets; at least, the last one to be conceived and used that way. To define, however, what is the meaning of that "more than" might be rather complicated. Certain urban elements attain a kind of identity power that certainly exceed the very expectations of the planners and even its intrinsic environmental quality.

The case of the Gran Vía is a paradigm of this value added by the very users, the real ones as well as the potential ones. In this street one finds all the ingredients, in its adequate doses, required to make of its use a synthetic experience of what this city is; and specially of what it has been expected to be. Because, among other things, the Gran Vía might be interpreted as the very materialization of the unconscious desires of a community lacking any signs of identity, so local as cosmopolitan, vital and contradictory.

Though situated in the historic centre of the city, it is the youngest of its streets. Nevertheless, it has been able to bear with dignity, and even take some advantage of it, its own fight for the citizens against other nearby places with a more significant weight on memory. It was, from the very moment of its birth, the question behind disputations and dreams, it appeared in the popular songs, played a main role in the zarzuelas and the "chotis", and became a favourite scene for the painters. It has bear our walks up and down, the wondered glances of the interior tourist who found in it the goal of its voyage, and it has been occupied by the merchants, the banks and the shops. It became a luxurious showcase in its lower parts, and in it dwelled the most personal dreams in the huge cavities of its movie theatres and its Dance Saloons. A stand for the advertisements and status gallery, it bears in it cornices the changing images of the successive myths. It allows casual meetings on its sidewalks, its crossing paths, in waiting time. The long queues at the movie theatres, the bus stops, the entrances of the underground, the traffic lights, the road, occupied by the confronted armies of pedestrians, all of them make of the Gran Vía a main meeting point.

In the creation of such an scene an important part has been played, apart from historical circumstances, by the madrilenian architects during an almost complete century,

with different fortunes; but, in any case, they have always feel the coercion of a superior collective power that has forced them, in each operation, to submit, sometimes involuntarily, to an imposed law: the "Gran vía style"

This curious style, a mix of many, and obviously eclectic, allows even occasional orthodox or radical works. The architects, that have opinions as distorted as those of the inhabitants, like most or dislike less this particular examples. Because it must be said that the Gran Vía it not a favourite between the illustrated architects. To study the origins of this disliking would bring us to expose our most obscure passions.

To explain now, consistently, what could be the formal values of the architecture of this street that play a role in what the citizens recognize as their city in the Gran Vía, is a hard work for an architect that requires as much effort in memory as in oblivion. Since reality must be accepted without ideology restrictions; and this implies the rejection of too many a priori assumed schemes in the benefit of a non prejudiced observation.

Let us begin with the very name of the street. It is surprising for a twentieth century citizen to learn that we call Gran Vía a street thirty five meters wide. However this is a rather important measure, taking in account that, when it was opened, there was no other street comparable to it in the centre of the city (except, perhaps the "Broad" street of San Bernardo); and that the construction of broad streets was only possible without an excessive cost and profound damages in the urban web in the suburbs and the expansion areas. This width was, in the first sketch, that of 1901, just a maximum attained only in the main zone, though, afterwards, it was given to the whole line.

And, after the adjective, the noun. Not a traditional "walk" nor an enlightment "saloon", but a modern "via". Because behind the intention of opening such a street there appeared the forcing necessity of the new times that demanded an easy and quick way to connect the inside part of the old city and make it pervious to traffic in its limits. Consistently with the urbanistic fashion, that endured the loss of its political causes, of opening large streets in the core of the old districts (fashion pioneered by Paris half a century before us), the growing real estate speculation found in the hygienist ideology enough arguments to proceed with an operation with an enormous cost in economic, social and cultural terms. Because even before the project and the construction, there was the expropriation, the ejection of the occupants, the demolition and the damage. The new facades that form the street don't succeed in concealing that, a few meters behind them, there exist another very different reality, that of marginalism and poverty. The contrast is more dramatic in some sectors of the street.

Anyway, an ideological necessity was born and employed many efforts in getting the work done for this street and other similar ones. We can find its predecessors in the reformed Puerta del Sol and the alignment of the Preciados street between Sol and Callao, the posterior prolongation of Preciados street towards the Plaza de San Marcial (today's Plaza de España), was approved in 1862 and that was the embryo of the idea of transversing the centre of Madrid, since there even was an extremely slow process of expropriation initiated.

Angel Fernández de los Ríos en his "The Future of Madrid", 1868, clearly proposed to unify the districts of Argüelles, Pozas, Salamanca and Atocha by the means of a street that would serve as a way of easy and direct

communication with the centre. In his proposals it is evident that he received the influence of the Paris example during his exile as a model of modernism; Paris will be definitely the guide, with a change in the scale, for the project of the Gran Vía, derived from his own proposal of the enlargement of Jacometrezo street towards San Marcial.

The true first project for the Gran Vía appears, however, as a work by the municipal architect, Carlos Velasco, in 1866, demanded by the Town Hall, though the institution had made no promise of performing the works. Nevertheless the written study and the plans were approved. The interest of the french contractor Claude Perret in obtaining the commission clearly proved that the then valid Law for Expropriation (1879) did only affect, as a result of being declared of public benefit, the necessary land for the definition of the roads, not allowing the creation of new lots that would serve to pay the operation. The amendment of the law was demanded to have the possibility of performing the plan.

The old project of a prolongation of the Preciados street of 1862, found a definitive promotion around 1892 and this forced them to adjust the altitude of this street to that of the Gran Vía. In 1899, the Town Hall, made a commission to the two municipal architects Octavio y López Sallaberry to elaborate what was to be the definitive project for the Gran Vía, presented in 1901, being then Mayor Romanones. The proposal made by Octavio and López Sallaberry was intended to bring an improvement in circulation, liberating the Puerta del Sol, organizing an axis East-West transversing the centre and taking the greater advantage of the already made expropriations. But if this was a way of reducing the costs for the Town Hall, it conditioned extremely the design and its plan situation. The claim made by the Marqués de Zafra to have the works paralysed until a new General reform Plan would be elaborated made too clear the isolated character of the operation. Nevertheless, it was evident that the higher class had decided to give their city a new broad street that would made it comparable to the grand international cities. But the means used in the process, the legal as well as the economic ones proved that reality did well surpass the desires of the promoters, that wanted to finish the works in eight years. Though the works began in 1901, directed by López Sallaberry, Rooderer and Reynals, the expropriations went on during twenty years; in 1922, the contractor Silber had to give up the commission and from them on it was Horacio de Echevarrieta and Mauri that took on them the responsibility of the works.

Even though the Gran Vía was intended to be a unified street, its first name was an allusion to the three parts in which it was divided which took the names of avenues Conde de Peñalver, de Pi y Margall and de Eduardo dato. After the Civil War, consistently with its result, it was named, for an indeed long time, José Antonio Avenue and finally it recovered one of popular origin: Gran Vía.

It was not until 1917 that the lots in the first section between Alcalá and the Red de San Luis were demolished, then the second section, that finishing in Callao, was begun and not finished till 1921. The third section, finishing in the Plaza de España, was built between 1925 and 1929 (in this last year the connection between the second section and the Plaza de Santo Domingo, by the architect Martínez Zapata, was approved).

Once the process undertook there were 31 new lots whose architecture was to bear the image of the modern Madrid. It was necessary to expropriate 358 estates (315 houses), reform 34 streets and destroy 14.

If one carefully looks at the plan of the Gran Vía and compares it with its previous situation, one will realize that only the first section is adjusted approximately to the original street: San Miguel street. The second section also follows more or less the old line of the Jacometrezo street; but the third one was definitely the most damaging for the preexisting grid, due to the expropriations previously performed.

The three sections are articulated by the means of wider zones produced in the meeting areas of streets that form a kind of lateral squares, and this, definitely, results in the breaking of the continuity of the street cut by them.

In this way, the Red de San Luis connects the two first sections and Callao the two second ones in a similar way, the solution being repeated, in a bigger scale, in the Plaza de España.

There is a clear difference in the Architecture of the different sections as a logical consequence of the time passed between the construction of each of them, and in this way it clearly shows the changing tastes of the dominant class. Thus, in the first section the main current is something between traditional and regionalist; while in the second the main characteristic is a more international and cosmopolitan taste; and in the third a melancholic and heavy rhetoric.

There are also certain differences between the uses in each section. But, from a perceptive point of view, it is the difference between the two sides that appears as more significant. Thus, it is in the even numbers side, whose facades look south, where the higher buildings are located and that makes it more continuous; this is, perhaps, the reason why it seems to "look" more clearly to the centre of the city. In this side we find the España Building, the Palacio de la Prensa and the Telefónica Building, whose fronts look the squares of España, Callao and Red de San Luis. It is, however, on the other side, due to the position of this same hinge-squares, that the elements (a consequence of the lots) that most clearly play the role of articulating the street with the rest of the city are located (the old Fenix Building, the Capitol Building, and even the Torre de Madrid).

It is evident, though, that the pieces of urban equipment that should be filling the voids of this facade in the hinges, are absent. This role was played by the now missing pavilion by Antonio Palacios in the Red de San Luis, and the Callao lamppost, both isolated symbols of modernism, both with the right size, and now its absence leaves an unresolved problem.

The architecture that was to close the street on its sides, had to respond to a half traditional half expansion area lot-division with large but profound lots, with many irregularities due to the connection between the old streets, the transitional lines and the new Gran Vía. The uniform height of the buildings of the main facade, with just variations in the different sections, didn't take any account of the different widths of the lateral streets. A height suitable for the Gran Vía was excessive for this streets and even abusive. The final result was a fragmented plan in its main front, with a considerable number of corners, that played and important part in providing the street with its peculiar aspect, discontinuous, and facilitating the breaks in the cornices required to reach the heights of the lateral sections.

The very profile of the street has to fill considerable differences of altitude along its line: the higher point is the Red de San Luis in which we find the oldest skyscraper in

Madrid: the Telefónica Building. And, precisely, it was due to the conceptual difficulty for finding a suitable solution for the continuous changes in altitude, that its ground plan had such a final form trying to follow the minimum pitch lines.

The same as it is impossible to understand or justify the project of the Madrid's Gran Vía taking no account of the cultural context of the end of the last century, it is neither to be forgotten that in those days the city was, and yet it is now and perhaps it is its destiny, in search of its own image and identity. And if it was eager to look like a big city, an european or american metropolis, it had to imitate their architectural images. But if this contributed to the modernism of the city, it represented, at the same time, a serious risk to that same identity, in our case a curious mix of isolated images. As the high class of Madrid had always been of provincial origin, its architecture was the result, especially during Restoration period, of a styles' melting pot.

The dialogue between tradition and modernism, between the international language and the vernacular, was, from the beginning, the main reference for the architectural lecture that was to fill our Gran Vía. This tension was visible in the facades of the lots born in the operation, since the new types in the same buildings were due more to the land law, speculations and local regulations. The enormous concurrence in the production of suitable elevations was just hold by the fixed height in each of the sections. And that is the reason why the little turrets, the chamfers, rotundas and ornamental tops, breaking the homogeneous line with emblematic ornament, are so frequent.

From all the architecture located on the Gran Vía we can point several buildings that, for more than one reason, stand out as singular. Leaving aside the back of the Oratorio del Caballero de Gracia (whose Gran Vía facade, a consequence of the new street, is a 1916 work by the architect Luque, and has been recently changed) we can point, in the even side of the first section, the lots number 2 (Gran Peña Building, by Gambra and Zumarraga, 1914), number 18 (Banco Ibérico, by Eduardo Reynals, 1913), number 24 (Círculo de la Unión Mercantil e Industrial, by Sainz de los Terreros, 1918) and number 26 (by Aranda and Martínez Zapata, 1914); and on the odd side, number 1 (by Eladio Laredo, 1916) and number 3 (Casino Militar, by Sánchez Eznarriaga, 1916).

But it is the second section that proves to be more valuable for the works it bears. Beginning again with the even side, we can point out, number 28 (Telefónica Building, by Cárdenas and Weeks, 1925), number 32 (Madrid-Paris Building, by Anasagasti, 1920). number 34 (Hotel Avenida, by Yarnoz and Palacios, 1925) and number 46 (Palacio de la Prensa, by Muguruza, 1924). The odd side bears the number 27 (Casa Matesanz, by Palacios, 1919) and number 35 (palacio de la Música, by Zuazo, 1924).

In the third section we can point out, on the even side, number 60 (facade by Fernández Shaw, 1943), number 74 (Hotel Menfis, by Cabanyes, 1952), number 78 (Coliséum, by Muguruza and Fernández Shaw, 1931) and 86 (España Building, by Otamendi, 1974). On the odd side, number 41 (Capitol, by Martínez Feduchi and Eced, 1931) and numbers 53-59 (Los Sótanos, by Otamendi, 1944).

It is clear that it was between the years 1913 and 1948, which sum up thirty if we substract those of the civil war, that the buldings in the Gran Vía were designed by the

most excellent architects. From Anasagasti to Zuazo, Palacios, Gutiérrez Soto, Muguruza, Fernández Shaw, Martínez Feduchi and Eced, all of the had the opportunity of presenting their works in a grand street, one of the best of Europe, according to some authors. It can't be said, however, that any of them had much influence in the final result. For, though the Capitol, The Palacio de la Prensa or the Telefónica Building, have been important focuses for more than one reason, though in ferocious concurrence with its neighbour, it was the totality that had a real and quiet existence, supported by the conventional use of the void and mass play, the vertical division into ground, main and coronation bodies, the common height, the homogeneous grey color of the stone or the mortar, even the ornamental tops conveniently breaking the lines. In short, by a certain will for following the fashion with some touches of avantgarde that the traditional high class could accept without too much of scandal and at thus away form the most reactionary rhetoric.

And that is why the Gran Vía is a redundant product, of selfsatisfaction, with a measured assimilation of modernism in its language. It shows an architecture for worldly collectors with no much to spend, for international delegations; never an original version, always dubbed and cut by censorship, like the very movies showed in its theatres; and, definitely because of this, being comprehended by more and more public, looking for the applause of many. In it the star roles were showed, well accompanied by the extras, looking for sure success, without risks; just a minimum, to be on sight the longest time possible.

The perception of the users of the Gran Vía is conditioned, to a great extent, by this factors. This broken line of its profile produces a closed space, without long perspectives.

The pitch of the street draws a diminishing view that finds in the ornamental cornices the guide line for the richest formal journey in town. The texture of the vertical elevations composed by the different facades acts as a support for concurrent visual stimuli at different levels, from the small sign of the shop to the giant bill of the theatre that completely covers the facade of a building (the dramatic case of the facade by Zuazo, always concealed), and the message in an illuminated sign (the Capitol Building wrapped up in an advertisement).

It is thanks to this last element, artificial light, that the street completely changes. It is, precisely, the night version of the street, that support to publicity, the most disturbing, the most "modern". In this version the traditional character disappears and the ephemeral takes its place, producing discontinuous readings, exciting, controversial. The phantasmagoric street of the illuminated signs produces a perception of unknown distances and spatial relations apart from the site experience.

It is in this sense that it was in the Gran Vía where the architects from Madrid for the first time faced the problem of designing facades suitable for daylight and able to disappear at dusk behind a neon tubes network. To assume this double function of being at the same time aim and means was, without any doubt, a difficult problem. The role played by the Carrión Building (the Capitol) is a good example for us. It is the ephemeral paradigm of the influence of a certain international and modern style, though delayed in relation to its foreign models, and it could have been the starting point for a more coherent image of the architecture of the street.

But if we have pointed out that the Gran Vía style was that style that might make possible any style, we can now go through the parts played by the other styles in the final character of the street. Thus, we find that the Expressionist Rationalism of which the paradigm was the building by Eced and Martínez Feduchi, is corrupted in some parts by art decó touches, contaminated by age and circumstance. The radical view of Fernández Shaw is minimized by his monumental references, the same ones that serve as a guideline to the compositions of Muguruza or the very Palacios. The Gran Vía is the perfect place for the "obscure tendencies" of the best architects to come to life, mixed with the stale forms of poor ornament. The massive accumulation allows everything, the discontinuity makes it possible. It is the ideal occasion to be satisfied by the addition of wasting products. Everything can find a place in the sign-street par excellence, the foretaste of what can be down and is done when the street as being everybody's is nobody's.

But in our memories it is nevertheless possible to find fragments whose emotional value allows us to combine our longing with quality. For us the Gran Vía is what it was. A family photograph is which we meet our childhood surrounded by ghosts.■

**Miguel Angel Baldellou**

## Keeping/changing.
## Recent works in Gran Vía St.

Gran Vía St. in Madrid has been for more than 50 years the most dynamic street in town. From its very origin in 1910 through only a few years after its completion in the 50's, it was the scenario of every relevant event in Madrid for that period. Built across the old town center to became the significant area of economic and commercial dominion in the new metropolis. Right from the beginning, it succeed in embodying all that was metropolitan, cosmopolitan and modern in a city that was still neither.

The long building process turned out to sum up the different architectural styles -in a rather grandiloquent way- that happened to be fashionable during those 50 years, including relevant examples of the best architecture erected at the time. There are no doubt valuable buildings but the most important feature of Gran Via that makes it part of the Big World is - regardless its size- the constructing and architectural quality of the ensemble of its buildings.

No way can we consider the Gran Vía as a unity; there are many and very different "granvías". It has already become a commonplace to distinguish three architectural parts, different and typical. But also its social and urban peculiarities create very different and contrasted sections. Moreover we should distinguish between day and night for all these different areas. Gran Vía is different according to time, days and terms. It is -Sánchez-Ostiz says- "one of these streets that has everything, crazy and vulgar streets in Red de San Luis, luxury sidewalks, survivals from past centuries, prestigious shops. There is a Gran Vía for each type of people; but all of them will walk it. It is a street varied and contrasted, active and relaxed, elegant and lumpen, morning and night life, for week days and for special occasions...

For me it is impossible to forget the Gran Vía that

was 30 years ago. The big company buildings, central commercial head quarters, luxury shops, big cafeterias and terraces, mythical places: Pasapoga, Chicote..., and above all the cinemas, the neon lights... and premièrs, spot lights, crowds, artists...

**For the kid I was, that was the big city.**
Maybe this idea of mine is oversized. But still I think there is not much left of all that, and what is left looks rather out of place. Those luxury jeweller's, boutiques, perfumer's, etc. still on business shine with out of fashion luxury; and all the same happens to the beautiful commercial and financial buildings, assuming that they were not modernized in the 70's to gain a functional look which now is again old; same thing for the hotels not to speak of some unbelievable airline agencies. When the financial power decided to move to Castellana, Barrio de Salamanca, Avenida de América, M-30, etc. as the new symbol of their status, it caused the whole street to fall in an advancing process of debasement: houses are not houses anymore but impossible business agencies and schools of all descriptions; cinemas are not cinemas; hotels are now banks; luxury shops nothing but souvenirs shops; restaurants are now "jamón" museums; and cafeterias, and even luxury jeweller's, burger bars. At any rate there is nothing new in this process, same that attacks Fifth Avenue in New York in the shopping area, and which in its most pessimistic hypothesis is shown in Los Angeles center and the magnificent Bradbury building in the film "Blade Runner".

My compromise with this magazine is to write about recent works in Gran Vía. Although it could seem that I am trying to evade it, I will not. But I do confess that I feel some sort of unwillingness considering that all -and not only recent ones- the works were for the worse. If we keep in mind that the street is already accomplished, all architectural works mean -leaving aside minor cosmetic operations- reform or substitution, and we always find that what comes to substitute is worse or poorer than what there before. That is why from now on I will avoid naming the architects responsible for these works. A few years after the last of Gran Vía buildings was finished, Hotel Washington, we find the first substitution. Fontana Theatre, by Teodoro Anasagasti and his father-in-law López Sallaberry was knocked down to give place to Luis Blanco Soler's Banco Coca building. "Madrid-París" block, again by Anasagasti, suffered a severe inner reform and a striking 5 storeys addition, as well as the superb building on n. 62 by Jesús Martí. Other remarkable losses include Cine Actualidades by Ulargui and Muñoz Casayus replaced with Banco Atlántico; Hotel Florida by Antonio Palacios replaced by Anexo de Galerías Preciados; the Underground lift-porche, also by Palacios, replaced with a little fountain and Almacenes Rodríguez building by Modesto López Otero replaced with Cajas Rurales. In this historical view any comparative appreciation must be in favour of my negative impression. We should add to the already considered works, the never ending interior works that very often destroyed what was more valuable in these buildings; changes in cinemas usually irreversible since they subdivided splendid spaces; reforms in shops affecting the appearance of the building and therefore the street; minor buildings on roofs that cause a

progressive destruction of the "sky-line" and the placement of varied and disorganized urban furniture of poor quality which makes the street impassable.

If we are to find any value in these changes or reforms, that will be the fact that their social and professional objectives were clear; it was a coherent answer from architecture to social needs including, of course, commercial ones. It tried to modernize a special street that was getting old. Its very nature was proud to assume this substitutions. The aim was to create functional offices and modern shops no matter what happened to the architecture that needed to be destroyed.

However, in recent works we notice unclear and confusing aims and the difficulties to give a solution from architecture to such a peculiar and changing street. The present state of architecture willingly eclectic and varied where "anything would do" may provide extraordinary operations in new scenarios (and Madrid is such a good example) and even for monuments or historical town centres considering that all these years of debate about the criteria of operation have provided a theoretical body and a good catalogue of good examples, but it fails to give an answer for Gran Vía. Its probably this most significant fact in the recent works that makes us consider them as less valuable than the architecture we had before.

Out of all recent reforms I would like to point out two that in my opinion are good examples of lack of orientation and incoherence in the actions of patron, architect and estate agencies in charge. In order to transform Aleixandre jewelry into a burger bar, and pretending to keep the existing building, the patron was required to establish a contest among 4 remarkable teams of architects. The winning proposal was added to the initial project and built -not absolutely accurately- giving as a result an estrange and poor hybrid.

The other instance is the amazing reform of Banco Popular. The agency in number 67, Gran Vía, by Rafael Echaide and César Ortiz Echagüe, was a master piece of modern architecture in Madrid. Built in the early 50's, the architects, according to the current tendencies, succeded in buildind the lower storys not taking in account upper floors. The present reform caused the absolute destruction of this magnificent architecture which didn't provoke any reaction from the Government to protect it. They completely modified its interior and built mimetic facades that would apparently bring it back to its original state. I will not consider other minor works made by the town council, which confirm once again the lack of orientation that I mentioned above, such as planting trees, new signaling, the "violetera" statue, etc.

Major recent works are fortunately few. In them we find clearly expressed the puzzlement and inability in our architectural moment to cope with the Gran Vía. Leaving aside the praiseworth -although pompous- reform of the Telefónica building, we have to notice the unbelievable office-block that substituted the "modern" prism of Banco Coca. Same thing for the facade of the Oratorio del Caballero de Gracia. In this latter case, the reform had its origin in the decision of the administration to solve an important problem caused by the restoration of the interior and the whimsical decision of its architect to let the newly refurnished apse be seen from the Gran Vía. The final plan was the

winning proposal from a contest among three teams of famous architects. The radical proposal and the intelligence in its design are notably worth of praise; nevertheless its insertion in the street is strange, showing that, interesting as it happen to be, it is a worse solution than the orginal facade of the church, built by Javier de Luque in 1916, after the opening of Gran Vía.■

**Alberto Humanes**

## A particular view over the Gran Vía.

In a recent interview after his exhibition Antonio López talked about the necessity he feels now to make a third painting of the Gran Vía. "It is a street I do like, not because it might symbolize anything nor as a result of any theory. It is the same as with some fruits you do like, and you do five quinces and no fig. I feel attracted by its architecture, its width and the unity of its facades. It is like the nave of a cathedral and I indeed like that very much."

His previous vision of the Gran Vía, that he began to paint in 1974, as he himself narrates, is a vision without prejudice that tries to compose an image out of abstraction and personal expressionist perception that would confer a sense of uniformity to the architectural surface of the street. He tries to build an image as a reaction, based on an abstraction that includes a certain sense of desolation, to the inevitable loss of control of his own city.

I feel this is an interesting account of a space that, as that of the Gran Vía, has been changing so much in recent years; but that is seen by Antonio López from the point of view of the "builder of city images".

My own view of the present Gran Vía (as a neighbour, dweller, victim and walker of this street) is rather different, from another point of view, another perspective, that tries to build a new image in which the horizon line descends and comes closer to the plan of the painting.

A mercantile street, in the broad sense, new and classic at the same time.

A view that is close to that of any citizen before the stimulus of a city which, we believe, is not walled.

A street in movement, seeking something at the end of the twentieth century and through a decadent society.

A street changed into a transformation sea, filling its boundaries with lavish architecture, that want to deserve a walk, conquering its clients with big and attractive showcases, reminiscent of the Regents Street in London or the Leipzigstrasse in Berlin.

A street that under my own vision becomes a ring road, the M-30 of the center, where the very buildings bring us memories of road advertisement images, transforming the concept of the city to live in into the city to look at.

And makes us remember the image of an old Madrid that began with the Gran Vía its first attempts of expansion, to invade the suburban areas which came to enlarge the most closed and old nucleus of the capital.

At the end of the nineteenth century, and before

the successive construction of the three sections of the Gran Vía, the character of the streets replaced and surrounding areas might bring us the present image of the genetics of the Gran Vía.

More than half of the shops that existed in that district were sustenance products shops. The Diaries of the late century make me remember the cold marble tables and incredible paintings. In every tavern you had a showcase in which, surrounded by red curtains, you could see the typical cooking pot, the plates full of beans and cod chunks. The cloth commerce, outfitter's and shoes, along with the perfumery, were the emerging business of the latter years of the nineteenth century that coexisted with the district old merchants.

Factories for cigar cases, guitars, glass, electric components, ammoniac waters, artificial ice, candlesticks, saltpetre to make gunpowder, candles... and millions of products that came to life with the progress and new techniques and are now part of the memories of the Gran Vía.

My own interest, just now, would be to show a sensitive vision from a height of five meters over what seems to be today's Gran Vía, a reality capable of being comprehended as a suitable image of the beginning of the twentieth century, but in which the fall of that social matter that gave it its reason for being can be clearly seen.■

**Aurora Herrera**

## La Gran Via.
## The access to a new technique

It was early April 1904 when the IV International Congress of Architects took place in the Ateneo, Madrid. This congress was intended to show the general opinion and the specific positions of Spanish architects about the recent innovations and also to provide a frame of relations with other European tendencies and personalities. Muthesius from Vienna, Cuypers and Berlage from Holland.

The main topic during the congress was the relation between the new technical procedures and architectural form.

We must keep in mind that J. Guadet's work was just published and so its text and ideas - acknowledgement of the value of learning with senior Professors and the transmittance of traditional forms- were in the middle of the debate about the new scientific values. Muthesius said during his lecture "Architecture gives an answer to the needs of its time, and the most evident in our days ask for simplicity and logic building, that is why engineering reached its complete development during the XIX century, regardless of traditional architectural forms, which implies that modern Architecture will only have a rational development in connection with the engineering..."

This idea and the Cypers insistence on the modern Art and its peculiarities, underlying the opinion that the new materials can not express the artistic ideal, were decisive for the nature of the debates in which the rationality as a condition for the new architecture was the main point of discussion, along with the original basis of the new forms connected with the new building procedures and

methods. And though it is true that the Spanish architects representing the status quo or so considered did not take part in the theoretic and speculative debates, a different group -with Félix Cardellach, Mauricio Jalvo, and even Puig y Cadafalch- or engineers like Martínez Unciti, raised most conservative voices in the country and, as official representation of the Architecture School rejected any approach to the new procedures.

Professor Fort, from the School of Madrid, answering sharply to M. Jalvo said:

"Reduced dimensions as a result from the calculus of reinforced concrete elements is opposed to the artistic form as they leave the spirit in an uneasy state precluding any aesthetical emotion.

If it is true that, as Mr. Jalvo said in his third conclusion, reinforced concrete does not impose any particular form and accepts whatever the artist creates for the building, we must assume that it lacks any physiognomy and so its unable to provide any means of expression...".

Jalvo had clearly defended the idea of independence of form and building against Cuyper and specially Berlage, what in turn opposed him to Puig y Cadalfach who had adhered to this opinion though dissenting to one of the six points defended by Cypers: "The modern style is the lack of style, it tries to break ties with history, it deprecates logic and reason, it is against Nature laws (geometric, mechanic, materials) to which Architecture must obey...".

This independence between form and building had been made manifest in different Spanish buildings, or through the opinions of Jaime Capmany or Teodoro Ansagasti who criticized the use of traditional elements against the new building logic and technical reasons and calculus, as well as economic. The long span arcs and even girders and so many others were stigmatized as part of the tradition but in contradiction with the new methods of structural definition.

In the middle of this debate plans are being designed for the first buildings in Gran Vía st.

This fact as well as the location of financial and commercial corporations in it, resulted in an obvious specificity of its buildings, the different types of buildings erected (high buildings, public spaces, etc.), as the new programs for recent needs in society (cinemas, offices blocks, etc.).

The new techniques dating from the end of XIX century and the beginning of the XX century allowed for the development of elements as skeleton structure made of steel or reinforced concrete which are now part of contemporary Architecture.

That is why we must acknowledge the role of the new technical procedures and the effort from the Architecture to establish an appropriate evaluation of this typology and formal changes and its possibilities.

The relation between structure and building opens a new topic of discussion ranging from those who keep the academic formal solutions but in connection with the new proportions and measurement systems, to most recent opinions for which the structure is an autonomous grid that defines new types of buildings.

That is to say, the relations between structure and form.

Steel and reinforced concrete as new materials

promote a new architecture not connected with tradition.

It is important to notice how architects building in Gran Via took most different attitudes.

There were architects that tough they did not express an specific answer to the new formal needs of the new materials, used the skeleton structure in combination with academic architecture, in the same way as examples provided by G.B. Milani in "L'Osatura murale" to prove that the inclusion of new techniques would bring ideas as the independence of walls and structure and so it was possible to use the congruity relations of both as the new basis for the syntactic relations for the new building language.

The required evolution of the plans in relation to the height of the buildings, that means the problems of the high building, showed the obsolescence of the compositions through elements, and so the superposition of functions along with the requirement of structural levels for the whole building will result in the sole use of singular and isolated element as essential constituents of the structure of the form. These anachronistic elements became part of the residual decoration from inherited languages in the new types of buildings, and there was not a substantial change or complete dissolution of them in the new typologies. That was the way for a new concept of these elements; the stairs, and not only because of its location, will be a basic criterion for the interpretation of the typology variations, its modifications, conceptual or ideal transformations tell us about this evolution.

A new simplified language or a different size as main conditions of the concept of monumental architecture are not enough to understand this change. Though the evolution of the building techniques is a continuous process, the period ranging from 1900 to 1920 is an important step in their implementation in Spain. Some building processes and systems -as reinforced concrete- whose trade mark are from the early 90s, and that were no doubt in use from the beginning of the century, are present in a good number of examples in Spain. Reinforced concrete solutions and even steel are widely used for industrial buildings; precedents coming from those buildings without any monumental ideation process and without reference to the lodging houses.

The implementation of the new technologies is contemporary to the need of new programs and new types of buildings with sizes and characteristics never seen before in urban areas.

We should not forget that the scarceness of materials -steel and wood- as a result of the war economy in Europe and low productions, boosted prices. The change in prices of all building materials gave as a result the usage of new systems as reinforced concrete. Though its final price doubles (as did its components: cement, iron, steel, sand and gravel), the usage of wood tripled and steel increased its price times.

For identical reasons the very process in use changed their technologies. The welded connections for steel structures invented in the last third of the XIX century was widely used after the I World War; as Germany had a weight limit -imposed by the allies- for the production of ships, it developed very quickly the welded connection technology to save the weight of the rivets.

In the architects debate in Spain -early in the century- we can still notice the idea of the value of creation in the artistic concept as based in the usage and evolution of languages in front o the idea of operations analyzing form or elements. José Domenech y Estapé criticized the usage of all new techniques in the lecture in the Real Academia de Ciencias y Artes de Barcelona, 1912, where they spoke (referring to architectural modernism and modernists) about the problems of the new technologies alluding to the freedom of the modernist in the fenestration of the different storeys, overcoming any academic limitation still to be found in text books.

Domenech y Estapá said: "It is obvious that all these solutions would not always be possible whit just the technology of the stone, but that is why we use iron that, hidden as if it were ashamed, makes the public believe in architectural miracles that only exist for those unaware of the secrets of building.

It is a fixed principle that the building form must reflect its constitution, that it must speak to the spectator the truth that comes from the material strength and the mechanic principle used for its integration. That is why I can not agree whit that architecture that showing stone in its walls and with even the characteristic forms of this material, uses building elements that would never be possible without a steel girder or rod hidden within its mass and that plays the role the stone can not play".

This criticism is based in an adequate understanding and acceptance of a certain mechanic rationalism, but we should not mistake it for the structuralist rationalism from Violet. Rationality is to be understood as the compositive operation or composition of clasic elements with a mechanic disposition formally comprehensible without any further meaning in the relation between element which may affect the work of the architect whose job is to develop, draw, superpose the languages, the images and, finally, to fix the style.

New systems and technologies come to destroy this classic rationality. The modifications in the catalogue elements, the change of materials used for vaults, pillars, structural walls, mean immediate changes in the relations between the different elements. Symmetry, proportion, etc. all the fundamental notions of classicism are affected and to establish the compatibility between these new concepts and scientific knowledge with those coming from the academic criteria for architecture, that is to say, composition, are the basis for the new ways and developments of architecture in those days.

The most important text book for the european learning and techniques was "Rivington's Notes on Building Construction", buy W. Noble Twelvetrees.

Initially written in its first editions for the "Building Construction" examination of South Kensington Board of Education, it became for years an update work of new building knowledge.

In the 1915 edition we find studies about by-laws and building codes, impact and sound strength and processes of retraction and cracking. And more general questions as studies about steel skeleton for buildings, reinforced concrete, concrete blocks and fire stability of construction.

Different chapters came to be added reflecting the changing interest of architects and engineers.

That is why we find this book in many european architectural libraries and in some Spanish ones, as Modesto López Otero, Teodoro Anasagasti or Manuel Sánchez Arcas.

We find not only those ideas in vogue in contemporary buildings but also general conceptions whose interpretian in this broadly accepted text book will be a reference to us.

Speaking about the skeleton system, it describes the way in which the skeleton is incorporated in the new building skeleton and buildings.

There are four types of skeleton. The first type, External Skeleton (construction of a shell or aisle system with solution for the external self-supporting surface with some bracing system)

A second type: Internal Skeleton. This solution is the most frequently used structural mechanism in the years of technical evolution and transformation of load bearing systems. The inclusion of a skeleton that would replace the wall structure will make possible a better use of the space and an economically good performance of the construction.

The bracing systems that require higher technological levels are avoided thanks to the stability given by the facade walls which implies simpler building methods. This transformation, nevertheless, will not bring immediate or essential changes in the evaluation of spatial systems involved.

The structural lines will keep the place of the load bearing walls, always adapted to the composition conditions of the facades and therefore the general concept of the plan would be established by means of divisions and intersections of vertical planes, that means, the spatial analysis of the plan would be conceived as an answer to these intersections.

In the third place of this classification of the skeleton types we find the intermediate type; a solution in which, as a result of overcoming certain limitations of the internal skeleton type, the very skeleton forms the facade and the above mentioned relation between the limit and the internal space is dissolved.

**The stabilization mechanism is yet that of the walls.**
This solution, though removed from advanced technologies, will be used within the spanish architecture field, where the effort made by the architects in the liberation of the plan will produce a constant systematization of the bearing lines and supports, that will drive the architect to the use of the daily operation of those years, that of creating grids.

That means the superposition , over any designed or constructed building, of an horizontal and vertical web, independent from the divided space, that would not determine its architecture but just bear it.

The last type proposed is a combination of the internal and external skeletons and also called "high rise construction", a solution that means the general use of the skeleton as the sole structural bearing solution, stabilized by special mechanisms even ruled by the building codes.

The spread knowledge of this grid structure or

skeleton in Europe as well as in Spain was due to its characteristic of being able to reproduce any complex form.

The use of certain types of skeleton as the so called internal skeleton will be widely spread in the last years of the XIX century as will be the use of wrought iron.

The typical solution of columns or pillars made of wrought iron was not commonly suitable because of the commercial development and the use of structural steel pieces.

These structures used in light weigh construction, pergolas and railway station etc... will not have an specific regulation within Europe until the resolution about minimum thicknesses and slenderness radii, established by the London County Council Working Stresses of L.C. (General Powers)act. 1909, section 22, in which the dimensions required were exceptionally similar to those calculated by Eduardo Gallego ten years before. An engineer and editor in chief from its foundation of the magazine "La construcción moderna", he will perform, together with Anasagasti and Sainz de los Terreros, broad studies on the new techniques and their applications in the first quarter of the century.

The beam design made by Eduardo Gallego is not intended to achieve a perfect replacement of the wood posts and beams or load bearing walls by means of a metal structure, it defines instead an structural grid that, depending on the used mechanisms, settles the bearing capacity and its possible variations within the system.

This building solution is not just an answer to a particular problem; its specific value is that of its purpose of becoming systematic, regardless the particular node or problem solved.

It is because of this, that in the graphic and technical development of the details, we do not find any reference to other previous or replaced structural types, since, usually, the general and abstract proposal is that of a method of connection, an structural mechanism that would give a solution to the three-dimensional problem.

The same solution includes the adding system as a consequence of a particular aspect of the new industrial processes, the repetition.

The artisan character of the production system will disappear, accepting the ways of the new age in which the different components are defined: as the parts and minimum elements of industrial production that compose the system.

It is in this particular sense that the skeleton system is the product of an industrial society, that will be spread and divulged as a repetitive model.

If it is true that steel is the first material to adopt the skeleton form, the development of reinforced concrete would make it, from the inter-war period, the core of the skeleton, in such a way that the acknowledged paradigm of the structural grid would be the reinforced concrete skeleton.

**The evolution of both systems had an important influence in Europe as well as in spain.**
The analysis of different authors, justifying the use of one or the other type of construction and the comparison made between the advantages of both,

would be present in the current issues regardless the fact that the main point of discussion in them will be aesthetic values of both, trying to establish a certain synthesis related to the plastic values together with manipulation advantages and possibilities in the search of building beauty.

Vicente Lampérez Romeu in his conference read in the Second Congress of the Spanish Association for the Advancement of Sciences of Valencia (may 1910), expresses his opinion on the skeleton as structural basis for the architectures that would be built. But he thinks that the origin of this skeleton is the particular construction of the metal structures as opposed to the traditional ways.

Since "it is usually forgotten that the mechanical principle and the structural elements are different, since the pointed arc is the result of active dynamics based on the stone arc with constant and eternal thrusts; while the "modern" is passive, based on the use of metallic and non deformable pieces, with counterbalanced stresses due to the settled character of the whole. I do not forget the difference, I do not try to imitate metallic structures, but to harmonize compositional and structural principles...".

"...The architect is not just a constructor of mechanic skeletons, but an artist in search of an ideal, and therefore he would like all that grid to be beautiful, with dispositions that would break with any kind of unnecessary monotony, with harmonic and eurhythmic composition of posts, storeys and rib placing in order to avoid the mean and unaesthetic cage."

The transformation of the wall system into the grid scheme will also bring a new way of geometric definition for the built volumes, along with an specific graphic dimension system for the vertical as well as the horizontal planes, facades and plans.

The "freedom" acknowledged by the continuous plane of the facades in the buildings with load bearing wall system, will be restrained by the use of the skeleton. As the grid in combination with the wall means a previous decision, either both are separated or the grid juxtaposed over the wall divides it.

The use of the so called cage construction will bring a deep change in the volumetric definition of architecture, since though the possibilities of the skeleton in producing large spans, cantilevers and free plans were well known, the use of traditional filling materials, with heavy weight and inertia, will force the architects to keep the structural lines within the external walls.

This particular type of skeleton will restrict the volumetric definition of the buildings, the skeleton grid becoming the boundary of the form.,

The effect of the use of the skeleton over the buildings of the Gran Vía will be progressive as the different sections of this urban operation would be built. The Conde de Peñalver street, whose works began in 1910 and will finish in 1917. The second section between Red de San Luis and Callao built from 1917 to 1924 and would be named after Pi i Margall. And the third section between Callao and Princesa or Eduardo Dato Av. built from 1925 to 1929.

The speculative pressure over the Gran Vía lots will be constantly present during the long process of its construction and will induce certain functional

programmes in the projects
or even the constructed buildings by means of changes in the initial budget or subsequent enlargement of the built projects.

In the first section different associations and corporations bought the different lots to locate their headquarters. But the high costs of the land and construction forced them to include in the projects, along with the headquarters (an emblematic large space), dwellings and commercial lots that would allow them to cope with the construction of the whole.

These buildings moreover will be constructed over irregular lots as a result of the operation that destroyed the existing urban web and this fact brought the first problem for the architects as they had to locate the different accesses to the various parts of the building and choose one of them as main access, a decision more related to the urban context than the to plan arrangement.

The current theories during those first decades on the plans arrangement are fully expressed in two texts used by the Gran Vía architects; one of them was "Plantas de Edificios" by Percy L. Marks (1912), that establishes the functional characteristics of the different spaces as elements, a theory inherited from academic systems but, at the same time, with a new flair of rationality in the analysis of the relations between them.

The theory is based in two fundamental points, the definition of main and secondary circulations and that of fixed elements, doors, windows, stairs and walls.

The other text in which we find the construction criteria of buildings analyzed is "Tratado de construcciones civiles" by Carlos Levi, which studies the traditional building systems and their evolution with the use of the new techniques of steel and reinforced concrete.

The broad influence of the text by Levi will be based precisely on its studies of the masonry walls. This building system was the traditional way for load bearing walls.

In the first section of the Gran Vía, the construction based on masonry elements is really the basis of the plan, materialized in the linear structure along the perimeter of the lots in which was based the whole building. It will be precisely this elimination of the load bearing masonry in favor of the skeleton that will be the characteristic feature of this process of typology evolution.

This composition based on masonry elements can be seen in the building for the Gran Peña by Gambra and Zumárraga, the dwelling building in the Red de San Luis by Aranda and Martínez Zapata (1914), the Casino Militar by Eznarriaga (1916), the Círculo de la Unión Mercantil e Industrial by the Sainz de los Terreros brothers (1918) or the project for the Sociedad de los Previsores del Porvenir by Luis Ferrero (1918). In all those buildings the structural lines are the same as the main plan lines. These later, usually disposed as to create simple bays, will keep the place of the facade lines along the perimeter of the lot leaving empty spaces for ventilation and lighting courts that will be the result of the structure and the lot without a particular measure or form. The unobstructed arrangement or free plan, along with the dimension of the bays will be determined by the bearing mechanism that would solve

the required span. This dimension will never be a fixed standard as we can learn by noticing that the linear weights for joists of the same depth and bearing capacity given by three different corporations as are those of Hornos de Vizcaya, Mieres or Duro y Compañía, differ so much.

In the building for the Gran Peña we can find another fixed characteristic of these constructions in which the structural grid coincide with the masonry walls. The space within a bay will be conceived as a spatial container were different uses will be placed and in which the location of the partitions will be determined by the rhythm of fenestration. Every possible room size will have to be enclosed within the bay. Facilities, elevator zones (a technical progress that will find a place in these new buildings), separate rooms for different uses and even large rooms for meetings and conferences, will have dimensional limits related to the simple bearing mechanism. And so the typical recreational curved space within the houses will be based solely on the bearing capacity of metal beams resting on the boundary walls.

The need to keep large areas of the ground floor free by means of structural or technical mechanisms will have a technical solution just limited by the growing weights. In the building for the Círculo de la Unión Mercantil e Industrial we find a solution for supporting three storeys of dwellings within the single span ceiling of the ball room. Girders and joists with concentrated loads of 70 tons formed a floor system whose depth was that of the whole storey above, with the composed beams enclosed within the partitions, that means that industrial building typical solutions were being used and that the very size of the grid was a possible criterion for the current typology transformation.

This solution will have a visible result in the plans making them independent from their vertical location as the grid is a system suitable for high buildings. The main role played by the grid will even affect the elements built outside its lines as they would be constructed relate to composition axis defined by them. As an example we find the circular plan stairs in the building for the Gran Peña or the cantilevered balcony within the great hall of the Centro del Ejército y de la Armada which show attempts to recover the sense of symmetry overrun by the shape of the lot. The courts will be also affected by these facts as they constitute spatial remains that unaffected by the previous operations served as filling spaces for the whole occupation of the lot.

The project for the building of the Sociedad de los Previsores del Porvenir by Luis Ferrero shows this new particularity of the space of the court. IT is a project built over a lot, between two buildings, whose shape is rather similar to that of the Manhattan Life Insurance Building published by William H. Birkmire in his book "Skeleton Construction in building" (1917), New York, an essential text that contained the works made by the main architects of the Chicago School as well as an analysis of the skeleton structure and its construction. This publication will be widely spread throughout Europe in the second decade of the century thanks to the information given about it in the english magazines. The plan of our building is similar in its form and structure to that of Kimball and Thompson.

The plan, composed by three different parts, has two large bays parallel to the facades separated by a middle one in which the stairs, facilities, ventilation pipes and the court are located. In the project for the Manhattan Life Insurance Building, the architects defended their building arrangement in terms of the financial aspects of the construction. The main point of the argument was the design of the open court that made possible to locate a large number of offices with the same conditions as the exterior ones. The clustered location of technical elements as elevators and facilities and their position within the plan similar to that of the court and stairs allow us to consider these latter ones as technical too. The skeleton is, therefore, the only remarkable element within the bays by means of the segregation of structural and partition lines.

In the second section of the Gran Vía, the Pi i Margall Av. built from 1917, the lots were acquired mainly by corporations instead of recreational associations a fact which resulted in new changes in the programmes of the projects. First of all the ground floors will be much highly valued because of their advantageous access and in some cases, even in some of the first section buildings, the ground, first and second (called "main") storeys would be used for commercial activities opened towards the street creating a free circulation space within the building.

The image of wealth, so far represented by the restricted access societies of the Conde de Peñalver Street, will be now that of the mercantile and free market corporations on which social development will be based. Within this context we find a new confidence in the bearing capacity of the skeleton structures. The experiences and works of architects like Juan Torrás, steel structure builder whose personal systems had made possible the erection of the Colón monument in Barcelona and afterwards that for Alfonso XII in the Retiro Park of Madrid, induced experiments with light weight metal skeletons whose slenderness ratios and stability were calculated by imposing great loads on them.

The Barcelona scaffolding as well as the Madrid one will also serve as laboratories for the connection systems and if in Barcelona with a height of sixty meters Juan Torras builds a bracing mechanism at the bottom with diagonal tensioned rods and a connection rod system that will bind the four pillars of the turret, in Madrid an effort will be made to achieve a greater rigidity of the very pieces and connection nodes between the beams and the pillars, conceiving a system whose global rigidity will avoid the use of an additional bracing system.

The pillars will have rigid traversal platforms and wrought iron plates at the base, and the deep beams will confer continuity to the whole structural system. The confidence in the skeleton structures will be based on these experiences, along with the diffusion of reinforced concrete patents for floors invented from the first decade of the 20th century. The traversal rigid systems and the bracing capacity of the reinforced concrete or metal joist imbedded in concrete floors, will replace the old bracing system based on the juxtaposition of the masonry facades and the skeleton. This confidence will be evident in projects like the Casa del Libro (1920) by José Yarnoz, the Matesanz house, by Antonio Palacios (1919), the Gran Vía Hotel, by Modesto López Otero (1919), the Fontalva Theatre, by Salaberry and Anasagasti (1920) or the Avenida Hotel, by Antonio Palacios (1926).

The inclusion of offices within the programmes for the buildings on the higher storeys and the need for a flexible arrangement, a.long with the excessive depth of the lots and the requirement of natural light, will force the architects to concentrate on the formal definition of the lighting courts, a solution already proved in the commercial buildings of United States and France. If, in functional terms, the free plans will make the architects concentrate on the design of technical elements as facilities, elevator shafts, stairs, ventilation pipes, in formal terms their effort will be on the border of the skeleton, the facade. The solution given to these skeletons had determined its basic elements vertical as well as horizontal and the means of connection, the nodes. A second aspect appears then as important: the construction detail, the specific solution that will combine successfully different materials and systems and will be, in short, the main feature for the constructive and formal definition of the new architectures.

The required fire protection coverings applied over metal structures or the intersection between skeleton and walls will be the locations for the construction and material discontinuity, of which we might mention the importance of the facade as a separated element. As the third section of the street began to be built, the Eduardo Dato av. of 1925, we learn the construction in the some lots of the second section and the Plaza del Callao of the most remarkable examples in the use of the skeleton; the single span building or the high rise one. The Palacio de la Música, by Zuazo (1924) and the Cine Callao, by Gutierrez Soto (1926), are examples of the first; the Palacio de la Prensa, by Pedro Muguruza (1924) and the Telefónica Building, by Ignacio de Cárdenas (1925), of the latter. In the dawn of the fourth day of december 1925, the roof of the Musical Cinema fell down, development in structure calculus had not taken in account this continuity between idea and type.

The new problem for the engineers and architects will be that of the scale of the structural systems. The impossibility of using certain building systems already developed to meet the requirements of bigger buildings as their construction solution will be obvious and the evaluation made by the architect of the possibility of large elements will be decisive for the development of the new types.

The symbolic interpretation of the types will conceive the built volume as a core for the ornament, though in some remarkable cases structure and ornament go together as in the Coliseum movie theatre by Fernández Shaw, where the definition of the ornament in consistent with the structural paradigm used, or the Feduchi and Eced building for the Capitol where the independence of plan and facade establishes the symbolic role of the latter.

The Gran Vía of Madrid will be the access road for the new architectural techniques in the first third of the current century in Spain. ∎

**Jesús Anaya Díaz**