

NON VISUAL ASPECTS OF LANDSCAPE. ODOUR LANDSCAPE

Joseph Stefanou

Em. Professor at N.T.U.A

Laboratory of Urban Design, N.T.U.A.

josephstefanou@gmail.com

Archontoula Vasilara

Architect, PhD Urban Planning, N.T.U.A.

avasilara@yahoo.gr

Abstract

The present paper is a result of the reflection regarding the absence of the odour landscape in urban and land use planning or in any other architectural intervention. Other studies had already stressed the importance of the odour landscape for the overall constitution of the identity of a region.

The main goal of the article is to demonstrate that the odour landscape is a key element of the perception of the character of a region and to contribute to the understanding of the need to manage the odour elements on an urban planning and architectural scale and not only to handle them as a nuisance. Contemporary practice in the field of odour management is exhausted and limited to removing the uses which cause a nuisance and under no circumstances does it utilize in a positive manner the element "odour" in the context of actual urban planning and architecture.

It is obvious that in order for the odour landscape to be an essential part of urban and land use planning, the scientists of the respective fields should be given a useful tool which will render possible the listing and evaluation since it is necessary to evaluate the positive and negative aspects of the odour landscape as well as the landscape of every other nature in order for the final appearance of the region to be complete and beneficial to the human user. It is deemed prudent that in order to accomplish this task a marking system should be found, i.e. a group of inherently linked signs or symbols which will be used to establish communication.

Key words: *odorant landscape, urban, spatial planning, place, place identity, space, physiognomy place.*

Introduction

As we have repeatedly stressed, space, which initially constitutes an abstract notion, becomes unique and comes into being as soon as human presence reifies it by introducing shape, emotion, sound, smell, taste, meaning, as well as human activities and creations. It is the content of the space that will imbue it with specific values. This is the point that "space" becomes "place" and assumes a specific identity. As such it is defined by specific characteristics that differentiate it from other places and define its unique physiognomy. These special characteristics can be considered as analogous to the special traits that identify the individual as someone with a unique personality.

In this sense, place, which is defined by its uniqueness and specificity can be experienced through an interpretation of its morphological, emotional and ideological image. Every mode of perception, such as sight, hearing, taste, touch, smell as well as the aesthetic and rational

interpretation of the elements that define a place as it unfolds in time contribute in their own unique way to shaping what a place is, how it is perceived and how it becomes known. A place is not defined only by the morphological characteristics that are visually perceived and is not identified only because of them. For example many times the morphology of the soundscape is of such major importance that it dominates the physiognomy of a place. The individual recognizes a place using not only her vision but all the modes of perception.



People perceive all the natural and man-made morphemes through vision. However prevalent these may appear to be, they are by no means the only elements that define a place's physiognomy. As we pointed out auditory stimuli play an important part in shaping the way the physiognomy of a place is perceived. The unique scents contribute in their own way in the formation of this impression, while taste and tactile information also play a part. Could someone argue for example, that a person with impaired vision is unable to perceive a place's physiognomy? On the contrary it can be argued that having a heightened sense in all the other modes of perception she is able to perceive in greater detail and with greater subtlety the more elusive aspects of a place. **Physiognomy** is the combination of all the elements that the individual perceives in a place through the five modes of sense-perception, along with the emotional and ideological meaning they become imbued with.

1. Different types of landscape.

Research so far has proven that **landscape** refers to the overall conception of a place; the factual, emotional and ideological image a place projects. A person perceives different aspects of her surroundings with each of the five senses and attributes to each distinctive ideological and emotional meanings. In this sense, it can be argued that that a place may include many different types of landscape.

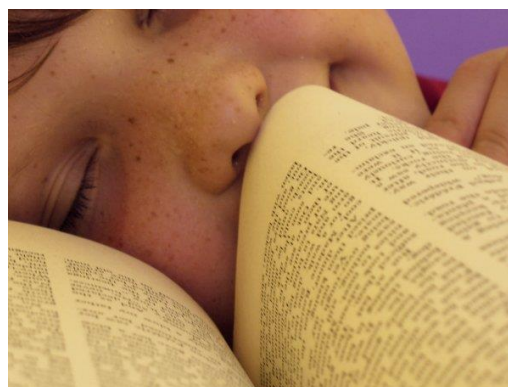
The combination of the distinctive characteristics of this multitude of landscapes make a place's unique identity and character apparent. This constitutes the place's physiognomy. One of the fundamental conclusions in "The physiognomy of the Greek city', a research project conducted by

the Laboratory Of Urban Design, is the formalization of specific **aesthetic principles** that determine the physiognomy of a place and define its perceptual structure.

These aesthetic principles, that refer to all sense-perceptions (sight, hearing, taste, touch, smell), shape and define all the different landscapes, such as visual, sonic, olfactory, gustatory or somatosensory and are fundamental in appraising the physiognomy of a city. In a first attempt to describe these distinct dimensions of landscape (as the different kinds of impression that define a place) it becomes apparent that they are completely autonomous, to the degree that can no longer refer to them "different types of landscape". Besides, the terminology is already established in the international academic community and current research attempts to address and examine specifically odour (olfactory), gustatory, somatosensory and, most commonly, visual and sonic landscape. In this paper we will concentrate on odour landscape.

2. Odour landscape

Odour landscape is also a very significant element in shaping the physiognomy of a place. It is, besides, common knowledge that scents play a big part in a person's life, especially and are most closely associated with erotic desire. Many moments in a person's life become connected with specific scents and memories are recalled with the smell of a certain aroma.



The scents that stimulate and are closely associated with memory, are often dormant in a person's subconscious mind until an external stimulus awakens them. Thus, a fundamental distinction in the way a scent is recorded, whether pleasant or unpleasant, has to do with whether the experience that becomes associated with it, is pleasant or unpleasant. A telling example can be found in post-war Germany. For many years people living in Germany could not stand any smell that contained even the slightest hints of chlorine, because during the second world war the areas of the cities that were bombed were afterward cleaned with chlorine. For Germans that experienced this, bleach containing chlorine would bring back memories of the war. Thus perfumers working in companies that manufactured cleaning products, created a new very strong scent that would cover the smell of chlorine. At the same time, the cosmetics industry infuses its products with perfume in order to provide the pleasant experience their marketing strategies promise. Hair would be cleaned equally well without perfume. However, it is the presence of the perfume that changes a person's mood when having a shower.

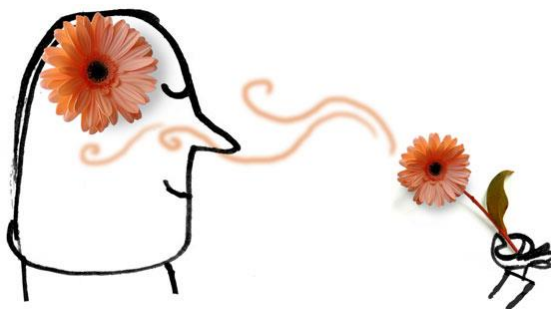
Besides the science of perfumery has reached such levels of sophistication that it is able to identify a different perfume for every different type of person. The particular perfume represents and expresses the character and personality, or physiognomy, of the individual in the same way that the smell of flowers and all kinds of different scents define the odour landscape as a fundamental element of the physiognomy of a place. In several large perfume shops customers are often asked about their habits and individual traits in order to provide a general image of who they are. Even the colors that each customer prefers to wear are considered compatible or incompatible with perfumes

or specific types of perfume. Similarly, one could argue that a city planner in order to plan and arrange most effectively a place should be familiar and take into account the olfactory landscape.



Scents, whether pleasant or unpleasant, a distinction that is often subjective, as they can be pleasant for some and unpleasant for others, depending on the clarity and diffusion, origin and intensity, constitute important elements in defining the physiognomy as they are the ones shaping the odour landscape.

In the same way that a traditional house is part of the physiognomy of an old historical settlement, the particular flora that fills that place's air with scent, defines the odour landscape. Through the sense of smell one becomes familiar with the particular scents and aromas of a place. How could someone not gain better understanding of the environment when she smells the scent of the food that a housewife prepares or the fragrance of jasmine and basil in her flower-pot? Scents are among the impressions most vividly recorded on a person's memory and a particular odour landscape is both legible and recognizable.



Entire areas are pressed on a person's memory with a single scent that can be recalled or recognized by smell alone even without the aid from any other sense-perception. Experiments that explore this association have been conducted. Participants were able to identify the general area of the city they were in without seeing or listening to their surroundings. In previous experiments conducted in the area of Nafplio with smell as their only guide, the participants were similarly able to identify their position. The scent of jasmine and lemon blossom in the Psaromahalas region, the stench, caused by faulty irrigation, in the city center as well as the variety of smells of food being cooked by the seaside all gave clear made it easy for the participants to identify their location.

The odour landscape may prove to be a significant source of information for a place. One such case can be observed at the plains of Messinia in the Peloponnese during olive harvesting, where the characteristic smell of the oil presses leaves no doubts regarding the residents' occupation and the local economy.



Another significant parameter of the olfactory landscape is its permanence and/or frequency. Often the odour landscape of a place is not permanent but recurs periodically. For example the scent of grape must during vine harvest in wine producing areas or the particular smells of Christmas treats during the holiday season in traditional settlements. When someone passes, for example, through the vast fields of citrus trees in Corinthia during autumn she will sense vividly the presence of a specific olfactory landscape imbued with the scent of the citrus flowers. During other periods of the year this specific olfactory landscape does not exist and may, temporarily at least, be replaced by another landscape with different characteristics. In this sense time is one the factors that needs to be addressed and analyzed in relation to place's scents.

Odour landscape still remains relatively unexplored compared to visual landscape. However, it exists and affects city planing greatly. In addition to other factors (hygiene, pollution, etc.), a place's scent often repels or invites certain specific uses. During the time of growth of Hermoupolis in the 19th century, the scent coming from tanneries that had developed on the western part of the city pushed the residential area towards the east. Intentionally or not, people perceive odour landscape in several ways and are influenced by it, emotionally and ideologically, and often develop their habits and everyday activities around it.

What we lack though is not the ability to perceive the multitude of scents but the motivation to talk about our personal relationship with them. We lack the appropriate vocabulary to describe and accurately record smell and as a result we often resort to using metaphor and simile to do so. Most language systems address primarily visual and sonic stimuli and as a result, smells, in contrast to images and musical pieces, appear to lack particular characteristics and it is often impossible to describe and address even the most familiar among them.

The first attempts to document the odour landscape may lead to the creation of maps similar to land-use maps, which will include the general characteristics of the olfactory landscape of forest areas, industrial areas and waste disposal areas, adding automatically information on the particular olfactory qualities and particularities of these areas.

Perhaps though, we should seek to establish the fundamental principles in areas that have already made significant progress in marking out and recording smell. Perfumery has developed particular methods and ways to document and describe the different perfumes, known to specialists. Perfumers synthesize perfumes combining four, five or sometimes even hundreds of ingredients which they refer to as "notes". In perfumery approximately 2.000 different notes are used, many of which are variations of the same theme. There are light, piquant notes, such as lemon or citrus, heavy and resinous, sweet wood-like notes, stimulative notes from herbs such as lavender and basil. There are around 20 rose notes (Bulgarian, Turkish, French or Rhodinol). For a chemist on the other hand, perfume is the mixture of essential oil with alcohol 75-95%.

However the verbal description and documentation of the olfactory landscape is the most common. These verbal descriptions, in terms of grammar, can be adjectives, verbs or whole expressions that usually refer to places with characteristic smell that is an essential part of their physiognomy.

After a brief survey we see that the most common adjectives used to describe perfumes are the following: sultry, floral, rich, sexy, spicy, sweet, bitter, sour, exuberant, heavy, light, piquant, resinous, stimulating, elegant, sensual, warm, sickly, exotic, hypnotic etc. The verbs most often attached to perfumes are: capture, provoke, excite, seduce, conquer etc. But for the most part the most common descriptions refer to the origin of the perfume: orchid, lavender, lemon, rose, citrus, jasmine, wine, coconut etc.

In the urban and natural environment, the most common way to describe olfactory landscape is verbal and with direct reference to the origin of the smell, describing it in very general terms and lacking specificity. A street may smell of flowers, food, excrement etc. Odour landscape becomes more specific and recognizable when it is permanent and therefore intrinsic to the physiognomy of a certain place.

However beyond this empirical approach on the odour landscape, which as we have seen so far is primarily verbal, and the existing scientific approach, which is partial and has as primary aim the avoidance of olfactory nuisance, there is a clear necessity to scientifically investigate olfactory landscape and to formulate a systematic way to document, interpret and evaluate it.

3. The problem of notation. Documentation - interpretation - evaluation.

According to what has been said so far, it is necessary to devise a notation system that would facilitate approaching other types of landscape beyond the visual. A complete set of organically connected signs or symbols that would allow communication, just as in the case of spoken or sign language. Just as the development of line drawing has allowed designers to communicate the mapping of the visual aspects of a building, we should develop a similar system of signs for mapping out the sonic, olfactory, gustatory and somatosensory aspects of a place.

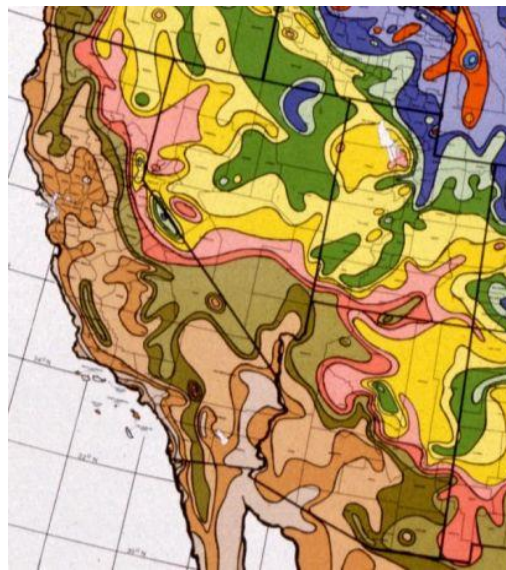
As stimuli derived from senses other than vision are particularly complex, their notation should allow their interpretation on three different levels. The first level has to do with description, the second with their functional significance and the third with their ideological and emotional interpretation. For example the documentation of sonic stimuli may occur using physics laws (volume, frequency etc.) but the documentation of their psychological aspects using the receptive and interpretative faculties of the individual.

The metalinguistic system of spatial notation should include the classification of stimuli (sounds, scents, flavors, touches) in relation to the following: specific typology (natural, artificial etc.), spatial data (relation to surroundings, place etc.), temporal data (duration, rhythm, periodicity etc.), type (medium of communication, content etc.), intensity (soft, intense etc.), form (conversation, announcement, call, briefing, warning etc.). Stimuli should be reviewed and evaluated as far as their physical properties are concerned but also as far as their emotional and sensual properties are concerned (eg how pleasant they are etc.).

The next step, after all the different stimuli that are perceived through the senses are systematically notated, is the creation of a new semantic system or a metalanguage that will allow those who employ it to decode and interpret, recognize and evaluate sounds, smells, flavors and haptic stimuli in the same way this already happens on the visual terrain.

The use of this tool will be similar to the use of grammar books, that contain instructions on how language and syntax functions, or of maps, where one can trace and explore the streets of a city, or to musical notes, that dictate how music is organized. We already have maps of great detail that include some elements of the sensory landscape as they include temperatures. These maps

(using thermal photography) are very similar to photographic maps but instead of showing variations of light, they show variations of temperature.



This way, a map may be devised that will function as a communication system documenting the sensory data in a way that is similar to the way an image or a morphological element transmit the visual data to someone that does not have first-hand experience at the specific point in time with sufficient detail. The collection and documentation of stimuli will take into account all the elements that structure space and shape the identity of a place: the natural surroundings, human presence, cultural elements, buildings and every other aspect of place. Because this is a complex issue and actually concerns several diverse elements concerning time, space and human behavior among others, the methods of documentation should borrow methodologies, techniques and research practices from the Humanities as well as the spatial sciences, so that the suggested model will be accessible, easy to use and to understand by the people that want to understand a place's physiognomy.



Conclusions

All of the above make clear that we need to document and analyze all the distinct elements that make up what we call physiognomy. Such an approach will facilitate the difficult task of preserving traditional settlements, not as mere scenery but as places that are alive.

In conclusion, we can safely say that any type of intervention needs to take into account that it is not only the visual landscape that requires protection, planning, development or even upgrade, but all types of landscape. Accordingly, the planning and execution of development projects concentrate exclusively on the visual landscape at the expense of all other types of landscape. A decrease of flora, for example, that plays a major part in the area of the odour landscape, or of

fauna, that contributes greatly to the soundscape, cannot be part of an effective planning model for development. It is necessary to evaluate the positive and negative elements of every type of landscape so that the final shape of a place is complete and able to host the individual.

However, in order for this to become an applicable rule and a functioning tool in planning and development we need to develop systems of documentation of these landscapes so that they become measurable and assessable. Science, at this stage, needs to devise a similar system of notation that will be universally accepted and understood. The ability to document, recognize and interpret the individual structural elements of physiognomy and all its aspects and the ability to reproduce and manage them may contribute significantly in planning and protecting urban complexes more effectively. In this way, these urban sites will become "living" places able to host individuals with needs that include all their senses.

All these qualities that correspond to the all the senses, as they become perceived by them, are intrinsic elements of the physiognomy of a place. Our senses provide us with all the necessary tools to identify and comprehend the uniqueness of a place, to detect its unique identity and to manifest its essence. In our contemporary context dominated by the emergence of globalized culture as we move forward in the new millennium, it becomes imperative for every place to safeguard its unique physiognomy that emerges through its unique and specific characteristics.

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