

# Conceptualizing urban places as a “Fourth Skin”

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**ABSTRACT:** This essay attempts a conceptualization of urban public spaces as a “Fourth skin”, extending existing ideas of clothing being a “Second Skin” and buildings a “Third Skin”. For the design of clothing, architecture and outdoor space many similar aspects have to be taken into account that should be balanced in terms of “inward- outward”- relationships. Issues of protection and comfort stand for the “inward” values and expression and display form the “outward” values in this model. This “skin”- approach is based on the need for an integral concept to understand urban places putting the human being in the centre of attention. Mainly phenomenologist thought serves as a philosophical basis for this model. From this concept also an evaluation tool to assess the quality of outdoor space can be derived. First analyses of literature and built projects based on this approach document a lack of balance of “inward- outward”- relationships. The bias towards visual and display aspects in the design of urban places is strong whereas the issues of comfort and support of human activity show many shortcomings.

**Keywords:** outdoor comfort, perception, material, concept

## 1. INTRODUCTION OF THE CONCEPT

### 1.1 The skin as a main conceptual model

The skin is our largest and most complex multifunctional organ. It is not only forming a vessel around our inner organs and protects them but it also works as an emitter. Through its openings it enables transfer of matter between inside and outside and it enables us to communicate sensorially through touching and feeling. In short- an extremely important and highly fascinating part of our body that makes up for a good deal of the perception of ourselves and the environment.

Our skin is the “envelope” of our body, giving us the feeling of “insideness” and comfort. Several languages also have expressions that speak about human well- being and being inside the skin. The Dutch, for instance, talk about somebody who “zit lekker in zijn vel”, which literally means that somebody feels good in his own skin and generally it means that the respective person is in a healthy state and a good mood.

The most intense phase of human life in being “inside a skin” is certainly the prenatal phase, when the baby is actually a body in its mother’s body and thus a “skin in a skin”. This is what will be called the “0-skin” in this essay, being the skin we all have but which is not taking up its complete function yet until we are born.

After being cast into the world this “0-skin”, now freed from the surrounding mother’s skin becomes our “First skin” and will take up its manifold functions.

They are in the first place physical and cover the aspects of “inside- outside” directional relations:

- Covering, surrounding and protecting the “inside” against intrusion
- Emitting signals, substances and scents to the “outside”

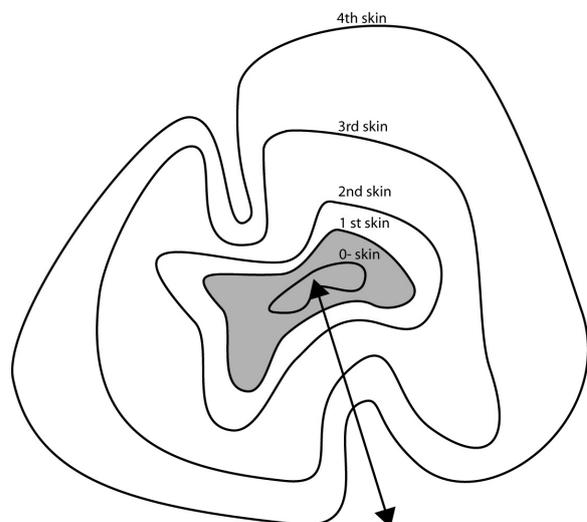
Thus: Exchanging between” inside” and “outside”, with the skin as an active regulatory organ

But similar patterns can be related to its social functions

- Bordering the intimate inner sphere or the “self”
- Displaying the “self” to the outside world, of which the practices of make- up, body- painting, hairstyling etc. form an important part

Thus: Communicating between the individual and other individuals.

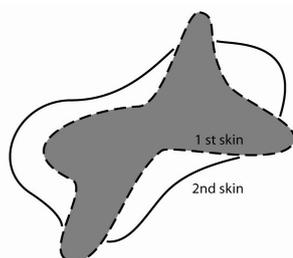
Similar functions in terms of physical mechanisms and social communication can be elaborated for the subsequent outer skins, being clothing a “Second skin”, shelter a “Third skin” and urban space a “Fourth Skin”.



**Figure 1:** Rough general conceptual model of the skins and inside-outside relationships

### 1.2 "Second skin"

Our "first skin" will- in almost all environments- be surrounded with extra coverage or "clothing". First of all it serves to protect and cover from external climatic and other physical influences, being thicker, the harsher the environment becomes. Secondly it will enable the contact of the first skin with the outside world through openings like sleeves, collars etc. and more subtle- the transfer of substances and sweat to the outside. "Smart clothing" is trying to enable this through the use of special materials like Goretex, but also natural materials like wool and silk have these properties. Latest developments in clothing design show a shift towards even "smarter clothing" that continuously interacts with the wearer through regulatory systems to provide optimal comfort trying to copy the regulatory properties of the "First Skin".



**Figure 2:** close- up of the conceptual model concerning "First and Second Skin" with its openings

Considering its social function clothing is protecting the person's self and some garments are also felt a kind of "armour", to keep the world outside at distance. Next to this clothing has even more the social function of displaying the "self" of the wearer, the status and identity to the outside world. Fashion can in many ways go beyond the function of protecting and become a mean of mere display and overt self- expression. Frequently "haute couture" as pure "Second skin"- artistry is not actually serving the human being anymore. "Suffering to be beautiful" is a common saying and reflects that comfort is not an issue anymore when someone tries to comply with the strict rules of high fashion. Millions of misshaped women's feet form the legacy of high heeled shoes or Chinese foot bondage, ribs having been squeezed in corsets, black curly hair destroyed through straightening... the list could be continued endlessly.

Anyway- the balanced "inward- outward relation" of clothing is very important and so closely related to a person's self that we speak in a synonymous way of the "second skin", when something fits physically very well and expresses the wearer's personality or mood. This high adaptability and the fact that clothes are worn, thus that they are "mobile" form the main differences with the "Third and Fourth skins".

### 1.3 "Third skin"

Mostly the first two "skins" are not enough to enable optimal coverage and give space to be shared with others. For that we have to create shelter and buildings which form our "Third skin". A building in many ways works similar to our skin and clothing with regard to interactions between "inside" and "outside".

With its walls it physically protects the interior and its inhabitants, with its openings of windows and doors it facilitates interaction between inside and outside. Also in architecture movements have occurred to design "smart buildings" that regulate comfort in many different interactive ways. Much of the underlying research is actually represented by many colleagues on the PLEA conferences.

Its social function lies in the protection and enabling of activities of either one individual, or a collective group, thus sometimes surrounding private, collective and sometimes public space. Even more emphasis is often given to the "outward" social aspects of architecture. The interfaces of a building- its interior and exterior walls- just like clothing or "Second skin" forms a very important display of the inhabitants' status and taste. Wealth and ambition of commissioners have been manifested in manifold architectures. The pursuit to demonstrate these aspirations ranges from the hiring of star architects to prop up the image of a city ("Bilbao- effect") to the ever-lasting competition on building the tallest skyscraper ever.



**Figure 3:** example of "unwearable" haute couture

### 1.4 "Fourth skin"

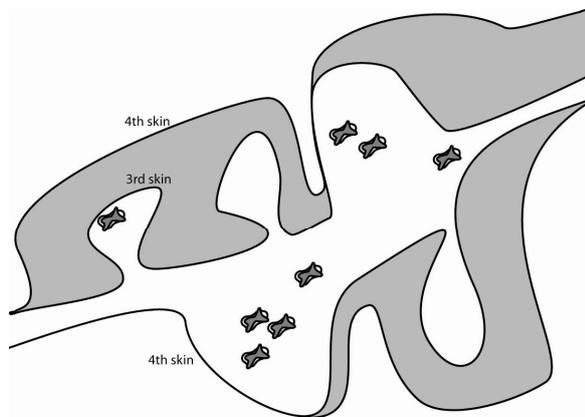
Eventually we can, in a broader sense, consider urban space in an analogous way- as our "Fourth skin", because in many ways it follows similar

mechanisms as have been described for the “First, Second and Third Skin”.

The idea to conceptualize urban space in this new way is in the first place based on a changing general perception of the urban realm. For a large part of the global population the experience of the circumambient world changes from a peasant’s to an urbanite’s perception by the ever- increasing number of inhabitants of urban agglomerations. Living surrounded by buildings and artefacts leads to a perception that makes urban environments seem more close to oneself as opposed to wider landscapes or untamed nature, making the idea of “Fourth skin” in urban space more evident or directly felt.

Another indicator for the concept’s usability is the use of terminology in urban space design by designers themselves and design critics who are liberally borrowing from the language of cosmetics and fashion jargon. Parallels with the treatment of the “first skin” are numerous: urban design projects are described as “facelifts”, “botox- treatments” [1], etc. Similar relations are laid with fashion design or “Second-skin-design” when project descriptions use metaphors like “a made- to measure- suit” for urban public space renewal. So unconsciously and through the use of language this concept of the “skins” has been present amongst many designers and design critics already.

Analogies with the other concepts of the skins are obvious. The physical aspect of protecting “inward” functions of urban public spaces has to be guaranteed. This mostly concerns human outdoor activities and in our age of hedonism increasingly recreational activities. The influx of goods, energy and people into the spaces enables life in it and thus gets its own gates, roads and channels fulfilling the same function as the skin’s pores, the openings in clothing and doors in buildings. The same goes for the outward physical flows, making the functional connection with other urban spaces and outlying locations. One main need to enable all these human activities and flows is to offer the necessary physical comfort.



**Figure 4:** nuanced conceptual model of “Third and Fourth Skin” populated by “First and Second Skins”

In physical terms the relation of the “Fourth skin” with the “Third skin” is very tight. For instance urban space is often said to be a “building without a roof” or another concept is that various public spaces of a city form the different rooms of a house. The idea of “urban interiors” that have been specifically described by Camillo Sitte underpin this clear connection between (interior) architecture and urban design. Physical boundaries between “Third and Fourth Skin” also often get blurred in transitional spaces being porches, arcades, porticoes, patios, etc. and even form a continuum of surfaces that surround interior and exterior spaces.

But many urban spaces are only partly or not at all surrounded by buildings (=“Third skins”) and rather by physical boundaries that are made up differently, e.g. by trees or plants, earthworks and other artefacts of landscape architecture. Nevertheless that generates an impression for an individual who stays in such urban space of being spatially surrounded -less close as within a building- but still strongly present.

Apart from the physical properties the social aspects of “inside- outside”- relationships show parallels with the other “skins” as well.

The “Fourth skin” of urban places provides the envelope for outdoor life, social encounter and relaxation of the urban community itself. But even more important becomes the role of representation of that community to the outside world, of displaying its wealth, culture and power through the interfaces of the “Fourth skin”. The competitiveness of cities on a global market is getting increasingly important to keep pace in a global rat-race on attracting global capital. So the same mechanisms as in architectural representation take place in urban design: outdoor space is designed with spectacular and glamorous looks to put a city on the global map [2].

To recapitulate the main concept and general implications of “Four skins”: The human being at the centre of its environment together with this circumambient world forms a complex whole, with various levels of physical and social exchange. In all cases the “input and output” between skins have to be in balance, both in physical sense and in social meaning to create a well- performing whole.

## 2. RELATIONS WITH EXISTING THOUGHT

### 2.1 Older Philosophies

This approach is rooted in a number of streams of thought, but has not been described in this way yet, although it seems obvious- we can all simply comprehend the “Fourth skin” idea and it is based on very primordial kinaesthetic perceptions of being part of our world and a sense of “togetherness” with it.

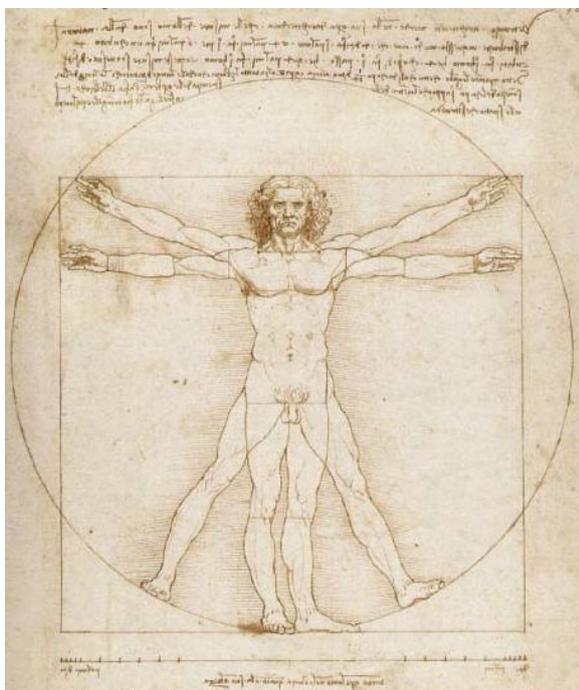
Many thinkers have conceptualized the human body and its surroundings and not few have been thinking in a quite similar way, seeing the human body as a part of the environment and not something standing apart from its surroundings.

Aristotle in his famous “Physics” has – in opposition to other Greek philosophers- appropriated this view describing the “togetherness” of humans and the world. He already conceptualizes places as a

cover surrounding the human body emphasizing the immanence of man [3]. This way of conceptualizing the relation of body and space gave Aristotle the role of a “proto- phenomenologist” [4].

Through the centuries the holistic concept of body and space has changed towards more segregating ideas of separate entities of body, mind and space. Judaeo-Christian ideologies have certainly played an important role. But also non- religious thought has formed this separated view, culminating in Descartes rationalist’s ideas of the world and the evolving predominance of Euclidian space that is completely disconnected from bodily experience.

Kant picked up the discussion of body and space, emphasizing that our perception can only happen through our bodily senses that at the same time are the measure for our world [5].



**Figure 5:** Leonardo da Vinci’s Vitruvian man as the measure of space, anatomic study, 1490

The relation of our conception of the world is purely anthropocentric. Our body’s measures, proportions and directions define what and how we see and feel. The three axes in our body define our concept of directions (up-down, left-right, front-back). Our body’s size was the measure for all kind of distances (e.g. feet, inches), weights, etc. and the number of fingers is laying the basis for the decimal systems. We are confined to using the means given by our body to perceive and conceive the world.

Building upon Kant’s thought it is important to be aware that our human body clearly defines our perception, comprehension and thus conception of the world.

## 2.2 Phenomenology

This proprioception, the deep perception of the surrounding world through our senses and how we

subsequently conceive the world is basically the essence of phenomenological philosophy in the last century that used Aristotle’s and Kant’s thought on space as a starting point.

Merleau- Ponty has widely elaborated these ideas, coming from findings of behavioural science and Gestaltpsychologie to a philosophy of space that emphasizes the role of space not as a “vessel” or “void” as happened in Cartesian spatial concepts, but as an inclusive, universal power of which the human being forms an integral part [6].

The idea of “Wohnen” in Heidegger’s thought is similarly inclusive, pondering upon the human being accommodating in the environment. He sees it as a two-way feedback process of shaping and being shaped by this place. The “Wohnen” also expresses the “being part” of the human being in its surroundings [7].

Bachelard later picks up Heidegger’s ideas in his “Poetics of space” and takes a very close look at the way the human perceives the house in a phenomenological way and emphasizes on the state of being at a centre with oneself. This “concentration”, the way he calls it, within the building points towards a feeling of being emotionally and physically in place [8]. This view of the human being in the centre of these things is forming a clear relation with the “Four skins”- concept being concentric, only he focuses on the “third skin” of the house and not the “Fourth skin”.

Husserl pushes this concept of the centered body through to the “centering”, thus making it an active part of the concentric “Lebensraum”, the lived space that has an active role in communication between individual and lived space. He also talks of a perception of the world through the prepositions of a “with” and not a “to” or “against” pointing to a notion of inclusion in a greater whole [9].

By way of emphasizing the active communication between the individual in the centre and the circumambient “Lebensraum” coupled with the ideas of “togetherness” it comes very close to the model of the “four skins”.

Bollnow eventually brings this thought further by speaking of an “incarnation” of circumambient space [10] and the body picking up the “togetherness” of Aristotle’s thought in a more radical way. This not only concerns the surrounding space of the house becoming part of our body, but is also seen in a broader sense expanding to the surroundings of the inhabited village or city quarter [11]. The idea of the “Four Skins”, that concerns this urban space is very close to Bollnow’s thought- it seems almost evident that his ideas can be translated in the term of the “Four Skins”.

## 2.3 Philosophies of Feminism

From the 1960ies on feminist thought has amongst many other, mostly political thought- picked up phenomenological ideas but has appropriated them in a female way. The studying of the female body and resulting different proprioception and conception of the world –as opposed to the typical male one- was one of the main achievements. Special inspiration was drawn from the role of the woman through pregnancy bearing a child in her

womb and thus having a body in a body and thus a "place in a "place" [12]. This phenomenon, which in many ways matches the concept of "0-skin within First skin".

#### 2.4 Social sciences

In sociologist and behavioural sciences much thought can be found on the territorial behaviour of humans ranging from intimate to public space around a person. The imaginary boundaries drawn around a person have much in common with the "skins", for example, as E.T. Hall circumscribes with the "intimate distance" and the "personal distance" could be enclosed with the "First and Second skins", the "social distance" with the "Third Skin" and eventually the "public distance" with the "Fourth skin" [13]. Certainly there is a large range of variation in these distances that are generally strongly related to culture, e.g. Southern Europeans or Arabs having much less need for distance than Northern Europeans and Americans. But the concept is basically not changed by this as well as its strong relation to the notion of "Four skins".

#### 2.5 Ecology

Basically this concept of "Fourth skin" with its various entities and flows of matter and information between the skins also reflects approaches from ecology and system theory. The responsibility arising from the "Fourth skins" approach in the light of ecological thought is to guarantee a careful and sustainable treatment of the environment; the way we have to take care of our own body and "First skin" we consequently should do the same with our other outer "Skins".

### 3. CRITICAL ANALYSIS OF OUTDOOR SPACE BY "FOURTH SKIN" CONCEPT

From the concept of the "Four skins" a main rule can be extracted that defines the good performance of a "skin": there should be a balanced interplay of the inward and outward values: skin as a protecting cover/ container and skin as a communicating interface to the outside.

These imperatives of the "skins- approach" will now be briefly assessed for the examples of Dutch "Fourth skins"- the actual practices of designing public spaces in The Netherlands.

#### 3.1 Comfort issues

The skin as a physical protecting cover is a main property to give its "inhabitants" the feeling of comfort, a primordial human need that needs to be fulfilled. In many ways this has not been recognized as an issue by urban designers. Outdoor comfort and especially thermal comfort are still lacking in many public spaces- a problem that the author as a landscape architect and urban designer has stated for many places that form case- studies in her ongoing research.

Also commissioners for public place projects are not aware of this need and do not designate appropriate attention and budget to study human comfort issues [14].

#### 3.2 Display issues

The "skin" on all four levels has been widely used as a display of wealth, power and fashion, especially in our hyper- mediated time where "the outside" and visual culture plays an enormous role [15].

Similar processes can be stated for the design of all the "Four skins" consisting of an aesthetization and global development of generic tastes. For instance, if humans go on shaping and designing their bodies being their "first skin" through more and more cosmetics, plastic surgery and body- building eventually they will all have the generic looks of "Barbies and Kens". In fashion design and architecture this globalization of taste can be stated as well. And of course, parallel developments can be seen in public space design – general trends of designing urban places the same way, notwithstanding local differences geographical settings create a generic look following latest global design trends. Many urban places are reshaped every few years according to the latest fashion. Currently we are, for example, facing the problems of Dutch inner cities looking increasingly generic due to the same "botox- treatment" they get during urban renewal [1].



**Figure 5:** Contemporary generic urban space, situated in The Netherlands, appearing Barcelonesque

Another problem in public spaces is occurring from global fashion trends of designing places following the hip mediterranean Barcelona- style. In the Dutch context this often happens through designing without respecting the local climate and different Dutch culture in the use of public places. Designers forget that places have specific underlying natural settings that can not be denied in shaping outdoor space. For instance, colours and materials have to be used in a context of local light and climate circumstances and spaces have to be shaped according to local use practises. But in copying Barcelonian design these common rules get violated. Designers often use materials that feel good in warm climate like tiles from the Mediterranean but which feel cold in a Northern climate. They use bright colours that shine in Southern sun, but look pale under Dutch skies. They adopt open "void"- setups of urban spaces that match Mediterranean climate and social practice, but in the Netherlands become nothing more than windy openings in a city.

Through these problematic examples it might become clear here that the "inward-outward" relations in public space design often are in imbalance. The display- aspect is getting too much attention whereas the more introvert protective function of comfort is underrepresented. This imbalance should be tackled to create an optimal "Fourth skin" guaranteeing our general well-being.

#### 4. CONCLUSIONS

The "four skins" -concept can help to think of the world as a part of ourselves and thus generates a different way of seeing the relationship with our "self" and urban places, making it almost tangible how closely related we are with our environment.

On a more concrete level the "Fourth skin"-imperative of a good balance of "inward and outward" performance can provide a frame of thinking for design guidelines. The concept itself is, apart from the imperative of balance, very open to individual interpretations by urban designers and can thus be filled in with very individual ideas.

Just like good clothing and good shelter, (our "Second and Third skins") protects and serve our body, the "Fourth skin", being the urban environment, needs to be comfortable. It should relate to the local climates and physical environment in the use of material, coverage with plants, shape of the place etc. Designers can take these local properties into account creatively and use them as an extra inspiration for better design. This can eventually lead to a design that is as much appealing, spectacular and attracting visitors, capital and fame as the projects generally shown in glossy magazines. This way outdoor space design will also satisfy the needs for display and expression of the community, but then through representing a culture that is based on local parameters and not global generic fashion trends.

Another approach that provides a better "Fourth Skin" comes from adopting the "Smart skin"- ideas from fashion and building design. Designing urban outdoor places as an interactive system where users can influence comfort themselves would be a clear progress. One can think of more flexible furniture, mobile vegetation and many other variable elements to provide better comfort. But ideas on this are not yet sufficiently developed.

So clearly a lack of design guidelines on the comfort issues can be stated. In the field of research on human comfort in outdoor space a respectable body of knowledge has been created, but much of this research is very technical and natural- science based. Measuring and simulating generally are the technological tools to get to grips with the environment. But this is not enough because the perception of outdoor space includes a whole array of intercommunicating aesthetic factors, which should also be included in research on thermal comfort perception, such as the size and proportions of places, colours and materiality.

Exploring this very broad and interdisciplinary field is a typical task for urban and landscape designers because they are educated to have a holistic view

and could be able to conduct both research - and eventually as a consequence from that design- in a balanced way because they are accustomed to handling the complex perceptions of the urban environment in everyday business. The author hopes that more colleagues from the fields of urban and landscape design join her in exploring these issues by research through design to provide the designer's community with the necessary knowledge. The tangibility of the "Four skins" approach can make this field more accessible and awaken the designer's responsibility to take care of the environment and its resources as good as we do for our own bodies.

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