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The Discipline of Appraisal in Italy in the last Half –Century

The author pauses to found the changes and the essentially methodological choice that, for the evaluation rules - and, in particular, for the training of engineers and architects - has become possible in last decades of the 20th century.

Thanks to the use of widespread computer systems and reticular technique direct to the specifications and evaluations it is possible to direct the preferences to the analytical methods of evaluation, that have become more safe and reliable.

The inquiry also includes a significant number of examples of experiences that were unusual until now and instead now are fields of observations and forecasts of considerable interest, in particular for the specialization of engineers and architects.

As I near the end of my time as a professor – but most of all as a passionate student – in the field of both civil and industrial Appraisal, I often find myself turning back and reconsidering the many different cases and particular situations that I have come across over the last fifty plus years in which I have been in direct contact with the discipline on a daily basis.

Often these cases revealed themselves to be notably complex and original, capable of awakening my curiosity and my will to learn more about, and solve the problems and queries that gradually came up. I obviously always did so with a view to obtaining effective, solid results and causing as little disruption as possible. I say solid results because our discipline does not look kindly on ephemeral concepts that are unsubstantiated by moderately efficient replies, even if adequate motives exist. And I also wonder whether our application and commitment – often companionably implemented and shared with many masters and colleagues, as passionate about the subject as I am – have, to some extent, over the last half-century, changed the logical and scientific basics, or at least the methodological cardinal points of the discipline, so defining the undeniably evolutionary movement that has distinguished contemporary Appraisal in general. I have little time and space for this kind of analysis here, but leaving aside the dialectical implications and the many biased positions taken in judicial proceedings, instead, I find it significantly interesting to try and retrace, at least in terms of the methodology used, how Appraisal evolved in the decades following the Second World War, these developments being mainly attributable to evident social or behavioural reasons that are often easily identifiable.

Having finally closed the dramatic, disastrous parenthesis of the war, our Country had tried to take back its relationship with the land, in ways that might have been considered regular and normal before the war took place. But they soon realized that the customs and lifestyles of the period before the war were no longer acceptable: there were too many new elements and different kinds of lifestyle that had led to a significant diversification between city life and country life. The population increasingly disdained life in the county, while all levels of occupations in factories, and in the industrial, commercial and craftsmanship sectors proved less insecure and more attractive, and the locations set aside for these kind of jobs were increasingly developed close to the urban areas.

It was not only personal choice and decision, often involving whole families, that day after day, convinced large percentages of the population in all age groups to consider migrating internally. And obviously, alongside the great outflows towards the industrial cities in the north, in the rest of Italy too, people seemed to be intensely and visibly pulled towards the medium-sized or small to medium-sized major cities, in a quest for greater job security and, simultaneously for a range of services, schools of all types and kinds, hospital assistance, suitable commercial settings and so on.

The considerations made here in this specific paper intend to deal only with the growing interest that the land around the main Italian cities was to attract. Almost all of these were hardly and badly protected by urban planning programmes, and general town plans that did not give any consideration whatsoever to the long-term.

The aspect that I wish to emphasize more than any other here, concerns the sudden appearance of a very significant demand for housing in the suburban areas that gradually became aggregated with the city... areas that would soon be used for the consequent rapid development of rather cheap residential properties by entrepreneurs in the construction industry. Moreover, these properties were often improvised and built without using any real specialised skills.

This was a long, deplorable period in which building speculators were given free rein, as often happens in Italy, to brutally deface vast stretches of areas. These ended up being left in a woeful state as a result of a situation where the "*public acquisition of costs against the privatisation of the benefits*" went on for too long, as those in the know at the time liked to say, tongue firmly in cheek¹. This obligation, that required building firms to directly carry out "*works of primary urbanization*" and ensured that they also lent their assistance in creating "*secondary urbanization*" (which indeed became part of the Italian law only in 1971), was only implemented when the horse had already bolted some time before and there was not much for the local administrations to recover!

I distinctly recall the moment when I came into contact with the appraisal discipline, during my engineering studies around the middle of the Fifties. It was

¹ C. Forte: *Analisi storica della rendita urbana*, Milano, 1968

one of the exams I had opted to leave until the end of my course, and with the arrogance of the young man I was back then, I decided to have a quick look at the slender duplicate copied file that was the one and only official text prescribed to those due to sit the exam. I was absolutely sure that the modest experience I had acquired when collaborating with some of my friends, a group of older engineers and architects, and so which could not truly be classed as basic appraisal consultations in the civil field, would have already taught me a trick or two. Or failing that, that it would have at least taught me enough to claim a sufficient knowledge of the entire operating essence, both theoretical and methodological, of Appraisal. However, I soon found myself battling with problems and concepts that were completely new to me, such as evaluating the *arboreta* in an area, forecasting the value of cultivations, drafting closed or open gate estimations, and even understanding the duties of the *enfiteuta* and the *utilista*. Perhaps I still had a lot to learn, or maybe these were notably different disciplines.

However, besides that, there was also another concept that seemed rather strange: each time there was any reference to the appraisal of an area, even a tiny area, that could be considered developable to some extent, the text referred to the indication of the average prices applicable in the area for the specific agricultural crops grown there (in £/hectare or, better still, in £/bushel), so enabling the appraiser to define the value of the few square metres to be transformed, based on that indication. However, the unit price indications that resulted from these calculations were so anachronistic compared to the figures effectively applicable in the markets as reported by hearsay, that they appeared to be nothing short of ridiculous!

At this point it was very clear that something was wrong. Something that was certainly nothing to do with the theoretical overview of the discipline, but at least in the appraisal procedure, that definitely needed to be studied in depth!

In this regard, a story comes to my mind, providing a serious example of the concept expressed above – the true story of the battle over a hereditary division that had begun in the early 1960s and only drew to a conclusion more than 20 years later. The event took place in what was a modest agricultural village in the south. The village in question found itself – absolutely by chance and without any warning whatsoever – hosting a large industrial factory right on the edge of the residential area. The factory would have provided work for more than double the number of people resident in the village at that time. The news had been received with great surprise and joy, but also with a pinch of disbelief. The population saw it almost as some kind of prank, a stupid joke, a late April Fool!

But, nevertheless, the newspapers continued to talk incessantly about this factory. The government had already ruled that it could go ahead and work was already in progress to make sure that production could commence. In the meantime, the operations regarding the hereditary division of the land had been initiated just two months previously. The land was to be divided into equal parts, and so into four agricultural holdings – to be used as fruit orchards and displaying almost the same consistency – and amongst four brothers. The agronomist appointed to appraise the property and establish the value of the four parts was quick in

finishing his task. And an easy task it was too, he told me: the biggest differences in terms of quality often only depended on a well in a strange position, or on a track that was almost impossible to access with industrial vehicles, or perhaps the presence, or the absence of a large stable.

In the meantime, this sleepy town had suddenly been whisked into the eye of the cyclone, and a significant number of building contractors soon launched an attack on the rest of the land in the municipality, getting wind of fruitful occasions for large investments. Obviously, up until that point, the municipality in question had never been the subject of a real *general town plan* but only an extremely modest *building programme* that had been developed and approved in a rush in the early post war years. But it was that very urban planning instrument that showed, once the agronomist's project to divide the land became known, that no less than two of the four pieces of land were almost entirely within areas that could be already be considered to all effects developable. This meant that, for these areas and for others in similar conditions and in adjacent areas, negotiations were already being recorded – and concluded – with prices in the region of 5 or 6 times higher than the previous agricultural values.

It was certainly not easy to convince the consultant and the magistrate of the error in economic logic that would have been committed if one had neglected the often perverse effects of urban value, in a market like this one that had previously been so modestly priced, but that had gradually increased so notably in value day after day. However, in the end this was possible and when the appraisal was repeated, the agronomist was joined by a technician – either an architect or an engineer – to carry out a proper appraisal of the developable area².

² In any case, this was not the end of this matter. A simple Building Programme was not enough to respond to the ever-increasing need to accommodate more residents. Now, the little town with a population that was growing at such a rate, was being forced to build, among other things, new schools, doctors' studios, nursing homes, markets, parks and gardens, buildings to be used as offices and public areas, post offices, sports facilities and car parks with a terminal for extra-urban bus services. And it would also be obliged to double the village Carabinieri police station which was to become the Headquarters for the area! It was therefore fundamental that the area was covered by a complete General Town Plan, that provided adequate responses to all the relative issues.

However, in the meantime, year after year amidst endless litigations, standstills and resignations, administrators *ad acta* and clamorous refusals, the project plan dragged its feet heavily without managing to reach any kind of definitive solution. And for the areas subject to the above-mentioned hereditary division, the following elements appeared at irregular intervals:

- a near 100% expropriation forecast in the light of the *legge sulla casa* (L. 865/1971) for two pieces of land;
- the layout of a high potential power line that would have cut one of the pieces of land into two, and the absolute impossibility of developing due to the extension of the cemetery in another case;
- the assignment of another holding to be used as a PIP area;
- the order to demolish a 3-floor building that had been illegally built, on one of the other holdings;

It was becoming more and more evident, that the dynamics of the urban areas and the prices being asked – and accepted – corresponded to economic laws that were very different from those that had existed in the past. And these therefore required appraisal criteria that was essentially different, as well as methodologies that were not only more sophisticated, but also more specialised.

The theme of the real-time appraisal of urban areas in times of intense dynamics, and in locations that had been notably diversified, tended to show that the logical conclusion of the argument between *attualisti* and *suscettivisti*, had been reached in the favour of the latter, as it was clear to see.

But there was a long series of specific implications that could no longer be ignored. Considering the kind of situation with which the appraiser found himself face-to-face, the land – and also the property that already existed on the land – could no longer be considered the expression of a stable, happy Arcadia that would continue to stand strong by following the laws and customs of yesteryear.

Of course, it had been surprising to learn that the first modern urban planning legislation emerged in Italy right in the middle of such a dramatic war (L.1150/1942), when it was already crystal clear that a few months later our Country would have been plunged into a devastating conflict that would initiate a tragic, ravaging period from which no region or village, from the beaches of Sicily to the Swiss borders, would escape.

When the war was over, we could say that – almost by chance – an urban planning law that regulated reconstruction already existed. And furthermore, it was a law that had been conceived intelligently and with a modern outlook, although in the wake of such a huge disaster, it was considered preferable to waive the provisions of laws which, in normal conditions, might have led to the long-term development of the land in almost all of the areas affected, and instead favour solutions that would alleviate the emergency in progress. And in a market that required solutions to be implemented so urgently and that was destined to last for a such a long time, professional activity in the Appraisal field too would also have to make do for the time being.

To tell the truth, an undeniably suitable methodological instrument already existed, and indeed the well-known *transformation value* rediscovered a new, rational practical function on this occasion. However, I cannot emphasize enough here that applying said method correctly is much more complex and difficult than that involving appraisal by direct comparison. And unfortunately, we must also acknowledge that, while we have been witness to surely irrefutable uses, we have also often seen this method applied in situations in completely incongruous or

- a couple of building sanctions that conferred legality to other buildings that had been created unlawfully ;
- and finally, a true recession due to the excess number of properties sold in relation to the demand to purchase houses and shops.

even clamorously unacceptable ways. This is clearly wrong but we have logically found it difficult to explain the weight of such errors to magistrates and technicians, who are not experts.

Besides, as well as responding to a request for an appraisal from a seller in relation to an area, or a piece of land of any size and quality that might – legally and conveniently – be used for a new and different use, the appraisal was increasingly often being requested by the potential buyer, in order for the expert to judge the extent to which the property was “*worth investing in*”. Or, to judge up to what extent and level of risk one could accept the acquisition of a developable area, taking into due account the price requested, and all the conditions and restrictions, both external and internal, connected to a specific building initiative.

And also – always from the buyer’s point of view – what kind of planning and technological measures one could take in order to reduce the economic risk relative to the investment. Compared to the previous, superficial calculation, based on the *volume that can lawfully be developed, the average cost of general construction*, the relative “*most probable selling price*” suitable analysed, the transformation value increasingly gained importance and practical efficiency when, for example, the appraisal procedure commenced by asking which of the many proposed layouts would be the most convenient in that area, taking into consideration factors such as the height of the structure built, the most favourable direction, the way the rooms were distributed etc., proceeding then with a study of the costs of the structures, the finishes, the services in common etc. in order to determine the *cost/quality* ratio for each of the configurations proposed. It would not have been a question of planning the whole building or buildings proposed, but certainly of studying the project much more than would have been possible in the architectural and technical *metaproject*³ with all the relative implications.

This more refined interpretation of the transformation value had already been significantly adjusted both theoretically and methodologically, especially thanks to Famularo (“*La stima dei fabbricati*”, Bologna, 1947), in the years immediately following the war, and more recently by Lo Bianco (“*Lezioni di Estimo Urbano*”, Palermo, 1952). However, I must affirm that the most intense advocate of this necessary specialisation in the technical-engineering sense of large areas of the appraisal discipline was undoubtedly Carlo Forte, (“*Elementi di Estimo Urbano*”, Milan, 1968), a keen student of the discipline. It is to Carlo, the indubitable head of the school, a clear-headed communicator with a strong, striking method of delivery, that we owe the ability to completely express the adjustment, including the theoretical adjustment, of the new methodologies of Appraisal for engineers and architects.

This extremely significant introduction of the appraisal discipline led to the configuration of an objective professional specialisation for the engineers and architects in the field of Appraisal which, was then seen as “*economy applied to en-*

³ As the term is defined in the Treccani *Lessico Universale*, in the sense of *maturational evolution, more complex development, superior or more advanced organisation, the most recent, in-depth stage of a study “in progress”*.

gineering". Certainly not a new science, but merely a new way of understanding - and applying - a century-old science that already boasted a well-researched and consolidated theoretical background; a science with openings that up until that point had basically presented themselves as long paths still to be trodden or at least, tracks on which experts had only just decided to tread.

Obviously, some of the fundamental concepts already acquired, such as, for example, the "*principle of ordinarieness*", would certainly have to be respected, but this would have to be done without neglecting the detailed *input* received from each of the many possible proposals, and that deriving from the condition of the site and from all the other characteristics and peculiarities that make each project different from the others, as we technicians are well aware.

Another one of the most important groups of appraisal methodologies typical of the technical engineering field, that seems to have made significant, profitable methodological progress over the last fifty years is that relative to the appraisal of the *cost value*, regardless of whether the properties in question are to be built from scratch or recovered, and regardless of the technologies to be used (or that have already been used). That is, we are referring to a concept that is again extremely complex, that of "*savings relative to the scale of the production*" ⁴.

Gradually, as significantly tall buildings were built increasingly often in Italy - and not only in Italy - it was noted that any building unit, even if it was prefabricated in a factory, had a completely different cost depending on whether it was installed on the fourth or fortieth floor, so leading to a degree of approximation that could no longer be considered acceptable.

And it is not feasible to propose an appraisal that includes a reduction or an increase in the cost depending on the height, as there are many variables (such as the times and costs of lifting the materials to the different levels, the average quantities of the materials for each journey, the nature of each individual project and so on) that can go either way for each single supply, and even for each individual configuration to be analysed.

And gradually, as these problems recurred, the *bill of quantities* became increasingly obsolete, as it was based on the unit price tables of the Public Works Office, the Chambers of Commerce and the Builders' Associations, that were not detailed enough.

In the meantime, as early as in the 1950s, computer science offered itself as an important contribution to the solution of complex problems, with thousands upon thousands of separate costs that had all to be kept constantly under control.

The industry began to successfully use some reticular techniques, such as, for example, the most advanced of these, the P.E.R.T. ⁵, as true methods by which to

⁴ Where, for example often it is found that by passing from the construction of two 4-floor buildings to one single building with 8 floors, with the same built volume, the average cost of construction decreases by 8-10%.

⁵ P.E.R.T. = Program Evaluation and Review Technique.

perform technical reviews and monitor extremely complex operations, but also for forecasts involving times and resources. Initially applied in the industrial field to exert strict control over airplane maintenance, another technique was soon to occupy an important place within the discipline: P.E.R.T. Tempi. This technique was capable of designing a plan with all the basic operations and reporting in real-time any delays that might occur along the way, as well as the critical values of certain operations in terms of the expert manpower required, for example.

By appointing the appraiser to manage the whole programme and also to measure the differences in the costs (and also the times), based on the changes that might be made to the initial project, the convenience is clearly one of the factors that can be identified and that serves in order to know the most favourable project configurations well in advance⁶.

In the last half century, amongst the numerous topics related to contemporary Appraisal that have clearly changed and so undeniably given signs of having reached maturity, one topic instead seems only to have reached a serious, wise equilibrium a short time ago. Previously, over the decades, it had been the constant source of a fierce, pugnacious debate on both fronts and the points of view of the land policy. Indeed we are referring to the problem of recognising a property's urban value which, sometimes spontaneously, and sometimes not, too often ended up strongly favouring areas that were waiting to be developed but that had still not been touched.

I am obviously referring to the problem of *determining the compensation for expropriation*, a concept that ended up reopening the discussion on the whole mechanism set up by the general law in 1865 under a new argument as early as in 1885. Can we then suppose that it was really an invented formula, at the time of the *Legge per Napoli*, to average out two values that were basically very close and therefore comparable?⁷ Obviously this is not an important question to be asking today. It is however important to remember that the same formula, applied in the post-war years, led in any case to situations whereby the sale value of the ex-

⁶ In a recent study on the measures taken to make a police station to be transformed into a school comply with the anti-seismic regulations in, the operation carried out to fix a structural grid outside the building led, exactly as had been anticipated, to a 36.5% reduction in the costs and a 24% reduction in the time required.

⁷ The *Legge per Napoli* that was issued following a dramatic epidemic of cholera and that was supposed to exist in order to expropriate - and demolish - buildings, especially those that had already existed for many centuries, had chosen to apply a law of averages covering the extremely modest financial values of hovels in deplorable conditions and the exceedingly high rents that were being recorded for those properties. In the first decades of the XX century, however, the formula, had been a discreetly and often well-deserved winning one in terms of providing compensation for vast areas in which the appraisal certainly could not - and did not intend to - go into much detail (such as railway lines, motorways and airports but also universities, sports stadiums, etc.) whereas in the case of expropriations for more limited areas, instead the formula served only for halving - or almost - the mercenary financial values of properties that had increased out of control.

propriated property was almost halved. This led to a long, drawn-out tug-of-war, with constant referrals to the supreme judges and long, exasperating waits.

Occasionally, there would even be some minister who proceeded in complicating the situation further by perhaps trying to find a geometrical structure for concentric circles around the most central areas in order to create order in an urban fabric such as our land, that was magmatic almost everywhere. But even this attempt to differentiate the urban environments as much as possible, using circles with decreasing values, as in a dartboard, had little success and created truly absurd imbalances.

It was also the era in which efforts were also being made to make the appraisal of urban residential locations more balanced and objectively more correct using a method that could actually turn out to be very interesting (*equo canone*). As a result of a positive comment I posted in a short journalistic article relative to this original methodology, I was urgently called to a Ministry in Rome and officially involved in a special, top secret project that aimed to study all the potential implications of this calculation method for rental fees. A system that had unintentionally ended up adopting all (or nearly all) of the many coefficients typical of the analytical appraisal methodology.

And there is, instead, another important specialist area of our discipline that in the last few decades has received an impulse, undergoing a decidedly significant development: it is - as I have already hinted - *Industrial Appraisal*. Or, better still, *Corporate Appraisal* a sub-discipline that has gradually realised the importance of the possibilities to research the definition of the value of both real and intangible complex productive properties...possibilities that had hardly even been registered up until that point. The need to further research the information regarding the current value of active companies, firstly in order divide these amongst the joint owners and immediately afterwards, to group them together, break them up, confer complementary quotas and so on, gradually increased over the years, as did the activity level of today's markets.

The analytical methodology, - that was substantially changed by Civil Appraisal - soon often proved to be extremely useful in the case of small and medium-sized companies, showing the ability and maturity to express judgements on value in all the groupings of production factors, as well as indicating with notable precision any faults in the initial planning and management methods applied. This refers, in particular, to industrial or commercial companies that, despite not being quoted on the stock market, in today's markets represent decidedly conspicuous volumes of capital, and therefore, for whom it is even more important to avoid gross errors⁸.

⁸ We should remember the case of a property divided up between two heirs relative to the following two business complexes in the same building, located in an extremely busy summer tourist spot:

- a luxury hotel company with around 150 rooms, complete with restaurant, swimming pool, sauna, night club, garage, tennis courts and convention halls in an excellent location with a view;

It is again the effect of a specific modern specialisation that has developed over the last few decades using as its cultural background the basic principles that are already codified in – it has been said – the Corporate Economics and Appraisal fields, but also in the fields of Land Economics and Localisation Theories, as well as Commercial Urban Planning and more advanced Marketing fields.

And finally, I would like to recall, in the same concise form, an aspect that I have often defined as *Unusual Appraisal!*

It concerns the more colourful (and therefore even more remarkable) operations within our discipline that I recall with amusement, or better some of the occasions in which the methodology of technical Appraisal was applied in undoubtedly original situations, allowing studies to be carried out on the values of the properties to which a new use was to be assigned, or decisions to be made regarding the financial convenience of the same. Some of these were applied in particular situations, to properties that had by now reached the end of their useful life in the use for which they had been conceived, and could now begin another life in a new use, that would also allow ensure their preservation.

I find it interesting to recall the following appraisal operations in which I participated during the past few decades, and during which I worked closely with specific technicians in each of the sectors involved:

- the case of a disused monastic convent, dating back to the XV century that – in accordance with the respective Superintendence – was studied from an architectural point of view, taking into account all the applicable restrictions, and the different proposals to transform it into hotels, boarding houses or holiday apartments, and so on. An example of a property complex situated in a position with extremely prestigious, positive characteristics;
- a 1960s passenger vessel of average tonnage, flying the flag of Monaco, that was studied, with a view to renewing and modernising its finishes in order to be used as a cruise ship on shorter routes in western Europe;
- another ship with a similar tonnage that was not judged suitable to undergo a total engine replacement. A study was carried out to consider the feasibility of transforming it into a floating hotel, but it finally became the location for a university-level higher education institute, complete with scientific laboratories,

- a commercial company of around 800 m² situated on the ground floor of the same building, to be used for the sale of Italian products (fashion, clothing, furniture, objects of art and top end artistic craftsmanship), targeting International tourists leaving the cruise liners.

Right from the first evaluation, surprisingly, a decidedly higher market value emerges for the commercial company due mostly to the large numbers of cruise tourists that frequent the area in the same numbers all year round, while the hotel remains closed for four months in the winter. But also due to the higher costs of the hotel, due to a bigger need for maintenance, spare parts and supplies etc.

Once more, several years later, a second evaluation of the two companies confirmed that the value of the commercial company was notably higher.

libraries, accommodation for around one hundred students, halls for conventions and film showings, a restaurant, sick-bay etc.

And then:

No less than two mediaeval castles of very different ages and sizes which, in their respective hereditary divisions, had not been judged economically convenient enough to be transformed into hotels or boarding houses. In accordance with the respective Superintendences, these were allowed to host small restaurant facilities in connecting buildings, so considerably limiting the number of rented accommodation units and rooms and allowing the structures to generate a sufficient income to sustain the difficult, costly maintenance of the medieval properties without having to make any major changes. In this way, the maximum feasible number of accommodation units and rooms was created, but the buildings were able to avoid abandoning the two fascinating ancient property complexes.

Clearly, here too the technician who carried out the appraisal relied on specific advice from experts in each sector in order to avoid making appraisals that were too approximate and therefore not adequate for the purpose for which they had been requested.

The restructuring solution only proved feasible for the less ancient of the two: the extremely cramped cells of the primitive monastery and the building restrictions imposed by the excessive thickness of the main walls were too large a limitation that would surely have hindered the creation of complete and autonomous hotel facility. A second proposal, that of a nursing home for old people was also later deemed unacceptable.

