

From the past for the future: visions and interventions

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Walking is an integral part of the European urban cultural tradition. In past times, cities were shaped at man scale, using "rules" that resulted in harmonious urban environments. Consequently urban spaces made pedestrian mobility and social interaction possible, and buildings met dwellers' requirements, both indoor and outdoor. In modern cities, planned above all to meet the demand of vehicular mobility, pedestrians have been pushed to residual spaces that, due to their wrong conformation and to the arrogant invasion of motorized modes, have lost completely their prime function of spaces dedicated to social relations and have become mere quick passing spaces.

It is necessary to reverse such perspective and to elaborate a new vision that puts pedestrians back at the core of urban design.

This paper will try to show that, by referring to visions elaborated in the past and by analysing the urban environment through its history and stratifications, it is possible to collect useful suggestions for working out this new vision. Such analysis can also give inputs for devising interventions that are appropriate for the design and implementation of settlements and urban spaces where pedestrians can walk and sojourn in a satisfactory way.

This approach grounds itself on two arguments. It is supported by a philosophical thesis: the Italian philosopher Vico theorized that the progress of things is made of "corsi e ricorsi storici" (historical courses and recurrences). In this case the recurrence is meant not only as a regression, in negative sense, but rather as a revival of visions and interventions (used to realize such visions) that are still today significative. It is also supported by an occurrence: the persistence, notwithstanding times and places, of some characteristic aspects known as "invariants". These are related first to the concept of "urbs" (city), and to the consequent vision, common to European towns, and then to the aspects characterizing such vision, that have indeed persisted, for historical, social, economical and technological reasons, till the modern age and the "car invasion"; they represent the various "answers" that have been given through the centuries to people's changeable expectations.

A ride through some meaningful historical periods points out several interesting aspects of various urban structure visions that concern, directly or indirectly, pedestrians; these factors can be general and basic, or more particular; the ones considered valid to act as important inputs are shortly described.

Treasuring some of the analysed visions, and/or some of the interventions suggested or experimented to realize them, it is possible to try to build some visions for the future that, knitted together, can form an overall vision for a city congruent with pedestrians' expectations.

The paper presents then some possible conclusions and consequent suggestions; these are referred especially to some invariants that made in the past, and still make today, the old pedestrian cities successful.

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Introduction

The need of elaborating visions for the future is due to the fact that the city today is not the one that pedestrians would wish. The design of the urban texture indeed is not always based on a user oriented approach, or at least doesn't consider walking and sojourning as main activities.

The quality of the pedestrian realm depends on a complex interlacing of spatial, functional, social and cultural aspects and is tightly related to the possibilities pedestrians really have of easy and comfortable mobility, of exchange and relationship, and finally to the agreeableness of the spaces where they spend their everyday life: an added value not to be undervalued.

The design of modern cities is focussed on the demand of vehicular mobility; people, using the man's natural transport mode: walking, have to find their way in residual spaces that, beside presenting an inappropriate conformation, are usually subject to the arrogant invasion of cars and motorcycles.

It is then momentous to reverse such perspective and to elaborate new visions putting pedestrians back at the core of urban design.

Such new slant can receive inputs from the analysis of the urban environment through its historical stratifications, resulting from visions and experiences (i.e. realized visions) made in the past, when walking was indeed innate in the city and urban spaces were consequently shaped.

The philosophical thesis

To devise visions, and consequent interventions, by referring to visions elaborated in the past is an approach supported by a philosophical thesis. Giambattista Vico (1668-1744), an Italian philosopher, historian and jurist, theorized that the progress of things is made of "*corsi e ricorsi storici*" (historical courses and recurrences). In the case under discussion, the recurrence is meant not only as a regression, in a negative sense, but rather as a revival of visions and interventions that are still significant.

Visions for the walking environment of the future then could take some hints from past positions and solutions, representative of persons with different cultural backgrounds and interests, which could be still appropriate or possibly updated to changed exigencies.

Architects measured themselves with "ideal cities", above all from an enlightened social perspective, or gave directions on how urban spaces should be designed to be agreeable to people using them, indirectly giving visions on how the cities should be.

Artists made paintings and drawings that depicted urban spaces and their uses in every day life or on special occasions: feasts, events, that convey to us their ideas of street life; writers described urban spaces, allowing our imagination to "see" who used them and in which conditions; film directors interpreted and presented to the public urban spaces of the past, of the present and of the future.

The recurrence of visions, and of interventions to realize such visions, can be proved by some specific cases. I deal here with two of them that seem to me emblematic.

The wish for a city with safe and comfortable spaces devoted to pedestrians is made evident by the use, in Roman times Pompei (I), of stony "bollards" for enclosing the *forum*, and then again much later, in the second half of XIX century, by the use of high bollards for defining safer corridors, in a shared-space square in front of the opera theatre in Milan (I), and lastly today, thanks to the revival of some interest for pedestrians, by the use of bollards, retractable or movable, to create pedestrian areas, with a car controlled access in several cities.

Evidence of the vision of a town where pedestrians can always walk at the same level is seen again in the remains of Roman times Pompei (I), where the forerunner of a raised crossing (or maybe of a Berlin cushion) still exists. To facilitate pedestrian mobility by using a path that is level with the sidewalk is then something from the remote past that in many present-day cities, despite raised crossings are well known as a traffic calming measure, still remains a vision.

The invariants

The concept of *urbs* arose in answer to the religious, political, commercial and social demand of public common places, apt to house people's activities and to fulfil their needs; in our European towns, the urban structure and the stratification of buildings and styles, still observable today, prove the various "answers" that have been given throughout the centuries to people's changing expectations.

Visiting such towns and reading about them, it is possible to gather that they were the result of a common vision: towns structured and organized for people moving on foot and built to their size, using "rules" that resulted in harmonious urban environments.

Some of the aspects characterizing this common vision can be said to be "invariant", notwithstanding times and places. They have indeed persisted, for historical, social, economical and technological reasons, till the modern age and the "car invasion"; for this reason I mention them here, once and for all, as important features that contributed to making the pedestrian city a success, before starting to point out some more peculiar visions, and possible invariants within, that can be ascribed to different ages.

Some of these factors are general, and basic, such as the dimension of the settlement, that makes it "walkable", and the presence of a mix of uses, both in quarters and in streets, that makes them lively and worth strolling in.

Some are more particular and give an added value to the environment in which people live and walk. For example: the facades of the buildings were shaped congruously to their role of interface between public and private realms, offering several types of facilities to enable rest and meeting and to provide protection from sun and rain; courtyards, widenings and squares, made use of natural elements such as green and water that, acting also as comfort regulators, favoured neighbourhood relationships and collective activities and characterized paths by different and stimulating views and perspectives; streets and open spaces, in continuity with the indoor ones at ground floor, formed places for social and commercial exchanges (Martincigh 2002, p.225).

Such urban layout was appropriate to host both everyday life and special events, for which many people could gather at the same time; for the latter special equipment or decorations were organized, such as the watering of Piazza Navona, in Rome, on the occasion of carriage races or naval battles, or the ephemeral settings on the occasion of religious processions or civil parades, of noble people's weddings and visits etc.

Moreover it has to be underlined that, in past times, architects designed the "standing out" buildings; the rest of the urban texture was usually built by craftsmen with the participation, often, of mere citizens; the slow evolution of the building process and techniques made indeed possible the diffuse knowledge and culture of good construction, that in turn enabled to build and renovate the habitat, maintaining its "homey" character.

A ride through history

Going through some meaningful historical periods, it is possible to point out several interesting aspects, pertaining to various visions of urban structures and spaces, that concern, directly or indirectly, pedestrians, and that are still conformable and revivable.

In this paper the attention is focussed on the "inputs" that can come from such analysis; these can be used to list suggestions for elaborating comprehensive visions for a future urban structure suitable to pedestrians too and for drafting recommendations or guidelines to be used for congruent design and construction.

A more extensive and in depth account is given in: "Pedestrians' Quality Needs Final Report, Part B The future of walking, 3.12 From the past for the future: visions and interventions", from which this paper is extracted.

The concept of *via* and *forum* from antique Rome

The most important aspect that can be borrowed by the Roman culture is the concept of street: "*via vita est*". Streets were indeed the stage where most of city life went on; consequently their orientation and dimension were defined in order to make them salubrious and comfortable. Straight and wide streets, with a certain representative character, hosting various events, marked the main axes of the city and were flanked by a succession of narrow lanes, for a better protection from sun in summer and wind in winter, opening out suddenly on smaller or larger squares or green spaces. They were characterized by a multitude of services and of everyday activities and by a heavy pedestrian traffic; interesting devices facilitated walking and outdoor life: dados along the buildings, raised crossings creating a continuous path at sidewalk level, tents against the sun etc. The concept of *forum* could be reinterpreted too; borne with a representative and political function, it constitutes the main characteristic of the city. Several emperors built a *forum* in different times; the result is a sequence of special vast outdoor spaces, surrounded by refined buildings hosting various public functions, where all the citizen flows converge. This arrangement in fact favoured public urban life and constituted the core of the city, exclusively dedicated to pedestrians.

The indications suggested by Vitruvio, the Roman theorist of architecture and town planning, in *De Architectura*, can be considered still valid. The mentioned concepts and solutions, but above all the culture of the time should be revived: riding in a coach inside the city was considered bad manners!

Streets at man's scale and a sequence of squares from medieval cities

From the Middle Ages it can be borrowed the pragmatic approach. The "organic" design of the town moves from need to need, from occasion to occasion, through several adjustments, merges practical needs with aesthetical exigencies and finally produces a complex unity. The street network is a route at "pedestrian size", reflecting the flowing of people's life (as later theorized by Sitte); the sequence of squares, gathering citizens for political, religious and mercantile activities, constitutes the core of the town.

Streets host many activities, taking place outdoors or expanding into the outdoor space; their shape, with its characteristics and proportions, restrains the strength of the wind and, thanks also to the large eaves and to the jutting out of the first floor, protects pedestrians from rain or sun; their design is full of distinctive features, such as the shrines set in the walls at the corners of the streets, the door and window frames, the gurgling fountains and wells acting as meeting points; their pattern, continually changing, offers different perspectives and glimpses. The curve line characterizes the town layout, since the slow curve is the natural path of the pedestrian; narrow, winding lanes, with sharp bends and *cul de sac*, often climbing form the labyrinth in which pedestrians move easily to reach the public buildings facing the main squares.

These three squares, often with an irregular shape due to the exigencies of the surrounding edifices or to topographic characteristics, have different roles. One, used for meeting and debating, for communicating, ruling and executing sentences, features the town hall; another, used for meeting and attending theatrical performances (religious or moral tales) or religious events such as feasts, processions etc., features the church or cathedral, usually elevated on a flight of steps; another more, used for meeting and for transacting business, features an open market usually flanked by a loggia and sometimes by a guildhall. These squares, generally adjacent, are the pulsing hearth of the city.

The ideal cities purport from the Italian Renaissance

The Renaissance puts the human being at the centre of the universe and thence the research for the good design of buildings, as well as of urban spaces, based on rhythm and proportions,

focuses on the study of man. The humanist architects devised an alternative spatial setting to the medieval city's spontaneous development, applying mathematical and cosmic principles to the city layout.

The lesson that can be learned is that this new order, although formal, remained vital since the new layouts were combined with, and highlighted by, the existing building heritage, and the dimensions, such as the width and length of the streets, never led to monotony, as on the contrary it often happens when the city grows in modern times.

In the ideal cities, as for example in Palmanova, that lies in the north of Italy, the streets alternate to smaller and larger squares, the space is at human scale and the whole layout is based on the effect of unity.¹

The most important inputs that can be taken from this period, are represented by two visions elaborated in the XVI century: the design of the street environment, that is defined and takes different forms depending on its use, aim and location; the layout of pedestrian routes, that is based on guiding vistas and landmarks.

For the former, Serlio, in *The five books of architecture* (1537-'45), depicts three street scenes using geometric perspective and interpreting Vitruvio's description. The scenes, pictured for dramas to be played, represent the visions of the different types of streets that should characterize the town, depending on its various functions and parts. The tragic scene: a scene with public buildings in classical style; the comic scene: a residential street, with porticos and shops in gothic style; the satiric scene: a path through woods with simple huts. The three styles represent three different types of town life: official life, private life, natural life.

The concept of communicating through different "styles" the different roles of the streets should inform much more their design in the future cities.

For the latter, Pope Sixtus V and Domenico Fontana elaborate a plan (1585-'90) for the city of Rome, based on walking. The city is organized as a big processional route that guides people by the view of great obelisks, that would have later been the generating principle of great meeting points: many of Rome's wonderful squares. It is the first re-planning of a city made for pedestrians, even if for a special type of pedestrians: the religious pilgrims.

It is interesting to mention that, continuing the tradition, some of the best layouts for pedestrians in present-day Rome were again realized on the occasion of the 2000 Jubilee.

Also the role attributed to the space décor has to be underlined as something to be revived. The street furniture was indeed not the least important contribution of the renaissance. Stone and brick paving, stone stairs, fountains and sculptures enrich streets and squares, and refined details characterize the facades. The vertical movement of the fountain jets and of the flights of stairs added vital spatiality to the pure functionality.

The square and the scene, as real life, from the baroque cities

The scale of the seventeenth-century city is no longer based on pedestrians; the greater dimensions are matched by the strict composition rules and uniformity of legal norms; the result is an exasperated monotony. The long and large avenues and the open spaces, seemingly endless, are the most important features of the baroque layout.

Speed enters as a parameter in the design of the city. At walking pace, the eye requires variety, at a higher speed the repetition of the visible units is necessary; only in this way, passing very fast in front of the single element, is it possible to catch it and to reassemble it. What persons staying put or walking consider monotonous becomes a necessary counterweight for those riding swift horses. The men on horseback and the carriages become the owners of the urban space. It is the beginning of a different way of planning the city, a way that will detach more and more from the organic approach and from the pedestrian scale.

¹ The design of such ideal city is attributed to an Italian theorist: Vincenzo Scamozzi, who published *L'idea dell'Architettura Universale* (The idea of the universal architecture) in 1615. It is strongly influenced by the writings of Vitruvio and Alberti. The quest of the perfect form was based on the effect of "unity". This very complex concept, long debated and sometimes questioned, is supported by perception and environmental psychology studies; it seems indeed that it is very important when dealing with the walking environment.

There are only few solutions that are worth mentioning as inputs for future visions and they emerge when the Baroque design faces great difficulties, such as topographic unevenness or intensively built zones, as for example S. Peter's colonnade, the Spanish steps or the Pantheon square in Rome, where there is still a contrasting tension between the medieval closed space and the open baroque one, between the vertical upward movement and the horizontal lines, and where is present a stratification of historical periods that makes the place highly significant; the Pantheon square still represents the human scale, the public "living room", the perfect meeting place, well equipped to be used most of the year.

Also when dealing with economical restrictions, or with events and amusements, exceptional results are reached; Baroque architects, who were also stage designers, use scenography techniques for improving facades and materials and for realizing ephemeral interventions in the outdoor spaces.

Finally, other positive contributions, from the point of view of the topic at hand, are constituted by the creation of wooded lanes, as in the Champs Eysées boulevard in Paris, to avoid the monotonous, agoraphobic aspect of the large avenues, by the opening to the public of the royal parks, that have remained the green lungs of the cities, and by the creation of amusement parks to offer people spaces for strolling.

A city of contrasts from the XIX° century

From the late eighteenth up to the nineteenth century no inputs can be found to be taken into account for a positive revival.

In this period, characterized by the birth of modern urban planning and of the modern city, two inputs are worth to be considered: Camillo Sitte's considerations and suggestions for designing spaces at pedestrian size, and the vision behind innovative types of public spaces such as galleries and winter gardens, renowned for their technological character. These special public spaces were built for hosting some persisting lifestyles and for promoting social intercourse; some of them have maintained their role even today. Such typology though has in some way changed its original meaning, being today the prerogative of commercial centres or office buildings: the affected *atria*. Observing the environment that resulted from the construction of the new cities, Camillo Sitte, an Austrian architect, underlines the emerging problems and opposes to this "modern" approach a vision based on the "old times". He gives suggestions for realizing more functional, proportioned and intriguing urban spaces. In particular he advances the theory that by easing the use of natural paths that pedestrians choose, it is possible to create "quiet islands" where reference and/or meeting points can be placed. As a result, they are suitably located in relation to the routes. Every street, every square, designed following these indications, presents local solutions, and thence assumes its own meaning.

Modern "ideal cities"

At the beginning of the twentieth century the Futurism movement exalted the age of machines. Visions of cities focussed on automobiles, speed and freely flowing traffic; pedestrians were ignored. The vision Fritz Lang offered in the movie *Metropolis* (1926) is representative of Dickensian "best of times, worst of times". Le Corbusier published a kind of manifesto proposing a "machine" vision (*La ville radieuse*, 1933), in which the death of the "street", in its proper meaning, is stated.

But there is also someone who has a different vision. Tony Garnier (1869-1948), an enlightened architect, proposes a model of city in which the unbuilt area is more than the built one and is set up as a great park completely permeable to pedestrian movement, with no restrictions or forced directions. In this vision, the attention to pedestrian needs is witnessed also by the size of the sidewalks, their asymmetrical design and the location of shady trees, studied for offering comfort.

At the second half of the century, in many utopian cities the separation of flows is forced, putting cars at lower or underground levels and pedestrians at higher levels. The valuable input from these visions regards the concern for air, light, sun and green in designing pedestrian walkways and well-equipped plazas.

In the same years Colin Buchanan proposes a model for cities that focuses on the road network as an organizing principle. Roads are hierarchically organized in three levels, defined depending on the different vehicular speeds that have to be lower and lower approaching the core of the districts; the spaces enveloped in this network are structured in environmental areas, which can be treated as "30 km/h areas". This model has been developed proposing increasingly larger 30 km/h areas, and even whole towns, that represent, in many cases, the current practice.

What it is still needed is a vision of the city that reconciles this technical tool with the concept of neighbourhood, with the various urban functions, scattered everywhere and with unrestrained, convenient walking.

The turning point

The visions focussed on the possibilities offered by the car diffusion have shown their limits. The existing structure of the cities could not support them; eventual changes could not keep up with the massive growth of the phenomenon, due also to the scale of the urban sprawl and of the commuting issue.

These models need to be rethought, detaching both from some actual trends that devise environments in which "pedestrian flows" are directed as vehicle ones (commercial centre style) and from some imaginary visions, not very encouraging. For example, the future as presented by the movie "Wall-E" (2008): un-walking, quite fat people travel, as tasty main courses, lying on flying trays ... Each one of them could be also said a futuristic Roman *triclinium*.

The fact that the phenomenon of the coexistence of various transport modes, casually, is still present can offer the only hint. The core of some cities and some little towns maintained their inclination towards natural coexistence, even with a higher presence of cars, thanks to their antique morphology and peculiar architectural features, as well as to the presence of many different functions attracting pedestrians, that do not allow for high speed. Such an ideal balance, though, is continually threatened by an overwhelming car presence that brings to the loss of urban life quality.

Conclusions

The inputs coming from various historical periods, revised and updated, can be used as hints for building some visions that, knitted together, can form an overall vision for a future city at pedestrian size too. The basic suggestion is to overturn the situation and to put pedestrians back at the core of urban design; all the visions are consequent.

Speaking of space, a vision concerns a city in which at least 50% of the public space is dedicated to pedestrians and/or 50% of the space left by the road/street network (block area) to setting up green areas where pedestrians can move freely as they like (borrowing Garnier's suggestion). To this aim it is necessary a legislative tool that considers the pedestrians' right to space for walking and sojourning, and sets its quantity in a consistent way.

With regard to urban dimension, a vision concerns a way to make it "walkable" and lively (two most important invariants). Since it is not possible to think of going back to small towns, for recouping city compactness and for overcoming the ugly urban sprawl, it seems right to imagine polycentric cities, where each "centre" is a district of appropriate size, with its own particular character, that presents many functions, a core and streets full of activities, making it lively for most of the day or, possibly, all day long, and that is supported by reliable and effective public transport.

Apropos of the street role, a vision considers it again as a multifaceted one. The different roles the street plays are related not only to the various traffic components, but also to many other aspects that assume as much, if not even more, importance: the urban structure features, the social activities, the environmental and ecological characteristics and the economic factors. Such mix calls for a street design that each time is devised in a different way, depending on the prevalence of one or more functions (as the Renaissance architects well defined).

It follows that a vision concerning the urban street network wishes, most times, for a city at walking pace and at man's scale. Different nuances of mobility, with several solutions, from the

separation of flows to possible coexistence, depending on the places and on the reduced speed limits, have then to be considered for designing a continuous pedestrian network, safe and accessible to every category of users. Such route should be a texture working its way in and throbbing, assuming different dimensions and roles, alternating different shapes and patterns, rich of significant and guiding features, that enables who walks to grasp easily a sequence of hierarchized spaces and of various images and details, that are perceived at the pedestrian's low speed and at man's height. Along the way the spaces should enable various activities and be made comfortable in every season by an alternation of green/blue and grey areas, and by the use of built and natural devices (the preindustrial city speaks well for pace and scale and Sitte's methodological directions deal with urban space appropriateness and meaningfulness).

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