

**BUILDING ABOUT THE BODY :**  
**Architecture as Dress**



**BUILDING ABOUT THE BODY :  
Architecture as Dress**

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**a critique of the term *skin* informs the misuse of the *building as body* analogy  
to reintroduce *building as about the body* >>**

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**>> the rediscovery of the meaning of architecture  
illuminates its origins as dress**



The body is the most significant factor in architecture.

We foremost build to house people. We mediate external climatic factors with the outermost architectural layer to provide a comfortable interior for human habitation. However, over the centuries, architecture has become less about responding to human need and more about abstract ordering principles and surface articulation. *Building skin* is archispeak for the outermost architectural layer where this surface articulation predominantly occurs. It also is the most contemporary - and skewed - example of the anthropomorphic *building as body* analogy that, although is the oldest theme in architectural theory, is deeply flawed. By having buildings be bodies, the true connection with the body of the dweller is lost.

Redirecting *building as body* to *building as about the body* allows architecture to refocus its emphasis on the true body / building relationship: the original formulating concept and process of the first architecture - the primitive hut. We first wore clothing to protect our bodies. The origins of architecture is the transition between shelter as clothing to shelter as including space. Gottfried Semper's *bekleidung* - dress principle - acknowledges this.

The outermost architectural envelope is a layer of dress - not *skin*, a comfort extender one degree removed from our clothing and two from the body.

Thinking about architecture as dress enforces the base principle of buildings being about the body. Architecture is synergetic shelter; of the body, by the body, for the body.



## an thro po mor phism

noun.

Attribution of human motivation, characteristics, or behavior to inanimate objects, animals, or natural phenomena.

## introduction :

It is human nature to attribute human characteristics onto the less innately understood.

Tree branches are *arms* and they dance in the wind. *Mother Nature* protects as well as scorns similar to the matron of a family. *La Mar* - the sea - goes against Spanish verb agreements to give the sea the mystifying and tempestuous attributes of a female. Buildings are *bodies*.

These analogies anthropomorphize our environment in an attempt to understand it. When what is considered self-evident is actually laden with irresolvable discrepancies and when contradictory factors are ignored, paradigms continue with only the most applicable side causing weak assumptions to become culturally realized facts.

It is common today to hear the outermost architectural envelope of a building referred to as a *skin*. This is the most prevalent contemporary architecture translation of the anthropomorphic body analogy. The body is the most important factor in the development of the built environment. Expectantly, the body has been a theme in architectural theory since Vitruvius. But the anthropomorphic use of the *building as body* analogy is questionable due to our ontological indeterminate understanding of the body and, most significantly, the corporeal skin.





**corporeal**  
adjective.  
Of, relating to, or characteristic of the body.

Skin is a two-dimensional surface as well as a three-dimensional functioning organ. Skin is an impermeable boundary membrane and a permeable sensory interface. Skin grows fingernails and hair, yet these are anatomically separate from skin. These inexplicable dichotomies are only a few of the perplexing polar relationships that anatomically compose corporeal skin. Our cultural attitudes towards skin and the body are just as contradictory. A naked body can convey a myriad of different messages based on personal interpretation and context. Nakedness can be sexy and strong, or vulnerable and weak. Showing different levels of skin can be due to climatic factors, cultural factors, or a personal choice. Revealing skin can be interpreted as sexy by some and shameful by others at the same time and circumstance.

A serious critique of the use of the term *building skin* reveals historical ambiguity, weak semiotics, and a disjunct in the sociological and philosophical understanding of the body and its skin which ultimately undermines any anthropomorphic building theory. This should be of concern to not only the user of the term *skin* as an architectural surface, but to all in architecture. These irresolvable discrepancies reveal a need for a deeper exploration of the relationship between body and buildings.

The circumstances and principles that govern the formulation of an architectural beginning is a suitable starting point to understand the role of



## intro :

the body in architecture. Speculations as to architectural origins is known as primitive hut theory. The primitive huts outlined by the majority of architectural theorists have been little more than thinly disguised manifestos that yield little to no archaeological or linguistic support. When archaeology is considered, sheltering the body is clearly the intent of early humanity. Clothing exists as the earliest fabricated sheltering humans implore to mediate between the body and unfavorable external climatic conditions. Architecture then develops from clothing as both are manifestations of dwelling as the essential human condition. Clothing is on the body's surface and building is one degree removed. Architecture is simply our next layer of clothing.

Sadly, in contemporary western culture, both clothing and architecture are estranged from their primitive origins as shelter. Clothing is foremost an expression of identity. The body surface is the visually arbitrating layer between the individual and the world. The building surface is also regarded as a visually arbitrating layer. Clothing is an intimate space with the intent of self expression; building is a collective space with the intent of social expression. The original formulating function of dwelling is discounted and the act of sheltering becomes the resultant affect of dividing space.

With the design emphasis of today focusing on abstract ordering principles and surface articulation, connection with the body is lost. Architecture

**in hab it**

verb.

To live or reside in.

**hab i ta tion**

noun.

1. The act of inhabiting or the state of being inhabited.
- 2a. A natural environment or locality.
- b. A place of abode; a residence.

**shel ter**

noun.

1. Something that provides cover or protection, as from the weather.
2. A refuge; a haven.

**dwel l**

intransitive verb.

1. To live as a resident; reside.
2. To exist in a given place or state

## intro :

is viewed, not experienced. Our culture has an ocular dependence that only appreciates the visual perspective. Sensory perception and the livability of a space is not significant; this creates a disjunct between our built environment and ourselves.

Only when habitation is understood as the paramount human need and reason for our built environment, does architecture serve people. The sensing body needs to be reinfused back into architecture. Buildings need to be *about the body*. Architecture can refocus on corporeality by simplifying scale and program down to its original formulating principle, a personal dwelling.

**Thinking about architecture as a layer of clothing enforces the base principle of buildings being about the body and dwelling as the formulation of that principle.**

**Embracing the transition between shelter as clothing to shelter as including space is the goal of this thesis.**



## Chapter 1 :: unresolvable discrepancies :

The corporeal skin has multifaceted dichotomies. It is constantly contradictory.

Skin is a multilayered, multipurpose organ that shifts from thick to thin, tight to loose, lubricated to dry, across the landscape of the body. Skin, a knowledge-gathering device, responds to heat and cold, pleasure and pain. It lacks definitive boundaries, flowing continuously from the exposed surface of the body to its internal cavities. It is both living and dead, a self-repairing, self-replacing material whose exterior is senseless and inert while inner layers are flush with nerves, glands, and capillaries (Lupton, 29).

Skin protects us from physical injury, toxins, sunlight, infections, and maintains heat and fluid balance. Skin is, "a pliant sheet of organic fabric studded with glands and hair follicles and filigreed with creases, grooves, ridges, and bumps; and ranges in thickness from 1/50 inch in the eyelid to 1/6 inch in the footsole (Werth, 14)." Skin color is very responsive to sunlight exposure; the skin produces melanin at different rates as dictated by its environmental factors. Yet if exposure is too much at once, the skin is irreversibly damaged.

Skin largely determines our ideas of youth and beauty. This is ironic since the cells we see at the surface, along with our hair and nails are dead and soon to be replaced with new dead cells. Skin is our largest organ, the dermis is 15 to 20 percent of body weight (Tobias, in Skin, 44). It generates the most cells at the

**in teg u ment**  
noun.

A natural outer covering or coat, such as the skin of an animal or the membrane enclosing an organ.





**ontology**

noun.

The branch of metaphysics that deals with the nature of being.

## unresolvable discrepancies :

fastest rate, yet requires the least amount of energy to operate.

These are fascinating physical inconsistencies of the skin, but more perplexing is the skin's dichotomy between boundary and interface. Skin is a two-dimensional enveloping layer and has three-dimensional sensory depth. Tactile perception is the first human sense developed in infancy (Benthien 7), "like a force field, our contact senses connect us to the world (Werth, 58)." The cutaneous sense is paradoxically that of *double sensation*, touching and touched together (Benthien, 202). The active *touch* is finer and voluntary while the passive *feeling* is coarser and involuntary (Engel, in Benthien, 200).

With more sensory receptors than any other organ, the skin is a full-body scanning network, a continental radar system able to register movements as traumatic as a burn and as minor as individual hairs rustled by a breeze (Werth, 62).

This knowledge of the material traits of skin is relatively new; before details of anatomy were discovered - however contradictory they are, the entire understanding of the body is a subject of cultural perspective. It is astounding how completely the body interpretation changes with the ideas of the dominant social party. Our corporeal presence is still burdened with an indefinite philosophical identity.

“Capricious, awesome forces of nature alternately caressed and assaulted the fragile Neolithic communities, and nourished and destroyed their crops. In the heavens, the sun was daily reborn and extinguished, while the moon waxed and waned in a monthly cycle, less mysterious only than the great yearly cycle of the seasons in which all of nature seemed to pass through a process of rebirth, growth, fruition, and death.

With the characteristic animism of the primeval mind, Neolithic people imagined the world in terms of their own bodies, as living creatures of supernatural force and ultimate consequence, inaccessible and unappeased by ordinary means. Their attempts to control natural forces were based on the same fantasy of ritual and magic that had created them.”

Trachtenberg, *Architecture, from Prehistory to Postmodernity*, 57-(no58)-59

**flay.**  
transitive verb.  
1. To strip off the skin or outer covering of.  
2. To whip or lash.  
3. To assail with stinging criticism; excoriate.

## unresolvable discrepancies :

In Greek society the body is seen as separate from the soul. "The body for Plato is not a given or something that can be isolated or defined as an entity; rather, it is part of a process of ordering within the domain of necessity (Vesely, 29)."

The Church dominates Western culture after the collapse of the Greco-Roman civilizations, thus the body interpretation of Western Civilization morphs to accommodate the Church's image of body as temptation. "The church instilled strong feelings of guilt and shame in connection with the body (Horn, 93)." This body image is made clear with the story of Adam and Eve. Adam and Eve's first act as aware humans is to clothe themselves. The bare human body is disgraceful whereas the clothed body is decent and dignified.

The sixteenth century anatomical studies by Andreas Vesalius introduce the body as an academic subject. This begins to objectify corporeality. Flaying becomes useful to medical science, and as punishment, but the body is still seen through the eyes of the Church by most. (Benthien, 63- 94). With the Renaissance, the body begins to emerge as an area of factual enquiry and study in the general public. The *Renaissance body* is closed and hollow, with the skin as a linear boundary between inside and outside (Benthien, 37).

In the Baroque period of the seventeenth century the body opens up. It is seen as a three-dimensional porous and permeable *grotesque body*. It is



## unresolvable discrepancies :

believed that there is an open flux through the skin. Remedies for illness were often applied to the skin as this it is believed to directly distribute treatment to ones internal organs. The body has a romantic and mystical aspect. Anatomy and physiology are beginning to be understood and this open perspective encourages scientific enquiry. At the start of the eighteenth century, problems with sanitation and water quality emerge; as a result, water becomes dangerously hazardous to one's health. If skin is a "porous, nonclosed surface (Benthien, 17)," bathing in water is risky. The cultural stance against bathing at this time is considered an act of hygiene.

"The eighteenth century witnessed a fundamental change in body perception and with it a change in the notion of the skin as the boundary of the individual body (Benthien, 11)." Skin emerges as a strong protective layer and this effectively acts to close the body to danger near the middle of the eighteenth century. Thus, the *bourgeois body* emerged as "body surface as boundary (Benthien, 6)." Dermatology becomes an independent field of study legitimating skin as its own independent object (Benthien, 54).

The end of the eighteenth century is also the time that sets the foundation for the Western world's abandonment of the body as cultural understanding or academic object to that of one's individual world view. A unified understanding falls to personal perception. In 1757, Edmund Burke introduces a body analogy

“The skin is imagined as a membrane stretched over the individual and individualized skeletal frame, a membrane that, like a dress, fits more or less well.”

Franz Kafka 1913 *diary entry* in Benthien, *Skin : on the Cultural Boundaries Between Self and the World*, 112

“Skin becomes a medium: instead of the essence, it is the skin that is looked at and touched because it alone is accessible.”

Benthien, *Skin : ...*, 34

## **unresolvable discrepancies :**

that includes sublime states of the body; this is revered by the nobility of the time as it legitimates their status. More importantly, this is the beginning of philosophic body models (Vidler, 72).

The nineteenth century mostly resolves the physical/anatomical, open/closed aspect of the body. This shifts the question to ontology in the twentieth century. Layers of interpretations reach a critical mass of ambiguity. From the beginning of the twentieth century on, the body has an indefinite number possible interpretations all with widely varying views.

This brief history shows that the understanding of the body has never been settled and never will; culture, science, and personal philosophies will continue to articulate the body. The body will continue to be seen at once as “the most solid, the most elusive, illusory, concrete, metaphorical, ever present and ever distant things - a site, an instrument, an environment, a singularity, and a multiplicity (Bryan Turner in Franck, 15).”

Aside from ontology, social constructs and linguistics illustrate more simultaneously contradictory interpretations of the body. The shameful body image set by the story of Adam and Eve continues as a societal standard, although today it is one of many differing views and not the sole perspective. Young children do not intrinsically know nudity is shameful. With maturity comes the acceptance that being undressed is embarrassing.





## unresolvable discrepancies :

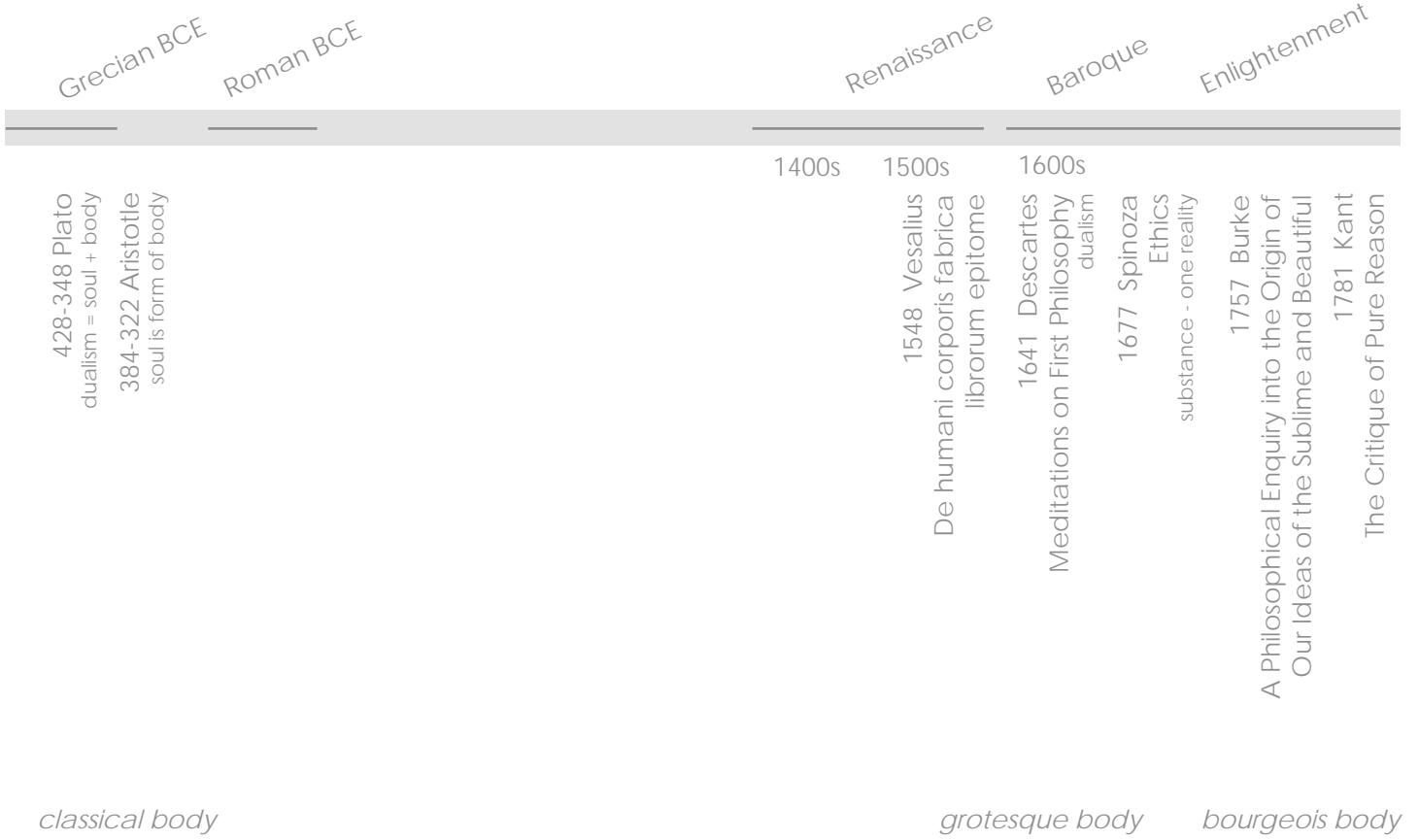
An equally as prevalent contemporary understanding of the unadorned human form is that of vulnerability. The removal of clothes for another is an intimate act. Inherent in this interaction is the opening of one's self to the other, leaving the individual in a vulnerable state. "For the uncovered skin is not only an erotic surface but also the defenseless state of being in its most elemental form (Benthien, 99)."

The phrase the *naked truth* is a linguistic illustration of an altogether different pervasive view of nakedness. A view that does not involve sentiment, just the fact that to be nude it must be bare. The naked truth is plain, honest, and straight forward. This leaves us with three contradictory interpretations:

naked as shameful/embarrassing  
naked as vulnerable/open self  
naked as honesty/bare

The body is both an object and a subject having natural essence and material properties. It is simultaneously shameful, honest, and vulnerable - lively, and virtual - legible and illegible - intimate and social - spiritual and medical. The body and its corporeal skin have deep unresolvable discrepancies. These discrepancies raise questions that make it difficult to use the body a base reference for any analogy.

**body context**  
→ **treatise timeline**



## unresolvable discrepancies :

1900s

1883 Nietzsche  
Thus Spoke Zarathustra  
Übermensch (superman)

1919 Freud  
The Uncanny  
heimlich / unheimlich

1927 Heidegger  
Being and Time

1945 Merleau-Ponty  
Phenomenology of Perception

1946 Morris  
Signs, Language, and Behavior

1966 Foucault  
The Order of Things : an Archaeology  
of the Human Sciences

1969 Deleuze  
The Logic of Sense  
body without organs

1976 Eco  
A Theory of Semiotics

1981 Baudrillard  
For a Critique of the Political Economy of the Sign  
post-structuralism

1984 Bourdieu  
Distinction: A Social Critique of the Judgment of Taste  
embodiment + habitus

1989 Anzieu  
The Skin Ego : A Psychoanalytic Approach to The Self  
phenomenology + skin ego

1989 Deleuze  
The Fold: Leibniz and the Baroque  
Part III : having a body

## Western Christian understanding : corporeality



## Chapter 2 :: building skin : as body

In the last few decades, referring to a seamless architectural envelope as a *building skin* has become commonplace among architects, designers, and the general public. With all the irresolvable differences – and plenty of appropriate substitutes: envelope, enclosure, surface, wall, facade, scrim, cladding, membrane, threshold, interface – the use of *skin* should be questionable. With our indeterminate understanding of the corporeal skin + body, is it not unwise to elect *skin* as the term for the outermost architectural layer of a building?

The human body has been the most important factor in the development of our built environment. The use of *skin* is the most contemporary architectural example of humanities keenness to understand their immediate surroundings through anthropomorphism. As far back as the Pythagoreans, the body has been a traceable metaphor. The proportions of the human body have a direct transference in Greek temple design and Vitruvius, in his Ten Books, also stresses body proportion as the premiere ordering practice of architectural space. "The relation of the body to architecture and the complex phenomenon of corporeality has always had a privileged position within the history of European culture (Vesely, 29)." These ancient body references are that of reverence; the *Classical body* is seen as the ideal form of beauty and thus buildings were constructed to the proportions of the body. Buildings were borrowing perfection.



## **building skin : as body**

The Greek Doric column originally stands at a 1:6 ratio of width to height, the proportions commonly understood as that of man (Rowland, 147). The early Ionic column is a 1:8 ratio, arguably the proportion of a woman. "Greek garments, like Greek buildings, were in perfect harmony with the natural proportions of the body figure (Horn, 80)."

The Roman architectural body is the relation of parts to the whole (Vidler, 70). Vitruvius uses mathematics to define the entire body with a series of proportions. This proportional system then is applied to built forms defining the scale of individual elements to the best interest of the whole. The human body is still seen as the perfect model of proportions, the translation into architecture is in a more mathematical way.

The architectural use of the body did not deviate from tradition much over the millennia between the Roman age of Vitruvius and the Renaissance. It is important to note that the Gothic period did see the first principal change in vertical architectural proportions, "The Gothic preference for exaggerated forms and over ornamentation led to showy distortions of body and building (Horn, 80)." The human proportion is still intact in the cathedral plan, but reference in elevation is temporarily lost. The early Renaissance thinkers - Alberti, Filarete, and Francesco di Giorgio among others - reinstate emphasis on the Vitruvian model with more defined rules. Through to the Renaissance, "The body, its balance,

“Contemporary architecture replaces the idea of facade with that of skin: an exterior layer mediating between the building and its environment. Not a neutral elevation, but rather an active, informed membrane; communicative and in communication. Rather than walls with holes, technical, interactive skins. Skins colonized by functional elements capable of housing installation and services; capable of receiving and transmitting energies; but also capable of supporting other incorporated layers: overlapping rather than adhesive. Manipulated and/ or temporary patches, eruptions, graphics or engravings; but also projected images. Colorful reversible motif and virtual -digital- fantasies aimed at transforming the building into authentic (inter)active screen, the frictional boundary between the building and the context which changes over time.”

*Manuel Gausa, Metapolis Dictionary of Advanced Architecture*



**fa çade**

noun.

1. The face of a building, especially the principal face.
2. An artificial or deceptive front.

standards of proportions, symmetry, and functioning, mingling elegance, and strength was the foundation myth of building (Vidler, 71)."

The Baroque period ends uniformity in architectural theory. The *Renaissance body* dissolves in favor of a mask of opulence. "...the baroque moves away from the point at which it can even be seen in terms of the human body, or at least in terms of the articulated body invented by the Renaissance (Vidler, 73-74)." The Church has lost control to Reformation forces; in an effort to regain patronage it tries to be appealing through aesthetics. Displaying opulent decoration was the style. Independent theories of architecture emerges and coexist. With no more set body, diversity quickly follows.

This is the period that introduce the term *facade*, as the face of architecture. Ornament, as facade, becomes the "perception of the building ... derived in a roundabout way from the Latin *facies* via the French *façade*. What this means is something constructed, something that looks 'onto' its surroundings (Herzog, 10)." At this time, construction methods develop the techniques to allow the facade to be attached to the building. Rendering it an element completely independent of the structure, an applied identity, more mask then face. This facade as mask is "demonstrated by the saying 'its just a facade', which means that the real qualities of a person or thing do not correspond with his or its outward appearance (Herzog, 15)." This interpretation of the baroque facade as



## **building skin : as body**

mask is of the most recent century, at the time it was not a perceived falsehood, just the truth of the age.

The Enlightenment of the eighteenth century, on the produces progressive ideas, but interestingly these ideas do not initially take hold and will not for two hundred more years. Meanwhile, in built form, the Western world is attempting to outdo the baroque. In the mid eighteenth century, the archaeological uncovering of Pompeii incites Neoclassicism. The revival of Greek and Roman art, dress, and architecture ultimately leads to the revivals of everything else. Gothic, Renaissance, Baroque, and Oriental romanticism produce mass eclecticism (Horn, 275). All this accumulates into the haplessness of the Victorian age.

By the last quarter of the nineteenth century, styles were hopelessly confused. ... The world's newly rich industrialists travelled all over and brought back bits of 'culture' from every known civilization. The resulting hodge-podge of forms became known as 'artistic broadmindedness.' Basic structures invariably were covered with ornamentation. The 'architecture' of a building usually was applied after the structure was completed (Horn, 336).

This primes the onset of the twentieth century for the counterculture movement of Art Nouveau. The introduction of sensuous, curvilinear, botanically



## building skin : as body

and biologically inspired forms quickly become mainstream design vocabulary. Architecture is simplified, but soon, this is not simple enough,

Development of the art nouveau style foreshadowed the swing toward an extreme doctrine of functionalism. Architects and designers renounced all extra ornamentation, stripping their designs down to the most basic forms and exposing the structure to view. Costume, furniture, architecture, even literature, fused into an excessively simple, practical style (Horn, 337).

Architectural nudity was transformed with modern architecture's criminalization of ornamentation. The literal nudity of the Secessionist figure was replaced by the phenomenal nudity of abstract and unornamented architectural form. No longer decorated with bodies, modern architecture itself became the body (Herscher, "Pornament" 27).

With the Modernism movement in the early twentieth century, architects strive to eliminate ornament thus showing the *naked truth* of buildings. Using the metaphor of the body, the skin is exposed when the ornamentation is removed; the decorative facades were *stripped* off. This is the contemporary opinion of the actions of architects at the turn of the twentieth century, although curiously very few architects from this time refer to *stripping* or *skin* in their writings.



**curtain wall**

noun.

1. An outer or enclosing wall.
2. A nonbearing wall, often of glass and steel, fixed to the outside of a building and serving especially as cladding.

The architectural historian Sigfried Giedion, in his 1928 book, *Bauen en Frankreich Eisen, Eisenbeton*, interprets some buildings at that time as “the intimate side of architecture – the outside of buildings being mere wrapping (envelope) or skin’ (Giedion 1928: 14, in Wigley, 158).” This appears to be the first use of skin as the outermost architectural layer.

Mies van der Rohe is notable for his buildings of *skin and bones*, but it is difficult to link this phrase to him. He did famously say, “less is more” in a New York *Herald Tribune* article titled, “On restraint in Design” published on June 28, 1959 - this is the same time he said, “God is in the details”, but never mentions buildings having a *skin*; he instead uses the term curtain wall.

This term most likely is given to his designs decades later. Historian and geographer Edward Relph, in his 1987 book, *The Modern Urban Landscape*, uses the term *skin and bones* at least twenty-five times. He describes the Seagram building as, “‘skin-and-bones’ architecture, in which the bones of the steel beams are expressed in the overall shape and in the grid of window and floors, and the skin is a almost featureless curtain wall of glass apparently hanging in front of the skeleton (Relph, 193).” A chapter is even titled, “Mies van der Rohe and the skin and bones style (Relph, 191).”

This application of terms, not used in the referred to time, but of the age when printed, is a fundamental aspect of retrospective history writing. The early





## building skin : as body

modernists did not remove ornamentation from the architectural envelope with the intent of *stripping*. It is with later scholars seeing what these actions produce, that they are inclined to use language like *strip away* the ornament to show the relevance in the current age. In this case, *stripping away* shows relevance to the emerging of skin.

Contemporary architectural historians widely accept the 1903 Steiff toy factory as the first glass skinned building - it nonetheless is a *double-skinned* construction. The 2006 In DETAIL book, *Building Skins* ventures to say the first buildings with a *skin* were the paper faced walls of ancient Japan (Schittich, 11).

Although Giedion uses *skin* in the context of the outermost architectural layer, the beginning of the popularization of this *building skin* verbiage most likely ails from the academic architectural climate of the 1960s. Peter Cook of Archigram, consistently uses the term *skin* to define his work. In his 1970 book *Experimental Architecture*, Cook says his outermost architectural envelope has "... the notion of an ultimate in skins: a membrane which is not there. The skin which can be seen through; the skin which can be parent to all within; the skin which can be regularized; the skin which can be treated as an environmental totality (Cook, 51)." As Simon Sadler says in his book *Archigram: Architecture Without Architecture*, "... the organic metaphor, the body/architecture analogy

"Archigram celebrated skin, ... it instructed its readers to reject the ubiquitous modernist membrane of the curtain wall. The problem with the curtain wall, it seemed, was that it superficially functioned as 'skin' but was more akin to the encumbrance of clothing, hanging from a grid skeleton. The intent now was to design an interface like biological skin, an active organ."

Sadler, *Archigram : Architecture Without Architecture*, 43

## building skin : as body

was one that captured Archigram: enclosure and servicing as lightweight antimonumental skin and guts. Geodesic 'skin' appeared repeatedly in Archigram work. ... And with the introduction of stretched plastics, architecture could become properly fleshy (Sadler, 113)." Although Archigram never built anything, their work is very popular with the young architects of the age.

*Learning from Las Vegas*, the 1972 book by Robert Venturi, Denise Scott Brown, and Steven Izenour introduce the duck and the decorated shed as the building typologies of modern architecture. Although the term *skin* is never used, this decorated shed theme is the platform for the application of the *building skin* phrase. It is a focus on the outermost architectural envelope as a visual layer where semiotics or symbols -words/graphics- are applied to give the building a meaning or identity. "When systems of space and structure are directly at the service of program, and ornament is applied independently of them. This we call the decorated shed (Venturi, 64)."

The young, imaginative architects in school in the 1960s connect with Archigram's work, and begin to use this terminology. A couple of decades later, this generation begin to become reputable architects, historians, editors, and critics. This is why, in the 1980s, the term begins to be seen in written publications *and* fully becomes everyday architectural jargon in the 1990s.

Skin ::

Contemporary architecture replaces the idea of façade with that of skin: an exterior layer mediating between the building and its environment. Not a neutral elevation, but rather an active, informed membrane; communicative and in communication. Rather than walls with holes, technical, interactive skins. Skins colonized by functional elements capable of housing installations and services; capable of receiving and transmitting energies; but also capable of supporting other incorporated layers: overlapping rather than adhesive. Manipulated and/or temporary patches, eruptions, graphics or engravings; but also projected images. Colourful reversible motifs and virtual – digital – fantasies aimed at transforming the building into an authentic interface between individual and environment; and the façade, into an (inter)active screen, the frictional boundary between the building and a context which changes over time.

*Metapolis Dictionary of Advanced Architecture:  
City, Technology and Society in the Information Age*

**fan ta sy**

noun.

1. The creative imagination; unrestrained fancy.
2. Something, such as an invention, that is a creation of the fancy.
3. An imagined event or sequence of mental images, such as a daydream, usually fulfilling a wish or psychological need.

**building skin :  
as body**

In 1995, Karin Harather, a German architect, wrote the seminal book *Haus-Kleider: Zum Phänomen Der Bekleidung in Der Architektur*. It is the first intentional study on the relationship of skin to architecture. She cites walls as an architectural skin and infers many connections (Benthien, 24). Unfortunately it has never been translated out of German.

*Hautlabor*, translated from the German as *Skin laboratory*, is a 1997 German symposium hosted by the Hochschule für Bildende Künste in Hamburg (Benthien, 6). It "explored new strategies in the boundary region between architecture and art (Benthien, 6)," and acknowledges the discussion of skin in architectural theory.

The proliferation of the term *skin* is arguably linked with the advent of computer rendering. Designers drew on the sexiness of the naked body to substantiate the visual allure powerful imagery elicits when used to present a building design. The inception of *real* images that could sell the *idea/fantasy* of a building design on its graphic quality alone, sold the seductive power of an image.

Erotic architecture plays with surfaces, layers, materials, with visual stimuli, symbols and the functions of sexual attraction between bodies, skins, surfaces and interiors. Its playfulness is expressed in a contradictory interplay of veiling and unveiling ... The game played by erotic architecture is at once narrative and signal (Thomsen, 13).

**an thro po mor phism**

noun.

Attribution of human motivation, characteristics, or behavior to inanimate objects, animals, or natural phenomena.

**a nal o gy**

1. Similarity in some respects between things that are otherwise dissimilar.
2. A comparison based on such similarity. See Synonyms at likeness.

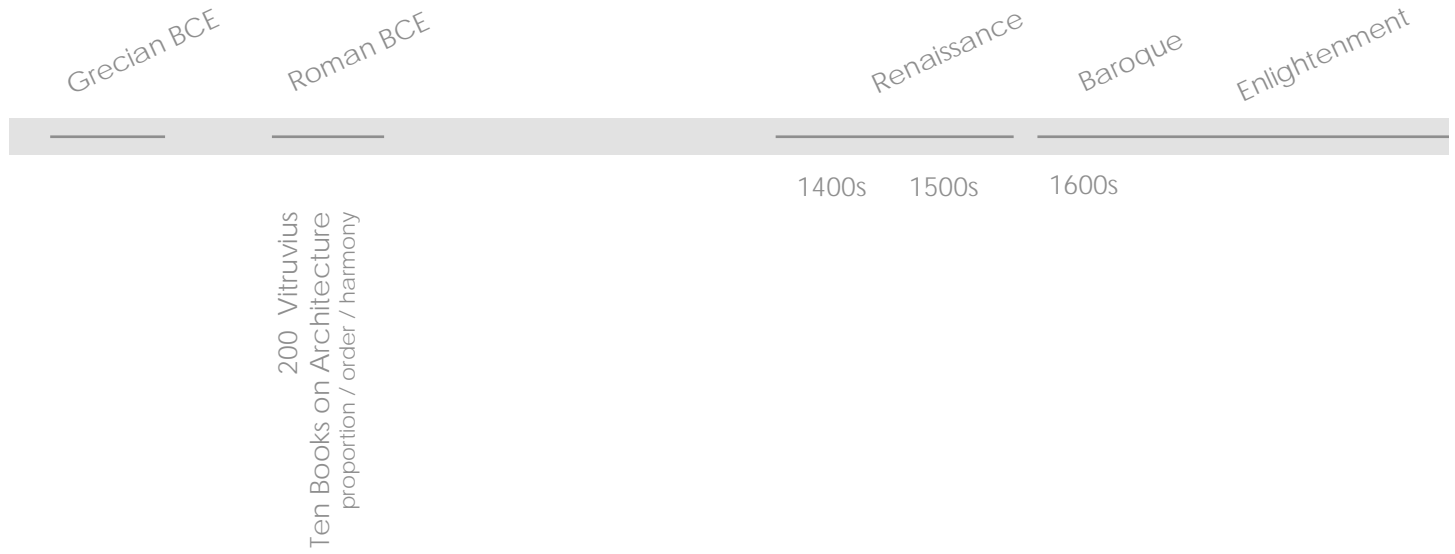
## building skin : as body

Calling the outermost architectural envelope *the skin of a building* enforce this seductive demeanor. Skin is sexy; the sight of it engages the observer and evokes pleasure. Archigram begins this term in the 1960s. "In line with the era's sexual liberation, sexuality became a topic pertinent to Archigram's interest in 'skin' architecture (Sadler, 130)."

It is important to note, not all architects use *skin*. The influential Swiss architects Herzog & de Meuron, although seen by many as the preeminent designers of *skins*, do not use this term to describe their work.

Even though the sexy, enveloping characteristics of skin are the intended translation in this architectural context, the paradoxical unresolvable differences of corporeal skin and the body leaves this verbiage, and the base anthropomorphic analogy, in a precarious position. The definitions of the words *anthropomorphic* and *analogy* are enough to refute a relative connection. It is no surprise that humans use expressions that reference our core being; but even if connections can be made between an object and the human body, in no way does that embody the object. Nevertheless, calling the outermost architectural envelope a *skin*, implies the building is a body and linguistic philosophy suggests the meaning of a word is how we use it. Thus *skin* and the underlying *building as body* metaphor are inadequate terms that need prudent replacements.

**architectural context**  
→ **treatise timeline**





## building skin : as body

1923 Le Corbusier  
Vers une Architecture  
"each skin 4 centimeters thick"

1928 Sigfried Giedion  
Bauen en Frankreich. Eisen, Eisenbeton  
" ... mere wrapping (envelope) or skin"

1929 Arthur Korn  
Glas im Bau und als Gebrauchsgegenstand  
" ... an independent glass skin"

1950 1960 1970 1980 1990 2000 2010

1970 Peter Cook  
Experimental Architecture  
"skin"

1972 Venturi  
Learning from Las Vegas  
the decorated shed

1995 Karin Harather  
Haus-Kleider

1997 architectural symposium  
Hautlabor (skin Lab)

2004 Kurt W. Foster  
Metamorph  
venice Biennale exhibit

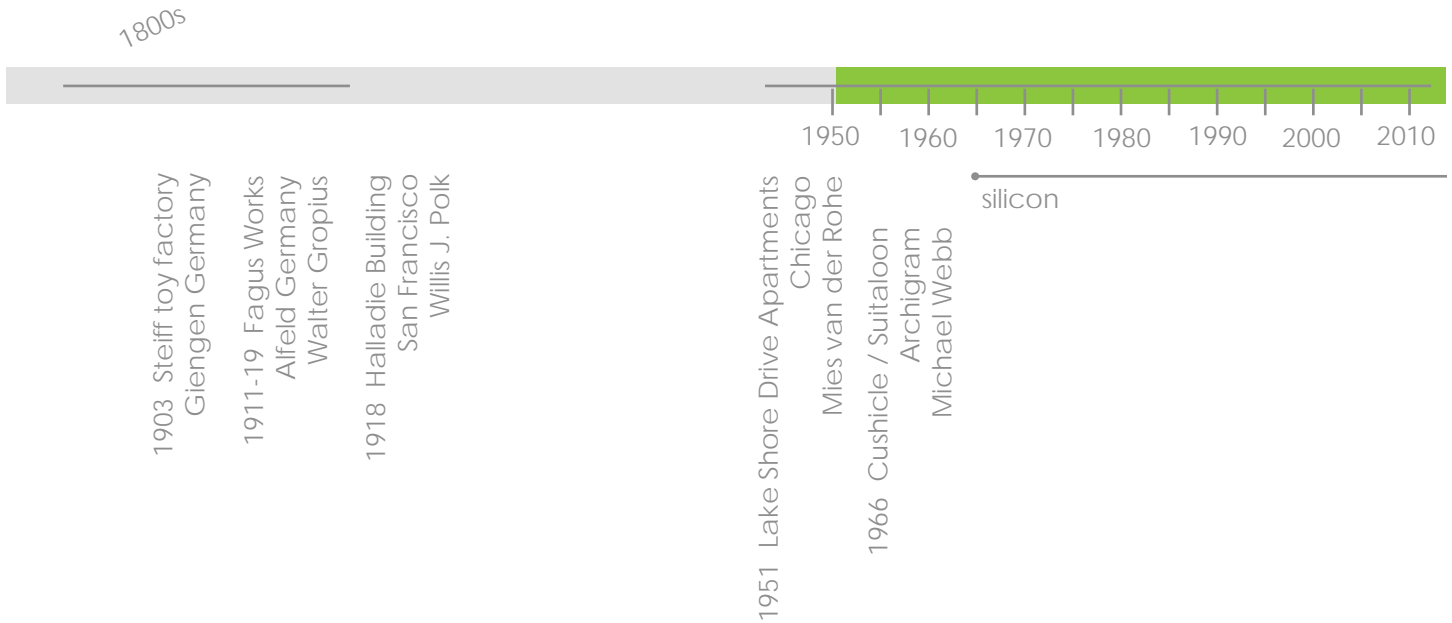
## architectural understanding : tracing *skin*

**architectural context**  
→ **occurrence timeline**

pre-history

hides over frame  
primitive tent

**building skin :  
as body**



industrial revolution → iron and glass

international style → glass curtain wall

**architectural development : *skin***



## Chapter 3 :: architecture : as primitive hut

If architecture is not an anthropomorphic analogy, the investigation of a true understanding needs to start at the beginning; the origins of architecture. Distilling the complex issue of architecture to its original occurrence distinguishes the important factors from the secondary. Focusing on the initial needs and processes early humans employed will expose the source body / building relationship.

Architecture historians commonly agree that the first human shelters are caves, tents, and huts. Vitruvius outlines this two thousand years ago in *De Architectura*, book 2 chapter 1 and subsequent historians regurgitate this view. Sir Banister Flecker, who, in 1896, published the most comprehensive history of architecture – it was so good he was knighted – *A History of Architecture on the Comparative Method*. He states:

Architecture, with all its varying phases and complex developments, must have had a simple origin in the primitive efforts of mankind to provide protection against inclement weather, wild beasts, and human enemies. Hunters and fishermen in primeval times naturally sought shelter in rock caves, and these were manifestly the earliest form of human dwellings ; tillers of the soil took cover under arbours of trees, and from them fashioned huts of wattle and daub ; while shepherds, who followed their flocks, would lie down under coverings of skins which only had to be raised on posts to form tents. Here then,

From the origins of mankind in the mists of the preglacial period down to the beginning of recorded history there was a gradual development lasting over great periods of time. The steps in the development were much the same among different peoples, although their degrees of advancement at a given time varied greatly. Men passed through successive ages in which stone, bronze, and iron were used for tools and weapons, and in which corresponding advances were made in other branches of culture. ...

*The stone age.* During the earlier stone age, the paleolithic period, when instruments were still crudely chipped, men lived by hunting and fishing. They dwelt in caves or dugouts, or in tents of poles and hides. In the later stone age, or neolithic period, when they had learned to polish stone implements, to raise cattle, and till the soil, new methods of housing were added. Huts were built of poles and reeds plastered with clay, with thatched roofs. ...

Kimball, *A History of Architecture*, 8

## architecture : as primitive hut

in caves, huts, and tents we find the three primitive types of human dwellings, the three germs of later architectural developments. (Fletcher, 1)

Trachtenberg and Hyman's 2002 history book, *Architecture : from Prehistory to Postmodernity*, does not have the story-like tone, but the content is the same:

The earliest dwellings of our nomadic Stone Age ancestors in western and southern Europe were mutichambered caves and rock shelters, and fragile tent-like assemblages of poles covered with hides or thatched reeds. More permanent structures were impractical for a people constantly on the move to find new sources of food. Of these early efforts to create shelter little remains but posthole traces visible in aerial photographs and inferred notions based on the living habits of aboriginal people who have survived into modern times in remote pockets of the world. (Trachtenberg, 57)

In the history books, little more than a paragraph in the introduction is paid to these forms. Although some architectural historians see this as regrettable, architecture history tends to start with monumental stone construction. This is due to there being no way of knowing the dwelling details of our prehistory ancestors partially because of the use of ephemeral building materials and lack of written record, but mostly because (1) people have progressed independently all over

**primitive hut theories :**

Vitruvius - *De architectura libri decem*  
Alberti

1753 Laugier - *Essai sur l'Architecture*

1832 Quatremere de Quincy - *Dictionnaire historique de  
l'Architecture*

1836 Pugin - *Contrasts*

1850 Semper - *The Four Elements of Architecture*

1861 - *Style : ...*

1875 Viollet-leDuc - *Histoire de l'habitation humaine*

1923 Le Corbusier - *Vers une architecture*

1932 Frank Lloyd Wright - "The Disappearing City"

"The idea, in literature and architecture alike, seems to be that a decadent society or style of building can be renewed and refreshed by a closer contact with nature, by a return to the first principles and truthfulness embodied in the primitive hut."

Pollan, *A Place of My Own : The Architecture of  
Daydreams*, 87



## **architecture : as primitive hut**

the world and (2) there is no universal understanding of what is architecture. This indeterminance tends to distance historians, but, on the other hand, welcomes theorists. The result is the theme of primitive hut theory. Many past primitive hut theories suggest architectural origins as a creation mythology rather than a proposition of circumstances compiled from evidentiary clues.

Depending on the author, the primal shelter might be a tent or cave or a wooden post-and-beam hut with a gable roof. More often than not, the architect proceeds to draw a direct line of historical descent from his version of the primitive hut to the style of architecture he happens to practice, thereby implying that this kind of building alone carries nature's seal of approval (Pollan, 78).

Thus, most primitive hut theories are manifestos. The only thing remotely universal in these theories is that the formulating principal of architecture is shelter. Primitive man needed protection. "Our naked skin functions adequately in the hot, humid tropics, but needs some assistance in other climates (Heschong, 5)." To meet this need, prehistoric humans sought out natural shelter and developed shelter in the form of clothing. Since Paleolithic time, shelter is what allows humans to settle in climates more extreme than the human body's natural climatic tolerance. The development of clothing and the harnessing of fire marks the end of humanity's dependent relationship with nature.

“The connection between clothing and shelter dates as far back as the Ice Age, when people used animals skins to cover themselves and to fashion exterior wall of crude structures.”

Hodge, *Skin + Bones : Parallel Practices in Fashion and Architecture*, 12

“The earliest examples of cladding for the human body were not designed but rather devised out of necessity. ... Architecture is predicated on the need for structures that house and protect inhabitants from the elements.”

Hodge, *Skin + Bones : ...*, 16

“... [architects] brought a theoretical heritage concerned with the origins or primordial basis of architecture as a fabrication of enclosure, shelter, or dwelling.”

Kinney, “Fashion and Fabrication in Modern Architecture”, 473

Architecture is “the physical demarcation of an inside from an outside.”

Franck, *Architecture Inside Out*, 10

“In every dwelling, even the richest, the first task of the phenomenologist is to find the original shell.”

Bachelard, *The Poetics of Space*, 4

## **architecture : as primitive hut**

Through indirect evidence and logical thinking can we assume that very early in prehistoric times people wore something to cover and protect themselves. Probably the first use of clothing was for protection from the cold. Archaeological evidence indicates that early hunters and wanderers of 500,000 to 300,000 years ago moved from the tropics, where they originated, to areas with cooler climates (Horn, 11).

Humanity first constructs shelter as clothing. The Homo erectus cave dwellers most likely share their knowledge of clothing with the Neanderthals (Horn,12). "Even when actual garments do not survive in archaeological deposits, indirect evidence is derived from the tools found among the remains (Horn, 13)." These tools show us that, "the Neanderthals fashioned crude stone-skipping knives and bone scrapers. Therefore, the simplest and probably the first article of clothing was the untreated bear skin wrapped around the body like a cloak (from Crawford's Philosophy of clothing, in Horn, 13)."

It is with the Cro-Magnons of the Upper Paleolithic era, that we have evidence that people wore garments cut from animal skins and laced together (Horn, 13) with the first bone needles (Horn, 14). This is conclusive evidence of the sewing craft and the making of fitted garments from people that lived 40,000 – 10,000 years ago (Horn, 14). A Cro-Magnon male skeleton was found dressed in tailored pants, a fur pullover shirt with mammoth ivory beading, and a necklace

“Architecture attains greater substance when we pass one of mankind’s turning points into the Neolithic period (or New Stone Age), which began about 9000 B.C. Paleolithic (Early Stone Age) people had been migratory predators, living in small bands that clung to the edge of survival. Neolithic humanity learned to farm as well as to hunt, to domesticate animals and to grow crops, to make pottery for storing produce, and form produce to weave cloth. These new skills and crafts were developed in village communities with complex social structures that marked the beginnings of civilizations. Architecture was still mostly in the nature of crude fabrications of organic and impermanent materials such as timber, straw, wattle and daub, and mud.”

Trachtenberg, *Architecture, from Prehistory to Postmodernity*, 2nd Edition, 57

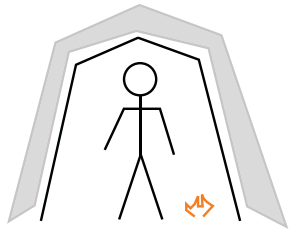
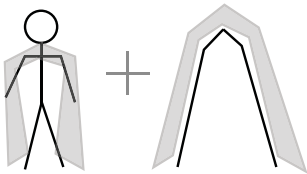
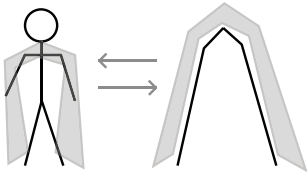
## architecture : as primitive hut

of arctic fox teeth (Horn, 14). This shows that, even at a very early age, people were inclined to adorn themselves. The Cro-Magnon people made the transition to built shelters in the form of tents and huts.

Four huts, unearthed at a site in present day Ukraine in 1965, are dated to 15,000 years ago. Large mammoth bones are the spanning elements. Although it cannot be determined if it is a permanent settlement or a hunting outposts, this is the oldest unearthed human built shelter (end note).

The transition to the Neolithic period is marked by the advancement of farming at about 10,000 years ago. This settled lifestyle is accompanied by permanent hut dwellings. People begin the cultivation of crops that not only produce food, but also provide fibers to spin yarn and weave with. Some suggest weaving was not invented at this time, but goes back centuries before the Neolithic era with the weaving of other materials such as reeds, straw, roots, and grass. The earliest direct evidence of woven fabric appears at about 8,000 BCE, around the same time as the transition to farming (Horn, 15).

Over the winter of 1853 to 1854, when water levels in Lake Zurich, Switzerland were extremely low (Mallgrave, *Style* intro, 27), a Neolithic settlement was revealed. Woven linen cloth is discovered, "So far, these are the oldest extant fragments of woven cloth in the world (Horn, 15)." The linen is not cut or sewn but worn in a loosely draped manner around the body in a similar manner



## architecture : as primitive hut

to the Greek chiton and the Roman toga.

We create habitable environments by constructing garments and structures to normalizing weather conditions. This insures a distinct difference between inside and outside and heightening the importance of that transitional arbitrating layer.

Gottfried Semper introduces a primitive hut theory in 1850 that instead of describing one building typology as the beginning, he considers what assemblies and systems are universal in all indigenous and primitive structures. He concludes the four elements: earthwork, hearth, framework, and the lightweight enclosing membrane, are the archetypal architectural motifs and publishes this in his book *Die vier Elemente der Baukunst*. Translated from the German as *The Four Elements*. As a result of his approach, his is the only primitive hut theory with contemporary significance.

Semper defined the origins of architecture through his concept of *Bekleidung* - translated *Dress Principle*. He sites the primitive use of woven mats that were used interchangeably on the ground, stood upright as wall, and draped over frames as the beginning of architecture. These textiles would have a woven pattern. Pattern signifies an intent in textiles past the straight utilitarian goal of physical shelter. Semper considers adornment "the first and most significant step towards art (Semper, 251)." This is the evolutionary beginnings of

"The architect's general task is to provide a warm and livable space.

Carpets are warm and livable. He decides for this reason to spread out one carpet on the floor and to hang up four to form the four walls. But you cannot build a house out of carpets. Both the carpet on the floor and the tapestry on the wall require a structural frame to hold them in the correct place. To invent this frame is the architect's second task.

This is the correct and logical path to be followed in architecture. It was in this sequence that mankind learned how to build. In the beginning was [dressing]. Man sought shelter to cover himself. The covering is the oldest architectural detail. Originally it was made out of animal skins or textile products. This meaning of the word is still known today in the Germanic language. Then the covering had to be put up somewhere if it was to afford enough shelter to a family! Thus the walls were added, which at the same time provided protection on the sides. In this way the idea of architecture developed in the minds of mankind and individual men."

Loos, "*The Principal of Cladding*" 1898 in *Loos, In Spoken into the Void : Collected Essays 1897-1900*, 66



## architecture : as primitive hut

architecture and the pattern on the surface of the wall that we still see today.

Semper continues to investigate the four elements more closely and publishes *Der Stil in den technischen und tecktonischen Künsten oder paraktische Aesthetik* in 1863. He links each motif with a primitive craft:

textiles	enclosure
carpentry	basic structural frame
masonry	earthwork
metallurgy ceramics	hearth

In this work, he focuses the majority of his efforts on the textile arts as the most important element as he credits it with “the origin of many ornamental types and symbols in architecture and design (Semper, 34).”

Semper explains the etymology of many German words:

*wand* - wall, partition, screen >> *gewand* - dress, garment, clothing  
*bekleidung* - dressing, cladding >> *kleidung* - clothing

He uses this as the basis of his investigation of the textile nature of enclosure (Semper, 255). In his extensive research Semper finds many ornaments and structural symbols were borrowed directly from the costume of the time.

habitation  
animal

find ] →

shelter  
animal

instinct  
+  
experience ] →

skill  
+  
material ] →

make ] →

shelter  
animal

habitation  
human

find ] →

shelter  
human

instinct  
+  
experience ] →

skill  
+  
material ] →

make ] →

shelter  
human

instinct  
+  
experience ] →

skill  
+  
material ] →

make ] →

intent  
+  
choice ] →

volition  
+  
grace ] →

+ ] →

shelter\*  
human

→ architecture

intent is a motivation not a need

\* = synergy = greater than the  
sum of its parts

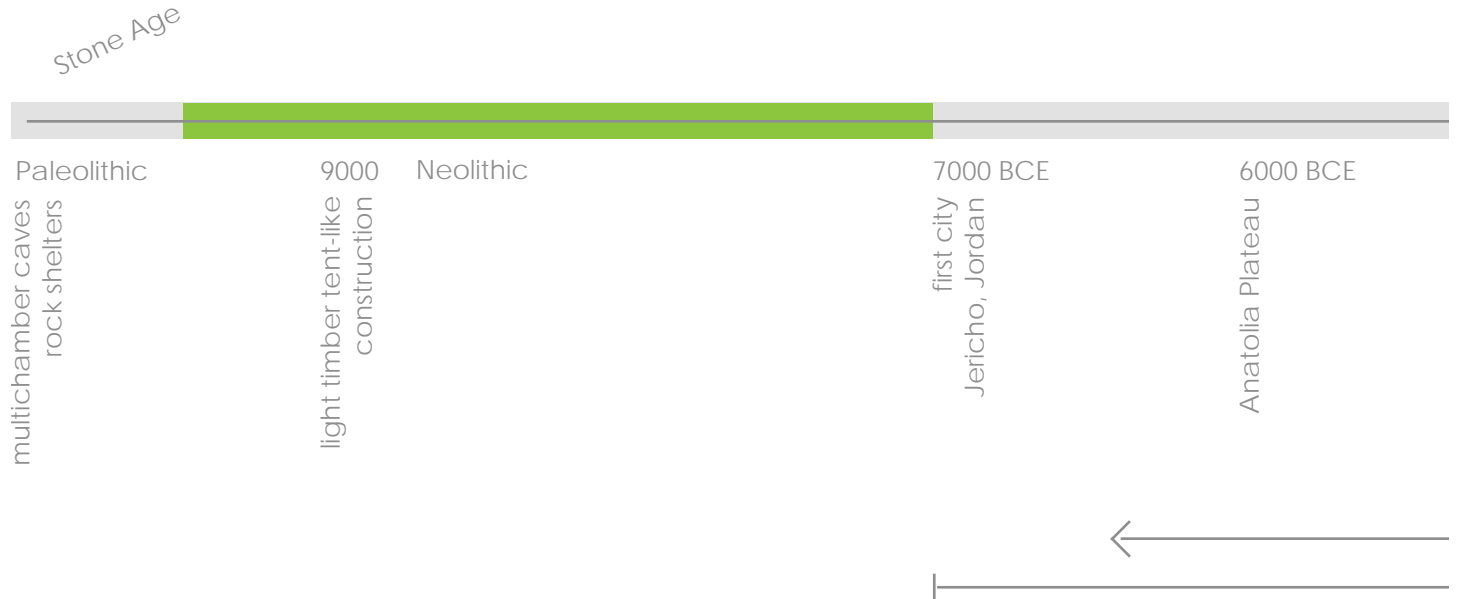
## **architecture : as primitive hut**

Clothing is the first shelter humans develop. Architecture is the next layer of shelter past clothing. There is a well established primitive link between the two that centers on the body. Also, there is a built aspect that goes beyond instinct, experience, motivation and craft; an idea is carried through to completion.

Dwelling is the primary function of architecture. No matter how intricate the program, how great the occupancy, or how important the contextual integration, architecture should maintain this principal. Architecture ought to mediate external climatic conditions to provide physical and emotional comfort for the occupants. Architecture is synergetic shelter. Articulating space for activity and interaction is of secondary importance.

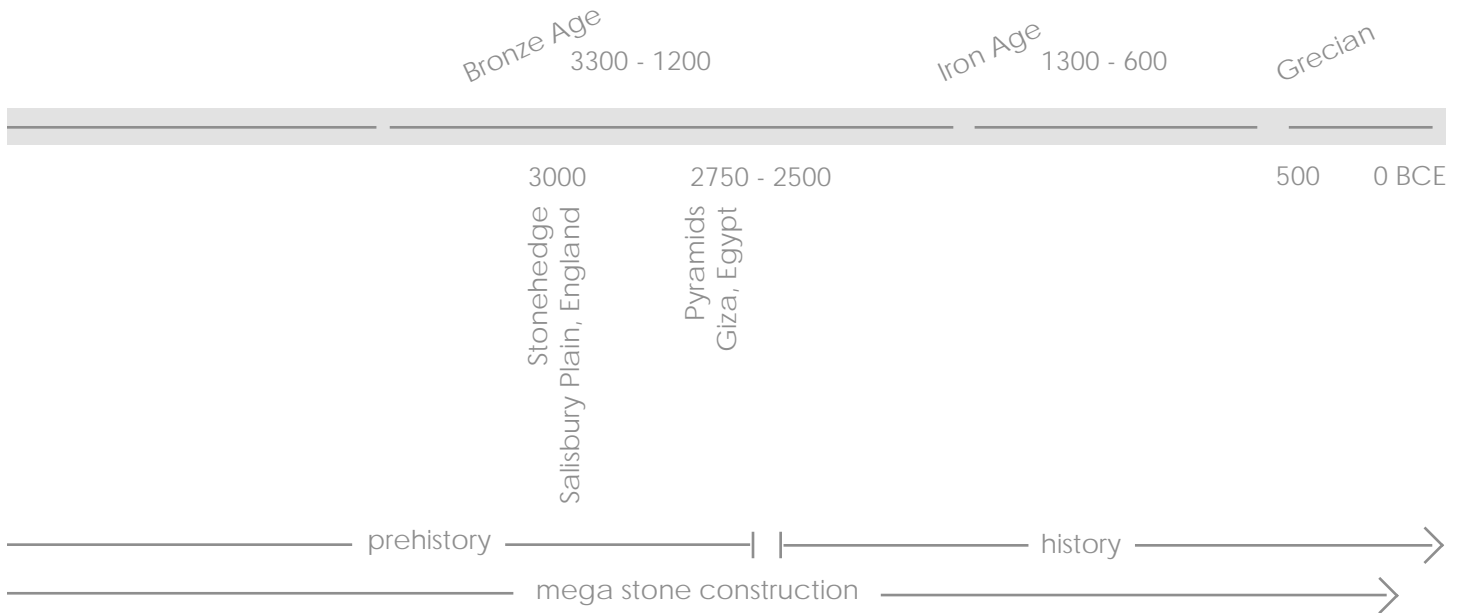
**Therefore architecture is synergetic shelter**

**architectural origins**  
→ **occurrence timeline**



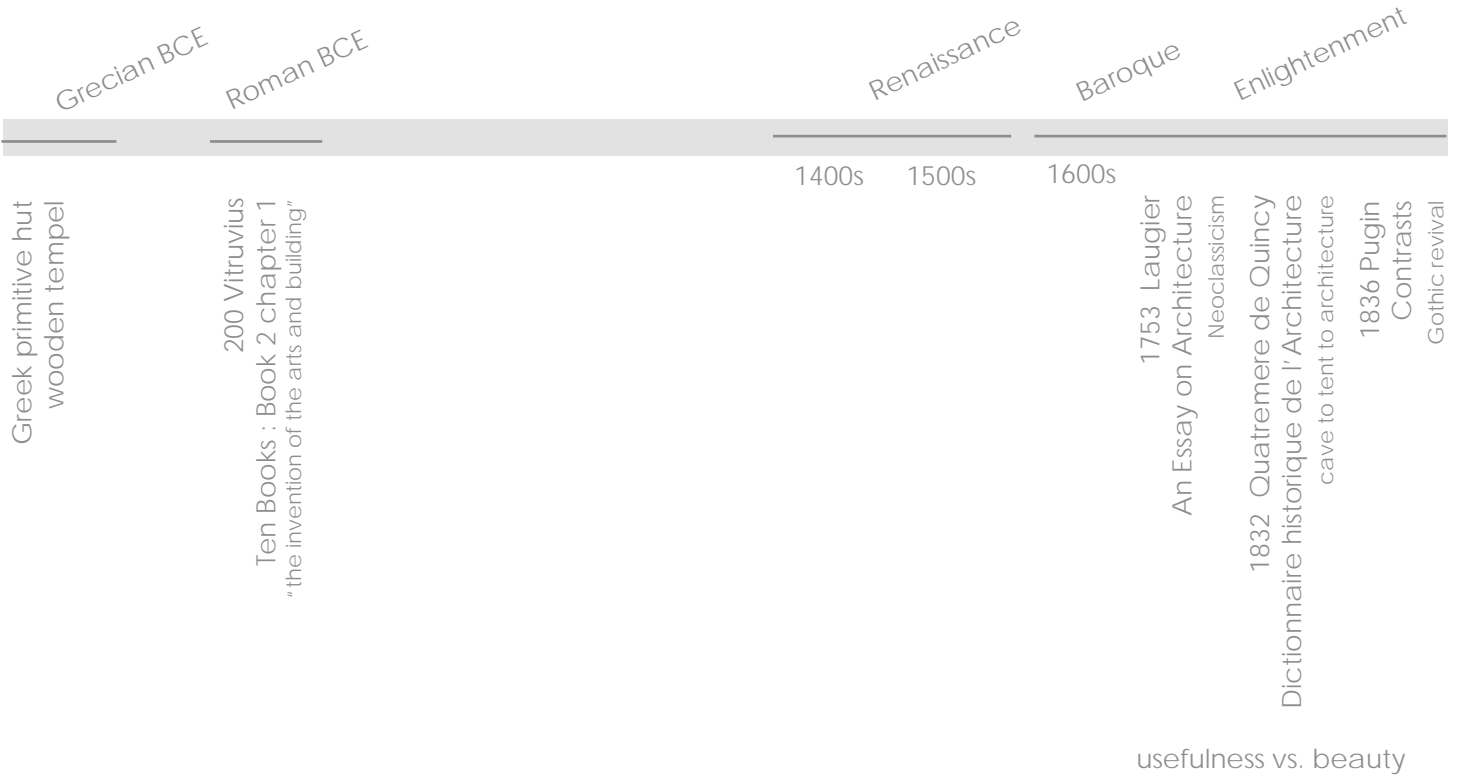
history :: written record

**architecture :  
as primitive hut**

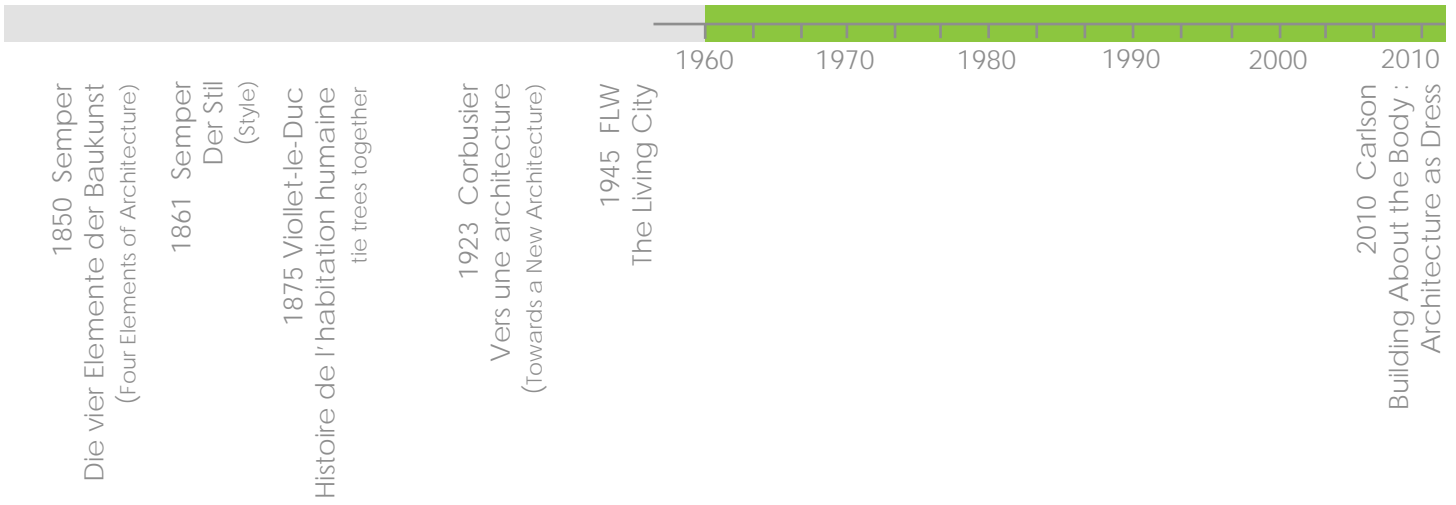


**architectural development : primitive hut**

**architectural origins**  
→ **treatise timeline**

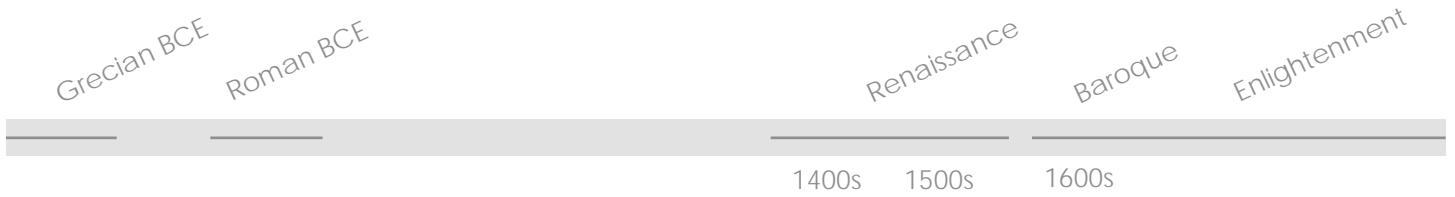


**architecture :  
as primitive hut**



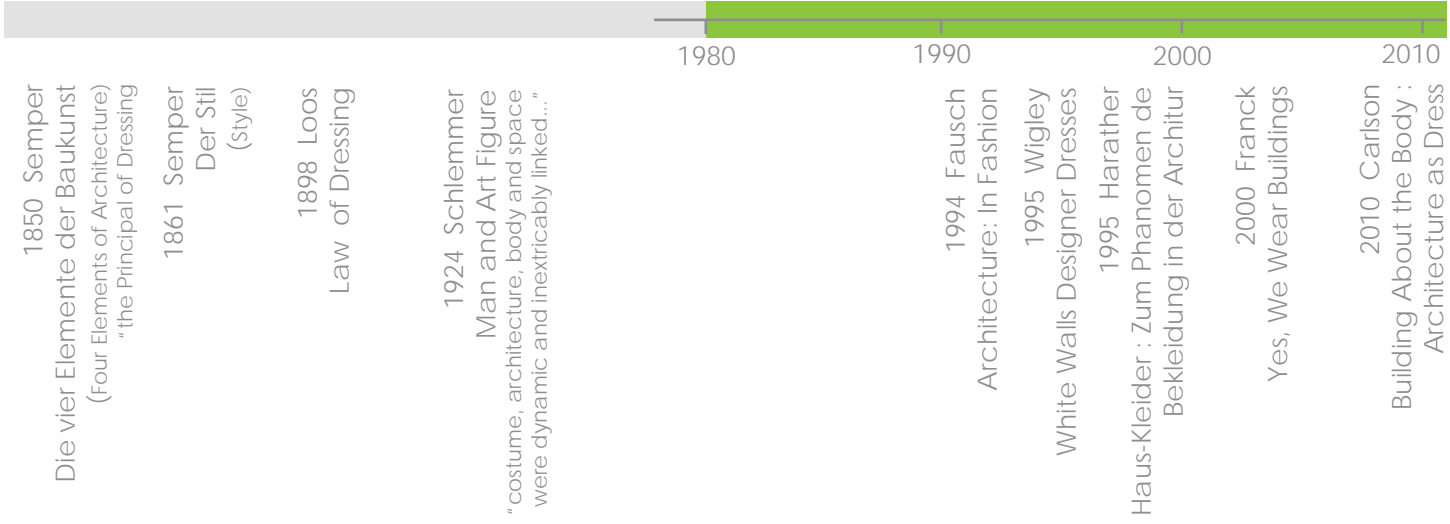
**architectural understanding : primitive hut**

**architectural context**  
→ **treatise timeline**





**architecture :  
as primitive hut**



**architectural understanding : building as dress**



## Chapter 4 :: clothing + building : as identity

**a·dorn**  
transitive verb  
1. To lend beauty to.  
2. To enhance or decorate with or as if with ornaments.

As aforementioned, clothing is originally devised as shelter at least 300,000 years ago. From then until now, the primary function of clothing as shelter is replaced with clothing as adornment. Garments lost the ability to shelter the body with the advent of, and our subsequent dependency on, reliable climate controlling structures. People no longer need to regulate their own temperature once inside the pseudo environment of a building. Clothing as shelter has been estranged to the point that few notice and acknowledge a connection. This allows the secondary aspect of clothing as adornment to gain primary significance.

The adornment of the human body is any modification of the body for a perceived increase in beauty. Adorning the body predates clothing. Before early humans move north and develop clothing, adornment is a modification to the skin and its extensions - hair and nails. Modifiers of this type are still prevalent today and include: piercing; tattooing; jewelry; makeup; shaving, plucking, trimming, dying, styling hair, and painting, trimming fingernails. Many scholars consider adorning the body a part of human nature as it is an expression of the human search for beauty.

Consequently it is no surprise that the majority of archeological extant clothing have some form of ornament on them. Clothing creates a new surface that covers the skin; as a result, expression moves outward onto the garment.

“The body surface as the place where identity is formed and assigned.”

Benthien, *Skin : on the Cultural Boundaries Between Self and the World*, 1

“Dress is an embodied practice, “a situated bodily practice which is embedded with in the social world and fundamental to micro social order.”

Entwistle, “The Dressed Body” in *Body Dressing*, 34

“Not only is our dress the visible form of our intentions, but in everyday life, dress is the insignia by which we are read and come to read others, however unstable and ambivalent these readings may be.

Campbell 1997, in Entwistle “The Dressed Body” in *Body Dressing*, 47

“The contemporary subject no longer tries to fit in as much as she proclaims her own identity.”

Varnelis, “Architecture After Couture”, 11

## clothing + building : as identity

### cos tume

noun

1. A style of dress, including garments, accessories, and hairstyle, especially as characteristic of a particular country, period, or people.
2. A set of clothes appropriate for a particular occasion or season.

Dress becomes the main surface to articulate beauty. Adorning the body with dress is at present seen two ways in Western society: the historical perspective of costume and the contemporary standpoint of identity. Dress is limited to costume for the majority of history. The *style* of a period is the influence that defines the dress worn. Costume is a prescribed condition. Color and fabric may differ, but with rich and poor alike, cut and fashioning remains guided by the taste of the relevant period. Costume is the formulation of social factors on the surface of the body whereas dress as identity is the formulation of the individuals self at the surface of the body.

cultural-imposing → costume

self-exposing → identity

Dress as identity is a recent reality. The 1930s begin the transformation of female dress from cultural costume to individual identity. Dress as identity fully emerges after WWII with the economically self-sufficient 'New' Girl of the 1960s (Radner, 185). The haute couture empire falls to the ready-to-wear industry due to these young, single women as an economic and cultural force. Dress quickly becomes independent, expressionistic, and understood as an outward expression of the inward self. Dress provides clues of the self-image to the observer.

"The body in fashion is simply a mannequin or shop window dummy - it is the clothing, rather than the wearing of it, that is regarded as significant."

Sweetman, "Shop Window Dummies?...", 59

"all the interface technologies are variations on the expressive form of touch."

De Kerckhove, in Benthien, *Skin : ...*, 231

"The body and dress operate didactically: dress works on the body, imbuing it with social meaning while the body is a dynamic field which gives life and fullness to dress

Entwistle, "The Dressed Body" in *Body Dressing*, 36

"Both fashion and architecture presume the presence of a public that watches and must be watched."

Quinn, *The Fashion of Architecture*, 20

## clothing + building : as identity

Dress lies at the margins of the body and marks the boundary between self and other, individual and society. This boundary is intimate and personal since our dress forms the visual envelope of the self and serves as a visual metaphor for identity; it is also social since our dress is structured by social forces and subject to social and moral pressures (Entwistle, "The Dressed Body" in *Body Dressing*, 37).

In the fifty years since the 1960s, dress as identity almost entirely replaces dress as costume in female attire. Uniforms and dress codes eliminate personal identity to create a professional identity, or a collective identity. This is a forcibly counteractive use of dress as identity, but still ultimately acknowledges identity in dress and so is not costume. With the embracing of individuality and expression as a visual act, society has an ocular dependence. It is increasingly rare for people to experience reality through multiple sensory inputs. *Visuality*, contrived through the perceived realities of visual media, is replacing reality.

The fashion system is premised on visuality; ... As the cultural theorist Irit Rogoff explains: '*We actively interact with images from all arenas to remake the world in the shape of our fantasies and desires and to narrate the stories which we carry with us.*' Visuality is not the same as sight; it occurs when visual media and sensory perceptions intersect, where gaze meets desire (Quinn, *The Fashion of Architecture*, 20).

“Our contact with the world takes place at the boundary line of the self through specialized parts of our enveloping membrane.”

Pallasmaa, *The Eyes of The Skin*, 10-11

“[The senses] define the interface between the skin and environment, between the opaque interiority of the body and the exteriority of the world.”

Pallasmaa, *The Eyes of The Skin*, 42

“Architectural experience brings the world into the most intimate contact with the body.”

Pallasmaa, *The Eyes of The Skin*, 60

“Fashion, like architecture, is a key physical manifestation of culture. Both translate a dream into material form and offer that dream to people to clothe and represent their identities. By wearing the clothes fashion has produced, by occupying the buildings architecture has made, we inhabit the dream.”

Franck, “Yes We Wear Buildings”, 96



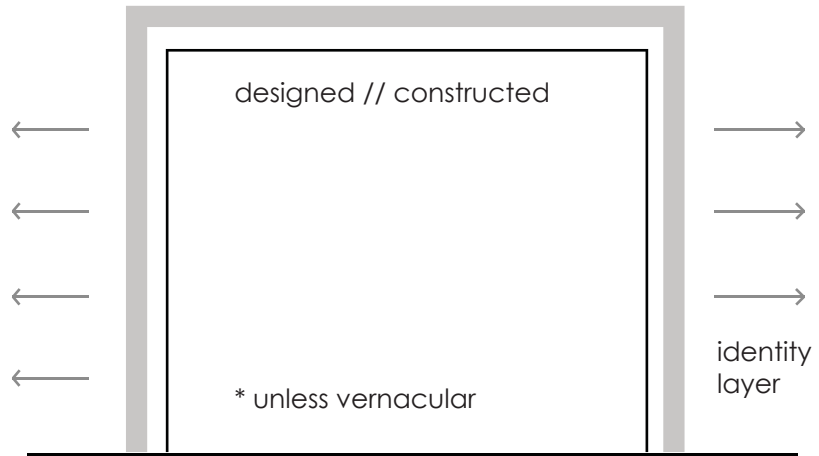
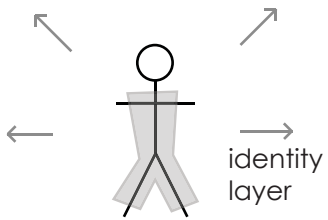
## **clothing + building : as identity**

Clothes and architecture have identical objectives, just at different scales. Clothing occupies intimate space and is self expression; buildings are collective and express a social identity. The architect interprets social identity and displays it at the margins of the building in the same process of the individual displaying the self-identity.

When the creative process of an architect is not directly informed by site factors and context, the aspect of identity is not that of the social identity, but of an applied identity. This is most often seen when an architect has a personal style. "The self-expression and ... 'packaging' of their often trivial interiors has long since become a substitute for good, quality architecture (Herzog, 6)." Buildings designed in this manner ultimately is architectural costume; a mask similar to that of the Baroque period.

Architecture exists across a very broad spectrum of sizes and uses. The activities and interactions, as well as occupancy requirements of architectural space are limitless and ever changing. Nevertheless, the one thing that remains constant is that a building must be suitable for human habitation. It must shelter. Unfortunately, as with the relationship between clothing and shelter, architecture's link to shelter has an identical disjunct. Providing for inhabitability becomes secondary or tertiary to the more graphically motivated pursuit of identity.

context + time + ambition



identity comes from the inside and is materialized as a layer on the body's surface

identity is applied by the architect.

→ approaching costume!

## clothing + building : as identity

This focus on the *visuality* of the outermost architectural envelope enforces the contemporary estrangement of the inhabitant in our built environment. The bodily experience is often seen as something to accommodate while design emphasis is placed on aggrandizing the building form and external surface to catch the eye of a removed observer. Bernard Tschumi wrote in his essay *Violence of Architecture* that the body, "has always been suspect in architecture," because it "sets limits to the most extreme architectural ambitions. The body disturbs the purity of architectural order (Tschumi, 123)." This essay, written in 1983, showcases the avant-garde Deconstructionist sentiment of the late twentieth century. This marks the greatest divergence between body and building and it is telling that the use of *skin* emerging in architectural language at this time. The *building skin* is a visual device, an articulation of identity; *skin* has no corporeality. "The building skin - and especially the facade - is the calling card of the building and its designer (Schittich, 9)."

Architecture, as it is formulated today, is dangerously close to costume. Abstract ordering principles guide the design process, not the need to provide adequate dwellings. Adornment after all is human nature, but in the built environment, the formulation of the visual exterior should be secondary to shelter. Architecture needs to regain respect for corporeality; buildings, once again, need to become *about the body*.



## Chapter 5 :: building dress : about the body

Accepting the body / building relationship as *buildings are about the body* can begin to allow architecture to refocus on corporeal perception. Architecture is originally a formulation of this relationship, but over time, man acted to weaken this connection.

The history of the bodily analogy in architecture, from Vitruvius to the present, might be described in one sense as the progressive distancing of the body from the building, a gradual extension of the anthropomorphic analogy into wider and wider domains leading insensibly but inexorably to the final 'loss' of the body as an authoritative foundation for architecture (Vidler, 70)

This "progressive distancing" is a slow process at first, but over the last century, disregard grew exponentially. Since August Schmarsow's 1893 lecture, where he specifically rejects the decorative attributes of Semper's *the art of dressing* in favor of architecture's capacity to "create space" (Mallgrave, Style intro, 49), the intent of architecture has become the fulfillment of abstract principles. The 1919 essay, "The Uncanny" by Sigmund Freud realizes this body abandonment as it is happening (Vidler, xi). The interwar utopian ideas of 'floating' cities, 'hovering' architectural masses disconnect architecture at another degree. There is a "new notion of the architectural 'body' that no longer needed an earth to grow from (Morshed, 37)." "Visionary architectural

"...the body, your body, my body -- the starting point and point of arrival of architecture."

Tschumi, *Architecture and Disjunction*, 110

"The materiality of my body both coincides with and struggles with the materiality of space. My body carries in itself spatial properties and spatial determination: up, down, right, left, symmetry, dissymmetry."

Tschumi, *Architecture and Disjunction*, 39

"Inside we are surrounded; we occupy space which has depth and shadow. Outside we are confronted by solidity and its surface. Inside we can smell, feel, hear as well as see the space for inhabitation, outside we can see the exterior surface of its shell and perhaps we can see into it. Inside we are occupants; outside we are spectators."

Franck, *Architecture Inside Out*, 10-11

"The sense of architecture "is very important because whatever we do, the magnitude or the dimension of a thing is always related to our bodies. Architecture, in a very natural way, is purely related to humans, because it is done for – and by – people."

Santiago Calatrava, lecture at MIT in Sash, 33

**un can ny**  
adjective

1. Peculiarly unsettling, as if of supernatural origin or nature; eerie
2. Freudian concept, when something is familiar yet foreign at the same time; uncomfortably strange

thought in the 1920s and 1930s was fueled by philosophical concern of bringing architectonic forms into conformity with the evolutionary ideologies (Morshed, 36).” Le Corbusier’s 1923, *Vers une architecture*, is most widely known for the statement, “The house is a machine for living in (Corbusier, 87).” This statement discounts any aspect of dwelling in the home and acts to distance to body to a significant degree.

The postmodernist focus on semiotics in the 1970s, is seen in Robert Venturi’s work. “By redefining a work of architecture as a ‘decorated shed’ – an indifferent structure with signs on it – Venturi had driven a wedge between the meaning and the making of buildings (Pollan, 187).” The final divergence comes with deconstructivism. Peter Eisenman illustrates this well with his considerations of the abstract. “House VI offers the precise negative image of the old hut ideal, an alternative myth that denies point by point everything about architecture that the canonical hut had claimed about nature and structure and material and shelter (Pollan, 196).” It forsakes habitation for the sheer sake of doing it.

“Too often the form and use become oppositional and the purpose of the building is sacrificed to a concern of appearance or novelty (Franck, 13).” This superficial visual emphasis creates conflict between architecture and living. As is the case with the modernist, postmodernist, and deconstructivist movements,

“The inhumanity of contemporary architecture and cities can be understood as the consequence of the negligence of the body and the senses. ... The art of the eye has certainly produced imposing and thought-provoking structures, but it has not facilitated human rootedness in the world. The fact that the modernist idiom has not generally been able to penetrate the surface of popular taste and values seems to be due to its one-sided intellectual and visual emphasis; modernist design at large has housed the intellect and the eye, but it has left the body and the other senses, as well as our memories, imagination and dreams, homeless.”

Pallasmaa, *The Eyes of The Skin*, 17,19

“The contemporary city is increasingly the city of the eye, detached from the body by rapid motorized movements. ... The processes of [city] planning have favoured the idealizing and disembodied Cartesian eye of control and detachment.”

Pallasmaa, *The Eyes of The Skin*, 29

“As buildings lose their plasticity, and their connection with the language and wisdom of the body, they become isolated in the cool and distant realm of vision. With the loss of tactility, measures and details crafted for the human body – and particularly for the hand – architectural structures become repulsively flat, sharp-edged, immaterial and unreal.”

Pallasmaa, *The Eyes of The Skin*, 31



## **building dress : about the body**

buildings were either a brute show of Functionalism, an artistic expression, or done because it could be. The livability of the space is disregarded.

If the body is a consideration in the design process of today, it is predominantly referential. Measurements, compiled and analyzed to best approximate a user, are the extent of the bodily presence. The publication and use of books like Architectural Graphic Standards aides in the disassociation of the bodily experience in the built environment as it replaces the spacial requirements of a user with universally representative numbers. In the introduction to the 1997 edition of Architectural Graphic Standards, the author Sherri Scribner expresses this reality:

Even though these measurements are meant to give attention the bodies functional needs, they act to standardize the body into a universally repetitive machine.

This objectification of the body is an example of our culture's dedication to the detachment of the human consciousness from material matters; the separation of the mind and the body. In order for knowledge to be objective, we must, "rise above embodied experience and daily life (Franck, 11)." Feelings and personal experiences are, "considered suspect since they pertain exclusively to the subject and are not observed by everyone (Franck, 11)."

"[Architecture and fashion] both rely heavily upon human proportions, mathematics, and geometry to create the protective layers in which we cocoon ourselves. Fashion and architecture revolve around the scale of the human form ... , requiring an understanding of mass as well as space. They both operate within the same spatial frameworks to manage energy and material, and map the boundaries of the body by creating climatic environmental systems around it. Garments are wrapped around the body in successive layers ... , while tiers of sleeping bags, tents and shelters symbolically expand into houses and skyscrapers. Within this system the garments can be seen as more than mere clothing – they form a part of a structure that negotiates the relationship between private space and public arenas, both defining our identity and place in society."

Quinn, *The Fashion of Architecture*, 5

"Fashion's arrangement of techniques and materials produces wearable shelter that can also be considered a component of social space. Like architecture, fashion demonstrates a capacity to respond to emotion as well as construct it, injecting the personal/individual into the social. Fashion is a representation of what inhabited space can mean, to the wearer as well as the onlooker."

Quinn, *The Fashion of Architecture*, 27

## **building dress : about the body**

Designing the built environment to be viewed from an objective distance challenges buildings being about the body. "For some time now in architecture the outside perspective has taken precedence, giving far more importance to form, idea, and appearance than to the ways of living, to occupants' needs, and embodied experience (Franck, 12)." We have come to consider the distant passing perspective, not an intimate engaged experience, more important.

The philosophical alienation of the body from the mind has resulted in the absence of embodied experience from almost all contemporary theories of meaning in architecture. The overemphasis on signification and references in architectural theory has led to a construal on meaning as an entirely conceptual phenomenon. Experience, as it relates to understanding, seems reduced to a matter of the visual registration of coded messages - a function of the eye which might well rely on the printed page and dispense with the physical presence of architecture altogether. The body, if it figures into architectural theory at all, is often reduced to an aggregate of needs and constraints ... the body and its experience do not participate in the constitution and realization of architectural meaning (Scott Gartner, in Frampton 10-11).

“Both buildings and garments are made by hand and machine to enclose and yet display the human body in all its physical, cultural, and psychological dimensions. Each is an extension of that body. Each touches and is touched, seen and felt.’

Franck, “Yes We Wear Buildings”, 94

“Clothing, as an extension of the skin, can be seen as a heat-control mechanism and as a means of defining the self socially. In these respects, clothing and housing are near twins, though clothing is both nearer and elder; for housing extends the inner heat-control mechanisms of our organism, while clothing is a more direct extension of the outer surface of the body.”

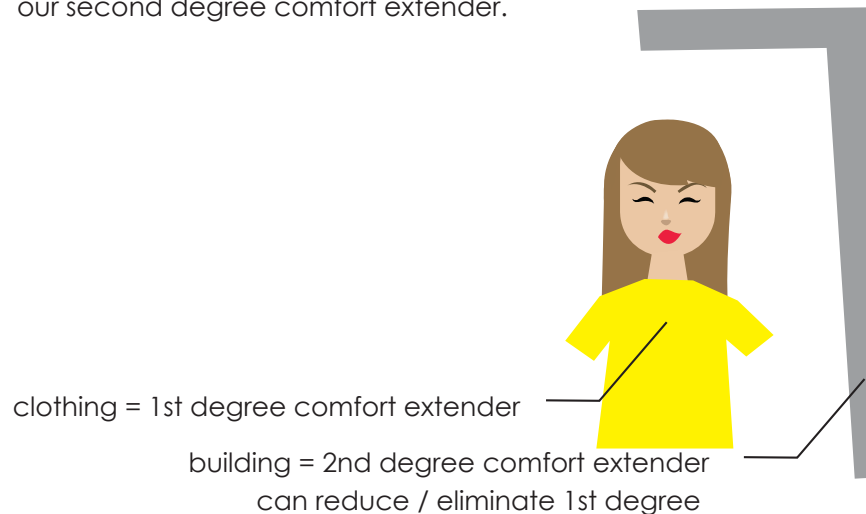
Marshall McLuhan. “Understanding Media”, 1994 , in Quinn,  
*The Fashion of Architecture*, 27

“Clothing supplements the skin's defenses against the elements. Contemporary designers have hyper-extended fashion's protective capacity, creating garments that serve as portable environments for the modern nomad, set loose in a wilderness defined by work and leisure as well as the forces of nature.”

Lupton, *Skin : Surface Substance + Design*, 176

## building dress : about the body

Our Western society, with its ocular dominance, is creating a culture of spectators. The reality of our existence is being challenged by the visuality of our surroundings. If this mentality continues to proliferate, our built environment will consist of nothing more than decorated sheds containing negative space. The place of habitation will be that internal void, the resultant remainder in which we are suppose to live. Architecture needs to be brought back to being about the body. There is no better precedent than the relationship of clothing to the body. As stated earlier, architecture is formulated from clothing. There is fundamentally very little difference; clothing and buildings extend the comfort of their inhabitants. Clothing is our first degree comfort extender and buildings are our second degree comfort extender.



"We must go beyond the problems of description – whether this description be objective or subjective, that is, whether it give facts or impressions – in order to attain to the primary virtues, those that reveal an attachment that is native in some way to the primary function of inhabiting."

Bachelard, *The Poetics of Space*, 4

"These virtues of shelter are so simple, so deeply rooted in our unconscious that they may be recaptured through mere mention, rather than through minute description."

Bachelard, *The Poetics of Space*, 12

"Buildings, even is the conventional ways we now build them, can be viewed as a way to modify a landscape to create more favorable microclimates."

Heschong, *Thermal Delight in Architecture*, 8

"... The house shelters daydreaming, the house protects the dreamer, the house allows one to dream in peace."

Bachelard, *The Poetics of Space*, 6

## **building dress : about the body**

In studying the relationship between clothing and the body, a more efficient and effective solution for the enveloping layer of architecture can be inferred. Sartorial terms like drape, fold, and tuck are being used currently by many architects who look to *fashion* for inspiration. Sadly these designs are those of architectural costume as they lack substance by seeing clothing only as appealing surface articulation.

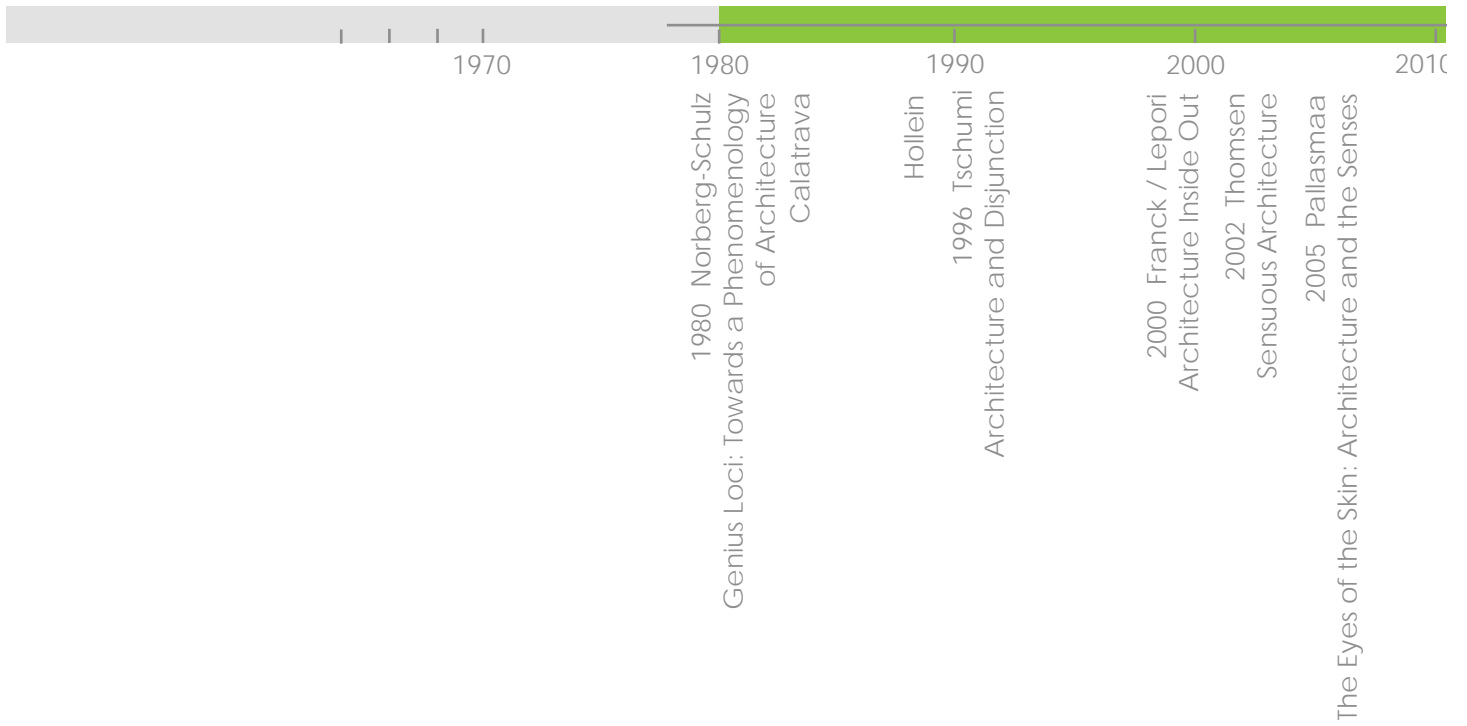
Clothing is ephemeral, it changes with the seasons and with climatic conditions. If a building has that versatility, heating and cooling loads will greatly diminish. The body regulates temperature at its periphery with hair, sweating, goose bumps, and with individuals putting on and taking off layers of clothing. Whereas in a building, temperature is regulated by a heat source far removed from the periphery zone where heat transfer occurs.

**architectural context**  
→ **treatise timeline**





## building dress : about the body



## architectural understanding : phenomenology



## Chapter 6 :: body as site :

Both garments and architecture “produce environments defined through spatial awareness by working with and against the human form to create space whose meanings are inspired by a critical discourse of an evaluation of the natural landscape (The Fashion of Architecture, 6).”

This thesis will demonstrate an advanced level of architectural understanding with a series of synergetic shelters focusing on architecture as about the body. Each shelter directly engage the site specific conditions of my body as site. The shelters will develop from a physical, biological, and cultural site analysis<sup>1</sup> focusing on mapping the contours and natural features of the site as well as understanding contextual relationships with this young, single, female's identity as an emerging creative professional in twenty-first century American culture.

Thinking of architecture as clothing can reintroduce embodiment and lived, sensory experience into architectural discourse and education, but only if the designers/writers/readers wear the buildings themselves, feeling, as well as seeing them (Franck, yes we wear buildings, 94).

Allowing body to be site is the critical first step to acknowledging the fundamental intention of architecture. Starting at the smallest of scale - one body - and simplest typology - dwelling - and creating a full scale result permits

"In creative work, a powerful identification and projection takes place; the entire bodily and mental constitution of the maker becomes the site of the work."

Pallasmaa, *The Eyes of the Skin*, 12

"Thinking of buildings as clothing we wear brings the living, feeling, remembering body into the building."

Franck, *yes we wear buildings*, 95

"There is an essential link between man's experience of the world through his own body and creativity, just as there is between the self's experience of the human body and its discovery of identity and physical sense of space."

Thomsen, 7

"A building increases the average range of thermal zones so that people can select the microclimate most suited to their thermal needs."

Heschong, 8

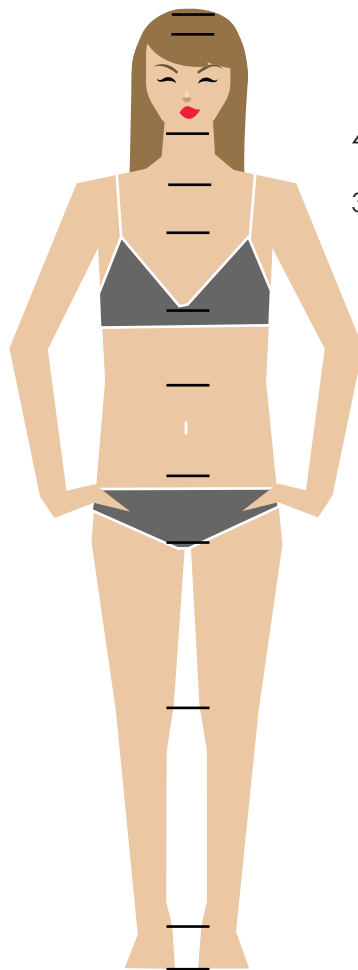
## body as site :

an optimal understanding not attainable in any other way. To design of the body, by the body, for the body infuses an unforgettable sensory experience that becomes part of the body. "To become a skilled and positively effectual maker, the commonly assumed position of spectator needs to be replaced with a position of occupancy (Franck, 10)." To *do* gains practical knowledge as well as a sensory perception that is critical in the creative process. In order to create architecture well for others, one must first create for themselves and feel the results of their actions.

The programmatic responsibility of this project is the creation of a dwellable condition. Dwelling is protecting the physical being from external climatic factors as well as providing sanctuary for the spiritual being. Dwelling is a balance between the prosaic and poetic. As Bachelard writes in *The Poetry of Space*, "The house shelters daydreaming, the house protects the dreamer, the house allows one to dream in peace (Bachelard, 6)." Acknowledging this lyrical aspect of architecture is imperative to the renewal of architecture as about the body.

Body as site also respects adornment as part of human nature. Although the visual expression of identity is not an aspect of program, it is an important design intention with it being an intrinsic attribute of the site.

→ site analysis



8" : head

7" : face

4 3/4" : neck

3 1/2" : shoulder to armpit

5" : armpit to bust

5" : bust to waist

5" : waist to hip

6" : hip to crotch

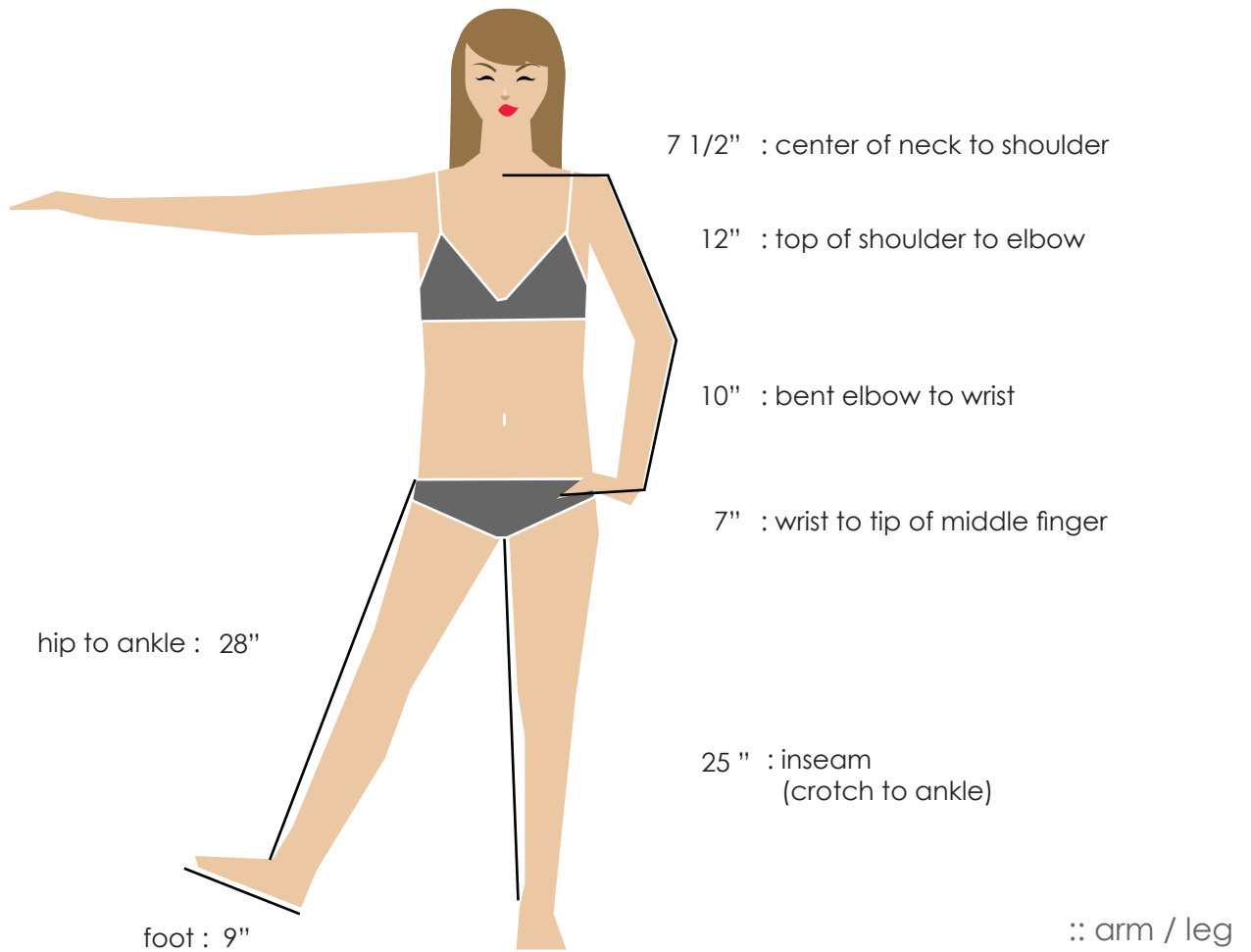
13" : crotch to knee

14" : knee to ankle

3" : ankle to ground

height ::

**body as site :**  
→ **physical mapping**



→ site analysis

head : 21 1/2"

neck : 12"

shoulder : 37"

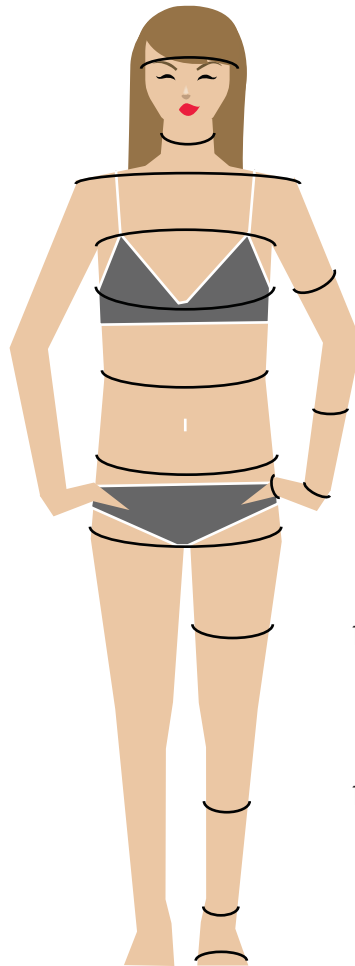
armpit : 32"

bust : 33"

waist : 26"

hip : 30 1/2"

crotch : 35 1/2"



9 1/2" : upper arm

7" : lower arm

6" : wrist

7" : knuckles

18 1/2" : upper leg

12 1/2" : lower leg

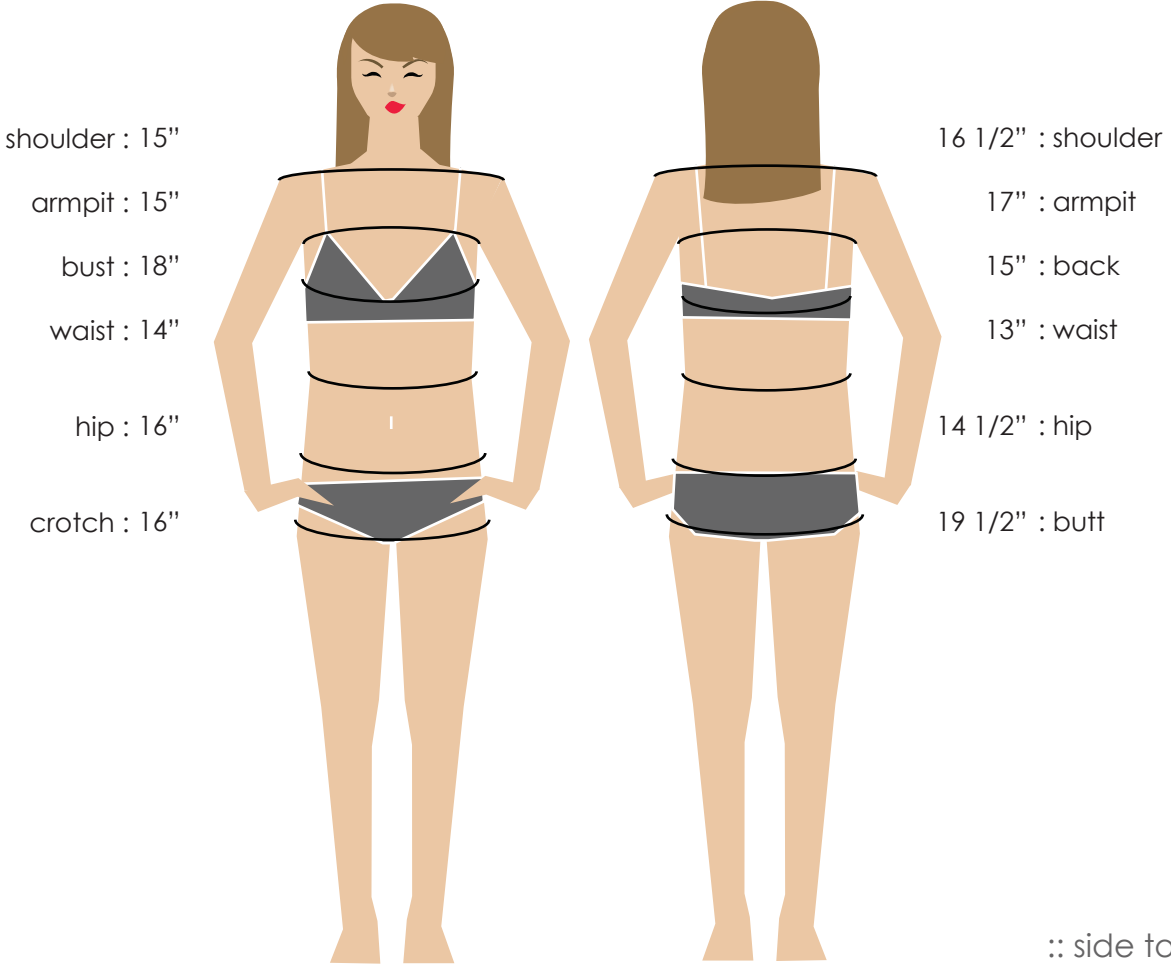
9" : ankle

8" : knuckles

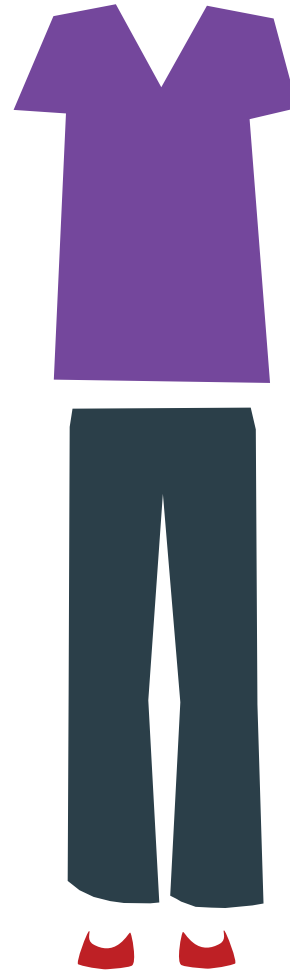
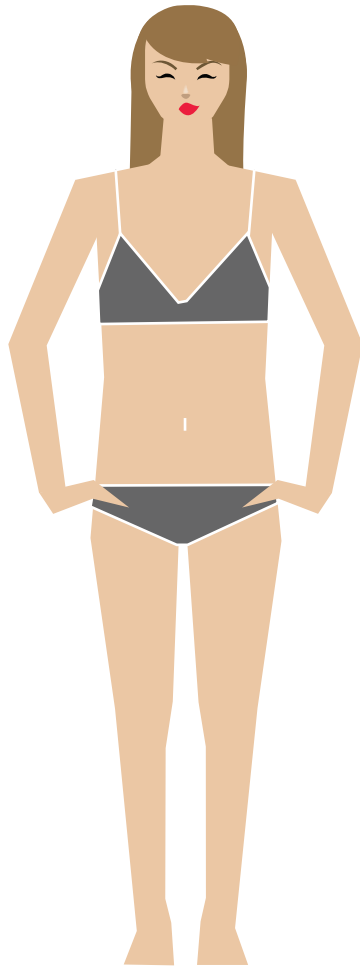
circumference ::



**body as site :**  
→ **physical mapping**



→ site analysis



**body as site :**  
→ **physical / cultural mapping**

**shirt ::**  
US : XS, S  
Europe : SP

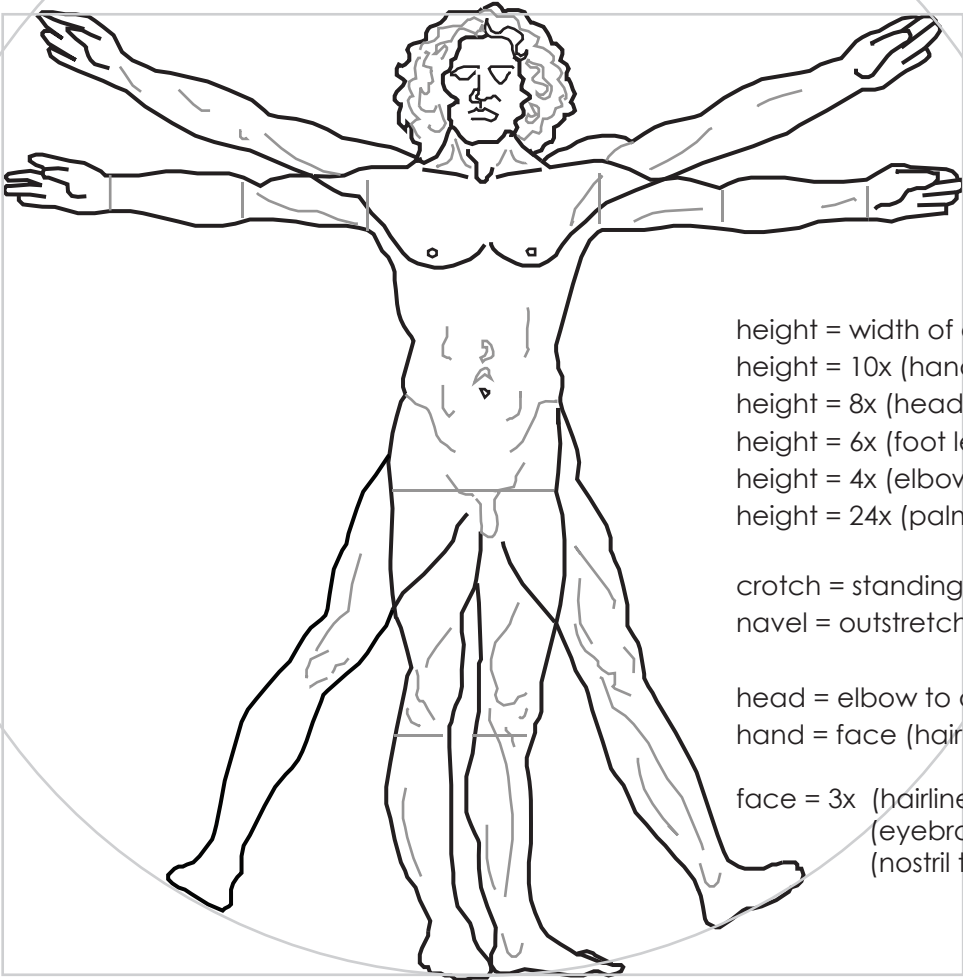
**bra ::**  
US : 32 C  
Europe : 70 D

**pant width ::**  
US : 0  
Europe : 26

**pant length ::**  
US : short / petite  
Europe : 30

**shoe ::**  
US : 6.5  
Europe : 37.5

**contextual relationships ::**  
**translation to read-to-wear sizes :**



height = width of outstretched arms

height = 10x (hand length)

height = 8x (head)

height = 6x (foot length)

height = 4x (elbow to middle finger)

height = 24x (palms (4 fingers))

crotch = standing center [square]

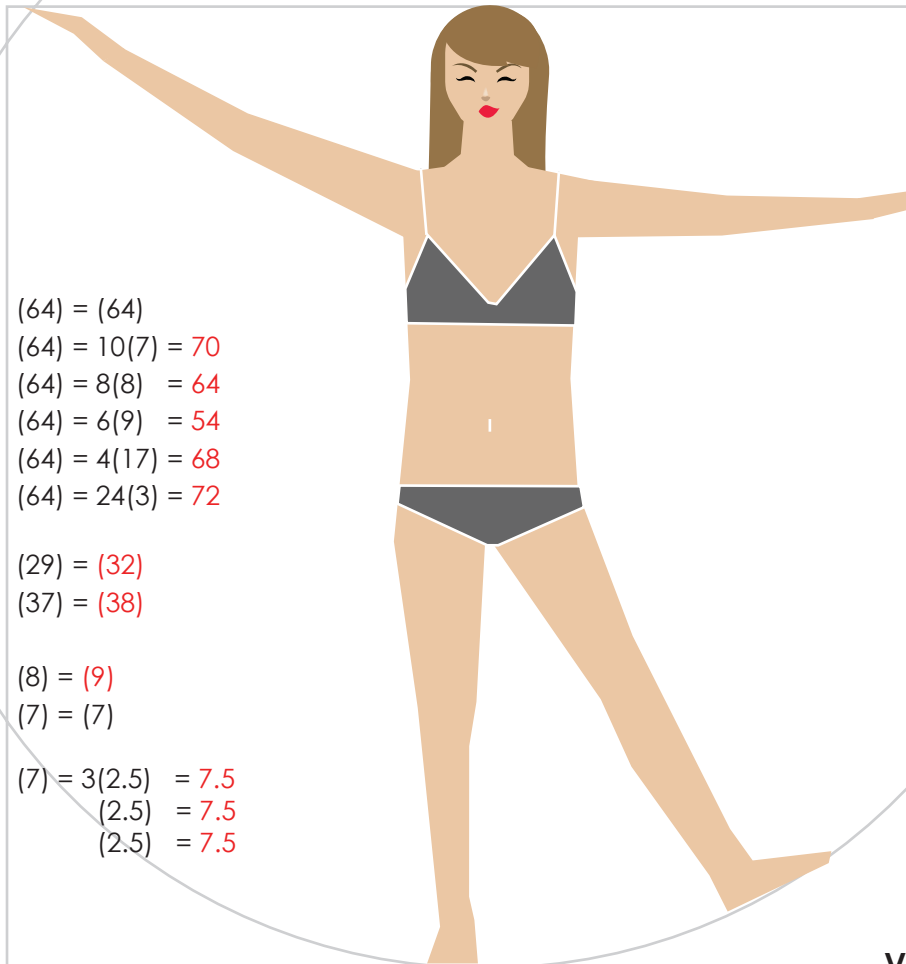
navel = outstretched center (circle)

head = elbow to armpit

hand = face (hairline to chin)

face = 3x (hairline to eyebrow)  
(eyebrow to nostril)  
(nostril to chin)

**body as site :**  
→ **proportion analysis**



$$\begin{aligned}(64) &= (64) \\ (64) &= 10(7) = 70 \\ (64) &= 8(8) = 64 \\ (64) &= 6(9) = 54 \\ (64) &= 4(17) = 68 \\ (64) &= 24(3) = 72 \\ \\ (29) &= (32) \\ (37) &= (38) \\ \\ (8) &= (9) \\ (7) &= (7) \\ \\ (7) &= 3(2.5) = 7.5 \\ (2.5) &= 7.5 \\ (2.5) &= 7.5\end{aligned}$$

**compare :**  
Vitruvian body proportions to my body proportions.

*Vitruvius* = authored first treatise on architecture, 200 BCE (*De architectura* // *10 Books on architecture*) includes a human proportional study popularized by DaVinci's *Vitruvian Man*, 1487 ADE

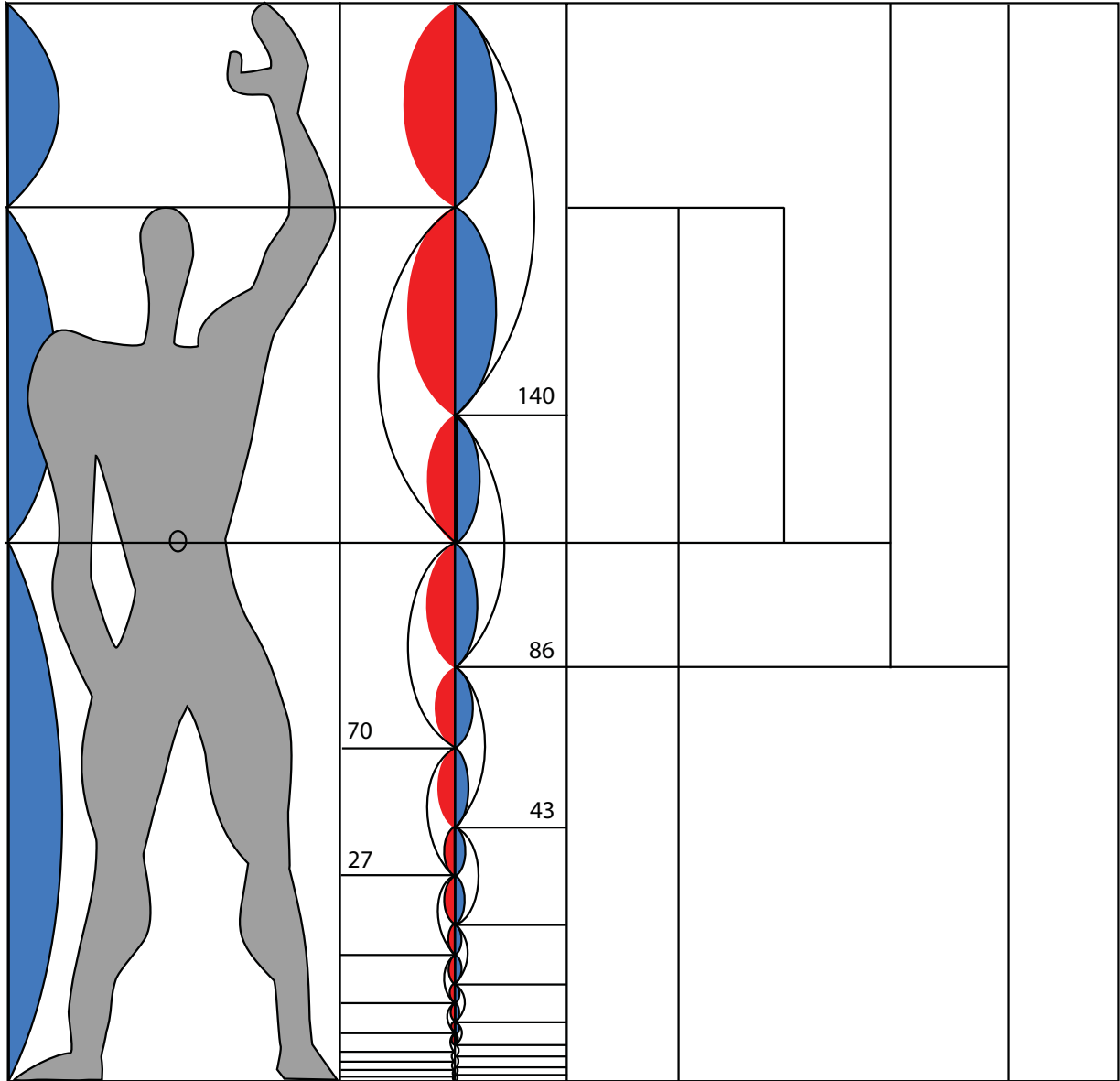
**conclusion :**  
Although my measurements vary from the proportional relationships, they remain within an acceptable range of tolerance.

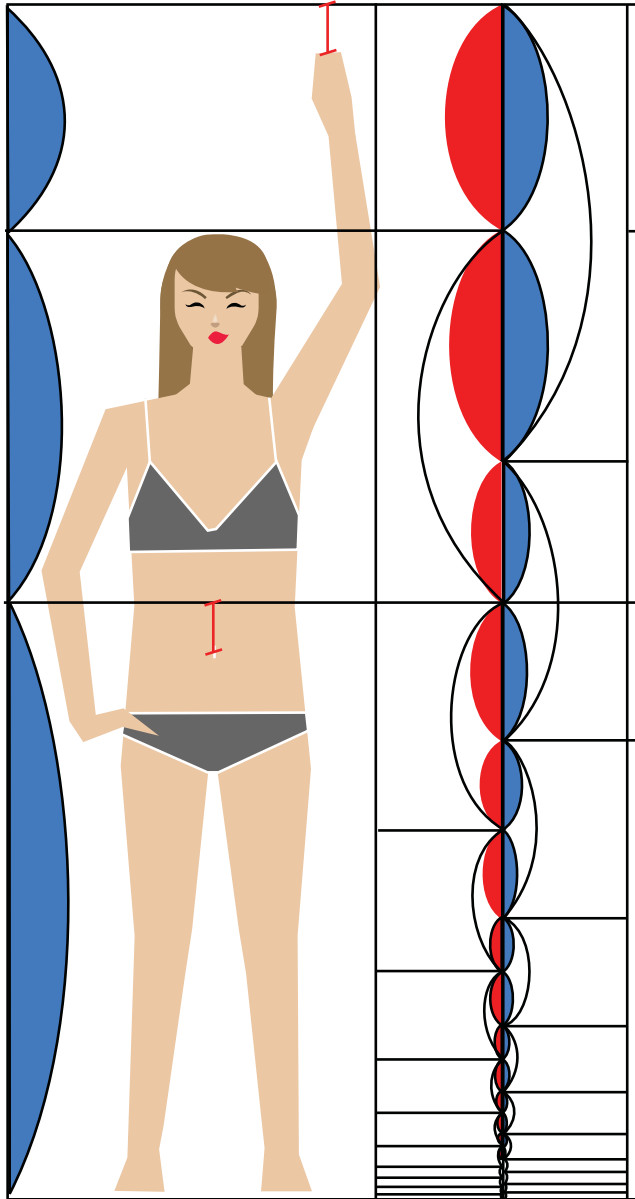
**precedent study ::**  
**Vitruvian proportions**

226cm

183

113





**body as site :**  
→ **proportion analysis**

**compare :**

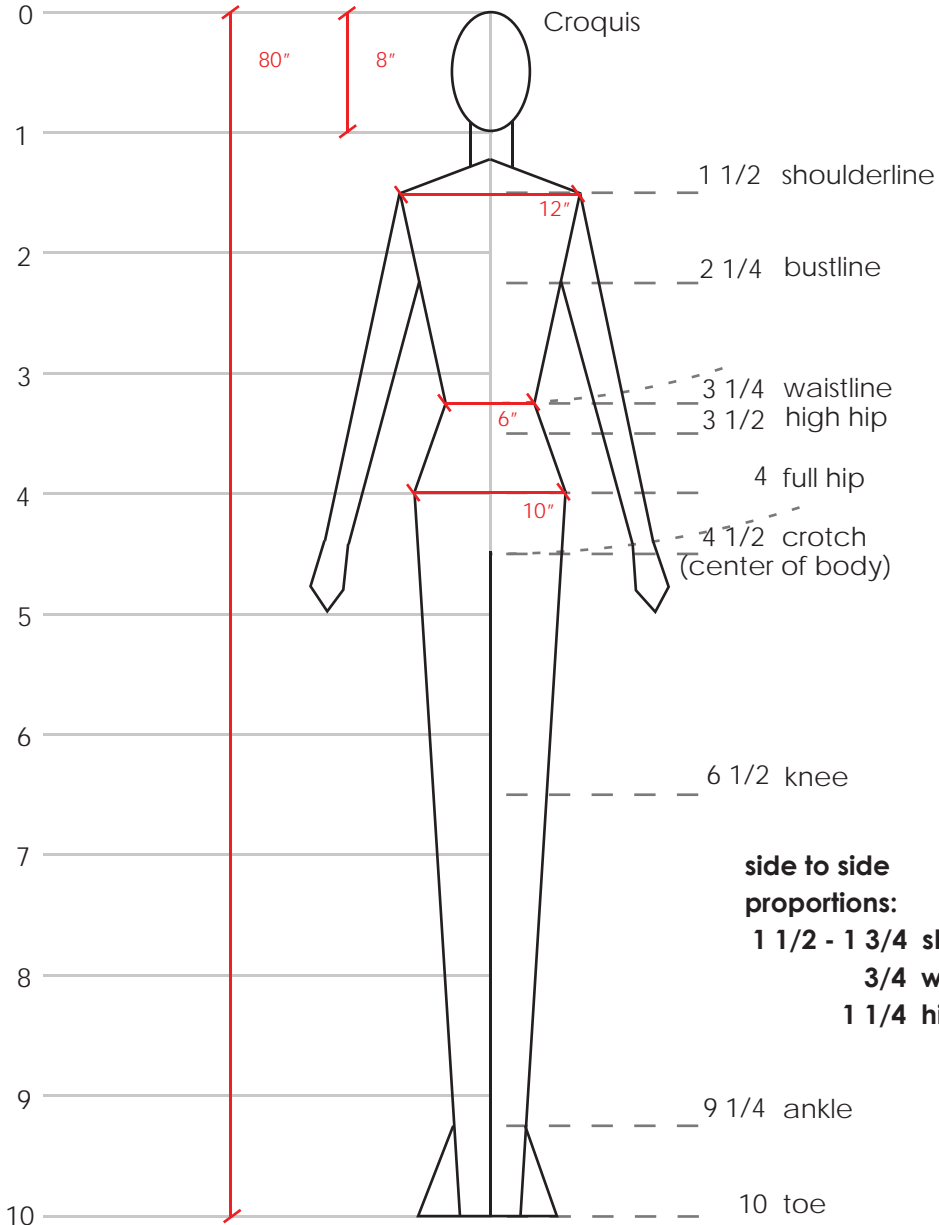
Le Corbusier's standard figure (*Modulor*) to my body measurements.

*modulor* = published 1958  
(*The Modulor : A Harmonious Measure of the Human Scale Universally Applicable to Architecture and Mechanics*)  
a study by Le Corbusier to unify design with "harmonious dimensioning." Once popular, but not widely adopted/referenced today.

**conclusion :**

Le Corbusier's body proportions are proportionately disproportionate

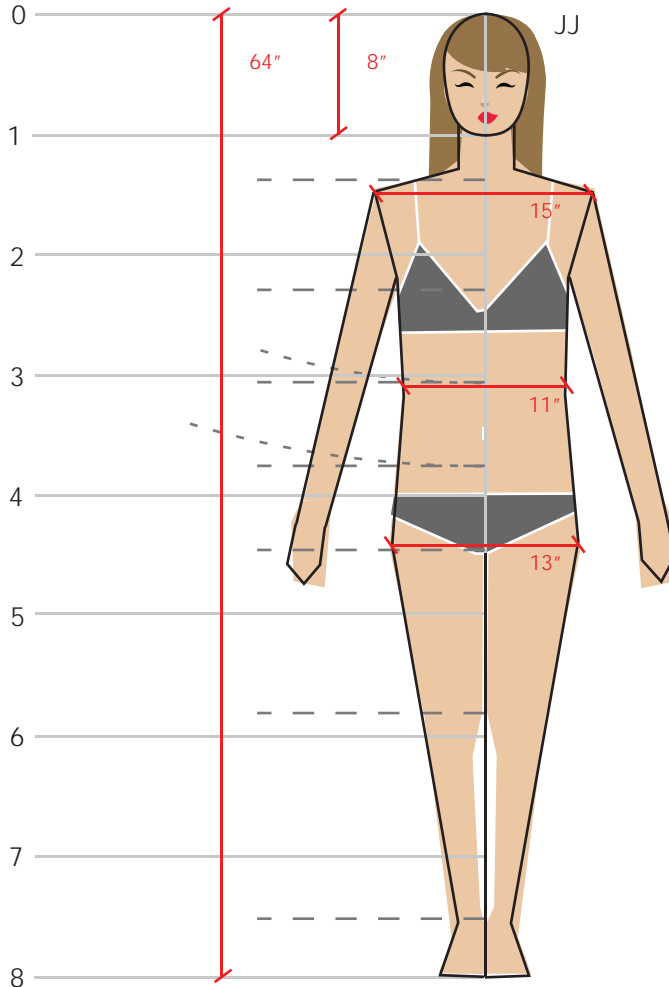
**precedent study ::**  
**Le Corbusier : Modulor**



**side to side proportions:**  
 1 1/2 - 1 3/4 shoulders  
 3/4 waist  
 1 1/4 hips

"... it becomes obvious that our star models, who have been reduced to just a few standard types, are in fact no more than aesthetically beautiful mobile surfaces, living advertising 'media' in fact, which no longer have anything in common with the variety of individual life patterns of today's men and women. (Thomsen, 10)."





**body as site :**  
→ **proportion analysis**

**compare :**

10 head fashion figure  
(*croquis*) to my body proportions.

*croquis* = french (rough sketch) used in fashion as base model of the female figure. Head length acts as unit of proportion.

**croquis :: JJ**

8" = 8" head

12" = 15" shoulders

6" = 11" waist

10" = 13" hips

80" = 64" height

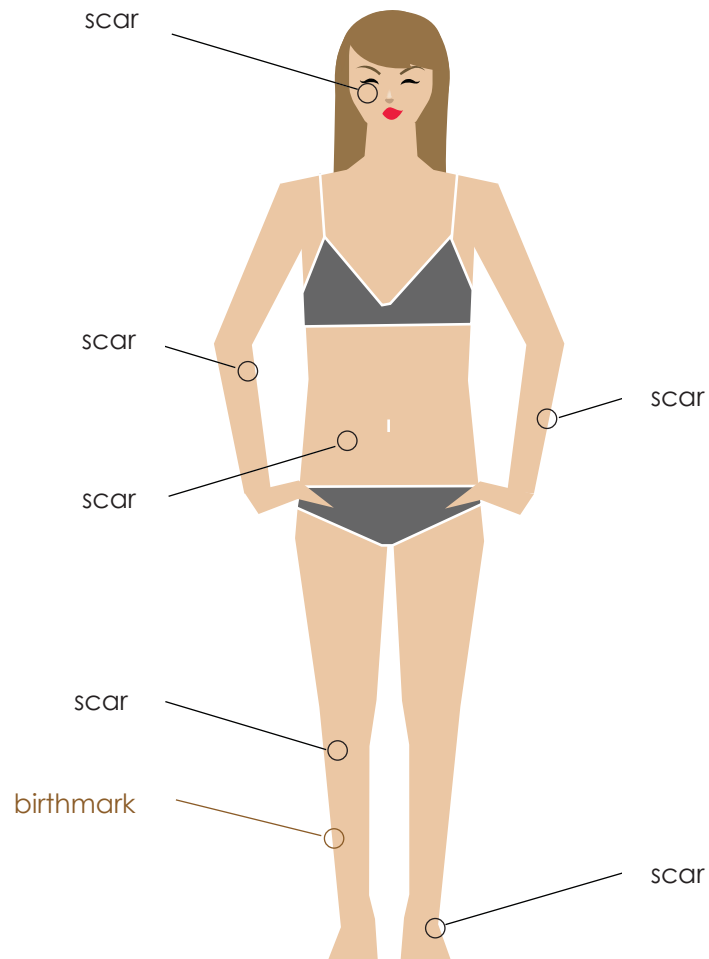
**conclusion :**

With croquis proportions, I would need to be a foot taller with a waist half my size.

This illustrates the disembodiment and disconnection of the fashion industry with people.

**precedent study ::**  
**croquis : standard fashion figure**

→ site analysis



**body as site :  
→ biological mapping**

sex : female  
age : 25  
birthday : 12 June 1986  
weight : 110 lbs  
height : 5'3 1/2"  
birthmarks : 1/2" oval on right lateral calf  
eye color : blue with yellow and gray near pupil  
hair color : light brown (natural)  
ethnicity : Swede/Finn + German

scars : 1/2" horizontal under right eye 1987  
12 stitches right medial forearm 1993  
9 stitches left lateral forearm 1993  
pierced earlobes 1993 (grew closed)  
2" vertical under right knee 1996  
1 1/4" appendectomy internal stitches right lower abdomen 2004  
1" surgical scar internal stitches left lateral foot 2007

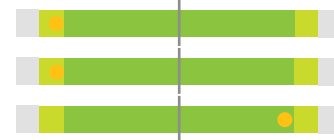
**exterior body appearance ::**

→ site analysis

performance subtests



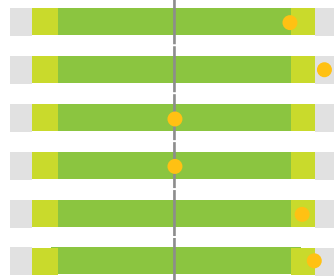
reading subtests



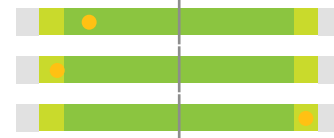
math subtests



verbal subtests



writing subtests



cognitive :

achievement :

1 standard deviation = 68 % of population  
2 standard deviation = 95 % of population  
3 standard deviation = 99 % of population



**body as site :**  
→ **biological mapping**

lateral dominance ::

hand : left  
leg : right  
eye : left

learning style ::

primary : auditory  
secondary : kinetic tactile + visual

functioning ::

cognitive : Wechsler Adult Intelligence Scale - Third Ed.  
performance : 99<sup>th</sup> percentile  
verbal scale IQ : 92<sup>nd</sup> percentile  
full scale IQ : 97<sup>th</sup> percentile  
= superior range of functioning

achievement : Woodcock Johnson III Test of Achievement

broad reading : 40<sup>th</sup> percentile  
= low average range of application  
broad math : 54<sup>th</sup> percentile  
broad written language : 48<sup>th</sup> percentile  
= average range of application

**internal body order ::**

→ site analysis



1 standard deviation = 68 % of population  
2 standard deviation = 95 % of population  
3 standard deviation = 99 % of population



**body as site :**  
→ **biological mapping**

core body temperature : 98.2° F  
resting heart rate : 60 something  
blood pressure : -  
blood oxygen : below average  
blood glucose : -  
cholesterol : -  
lung capacity : poor  
metabolic rate : fast  
hair growth rate : 2cm / month  
range of motion : satisfactory, significantly above average

body composition :: in ideal range  
fat : in ideal range, significantly below average  
muscle : above average

eyesight : average  
hearing : L average, R below average  
taste : average  
smell : average  
balance : poor  
allergies : none

**internal body operations ::**

→ **site analysis**

**parents ::**

marital status : married 27 years  
socio-economic status : middle class

**mother ::** Barbara Jean Carlson

occupation : retired: radiology technologist / department manager  
activities : gentle yoga, mornings at the gym, old lady lunches  
hobbies : hiking, quilting, gardening, summer adventures, watching Oprah  
hometown : Goff, Kansas  
education : high school + trade school  
ethnicity/religion : German Catholic

**father ::** Dennis Floyd Carlson

occupation : retired: civil engineer  
activities : mornings at the gym  
hobbies : hiking, maintaining things  
hometown : Olympia, Washington  
education : 4 year college  
ethnicity/religion : SwedFinn Lutheran

**brother ::** Justin Dennis Carlson

occupation : chemical engineering graduate student  
hobbies : photography, travel  
marital status : married  
religion : raised Catholic → Lutheran  
current residence : Chicago, Illinois



**body as site :**  
→ **cultural mapping**

**name :: Jessica Jean Carlson**

occupation : architecture graduate student  
source of income : nanny + babysitting, GTA  
activities : \_\_architecture student\_\_  
hobbies : design, photograph, sew, draw, paint, dance, play, make earrings, run,  
trail run, watch public tv, listen public radio, bake,  
languages : little English, little Spanish, little Italian, little ASL  
volunteer : HATCHfest coordinator, occasional race flagger  
religion : agnostic, raised Catholic  
current residence : Bozeman, Montana

hometown : Sitka, Alaska  
population : 8,000  
geographic location : isolated island in Southeast Alaska  
climate : temperate rainforest, 100" rain/year

childhood activities : jumprope, indoor soccer, music: clarinet  
hobbies : exploring, tree climbing, capture the flag, kick the can,  
wanted to grow up and be: a carpenter

high school activities : jumprope, cross-country, track, student government, National Honor  
Society, school newspaper editor  
volunteer : jumprope coach, sunday school teacher, NHS  
Class of 2004 : Sitka High School - 69 student

**historical context ::**

**body as site :**  
→ **cultural categories**

nationality : American  
ethnicity : white  
gender : female  
cohort : 20 - 25

Western zodiac ::

sun : Gemini  
rising : Scorpio  
moon : Leo

Chinese zodiac : Fire Tiger

Keirsey Temperament Sorter ::

type : XNXJ

Introverted + Extroverted = mi**X**ed

**iN**tuitive

Feeling + Thinking = mi**X**ed

**J**udging

the color code : yellow + red

**body as site :**  
→ **cultural standards**

**twenty-something  
single American**

**female :: emerging creative professional**

must be : clean  
figure flattering  
polished  
attractive

express : confidence  
friendliness  
professionalism

cover : breasts  
tummy / lower back  
butt  
upper legs

make-up : even / highlighting  
not too dark / excessive

gains you : respect

**social context ::**

→ **site analysis**

**elementary school**

**permanent ::**

piercings : earlobes 1993

**semi-permanet ::**

hair style : natural color blond  
mullet

nail polish : none

**temporary ::**

clothing : stirrup stretch pants  
overalls  
jumprope t-shirt  
tomboy

shoes : sneakers, slip-ons

accessories : backpack

**high school**

**permanent ::**

piercings : none

**semi-permanet ::**

hair style : natural color dirty blond  
long; middle of back + usually tied back  
no bangs

nail polish : toes occasionally

**temporary ::**

clothing : 1<sup>st</sup> layer : jeans + t-shirt  
2<sup>nd</sup> layer : SHS sports hooded sweatshirt  
3<sup>rd</sup> layer : fancy jacket (northface,  
mountain hardware, patagonia)  
= classic SE grub

shoes : XTRA-TUF, running shoes

accessories : school bag

**body as site :**  
→ **cultural identity**

**university school**

**permanent ::**

piercings : earlobes 2004 + right conch 2005

**semi-permanent ::**

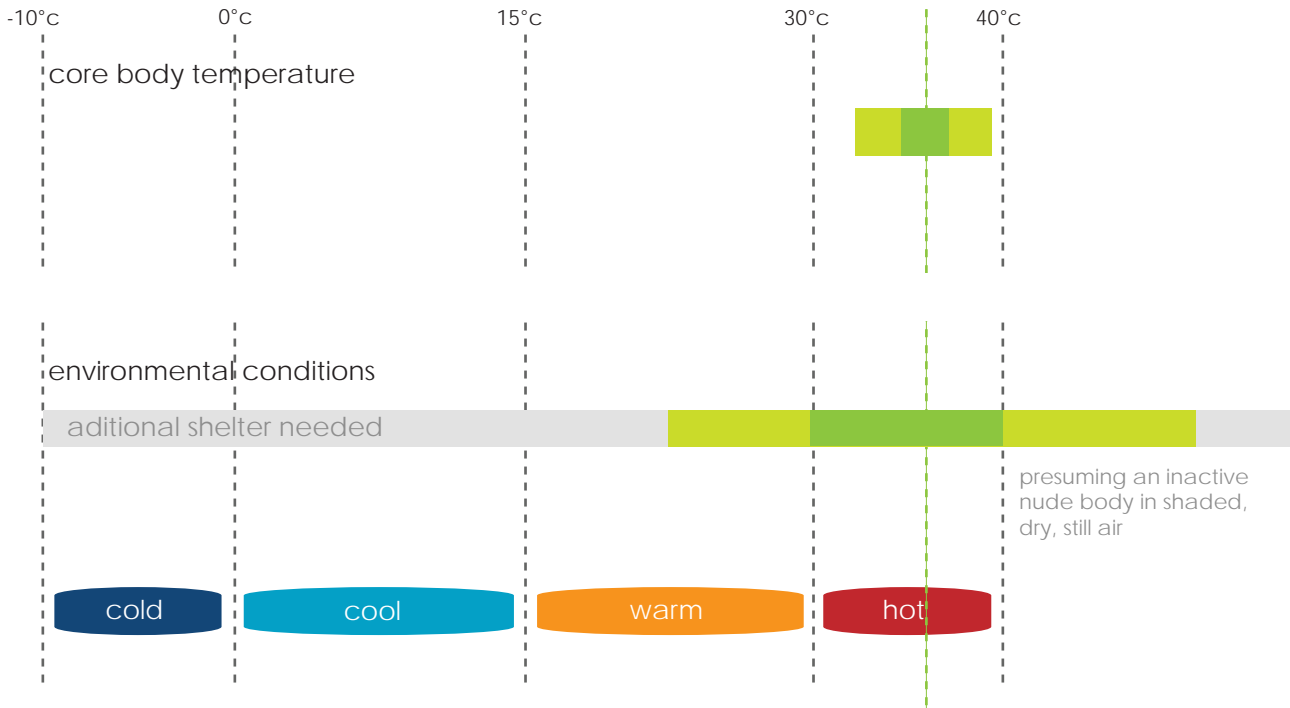
hair style : natural color  
self cut / styled  
medium; just below collar bone  
long thick bangs  
nail polish : always toes, occasionally fingers

**temporary ::**

clothing : solid bold colors + large graphic patterns  
no logos  
sporty / fancy  
fun / serious  
layers → eclectic  
vintage + secondhand / new  
bordering college grub → young professional  
well fitting + no holes  
shoes : activity + weather depending  
athletic / flats / boots  
occasionally heels  
accessories : earrings  
hats / belts / scarves  
school bag / coffee

**visual identity ::**  
**body modifiers:**

→ external climatic factors  
:: planet earth year 2010



## shel ter

1. Something that provides cover or protection, as from the weather.
2. A refuge; a haven.

**body as site :**  
→ **program**

The human body needs to maintain a core body temperature around 37° C. If the body goes below 35° or above 40°, systems begins to shut down and eventually stop functioning. Fever and hypothermia are serious conditions that unless corrected lead to death.

The most primitive function of architecture is providing shelter - creating secure and comfortable dwellings to insure efficient regulation of the core body temperature. The intrinsic requirements of body as site center on this.

natural  
modifiers:

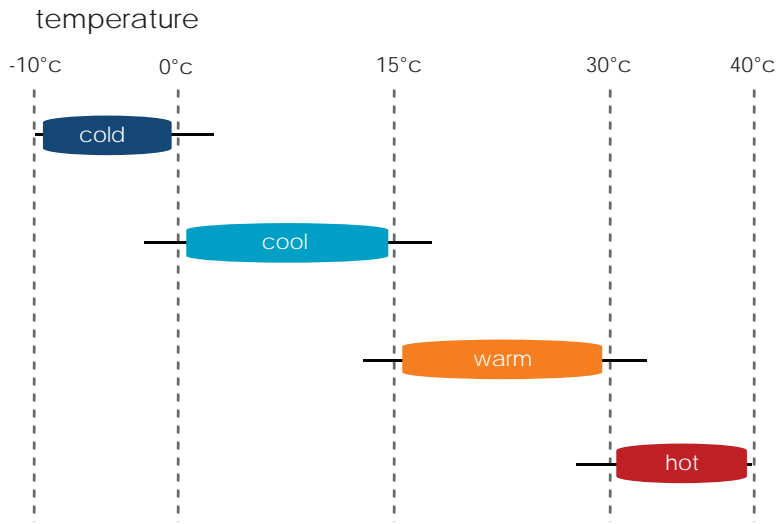
: sun  
: precipitation  
: wind  
: humidity

human  
modifiers:

: gender  
: activity level  
: acclimatization  
: elevation  
: core body temp  
: perspiration  
: metabolic rate  
: clothing  
: length of hair  
: air movement  
: etc...

due to the extensive list of human modifiers,  
these studies will be done with the body at rest, or slightly moving

→ external climatic factors  
:: proposed response



natural amplifiers

sun



precip



wind



response

layer for :





**body as site :**  
→ **program**

It is usually the body that gets standardized into charts and tables in the design process. By listing external climatic factors, objectification shifts away from the body. This redirects emphasis back to the corporeal being. The diagram at left illustrates the temperature ranges and amplifying factors that will be used to quantify the external environmental condition.

temperature : **cold, cool, warm, hot**  
natural amplifiers : **sun, precipitation, wind**

The design response to these seven standardized factors will be a series of seven shelters. Each will be designed to answer to a specific external climatic factors.

an extra warming base layer for **cold**  
a warming base layer for **cool**  
a maintaining base layer for **warm**  
a cooling base layer for **hot**  
a **sunshade** external layer  
a **waterproof** external layer  
a **windproof** external layer

**site factors ::**  
**sheltering :**

→ external climatic factors  
:: proposed response

		temperature			
		cold	cool	warm	hot
natural amplifiers	sun				
	sun + wind				
	wind				
	precip + wind				
	precip				

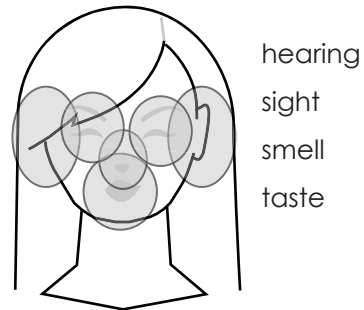
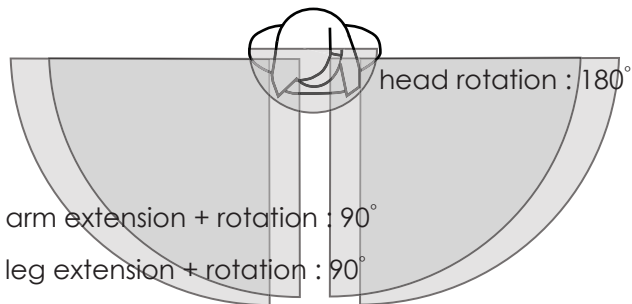
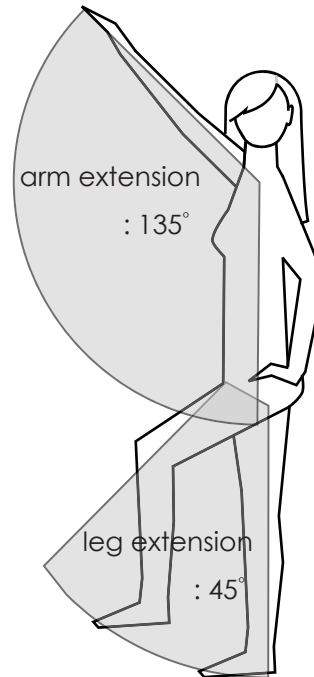
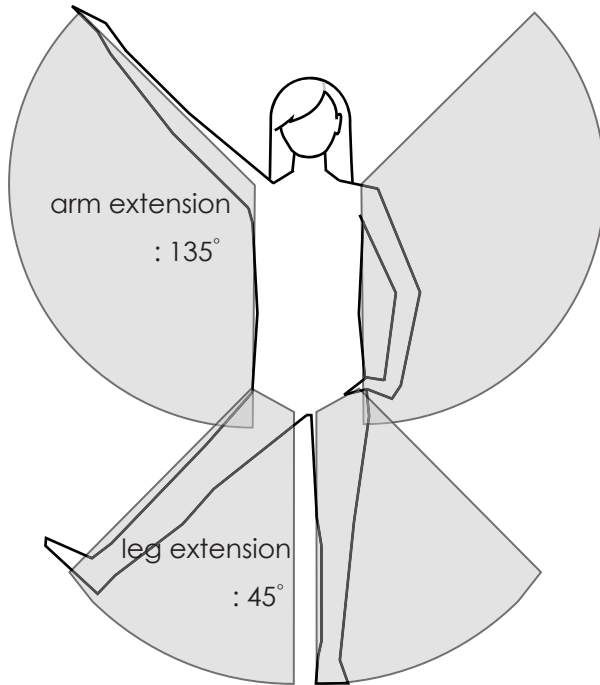
**body as site :**  
→ **program**

To meet the sheltering requirements of any combination of conditions, the shelters will be designed as a system. Multiple assemblies can be created to respond to different combinations of climatic factors by layering the individual shelters. All seven shelters have a strong individual programmatic aspect, but also work collectively to fulfill the unified goal of providing a habitable environment for the site. The matrix at left illustrates the layering responses being considered.

This interchangeable approach creates shelter while connection to the environment remains strong. A balance is achieved between the extremes of external factors and the need of the site to maintain thermal consistency without additional heating or cooling system.

**site factors ::**  
**sheltering :**

→ **spacial circulation**  
:: **programmed space / adjacencies**



1. To become aware of directly through any of the senses.
2. To achieve understanding of; apprehend.

**body as site :**  
→ **program**

Although extending comfort to facilitate human habitation is the primary programmatic requirement, it is not the only important factor. Architecture is synergetic shelter; it incorporates matters not quantifiable. Embracing the corporeal modes of perception that are receptors to the *quality* of shelter are also significant considerations of program.

The following are the acting site factors:

**physiological methods of perception ::** 9 corporeal senses

touch	sight	hearing
taste	smell	kinesthetic sense
temperature	pain	balance and acceleration

**extension and modality of extremities ::** gross motor skills

walking	ascending /descending stairs
dancing	45° leg extension with 90° rotation
180° head turn	135° arm extension with 90° rotation

**site factors ::**  
**existing site conditions :**

→ **international code council**  
**:: regulation compliance**

INTERNATIONAL BUILDING CODE 2009  
CHAPTER 31: SPECIAL CONSTRUCTION  
SECTION 3103 : TEMPORARY STRUCTURES

*3103.1 General. The provisions of this section shall apply to structures erected for a period of less than 180 days. Tents and other membrane structures erected for a period of less than 180 days shall comply with the International Fire Code. Those erected for a longer period of time shall comply with applicable sections of this code.*

INTERNATIONAL FIRE CODE 2009  
CHAPTER 24 : TENTS AND OTHER MEMBRANE STRUCTURES  
SECTION 2402 : DEFINITIONS

***TENT. A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.***

SECTION 2403

*Exceptions:*

- 1. Tents used exclusively for recreational camping purposes.*
- 2. Tents open on all sides which comply with all of the following:*
  - 2.1. Individual tents having a maximum size of 700 square feet (65 m<sup>2</sup>).*
  - 2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m<sup>2</sup>) total.*
  - 2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.*

**body as site :  
→ code analysis**

Adherence to the standards set by the International Code Council (ICC) is nonnegotiable in architecture. Safe, healthy and accessible spaces are significant parts of design. Due to the area of emphasis of this thesis being on body / clothing → building articulation of personal architecture, this code analysis is atypical.

In Chapter 31: Special Construction of the International Building Code (IBC) 2009, it states that, "Tents and other membrane structures erected for a period of less than 180 days shall comply with the International Fire Code."

Chapter 24 of the International Fire Code (IFC) 2009 defines a tent as, "A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air." It is my interpretation that the garment exploration of the architectural layers of the body being investigated in this thesis would be classified as a tent under the IFC.

Section 2403.2 of the IFC gives exceptions to tents that are under 700sf and more than 12' away from other structures. The proposed garments will easily abide by these stipulations, therefore these garment studies are exempt from building code requirements.

**tent ::  
exempt :**





**list of figures :**

all diagrams made by the author



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