Communicating Architecture Manifesto:

10 commandments of a new architectural paradigm based on difference making a difference.

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No matter that you grab hold of your chair, I will move your building into a new co-ordinate system within a new society. A society based upon knowledge gained in communication, dialog and collaboration. At the end of this journey everything will be changed and be aware: there is no undo button. It is as when Copernicus moved the co-ordinate system from the earth to the sun and pow! Kepler explained the motions of the planets in terms of elliptical orbits and Newton followed up with the rest of the universal laws of physics that became the basis for the industrial revolution. I move the co-ordinate system from the building directly into your very brain.

The measuring stick for architecture is changed from m², kg, °C, lux and € to the measuring stick of the brain: “a difference making a difference”. Communicating architecture focus on the sender and receiver instead of bits and bytes. Information is increased when the sender has structured and compressed his message (difference no.1) that have a meaning and value to the receiver (difference no.2) and in particular if it changes the receivers life. The ambition of communicating architecture is beyond construction: to improve the users life!

Our senses react to differences, stimulations of the nerves. We are blind to continuous stimulus. Our brain reacts to differences. Sensation. Man bite dog. Something that is different from what we knew before. Knowledge is an information model structured in the brain. Familiar information makes no impression because it is already in the model. It is the new and surprising that counts. And truth matter.

In the this paradigm, a building develops in a balance between love and hate. Love being everything you like about a house: Rooms, shape, texture, daylight, storytelling, garden, facilities, functionality, economy, ecology. And hate being all the things that brakes down, annoys you (but cannot be changed), keep costing money, is unhealthy, polluting, hazardous

Good relations improve with time. From the moment you fall in love with you house, you wake up every morning and think: God, I’m lucky that this is my home. You only fall in love with a house with some genuine values, some personality and integrity. And because you love your home, you spend time and money to improve it. Whatever flaw will over time be cured and it will end up being a perfect house.
1 User centred

The aim of architecture is for man to prosper, develop and contribute. The real value is neither found in the building alone, nor in the user by himself, but in the relation between an excellent building and the empowered user. Real value is found in what difference the house does to your life!

We people are all very different. It is not a problem. It is a resource. Diversity combined with natural selection is the formula for both genetic and development of species, products and new ideas. There would be no need for communication or even information without differences.

The concept of communication involves all of the senses. Sight, sound, smell, touch, taste and sixth senses too because it is a difference that makes a difference in your brain that counts. A candlelit dinner is a metaphor and an example of a situation where all of the senses are stimulated.

Such stimuli are not confined to one single place. The city is an example of a situation where we choose where to go for stimulation. To stimulate the sight and sound we go to cinema. To stimulate human contact we go to a café. To stimulate our taste we go to a restaurant. To stimulate our body you go dancing.

Change comes when the audience becomes the actors. When you yourself decide what you want to do, how it should be done and what kind of space and interface is necessary to set the scene.

User co-creating architecture is a way of telling others about who you are, what you do. It could also be a real inspiration for creating new working relationships and lead to a dynamic exchange of ideas and methods.

Design

A home is different from a house. The home tells the history of your life through a lot of artefacts from your family, from your journeys, the gifts you have received and the things you have chosen. A home is uniquely you.

Beauty in building shouldn’t be the greatest when in a virginal state of emptiness as pictured in architectural magazines, but when love, friendship and collaboration is manifested between the people that inhabit them.

User centred design has a specific challenge in buildings: Time. A building last for 100+ years and it is not sufficient that the first user can customise the building. The usual consequence is that user centred design of buildings are abandoned: “Why should the first user destroy it for the following?” But that is based on the false assumption that buildings are fixed. Why not make the building adaptable?

A building should never limit the user’s development. Users should be able to change the building as the users change their life, and as the users are replaced with new users.

Building

This means that the building should be adaptable, modular, plug & play

The relevant user centred design is a kind of dynamic user co-design where each home is a prototype developed within a modular framework. Somewhat like LEGO and the computer game “The Sims”. Some choices can be made again and again.

Among the tools in this process is software to order and configure building somewhat like ordering a DELL computer.

User co-design could even be real time. Imagine an office where you chose where to sit based on who you collaborate with today, how you like the daylight and where the nice temperature is. This collides of course with the concept of “home” in your office unless you “home place” is mobile or even virtual regenerated the moment you sit touch down.
2 Communicating

Each year sees the birth of new disciplines, increasing specialisation and deeper understanding, but we lack something to bind all of this together. A common language, a universal relationship. The common denominator is that all humans have senses and thinking in common. The condition for a holistic parallel representation within a concurrent process is the use of a common language. Not just an actual language like English or a digital language, but something that can compare both hard and soft data and something that can be used to find a win-win formula when conflicting interests confront each other.

Difference making a difference is this common language for all disciplines in the knowledge society. There is no longer a canyon between the hard science of the physicist and the soft science of the humanities. All knowledge disciplines have a common language just as HTML is that of the internet. We can communicate across disciplines and be stimulated by the potential transfer between disciplines, in the collaboration at a personal meeting as well as via the Internet. See, think, react, contact, stimulate, grow. Taste is suddenly something we can discuss within this common language.

Creative thinking and knowledge creation can be furthered through conceptual understanding. Group creativity and collective intelligence is intensified in the real meeting because the “bandwidth” in communicating difference making a difference is increased when we can use body language, touch each other, experience object “hands on”, enjoy the better vision and sound and focus on whatever we want to

We play a role and have roles. This role-playing can be changed from something that limits communication to something that improves it. Consciously changing roles to investigate complexity can increase the bandwidth.

Design

We need an architecture inspired by the theatre, where it is easy to play different roles, make new scenes and create new performances.

We need buildings as versatile as the pull down menus of the computer

Most construction companies build very conservative “business as usual”, assuming that the second hand market shows what people really want. But how can people choose something not available? How will we ever get improvement if the new buildings are determined by the old ones?

Communications is not for humans only. You can communicate with a computer and interactive computer games. And you can communicate with architecture.

The famous architecture you travel to see on vacations obviously communicates to you. A test of architectural quality is that many people know about a building (it made a difference), the next test is the distance you want to travel to see it, and the next test that the experience in real life was even better than the virtual. The ultimate test is that you talk your friends into travelling to experience the building.

Building

What is the message of your new building? What to you want to communicate? How will you increase and improve the casual meeting.

Imagine a building design that really makes a difference to the user.

The theatre is a large empty volume divided and screened by removable walls and filled with artefact

The old alcove concept creates “pull down” functionality when needed.

Imagine a room which is beautiful when empty as well as when gradually divided by sliding doors and partition walls. The floor is stretching under and the ceiling over the partition walls. No restricting installations in the partition walls except wireless installations.
3 Dialog interface

Architecture can be interactive, it can tell stories and it can function as an interface creating contact between people. We are often too shy or hesitating to contact unknown people. Communicating architecture can reduce barriers to interaction.

Meeting people is the beginning, but we need a variety of space that encourage the development of relations.

We can zoom in on the interface between people through an examination of situations where people thrive as testified to by their body language.

People thrive when they:

- Look happy
- Have a body language that is as light and pliable as a soft rubber ball
- Radiate an engaged concentration
- Relax in security

Such situations can be play, sport, dance, discussions, co-operation, flirt. It is something almost physical in its nature.

“It takes a village to rise a child” says Hillary Clinton. We need the diversity of many peoples feed back to develop. Yet most people live in single family houses. Could we recreate suburbia into new urbanism?. Could we densify, reintegrate work and residential areas, create hierarchy, services and infrastructure that bring people together without destroying the privacy of suburbia?

Design

We need a semi private zone between our private space and the public space. A space for informal meetings. An outdoor or covered space where you can domesticate, and communicate you story yet open to anybody’s response. I dialog space

We need a new architecture combining the freedom, control and ownership of single family homes with the social life of a town. Something like Port Grimaud and Seaside

Architecture should enhance the interaction between the users and between the users and the building. The one cannot exist without the other. They exist in yin and yang duality.

Your office becomes a room where the network is alive, communicates and creates new knowledge. You simply choose the filter/interface configuration that suites your particular requirements. This is not the old discussion about a cell or landscape office. This is something about the interaction of people with each other and their environment. You choose the setup you want, One of the preconditions is an IT mobility that liberates work from place.

Building

We need open spaces, open to the public, open to activities, open to potential.

Places to stop and talk when you have met someone.

Places where people can sit with their back protected, raised a little above the pavement in order to have eye contact with passers by is.

Places with experiences that attract people. Cafés, chairs, merchandise etc. causes people to sit and interact.

Reintegration of work and residential areas taking advantage of the workplace facilities like conference room (for parties and cinema), cantina (for restaurants) and visa versa. It will ad activity and life to the streets and reduce the need for parking and commuting.

Space for sport and play is essential.
4 Privacy filter
You and your building is the editor of your own life.

Buildings and towns are filter/interfaces, tools for addressing, sorting, distilling and organising information. Information has input and output, resonance, frequency, strength and many other functions. It is all about selecting the information we want, enhance the part we care for and shield of the part we don’t care for.

We already view the world through many kinds of physical and virtual optics. Through our spoken language, our profession, our roles as parents, as colleagues, through our national culture and our sub-culture. We receive information directly through our senses, but also from TV, the Internet, books, movies and all kinds of art. They are collectively a kind of filter/interface that reinforces certain impressions whilst repressing others.

Concentration, being undisturbed, is vital. When you think creatively the brain has to be in ‘flow’, a condition of synchronisation between the left and the right lobes, where both the logical right side and the associative left combine structured thinking with associative potential, resulting in a condition where creativity is nourished and thrives. It takes approx. 15 minutes for the brain to reach this level of responsiveness and just a couple of seconds to loose it. “Flow” can be experienced by both individuals and groups (synergy).

The need for the filter function grows when more information has to be processed and when you are closer together with more people and sometimes we are indeed flooded with information.

Design
A duality of filter and interface is repeated on many levels in accordance with the individual, family, group, institution, sub-culture.

The building perceived as filter protects the balance between privacy and company you want.

The filter screens some people and information out in order to accentuate the relation with those you want to be in close interaction with.

The filter stops a particular stream of information in order to concentrate upon a particular relation and dialog. Privacy is also when you are very close with other people

Selection and privacy is even more essential in a society with an increasing flow of information.

The home is the place in the world where you yourself decide filtration of information. The place where you can seek isolation and retreat. The place where you can turn off the flow of information completely.

Building
We need buildings that can provide privacy and silence. Good sound insulation, fresh air without noise through open windows, efficient acoustic absorption.

We need privacy, a good nights undisturbed sleep and we don’t want annoying noise spoiling relations to neighbours.

We need facades and partition walls that can open and close.

The facades should also filter daylight. Facades can even be a kind of lattice filtering view in a way that gives the users of the house an advantage over the bypasses. It is easier to look through a lattice at short distance than from far distance.
5 Multimedia art

Art is the sublime communication from one subconscious mind to another subconscious mind of a difference that makes a difference. You can enjoy art without consciously understanding why. Art integrates metaphor, symbol and language in a completely new way compared to a pure physical understanding of architecture. Art is thus a precursor of development to come. You can watch Kadinsky before the museum in Ishøj was built. Why not be inspired by the movie artists of Star Wars and Lord of the Rings?. The best stories are often told through the subconscious of the architect and designer relying upon the instinctive and intuitive.

Art has conquered new ground recently through the inclusion of interactive electronic media as a means of expression, and architecture could be similarly dynamic. From passive to the interactive.

Architectonic artistic quality is measured as experience through the senses. Things can be psychologically hot and cold. Nice to the touch, pleasant to behold. Safe and secure. The ideal is a dynamic balance between calm harmony and a kind of dynamic disharmony. Both the safe, familiar and the challenging. A ‘cult’ movie is more our role model than an advertisement trailer.

Our work place is characterised by both internal and external market forces. In a knowledge society the motivation to take an active part in those market forces becomes essential. Work is a bazaar and ought to be considered as such in its appearance and workings. A place where you can ‘shop’ between individuals and departments/specialities. Architecture that can provide a framework for pluralism, ornament and decoration setting a stage for action and interaction.

This new communication paradigm of architecture has an effect similar to the development from an electric bulb that can be switched on and off to the full spectrum of multimedia. A media screen is a million electric bulbs that can be tuned, change colour and be combined to visualise a message.

Design

Architectural art reinforce experience between space, material, nature, light, the city and not least the subjects: Us.

A building is to be experienced again and again so the difference making a difference should be alive, developing, interactive or it will stop working. A shocking design, a fashion, a fad won’t work in a building lasting a hundred years.

Architecture can be dynamic. Alive. Something that is constantly changing according to the needs and wishes of the user. Something that can open and close, change between filter and interface.

Industrial age concrete elements are replaced by a flexible, adaptable mindset of the knowledge age.

The users co-design and co-construct the building over time according to purpose, and make it their theatre for the dramas of life.

Building

When you walk down the pedestrian streets in the city centre is the same street next year but most likely with different shops, exhibitions and displays. The pedestrian street is multimedia, dynamic.

Every building, office and neighbourhood should be a dynamic like a town

The building facade could be composed from a variety of facade components and systems like balcony, terrace, sunshades, solar heating, photovoltaic, bay windows, windows, walls etc.

The most obvious exploration of multimedia art is artistic use of glass as a media for both daylight within the house and light art seen from outside at night.

Reflective surfaces can mirror clouds, sky, sunsets and surroundings.
6 Valuable

Feed back processes are fundamentally different from linear processes. They can grow exponential 2-4-8-16-32-64-128-256.

Feed back processes are particularly powerful when they are based on intangible issues like:

- Confidence
- Trust
- Friendship
- Love
- Knowledge
- Empathy
- Success
- Sympathy
- Care

The physical and economical world is reduced when divided in shares. But the above issues grow when they are shared. If you can create a neighbourhood based on these factors you can start a good circle of increasing value. Something growing out of nothing.

If you can improve the landscape, build beautiful house and connect to or establish the transport, service and job infrastructure the success is safe.

Buildings are not a dead thing. They interact with the users. Users living in a good environment are more healthy and productive than those living in a bad environment. How do you value levelling effects on you life?

The process starts with a focus on value rather than cost. Look at the most valuable buildings and compare there price with their initial construction cost. And do the same for the least valuable buildings. The ration between value and cost is most likely 10 times better for the good buildings, particularly if they are in a good neighbourhood.

Design

Most constructors focus on the value growth in the construction process. The first year. The real value growth is within the next 100 years. And the real cost is also within the next 100 years if the building consumes energy, are expensive to repair and maintain.

The owners of the good buildings care for them and make them better. Everybody wants to live in a neighbourhood where people care for their environment and care for each other. That’s a feed back process, a good circle.

A successful office building is catalysing value growth. The turnover on salaries is maybe ten times the annual cost of the building. If you compare an office with a good climate with one with a bad climate cost/benefit should be related to productivity rather than facility management.

Building

Neighbourhood is of paramount importance. Buildings design to encourage a good neighbourhood is more valuable.

Both buildings and neighbourhood should focus on quality rather than cost.

Each building should:

- Be upgradeable encouraging growing value.
- Ad to rather than subtract from the neighbours house.
- Improve the environment.

A component or material with a relative short lifespan should be always be easy to remove and replace from a building part with a longer life span. The most basic structure of a building should be “eternal”. It sounds obvious, but is all too often violated.
7 Sustainable
Ecology is globally essential for the building of tomorrow. Ecology is all about the relation between a living organism and its environment. Ecology is a state of mind. A long term life cycle mindset. An unlimited holistic mindset including everything, even the environmental effect in the extra production necessary to afford living in an expensive building.

Darwinism is about survival of the fittest most adaptable species and the most attractive for reproduction. Sustainable architecture is about survival of the fittest most adaptable buildings and the one most attractive to the users.

The valuable old buildings are a source of inspiration because they actually survived. They were fit for and adaptable to the past changes and they are still attractive. How can this knowledge be extracted? And how can we use the successful operation in the past lifestyle to know about success in future lifestyle?

The building is a tool rather than an object. The aim is to create a comfortable environment for human life, participation and interaction. The measuring stick is comfort and minimal environmental load rather than Celsius, Lux or square metres. Comfort depends on person, clothing and activity and is different from a specification of an indoor temperature of 22 °C.

We need to develop skills in creation of filters/interfaces that interact and co-operate with nature without harming the environment. An extra skin to our clothing. Something that receives both solar energy and screens us from the worst deprivations of the climate. Something that could provide comfort without wasting resources.

Design
Every single place you can substitute and save energy consumption is worth the effort. Savings are usually less expensive in a life cycle perspective than supply. A reduction in space demand is also environmental as it reduces all other consumptions proportionally.

The savings can be incremental or disruptive. Incremental if you save 10% energy and disruptive when you save the heating or cooling installation. The disruptive savings can lead to autonomy and in a world of oil-wars that means safety. If oil supply are scarce or cut off your at still in control.

Using the car to produce electricity for the building is interesting but using the building to generate electricity for the car is a revolution.

Maybe the building could even improve the environment in several ways:
- Absorbing CO2 through green plants
- Produce more energy than consumed
- Retain rainwater and use it to substitute drinking water

Building
New super insulating transparent materials and components filter excessive sunlight and convert it to electrical energy.

Intelligent control and dynamic heating and cooling supplied exactly were it is required right next to your body instead of general space heating saves energy.

Materials that change shape and properties create new opportunities for filter/interfaces with nature and the eco-system.

New energy converters like fuel cells can make the buildings autonomous, producing both heat and electricity. They work well as back up to solar heating and photovoltaic.

A system of replaceable recyclable modular plug & play components will dramatically reduce the embodied energy and waste from building materials.
8 Natural

Ecology is defined as the relationship between the organism and its environment. Our relationship with our environment, each other and things. The starting point is an examination of our social and biological requirements. Only through a deep understanding of ourselves as human beings and our biological needs can we understand how to live in symbiosis with our environment.

Man developed from ape to prehistoric man in approx. 10 million years. The development from prehistoric man to modern man took a mere 200,000 years. Up until 100 years ago, the majority of people lived outdoors for most of their working time. It is therefore biologically necessary to reproduce the natural qualities the human body was developed for in the first place. We are not developed to sit for hours in front of a computer. We need to move, change position, talk, relax, switch off, switch on. Outdoor qualities such as daylight, birdsong, the sound of a water fountain, aroma, fresh air as in the garden

We all know that light is important in order to see, and architects, painters, photographers, theatrical directors and film crew are often aware of light as a medium of creation. Even though we are not as dependent on light as plants for example, our biology and psyche is never the less affected by light. One of the effects is that our immune system is strengthened through the presence of an abundance of light, we become less sleepy, more alive and abuse of narcotics, alcohol and tobacco decreases. This is as much about psychological well being as physical health. Research also shows that a day lighting level of between 2000-3000 Lux is sufficient to avoid winter depression.

Design

Our biological preferences is about
- Protection from danger within our surroundings
- Flowers and fruit as a signal for food and scent
- Falling water, spring water and warm water, lake, ocean
- Bright daylight
- View and sunset
- Fire/hearth
- Birdsong
- Earth, gravel, stone
- Air, breeze, wind

It makes a great difference to include these ingredients in architecture. They have been our optimal life condition throughout the last 200,000 years and they ought to be a part of our continued existence. If we can utilise this force we have the key to positive human perception

Building

This leads us to a new architectural concept of garden with shadows from the canopy of large trees as a metaphor for spatial experience, user influence and flexibility as well as fruitful sustainable growth.

Traditional Japanese architecture is leading in the integration between house and garden.

A few decades ago large insulating glass panes made it possible to glaze atrium and conservatories a create a all year garden.

Many have tried to simply live in a greenhouse. But the optimal is never the extreme. Early man lived under the foliage at the edge of the savannas.
9 Learning & Caring

The parents take care of their kids, so to that babies are comfortable and safe. We don’t want intelligent houses. We want caring houses. Caring for our:

- Comfort (temperature, humidity, light level, light colour, acoustics)
- Safety (fire alarm, smoke alarm, alarm if we fall or are unconscious)
- House safety (alarm for humidity within the construction)
- Functionality (alarms for break down of heating, lose of water pressure)

We even want the house to fix the problem, call for service and repair.

We want the building to understand and learn our way of living just like modern cars where the Triptronic gear box learn to shift at high revs when the drivers wants sporty driving and at low revs for another driver who want economical driving. Some cars have installed computers to remember how each person (represented by car key) wants the seat positions, rear mirror positions etc.

We prefer home to hospital. In the future home and workplace should be able to support old, ill, or disabled people to be safe and sound.

We want the house to be healthy, protection us from diseases, filtering pollution out of the air, cleaning water and protecting us from hazards.

Design

The first problem with intelligent house installations has so far been that it is not intelligent. The following examples illustrate the complexity of our private life.

When I enter my home I want the light to turn on unless there is already someone asleep in the room, or the door is open to a room where somebody is asleep. I do not want the movements of my cat to trigger the light. If I wake up in the night to go to the bathroom I don’t want the light on before I have closed the door behind me, and when I return I don’t want the light on. If I leave a room without closing the door behind me, I don’t want the light to go off as long as I am still awake.

The second problem is that intelligent house installations don’t communicate with other systems. When I leave the house and ask for “Turn of everything” it turns off a lot of devises which has it own automatic controls and clocks, and they do not function when the power returns. The video, oven, boiler etc. has lost their settings, Furthermore one system can open the windows to get rid of excessive heat. Unfortunately the thermostats react to the cold downdraft from the window and turn on the heat.

Building

We need an intelligent house system which is an intranet. All light, pumps, TV, oven, refrigerator, washing machine, dryer, windows, doors, radiators, ventilation and electrical devises should communicated via WLAN, bluetooth or similar on the house intranet.

Devices without their own automatics could be grid connected with a plug in device.

The controlling software should have a very user friendly interface making the control of the devices intuitive.

The software should “learn” from your preferences and habits preferably in a dialog with the specific user. It should also be able to identify each user, for instance through a unique code watch, cell phone etc.

A learning house is of course open to software and hardware upgrades.
10 Building = information x material

Even the physical building process is redefined when considered within the communication paradigm. The building process is reduced to positioning of material in x,y,z. Information about what to position where and how to position it with a robot. This information is generated by computers in the otherwise human, creative, user centred and sensual design process. The building process becomes a ‘black box’ between the digital model and the building. When the design process is completed, one has merely to press ‘enter’ and the digital model is automatically sent, payment demanded and confirmed within the blink of an eye. Your dream about a home transformed into a living reality you can enter and use.

A paradigm-shift from the linear to the interactive, from mechanical to information, from a building as a physical thing to a communication filter/interface, means that the square and cubic will suddenly be obsolete. It is not more expensive to print a complex text than a dump one. In the future it will cost the same to make complex and simple architecture.

Architecture will metamorphose, just as when a car developed from a horse carriage. It is no longer necessary to be limited to build in x and y directions because that was what could be drawn on a flat paper. Gehry’s contribution to architecture is using models and computers to break away from linearity. Hate it or love it, he has shown it is possible to use human creativity and the computer as concurrent means to a new architecture. Visit the Guggenheim museum of modern art in Bilbao and try to deny that your senses are stimulated.

The building process will become totally automatic. Modules will be produced through robot technology as we see in the car industry, only more agile and customised. Cutting as we know from the textile industry, and printed from the three-dimensional printer as we know from rapid prototyping.

Design

The important difference between buildings and other automatically produced industrial products are their size and thus the difficulty of transporting them to their particular site.

Our vision is the automatic and efficient production of buildings:
- Through mass customisation of parametric scalable modular standard components
- In situ rapid prototyping of any shape.

With a continuous rather than discontinuous shape virtually all of those precious details between the junctions of the building disappear.

An ecological house should also be able to expand and contract. Be added to and have taken away. Even be transported from one place to the next. And be taken apart and reused.

Building

The success of LEGO and jig saw puzzles is based on a simple interface. A geometrical relationship joining one brick to another.

Interface in the building industry is also the key to utilising new technology that contributes to a dynamic and creative existence.

All the high HVAC installations, bathroom, kitchen etc. could be fitted into one 40´ container unit. Such a unit could directly use the experience from the car industry and could be sold worldwide.

If we could follow the lead of LEGO, we could build without the need for special training or tools, because the necessary knowledge has already been designed into the product. We have merely to use our creativity.