CITY AND UNIVERSITY IN THE 21ST CENTURY: FROM THE IVORY TOWER TO THE GLASS BUILDING; FROM THE GLASS BUILDING TO THE SQUARE

Francesco Indovina Istituto Universitario di Architettura di Venezia

PROLOGUE

The 21st Century is nothing more than the century that comes after the 20th Century. It does not, in itself, suppose the emergence of a "new world". It could however, be the century in which modernity is affirmed with greater vitality and on a greater scale than in the past.

Modernity is science, innovation, dynamism, change, the promise of liberty, and the search for social justice. But, to be able to affirm this with vigour and to build upon it, two key concepts must be taken into account: "limit" and "redistribution".

It is necessary to limit the existing "lack of awareness" of decisions, which has been translated into a childish reliance on development and progress. However, it is even more necessary to redistribute (on both the geographical and social levels) the "benefits" that have hitherto accrued to only part of humanity and to extend them to the whole of mankind. This must be regarded not only as a "right" that must be recognised but also as a need that will prolong human existence.

In recent years, there has been an enormous growth in the "power to transform". Fields that once seemed inviolable have at times been recklessly transformed. At the same time, enthusiastic experiments have presented us with new decision making quandaries, extending the range of possibilities and inverting our ethical values. In each and every sector from biology to chemistry, from data transmission to the physics of new materials, and from surgery to biotechnology, humanity seems to recognise no limits other than those that it has (knowingly) set itself. Yet at the same time, it seems incapable of facing up to the challenge of social organization. It seems unable to guarantee that the benefits of these scientific and technical advances become *real* or to regulate them according to the principles of limit and redistribution. In this way, every program or project seems "dangerous" and, above all, useless. We have entrusted our fate to the metaphysics of a process of spontaneous self-organization. We have transferred the concept of the "invisible hand" from the rhetoric of the market to the ambit of social organization (without taking into consideration what are normally referred to as "the shortcomings of the market").

In almost every field, our eager eye scrutinizes the material in question in great depth and tries to identify all of the different possibilities that exist for "intervening". Yet in the field of social organization, we move around like little blind mice. Solutions are found that cure our bodies, while our "social illnesses" are left to take care of themselves. We allow wars and epidemics to resolve problems that could be solved through the use of "reason".

It is true that unhappy past experiences may make us more cautious, but being cautious should not imply acting like fearful cowards or even imbeciles.

In today's world, we have technical progress, great scientific advances, and enormous increases in productivity —whether real or projected— all of which imply great changes for our lives, our cultures and our desires. Yet there are signs (which are very clear to those who wish to see them) that not all of this change is compatible with the present form of social organization. There is an ever-greater incompatibility between these great innovations and their "promises" on one hand and their "rules" on the other. The substance and form of our social organization, the very rules of coexistence and "regulation", and those relating to the political sphere of decision-making, need to be profoundly renewed and indeed revolutionized. This is a necessary condition if we are, on the one hand, to allow scientific and technical development to continue progressing guided by the principle of limits, and on the other, to allow the new frontiers of discovery to be pushed back to the benefit of everyone. Only in this way can the so much demanded, and so often promised, liberty, equality and social justice, finally become a reality.

The dynamisms previously alluded to and their particular speeds represent a source of *instability*. This cannot be eliminated, but if it is to be positively controlled, there is a need for another type of master plan: one capable of providing greater "safety" and of harnessing the instability and converting it into a motor for actions and projects. In the absence of such conditions, this instability looms menacingly over both individuals and whole communities and gives rise to "barbarity" and to the useless and selfish search for individual stability. The search for security —which constitutes the basis for human coexistence— therefore tends on the one hand to lead to affirmations of "the right to use violence" and on the other to expect "spontaneous" social solutions based upon a form of social interaction that is neither governed nor infinitely multiplied.

However, in such a situation, the individual will tend to succumb to solutions imposed by certain strong powers (be they economic or political). In fact, the social organization that has been "spontaneously" determined is no longer the result of the absence of an explicit "project", but rather the concrete realization of a social order imposed by an implicit project. It hardly seems necessary to point out that every form of social organization (however we judge it) is the expression of a project. It would be a cultural distortion (perhaps even a defeat) to affirm that an explicit "social project" might be no more than a warning of coming "disasters", while its absence would guarantee a positive —although perhaps not perfect— result, as in

the case of "freely" taken decisions and continuous interactions. In reality, it is a case of trying to impose an implicit project that few people are aware of, and that they are even less identified with.

The rejection of modernity lies in just this; in the move from the conviction that it is possible to consciously and collectively build a better social order, and the hope that this can be done in a spontaneous manner.

It could be said that today we live in an ambivalent situation, with the existence of two different possibilities: the imposition of modernity could lead either to the realization of a number of our many dreams, or alternatively to their rejection in favour of leaving our future to the whims of fate and future events. These two alternatives can be expressed in different ways. On the one hand, we can consciously and collectively use all of the possibilities that science and technology can offer us, and in this way, reap the positive rewards of the modern world. On the other, we can wrap ourselves up and shelter in the hypothesis that —if given free reign— the existing economic and social mechanisms will allow us to reach our professed objectives of liberty and social justice (and in both a faster and better way).

We do not find ourselves faced with a duplication of a "naïve" perspective; to the contrary, we find ourselves before a situation that arises as a result of the (cultural, political, ideological and material) "pressure" created by those who hold a power that enters the general debate by effectively promoting a social model based on liberty and social justice.

In this way "the task" has been converted into a battlefield, not only between rival "interests", but also between two "projects": one is instrumental, and represents the interests of business and capital, while the other is represented by the freedom of movement of workers. These two projects have their own particular forms and different contents. They respond to their relative strengths, the tools available (technologies, organization, etc.), the level of development, and the presence or (relative) absence of forces kept in reserve, etc.

Fordist and post-Fordist forms of organization embody the instrumental project in specific contexts. The loss of awareness in the productive process – which is a result of the maximum division of "dependent" labour on the assembly line (which has, however, still produced the social and cultural unification of the workers) – is no different, in terms of the instrumental project, from the reorganisation carried out in parts of the post-Fordist system or from the growth of "independent" work (though we will not discuss how effectively independent this may be). It is a question of finding solutions that are appropriate to specific phases of development – including technological development – and that allow a different way of subjecting and instrumentally distributing work.

When the "reason of capital" does not find any (social and cultural) equivalent, it is transformed into a piece of "natural" information. Any liberating project comes up against the stumbling block of "technical reason". It is possible to transform the

physical world. It is possible to give a new form to the biological world. It is possible to explore the universe, and to carry out new and more powerful technologies. However, it is not possible to plan or to try to create a society of the free and the equal, or at least consciously move in that direction with any degree of certainty.

Work itself —with its quantities, qualities, remuneration and method of payment— is governed by a technical reasoning that is not subject to debate. It responds to a law that, if broken, can only bring negative consequences: it is said that, "the market takes its revenge" like an intangible God with human needs.

"Technical necessity" is organised according to time and takes many forms: flexible employment, contracts for in-service training, hired labour, work from home, part-time work, "occasional" work, and telemarketing, etc. These are all presented as technical necessities, and do not express forms of social organization that could (or should) be modified. The de-socialization of work has finally reached all "negotiations" related with work. From this perspective, flexibility —proclaimed as "the management of one's own working time"— and part-time work, etc. cannot constitute "liberating" factors if they do not eliminate all the elements of insecurity and uncertainty that cause substantial dependence, and even become paroxysms of "self-exploitation".

The "nature" of the professional services that are demanded of the worker has changed due to the evolution, organization and development of technology. It is common to speak of more qualified forms of employment, of a demand for greater knowledge, and of greater responsibility and autonomy, but in reality, technical progress has a tendency to squeeze the work pyramid and to transform it into an almost impermeable hourglass that tends to exalt the work done in the upper part of the system and to underestimate that associated with the lower part.

This is not, however, a technical need, but rather a social decision.

2. The Need for Real Democracy

Precisely because of their ambivalence, the previously mentioned transformations draw attention to the problem of how to (democratically) control such processes. We should not be indifferent to the fact that these innovations could bring about the profound inspiration of modernity, or even provoke greater discrimination and impose a degree of inequality perhaps hitherto unimagined in the course of human history. The false splendour of the idea that "small is beautiful" is being combined with a real concentration of economic and political power, which looms menacingly, like the threat of a hurricane, over the economic world; for however elaborate the "laws that defend competition" may be, they somehow always seem ineffective. The concept of globalisation is increasingly associated with the almost unlimited exploitation of labour in the poorest countries; environmental sensibility constitutes a limit to development in less developed countries; "financing" the economy places the destinies of whole races in the hands of the privileged few.

It seems increasingly necessary to have some form of democratic control over all of these processes, yet our "governments" seem to be increasingly less independent of strong economic powers (rather than governing, they seem to be governed). Democratic control cannot be regarded as a function of political institutions (whether these are run by the state or decentralised) until effective controls can be exercised over them. In fact, these institutions embody a concentration of political power that ends up existing in symbiosis (although not always pacifically) with concentrations of economic power. The growing distancing (from its historic functions) that can be observed between the political sphere and that of society simply accelerates and facilitates this process of political "autonomy". The defence of the common, general interest which all types of political institution are supposed to pursue is eventually frustrated in the interests of clinging onto power itself.

The question that could be asked today is whether or not it is really possible to restrain the personal objectives of the great economic powers and subject them to the general interest, thereby making them assume a "technical" (rather than a necessarily social) function. This is especially relevant if it is possible to make the political institutions assume the role of guarantors of the common good. This question suggests that "politics" could again become a "normal" activity for the social being - which is the fundamental prerogative of the subject who is able to take an active role in planning the future rather than being a mere spectator in a game played by others. Unless these conditions are fully met, all of our "concerns" (environmental or otherwise) for future generations will be in vain. This is a necessary, yet far from simple, process. The degree of innovation that needs to be introduced into how politics is actually conducted is not modest: this cannot be achieved through direct participation alone, but rather calls for the responsibility to elaborate an idea, an aspiration, and a common "dream". It will -perhaps be a long process, but it will hopefully not take so long that the final result is ultimately diluted to a point at which it is impossible to distinguish its particular taste. In the meantime, we need these first light flavours.

All of this will be possible if our society is *also* able to produce dynamic institutions capable of continuously redesigning their own role in response to the changing needs of the times. They must be able to *contribute* to establishing "democratic control" and, above all, to revealing the "mysteries" of economic powers, research and innovation to an "independent" authority. This is so because their objectives must be dictated by the common interest and must seek to establish a relationship of trust (between institution and collective) supported by democratic controls over the institution itself and with norms for transparent behaviour.

In essence, it seems fair to say that only a large number of institutions endowed at the highest levels with independence and with generally recognised authority (not just that residing within narrow groups) and themselves subject to mechanisms of control can guarantee to make a relevant contribution to the forming of responsible opinions and exert an influence upon political decision-making. In other words, it is necessary to seek a multitude of independent controls.

This road that leads us to regard the "riskiest" of research in a positive way, as it is freer from the fear and narrow-mindedness dictated by ignorance and mistrust. In this way it is possible to avoid the dangers of uncontrolled investigation, yet at the same time expect the most ambitious projects to yield results that will lead to general progress and to an improvement in life for everyone. In fact, it is only this control that allows us to measure our projects and results, not in terms of profits, but on the basis of the advantages that they offer to humanity as a whole (examples such as the "genome" and "cloning", to name but two recent cases, call for much reflection in this light).

3. Relating to the University

As a prelude to the specific theme that has been assigned to me, it seemed useful to advance – in the form of a summary and apodictic – a few observations about what I consider to be the general characteristics of society at the present moment in history, and the "needs" that – seen from a certain perspective – are expressed by such tendencies. For this reason I do not think that the university can be considered separately from the processes that are currently in course. In fact, precisely due to its characteristics and history, it may be assigned (or may claim back) a number of functions that are very important in this new context.

The assigned theme may perhaps therefore be reworded as follows: in what sort of university and in what sort of city, tomorrow?

You will probably have observed how imprudent I have been in agreeing to examine a question that has been made so difficult by the uncertainty that seems to be associated with it. This is the case whether we consider the future of the university (in almost every country, the current agenda contemplates some type of reform), or, above all, that of the city whose nature – according to some – has been called into question by the new forms of territorial organisation, and whose very existence —according to others— has been threatened by the extensive use of new computer and data transmission technologies (an argument which first appeared following the invention of the telephone). I would certainly have been imprudent if my stated objective had been to make predictions. But I do not intend to go so far: instead I aim to simply point out what the "new functions" that the university (of today and for tomorrow) could (and should) develop might be, with my attention firmly fixed on the general changes that people have tried to plan for it, and the demands that these changes place upon the current reality.

I know that it is hardly realistic to speak of the *university* as a homogeneous institution, even at the European scale. Not even my own detailed knowledge of the different university systems would allow me to differentiate between the different

logics that they obey. Furthermore, I do not think that this would be particularly useful from the perspective of the reasoning that I would like to develop, although I would like to stress that the observations that follow will probably have different values in different national contexts. Despite this, people have the impression that the "transformation" of the university is a tendency common to all countries and societies. They believe that there is a general attempt to adapt the institution to a set of new demands, though with different rates of transformation in each particular case. It is precisely in the interpretation of the term "adapt" that the different attitudes and hypothesis are most evident; this is effectively an area of cultural and political confrontation.

In essence, the answers to the new demands that await the university cannot be grouped together to form part of the same plan: by schematising and simplifying, it is possible to identify two different and opposing general tendencies.

The first tendency looks to the university to exclusively concentrate on developing its "training" function to the best of its ability. It must do this by providing training to enable students to reach a suitable level of professionalism in a series of different fields and at different levels (therefore implying the use of different and more refined instruments of selection) and to thereby meet market demands for different professions, and also the needs determined by the particular social order in question. Essentially, this constitutes a quest for the adaptation and modernization of one of the functions of the university, but it should be remembered that this is not its only function. This tendency is closely related to a way of managing the institution's affairs. It is no coincidence that such great emphasis has been placed upon the competitive character that universities must assume in both their reciprocal relations and with regard to the "market" for students. In this last context, it seems clear that the main reference for the institution is not "society", but rather private enterprise. Contextually, this has weakened the "public" nature of the institution (in terms of financial resources, the oft repeated message has been that universities must become self-sufficient).

The second tendency proposes that the functions and traditional roles of the university should be strengthened as they can provide the best response to the demands expressed by the whole of society (and not just the business sector). This does not imply ignoring the new and more diversified demands for training imposed by technical, scientific and economic change, but rather the university laying claim to (and effectively carrying out, which is more difficult) its historical role as a "centre for cultural production". It is obviously not the only centre for cultural production —it is one of many— but, it is characterized by the significant attention that it affords to the general interest.

It seems that under certain conditions the university can (once more) aspire to become one of the essential institutions of the present and one of the ones that we will most need in the future. Such institutions help to perform a function of "democratic control" in very delicate sectors such as research and at the same time use this channel to promote their formative function.

As might be expected, the ideas that follow speak of, and refer back to, this possibility. It seems to me that those of us who work at, and make a living from, the university cannot help thinking what a powerful instrument this institution has been in the cultural evolution of our countries and how, even today, it can play an important role in affirming the principles of freedom and social justice.

It is possible that "objective" situations may finally determine a series of positive conditions that could allow the university to (re)assume an "independent" function.

4. A Few Crucial Questions

4.1. The devil's flour¹

Is it worth reflecting on the circumstances that have enabled the university—within certain limits— to withstand the pressures of political power, while putting up much weaker (if not to say nonexistent) resistance to economic power. The (financial) resources of the latter have generally been considered not as a factor that conditions the activity of the institution, but rather as something positive, especially when economic power supports research and adopts a disinterested and generous attitude. That apart, it is evident that this represents a rather utopian view of a much more compromising situation, which also includes such phenomena as the imposition of lines of research and cultural prerogatives.

It may, however, seem incredible that in today's world such a contribution of resources should have —how might we put it?— a constitutive character, in the light of a formula repeated by many governments, in which "universities must find private resources of their own in order to fund their (formative and research) activities". In the past, although substantial, contributions still had a "private" nature in that they did not substitute the public commitment to the university. The present situation seems more dangerous and is also quite deceptive. On the one hand, this tendency tends to objectively reduce the "independence" of the institution (understood in terms of a certain apparent desire to try to homologate everything), while on the other, the resources made are not appropriate to the needs of the present situation.

In fact, we should perhaps reflect upon whether the "private sector" is tempted to transfer economic resources to the university out of pure generosity or whether it simply seeks to take advantage of the university's (human and structural) potential for research and innovation.

^{1.} Italian proverb: la farina del diavolo va tutta in crusca, non dà il frutto sperato ciò che si è ottenuto compiendo una cattiva azione. The expression literally translates as: "The devil's flour turns everything into bran", which approximately means that anything that has been obtained by dishonest or questionable means tends to give poorer results than those initially expected (translator's note).

Generosity, as it is well known, is never totally disinterested. Financial questions and mechanisms come into play that, to a certain extent, treat such gestures as if they were, in fact, a "public contribution" whose allocation had been entrusted to private uses, but this is not the point. The fact is that the majority of Europe's financial systems are not equipped for this purpose (it is not, therefore, a case of there being a particular type of avarice that characterises Europeans more than Americans, but rather a question of the greater fiscal advantages that are enjoyed in the USA).

If the university institutions of the old continent do not (except in very exceptional cases) have much hope of benefiting from the economic generosity of important companies and families, they can hardly hope for anything more than a few crumbs from the investigative commission. It is not a case of outside forces doubting the investigative capability of the institution, nor of them giving insufficient attention and importance to research. As repeated on so many occasions (in fact so many times that it really calls for critical attention if it is not to become merely a commonplace), today, more than ever before, the results of research have a high economic value, which (at least in theory) can rapidly be transformed into benefits. In fact, it is precisely the high economic value of the results of research that has lead to the increase in privatisations. To put this in a simpler and more explicit way, no-one is prepared to contribute a significant level of funding, or to finance research activity which is expected to produce results that could be converted into significant economic gain, without having complete and absolute discretionary control over the results deriving from such research. While the (traditional European model of) university can guarantee good results and major economies, it is not able to guarantee the necessary levels of reserved rights. This is not because the system is full of imperfections, but rather a result of the political and cultural impositions of the institution itself, which in substance derive from its public and collective nature. From other examples, it is also possible to observe how publicly funded research also tends to prefer specific "agencies" for its more ambitious projects, and how this increasingly implies a "private" business-like style with respect to organisation and ideology.

If the situation were indeed that described in the previous paragraph, this would constitute a first fundamental argument in favour of the university of the future demanding more public resources, because only public structural funding can guarantee the independence of non-business-sector-related research and training projects. In referring to this independence, there is no wish to accuse researchers and teachers of suffering from (to avoid expressing it in other terms) "deferential" subjectivity or of denying the fact that there is no clean separation between public and private research (the former tends to guide the latter). There is, however, an intention to highlight the fact that within an institutional structure governed according to democratic premises, collective control may be effectively exercised. While the adopted reference point is society and the demands that it expresses, the existence and interplay of different points of view constitutes a guarantee of autonomy with respect to both political and economic forms of power.

It is impossible to ignore the fact that the general situation in Europe is often frustrating for the "researcher", either due to the lack of available means, or to their inefficient management. The way in which resources are allocated between different research sectors tends to be governed more by criteria of "power" than by any promises of results. Thus, inefficiency is often exacerbated by ineffectiveness. All of these circumstances combine to tempt the researcher to move to more appealing surroundings, even though these tend to be more closely conditioned and —above all—characterised by a degree of competition that amply exceeds opportunity (and hence the so-called "scientific frauds"). Yet as we all know only too well, the researcher is often prepared to sell his soul to the devil in order to pursue his own scientific research project.

It could be said that where no action is taken to correct existing tendencies—which see fewer and fewer public funds being destined to the university— the institution is on course to lose the function that it has performed in Europe for centuries. In fact, not being able to rely on (or perhaps, more precisely, not having to rely on) the "devil's flour" of either private generosity, or significant private financing for research—and with public donations being constantly reduced— universities will have no other alternative than to turn to their "only" market; their students, for the money that they need. They will have to do this by greatly increasing their fees, by introducing rigorous selection procedures, and by carefully selecting which professions to prepare their students for.

In this process, there are also two possible routes. One involves transforming the university into an institution dedicated to forming a very select elite (a route that was also followed in the past with enviable results being obtained by some historic institutions). But this hypothesis is totally anachronistic with regard to the present needs of society. The other alternative involves making a rigorous selection of very specific and specialized formative projects that would exclusively and perfectly meet the demands of the labour market (in this way, the high costs associated with acquiring training would be justified by the guarantee of future recompense). This would imply a drastic reduction in formative activity (Ah! Who will now bother to study Sanskrit?), cultural impoverishment, and a very narrow and temporally defined idea of what should be regarded as "really important" and "relevant".

I do not subscribe to the indifference of the university in the face of transformations in the labour market and the need for a new form of professionalism (though we will return to this subject later), but rather to a less narrow vision than that dictated by the labour market and one that would take into consideration the wider needs of society.

These observations lead to a single conclusion: the exaltation of university functions requires increasingly greater amounts of public funding, and this is just the opposite of what is currently being proposed by many governments. It is therefore not a case of maintaining the existing situation, but rather of identifying a set of conditions

that would not only permit the institution to survive, but also help it to develop in accordance with the demands of the time. The university should not operate as a business enterprise, but rather as a centre for cultural elaboration, with effectiveness as the ultimate management objective; with results that are not exclusively tied to immediate returns, but also to the needs of society; and with a critical and therefore creative attitude, rather than one of conformism.

It is a question of the university being allowed the possibility to enjoy a relevant degree of autonomy and independence and to thereby become a generally recognised authority (although with this status submitted to certain control mechanisms). The university might then be in a position to contribute to the formation of responsible opinions and to therefore act as one of the possible "subjects" capable of developing a democratic control function.

4.2. Lifelong learning

The university will —in any case— be caught up in a transformation process that will modify it down to the very roots of its structure. In fact, it will have to examine itself with respect to a demand that was previously alien to it: lifelong learning. In stark contrast with the past, the subjects of innovation, and not just technological innovation but also scientific innovation, are all part of the same generation. This phenomenon of "acceleration" has produced a situation in which it is not now possible to acquire a high level of professional preparation through just one period of study that will serve for the rest of a person's life (with modest periods of recycling to emphasise professional practice); instead, there is a need for a continuous series of periodic recycling.

Today, more than ever in the past and probably more than in the future, training constitutes a fundamental necessity for economic development. Promoting the quality of education and therefore the quality of "imparted" knowledge —or (to use a term that I particularly dislike) the quality of "human capital"— should be regarded as an objective to be pursued with determination and without *skimping on resources*. It is in this dimension therefore that we must situate any modifications to what is demanded of the university: lifelong learning, according to the meaning generally attributed to the term and which will be explained in more detail below, should include elements of both training and didactics.

Furthermore —and as has often been repeated— the current phase of development seeks greater flexibility in the employment of the work force. In its most benevolent interpretation (there are several infamous versions), this idea calls for highly qualified manpower to submit itself to a continuous process of education. This may involve the recycling or the acquisition of new professional skills, even in areas that differ from those in which the skills were originally acquired and all of this within a context of (potentially) discontinuous work and professions (although

obviously the matter is much more complex than this and poses problems of great social relevance that it is not possible to go into in any depth in this article).

In such a situation, in which the recycling required concerns not just the acquisition of several new skills, but rather a new level of training, the role of the university must, out of necessity, change its traditional stance: it must cease to be an institution for the first stage of higher level education and instead become a centre for ongoing higher level formation.

Essentially, we will find ourselves increasingly faced with a reduction in the time that students will *continuously* spend at university and a simultaneous increase in the time that they spend in *non-continuous* forms of education. In other words, students will no longer study a single formative program (albeit divided into various cycles), but will call for, and indeed need, a series of formative programs relating to their specific professional needs, the latest scientific and technical advances, and the demands imposed by the market for their specific professional services.

Even so, the demand for lifelong learning must not be regarded as the exclusive domain of new "techniques", but rather as a means of recycling methods and presenting new conceptualisations and contextualisations of problems. Reducing everything to a simple technical recycling would imply looking at just one side of the question—the simplest— without providing appropriate solutions to existing needs.

The fact that there is an ever-increasing demand for lifelong learning is evident from the significant supply offered by the private sector; training has become a veritable "business". Evidently, such private initiatives tend to almost exclusively focus their attention on recycling skills, which is the easiest area: a rapid recycling without entering into too much detail or cost, with the consequent result of little new knowledge being acquired that is not already obsolete.

While the concept of "lifelong learning" does not exclude technical recycling, it does present a number of other questions and demands, particularly regarding the most appropriate methods for recycling particular skills. There are various needs to be attended to: the need to place innovation in specific and appropriate reference contexts; the need to enrich conceptualism by taking into account future paradigms and correcting and recycling them; and the need put technical evolution into context, through adopting a "critical" approach to the problem of technical development. These are all questions that can only be dealt with by a higher level cultural institution (if it is given the necessary tools and conditions to do so).

The effect of this transformation should not be underestimated, as its influence will be enormous, with respect to both organization and content.

At the organizational level, the supply of training will have to be reconciled with a demand that no longer comes from students in full time education, but which —with ever greater frequency— will come from a growing minority of student-workers, student-professionals, and student- executives, etc. This presupposes the need

for an appropriate methodological approach: one that will be different from that traditionally adopted.

On the content level, although recognizing that the university is —almost by definition— an institution dedicated to innovation, it cannot be denied that this innovation often fails to influence the field of didactics. On the other hand, in the case of lifelong learning, the attention given to innovation and scientific progress is not only fundamental, but needs to become an integral part of the general evolution of society —in all its different aspects— and of the interrelationship between research and training. For this reason, a certain auto-complicity that often tends to characterise the university institution should not go unpunished.

It is important not to underestimate the dangers inherent in this process of transformation and to be aware of what the university might stand to lose: the reduction of the process of lifelong learning to a mere technicality, could imply a consequent reduction of the special connotation of higher level formation, especially with reference to its "concepts", "critical" approach and context. One particularly relevant danger relates to a potential reduction in the amount of public resources assigned to the university.

4.3. Research

Today's interventions in the field of research are a particular source of worry on account of their results, which may have very negative consequences for humanity, both in terms of the ways in which they are used (which may be selective and discriminative) and to the purposes behind this research, which too often seeks economic gain rather than ways of "improving" the quality of life for everybody. This is a circumstance which threatens to fuel the deep distrust that already exists with respect to scientific research and its results (a distrust which —it must be said— could be considered relatively justified). The risks connected with this situation are varied yet symmetrical. On the one hand, there is a danger of encouraging a movement opposed to research, which could be tantamount to a case of "Butare il bambino insieme all'acqua sporea". On the other, there is the irresponsible dynamic of research driven not so much by a "mad scientist", but by a "board of directors" exclusively obsessed with making profits.

Can the university play a positive role in this arena? Does it, effectively, have the authority and ability to make the contents and results of its research intelligible—above all in those cases of research that most shake awareness and demonstrate an interest in the future?

It is not possible to imagine the university deciding what and how to investigate, but it is possible to envisage how it might become the point of reference for the

^{2.} This literally means, "throwing out the baby together with the dirty water", or eliminating – whether through carelessness or stupidity – something that is good together with something that is not wanted (translator's note).

"collective" and help people to understand, know, delve into and therefore promote or prevent research projects and programs, and free their results, etc. In short, it could become a centre for monitoring scientific research.

It is true to say that university researchers share the same vices and virtues as all other investigators. They may and should also —however— be motivated and encouraged to develop and assume the function of "guarantors of that which is collective". In other words, their attitude towards research should not only focus on the more specific aspects of results, but also on the more general results and effects that these may produce within the wider context.

It is clear that this role can only be developed on the basis of a relevant contemporary commitment from the university and its researchers to their research. An objection might be raised owing to the fact that this duality of roles (researchers and research critics) could be seen to constitute a contradiction. Such an objection does not, however, take into account the fact that the problem is not so much concerned with "criticising" research techniques and methodologies —for which the opinions of "strictly" sector-specific experts are perfectly valid— but relates to developing a multidisciplinary approach for addressing different angles of research and their possible consequences. To make sure that we understand each other, it is not a problem of critically analysing the techniques used to construct transgenic products (a small group of scientists are legitimated in this criticism) but rather of introducing a method for *scientifically* verifying their results, consequences, and short-term and long-term effects, etc.

The need for the university to assume this role —or better said—contribute to this role, is —as has already been mentioned—closely related to the relevant development of "university research", understanding by this concept a type of research that is not directly conditioned by economic results. This reverts us to the subject of public resources that should be made more readily available to the university, not only —as previously argued—to allow free research, but also to make it possible to investigate at all.

In all its activities —but especially in research in which the assigned objectives are shared— the university should not only act as a "glass house", but also as a place in which the subjects, programs and results of scientific investigation can be the objects of scientific and technical and/or scientific and social diffusion and debate. The university should no longer be a "glass tower" (made of an opaque though noble material) but an agora, square, and/or open space for discussion and comparison, and a source of greater clarity.

This also appears to be essential transformation: this is not a case of opportunity, but rather one of necessity. As already observed, it is possible to note a certain lack of trust here, whose roots are based in reason: the principle of *minimum risk* or *maximum caution* is often invoked; the possibility of "controlling" the results of research is questioned; there is a widespread impression that research tends to have profit as its objective rather than seeking to improve living conditions, and that at

times this effectively "thwarts" the second objective. This is a situation that could have dramatically negative consequences, with an effective block being placed on research in sectors that could offer positive results for the collective welfare and yet at the same time the first cases of uncontrolled research carried out behind the closed doors of opaque institutions.

In order to eliminate these negative results it is necessary to create an authority that could serve as a point of reference, not just for sharing the "verdict" but also for providing an opportunity to build a common knowledge and motivated conviction upon a base of clarity and transparency. And for all the reasons expressed above, this authority can be none other than the university.

5. University and City

The redefinition of the mission of the university —if it restructures its position in society— also implies the redefinition of its relations with the city.

Many observers have highlighted a certain feeling of discomfort amongst the population in this respect, perhaps linked to the deterioration resulting from globalisation. In short, globalisation tends to annul identity and to destabilise the population.

If we accept this diagnosis as correct, we must also note that it is possible to find the remedy in a new statute for the identity of places that tends to oppose the search for very simplistic means of identification which have little substantial relevance and are based on what we might define as "primary" elements (such as ethnic origin, blood and faith etc.). In other words, it is a case of establishing a new statute capable of performing the dual function of serving as a means of creating local roots and identity while at the same time interacting with the "global village" —to use a term that, although rather mundane, succeeds quite well in defining the concept of opening out to the whole world.

In order to reason along these lines, but above all in order to discuss the role that the university may play in this new context, it is interesting to put forward a few observations about the city while bearing in mind the fact that it has complex and often contradictory connotations. It presents a potential for social openings and at the same time for very discriminatory treatment. It constitutes the centre for intense (economic, social and cultural) relations and is also the result of processes of interaction between independent citizens, asocial citizens, institutions, organized centres, economic powers, cultural institutions, and services etc.

In order to develop some of the observations that have been made with respect to the possible future of the city, we propose a historical investigation of the "urban condition".

In the first phase of its development, the capitalist city is characterized by the *direct* influence of its productive processes: the city is, primarily, a *pure* expression of the development of the forces of production.

In this phase, for a number of reasons, which include the very demands of the productive process, conflicts between capital and labour and new social and political ideas are substituted by a long period of *urban reform*. In the city, which remains the "centre of power" (and precisely because of this), the mechanisms of "social regularisation" are activated. This is a long and contradictory phase, with specific elements marking each of the different periods, and continues right up until the modern day.

Today, this tendency for long periods of urban reform seems incompatible with the social mechanism of capitalism. In other words, we could be witnessing a *break* with the past: the city has become the symbol of processes of individualistic appropriation and pillaging that do not seem to be countered by any government function. It is a passage that opens a phase of uncertainty surrounding the destiny of the city and that arouses the dense nucleus of its contradiction: the city's function (in the broadest of terms) as an "accumulator" of economic energies and its function of socialization. Casting aside the building mortar of urban reform always implies the risk of this contradiction exploding in a socially destructive way.

As a result of this situation, the future evolution appears uncertain. The answers to the dramatic demands are insufficient and the possibilities of capitalising on the positive offshoots in collective terms, although certainly real (it is only necessary to think about new technologies), are modest. The role that the institutions will want (or will be able) to assume, and the means by which they will be able to activate, will be the main tools for ensuring that the results are not dramatic, and that —to the contrary— they may allow the new possibilities offered by scientific and technical development to be used to design a positive outcome.

Only the *public city* can "organize potential", give a new structure to existing social mechanisms, provide a network to help citizens to organize themselves, and develop an identity that is both strong and open at the same time. By a public city – in this context – we understand not only a way of organizing space and its collective use, but also the construction of attractive elements that are capable of engendering positive conditions for the development of the city and the quality of the life of its inhabitants.

In this scenario, the university could (and should) play a very relevant role in the re-foundation and transformation of the city. We previously mentioned how it is necessity to pass from the ivory tower to the glass house, but this is not enough: the university must be transformed, because it is destined to protect and control the evolution of the scientific research that will make it a freely frequented *square*. But, a general reorganization will be needed to prevent this function from acting as an obstacle to the normal development of formation and research: this will imply a redefinition of the role of students —who are active elements in the "square". Similarly, relations between the university and the "outside world" cannot be idealistically taken for granted, but should be structured and made operational.

It is a question of trying to give this institution a new form and of equipping it for the task of re-qualifying the city and thereby eliminating the sense of separation that often characterizes relations between the university and the city. The university should not be seen to *lodge* in the city, it should be regarded as an integral part of the structure, form and functioning of the urban community.

Its functions of providing higher level professional training, acting as a centre for cultural elaboration, guaranteeing standards, and helping to comprehend the evolution of science and technical skills, may all help to make the university a reference point for urban qualification (not just in the physical, but also in the social and cultural senses of the concept) and/or a source of relevant contributions to the construction of a strong and open identity for its citizens.

If, on the one hand, it is —in effect—necessary to regard strong local identities with perplexity, on the other, the "rooting factor" constitutes a modality of belonging and equilibrium for the social being. Today, such a root is always accompanied by an "international" awareness and by ideals of coexistence (which are necessary, though difficult to achieve), which are the only conditions for being able to live in equilibrium with globalisation and, above all, to avert worries and fears concerning diversity.

It is precisely in the construction of this condition that I feel we must call upon the university to make its contribution, not only in its condition as the institution of its beneficiaries, but also as the "local institution" that is open to everyone, and as a centre for experiments in coexistence. It is true that the university cannot perform this function alone, but the contribution that this institution could make —apart from being substantial and meaningful— should not be underestimated.

Synthesising these ideas, the relationship between the university and the city seems to take different forms in different settings:

- Spatial organisation: the university constitutes a strong pole of attraction. It possesses the tools and means to perform qualified interventions. This "quality" (including that of its spaces) cannot be found in the constitution of its nature, but rather in its capacity to intervene in spatial scenarios that have lost their original function (areas now in disuse) and that —on account of their size— represent more of a problem than an opportunity. In essence, the university presents itself as an active force for urban reorganization;
- The answer that —in formative terms— presents technical, scientific and economic evolution: with lifelong learning as its latest characterization;
- The contribution as an authority that can help to understand the processes of technological development, scientific innovation, new discoveries, and methodologies;
- The creation of a strong pole of identification.

6. To Finish

It is not easy to predict how the century that has only just begun will eventually unfold. It could turn out to be long or short, bloody or pacific, democratic or authoritarian, technological or ecological, barbaric or highly developed, discriminatory or egalitarian (in fact, perhaps even the generally understood meaning of these words will change in the future). However it turns out, it will be what we are capable of wanting it to be, for there is no written destiny.

There is one thing that is certain: the university, as we have known it until now, will undergo a significant transformation. It might, as we have already said, either lose some of its historic functions or see them exalted within a new context.

We firmly believe that the university will be able to make a valuable contribution to fulfilling the promises of modernity, but for this to happen, it must undergo a self-transformation capable of challenging and changing the elements of conservatism that so often characterize it.

The university that we need is one that permanently resembles a research and training laboratory that serves the interests of the whole of society. It must challenge historical and environmental values, be characterized by a firm commitment to democracy and social justice, and be capable of measuring the benefits offered by the results of research in terms of collective advantages (with benefits for all). And its democratic management will be fundamental to guaranteeing these objectives.

