- ROYAL ACADEMY OF ARTS: IDEAS COMPETITION OPEN CALL ON URBAN JIGSAW -

SPARKLING ARCHICTECTURE AND SMART BUILDINGS AGAINST TOWN PLANNING?

Better be able to see London and Milan both city-mothers of their own settlement's culture, by an alliance among planning instruments of XXI and XX-XIX centuries.

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We consider the "URBAN JIGSAW - Ideas competition open call" launched by the Royal Academy of Arts to collect suggestions for reusing brownfields spread out in the Green Belt of Greater London not only as an opportunity for a wider and democratic participation in the decisions of urban transformation in front of the imposing extension of the task and of the areas in trasformation, but a real appeal to change horizon and to return to a more meaningful significance of the term Urban Renaissance against the improper declination that it has suffered both in the most recent transformations of London downtown (for example with the Foster's Gherkin and Piano's Shard buildings) and then, often for slavish imitation, both in many other metropolitan cities in Europe, where differences in height, unusual shapes and materials and self-expressive immediacy of the architectural language (sometimes characterized as "sparkling" or "smart") and innovative technological potential of energy independence and reduced waste pollution emissions purported to justify the progressive isolation between the building and the urban context. So this term that should have meant buildings and urban planning "on a human scale" has actually alluded to the cogency of elitist decisions, supported only by the *placet* of a political authority to consent to the free inventive design of the favorite artists to address the image and the character of the urban transformations of the present age (in fact we see spreading of buildings whose image is signed by fashion designers such as Armani, Versace, Cardin and so on: but the buildings of a city are not like clothes that follow the ephemeral fashion's seasons!).

Maybe in the past (when it could be "great" in the ambitions, but often also in the mistakes, without however causing irreversible disasters) that may also have produced individual "masterpieces", but the importance of the settlement and environmental phenomena of the metropolitan dimension of our city does not recommend to resurrect this method and rather induces, extending also to the field of urban design claims of a conception "no logo" of his image, relying rather on the long-term determinants of the urban broader context.

Until the first phase of post-war reconstruction few were those who expressed their thoughts against the liberalism of buildings design as an expression of individual and ephemeral modernity of inventiveness guided by the objective of singularity of expression rather than the affirmation of a unification of long term urban settlements characters: among the few we can mention the extremely precocious study of settlement La Cité Industrielle by Tony Garnier and its interventions in Lyon, the Plan for the post-war reconstruction of Le Havre by Auguste Perret and the studies for a post-war reconstruction of Milan by Giuseppe de Finetti conceived as "from outside and from far away, in civil forms, without exoticisms and without archaisms" and inspired more from the "measure" of Renaissance cities, rather than by the huge extent of the destroyed city of the XIX-XX century or by the imitation of american skyscraper's vertical gigantism, meaning the term "metropolis" not as "widely extended and densely built city", but as a "city mother of its own settlement culture", according to the Greek etymology.

The theme of freedom and autonomy and linguistic design of individual buildings compared to adequacy to the urban context was already in place during the reconstruction in the city after the extensive war damage caused by the Second World War, who often are drawn until the most recent years with no final outcome and implemented only under the rule of the expansion phase in the 90s -2010 of globalization and financial information that has also characterized the iconic character (see the reconstruction of Berlin newly capital after German reunification, the buildings Gherkin Foster and Shark Plan in London and the Projects Citylife and Porta Nuova in Milan in the area of non-carried out Directional Centre envisaged by General Plan of 1953, with many self-representational buildings of Libeskind, Hadid, Isozaki, Pelli, Boeri and others) in a similar way to the above examples. Something similar had happened in the '60s -80 for some "buildings-city" of social housing (in Italy, for example: Corviale in Rome, "Sails" in Naples, ZEN in Palermo) introjecting as privatized the traditional public spaces (alley, campiello, etc.) whose lack of livability has often invoked their demolition.

Today, after three decades of transformation of the central areas, the ever-expanding waiting for reallocation of abandoned industrial or infrastructural areas as a result of the changing of worldwide distribution of production and technologies consuming less ground, reproposes once again for the european cities the need to reflect on an alternative scale even more extended. We should integrate indicators of environmental quality of buildings of the XXI century with the indexes of buildings and of public areas density of the Town Plannig of the XX Century and with the indications of the limits of height, distance and views of the buildings compared to the monuments of the XIX Century, instead believing that the thought of each next era could overwhelm completely validity of those previous. The definition key of the town design processes to introduce these more degrees of fairness and ethical perspective will no longer be understood as the minimum space area of Rationalism but as territorial dimension in which allow comparison of values and cultures.

In the light of what has been pointed out above, according to E. M. Mazzola¹ thought, it sounds clear that "the usefulness of an agreement between buildings, streets and piazzas needs to be reaffirmed, that is the importance of continuity between private lives' places and extended relations' ones is to be respected: both the new districts and the existing ones rehabilitation, should be conceived as composite spaces where houses or special buildings are just one aspect of the whole urban composition, to be neither under nor over-estimated when the aim is to satisfy the

¹ Excellence Urban Design Award 2015 Honorable Mention for his Corviale's regeneration project

socialization's needs". We believe, however, that it imposes to design architectural expressions the need to be "less sparkling or smart and more ecistically, icastically and urbanely representative".

In order to achieve what we need to fix a rule for buildable quantity and public spaces congruent indexes by the following congruency formulas ² and the exemplification Table 1.

$$Q_b = \frac{Q_{bpc} \times A_{pl} \times I_{prau}}{\left(I_{pa} \times I_{prau}\right) + Q_{bpc}} \qquad I_{plau} = \frac{Q_b}{A_{pl}} = \frac{\frac{Q_{bpc} \times A_{pl} \times I_{prau}}{\left(I_{pa} \times I_{prau}\right) + Q_{bpc}}}{A_{pl}} \qquad I_{prau} = \frac{Q_b}{A_{pr}} = \frac{\frac{Q_{bpc} \times A_{pl} \times I_{prau}}{\left(I_{pa} \times I_{prau}\right) + Q_{bpc}}}{A_{pr}}$$

TABLE 1:shows the congruent value of I_{plau}, A_{pu}/A_{pl}, A_{pr}/A_{pl} for some prefixed I_{pape} and I_{prau} (grev cells: fixed data: light cells: consistent data)

(grey cens. fixed data, fight cens. consistent data)						
I _{plau} and A _{pu} /A _{pl} %, consistent with the rules of Milan General Plan						
and with:						
$I_{pape} = 44.0** \text{ m}^2 \text{ of public area } /30 \text{ m}^2 \text{ gross floor area} \equiv 1 \text{ inhabitant}$						
**(26.5 m ² for local and 17.5 m ² for general services)						
$I_{prau} = 3 \div 7 \text{ m}^3 / \text{ m}^2 \leftrightarrow 1.00 \div 2.33 \text{ m}^2 / \text{ m}^2$						
I _{papc} m²/inhabitant≡ 30 m² of g.f.a.	$I_{prau} \atop m^3/m^2 \longleftrightarrow m^2/m^2$	$\begin{array}{c} I_{plau} \\ m^2/m^2 \end{array}$	$\begin{array}{c} A_{po}/A_{pl} \\ ^{0}\!\!/_{\!0} \end{array}$	$\begin{array}{c} A_{pr}/A_{pl} \\ {}^{0}\!\!/_{0} \end{array}$		
44.0	7.00↔2.33	0.53	77.4	22.6		
44.0	5.00↔1.66	0.48	55.1	44.9		
44.0	3.00↔1.00	0.40	59.5	40.5		

 Q_b = Buildable quantity

 Q_{bpc} = Buildable quantity per capita

 A_{pl} = Planning (or total) area;

 A_{pr} = Private area

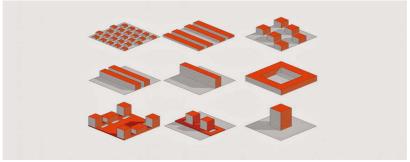
 A_{pu} = Public area

 I_{plau} = Index of planning area usability

 I_{prau} = Index of private area usability

 I_{papc} = Index of public area per capita

This allows us to choose the best design solution of an equivalent Buildable Quantity (Q_b) congruent to unbuilt and public area (A_{pu}) to be achieved. In the example of the Table below: same buildable quantity (Q_b) on same planning (A_{pl}), and private area (A_{pr}), consequently the same building and plannig indexes: and yet the different typological distributions causes different urban effects. In the solution at first line at the top left, every event that occur on areas outside the buildings affects almost immediately on their inner life, in the second line on the right the unbuilt space outside is totally surrounded and what there happens is almost impermeable to what it happens in the remaining unbuilt public and private areas nearby; the last solution to the right in third line what happens on the unbuilt space it is almost completely not perceived by the internal life building (except, perhaps, that for the ground floor and lower ones) .This not legitimate, however, that it is may be placed on the area a Q_b *ad libitum*, has happened in London with Gherkin, and Shard buildings and in Milan-Porta Nuova with Syringe, Big Diamond and Vertical Wood Towers and in Milan-Citylife with the Straight, the Hunched and the Twisted Towers, where the Tower typology is not as a design choice but an obligation due to the enormously oversized indexes (in Milan I_{plau} =1,00÷1,60 sq.m./sq.m.instead of I_{plau} =0,40÷0,70 as predicted by the above formulas).



² See Falco L. (1999), L'indice di edificabilità (*The building index*), UTET, Turin, p. 111:"It may be useful, starting from I_{prau} , namely a defined image of residential settlement and its morphology (although with the approximation that is represented by defining the image through only I_{prau}), to get the I_{plaul} and the total amount of public areas", rather than from a pre-determined and unmotivated fixing of the public area (A_{pu}); for example 50% of the planning area, as in the recent rehabilitation plans in Milan) and of the Buildable quantity (Q_b), relying rather on the expectations of ground rent by the owners rather than on the congruence of the indices pursued congruently to a planning idea.