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Reflections
on the future of design.

*More people are having, sharing and discussing
more ideas in more places more quickly
than at any other time in world history*

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formerly codirector
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Context

In a society where the most inspiring ideas and images, from ingenious ancient techniques to brilliant new innovations are at most some clicks away, perceptions are shifting and processes are tweaked.

We are breeding cultures of exchange.
Since information no longer comes with a price tag we're opening up our minds, sketchbooks and hard-drives, sharing, rather than shielding, what we find.
Global collaborative efforts, like wikipedia, are challenging -and outperforming- the individual achievements of some of our brightest, leaving us with no other choice than to acknowledge the limits of our individual projects and participate in these larger collusive processes.

With the world at our fingertips, our fascination for the new is being complemented with a growing curiosity and respect for what has been. We have entered an age of rediscovery. Browsing our past in a quest for a better future, we are fertilizing ancient principles with modern know-how, breeding hybrid solutions for our contemporary challenges.
Surrounded by an ever growing pool of information it is no longer in our interest to accumulate knowledge but rather to distill wisdom.

Hooked up to a grid that is getting smarter every day, we are witnessing a phased decentralization of our infrastructure.
Ten years ago our communication infrastructure shifted from a vertically organized shaft, where a few sources were spreading programmed and manicured messages to the masses, towards a massive, horizontal mouth-to-mouth organism, facilitating dialogue and collaboration between its peers while amassing intelligence and building up intuition. Awareness and consciousness are clustering around blogs and wikis, dot-orgs are voicing our concerns and nations of shared interest are introducing new versions of democracy at the time of writing.
Massive energy and water infrastructures are fragmenting into

thousands of integrated, small-scale modular structures that are harvesting both energy and water from infinite streams rather then draining limited reserves.
Transportation infrastructures are evolving into service oriented networks, facilitating closed material cycles and thus converting drainage into supply in an attempt to optimize flow and eliminate waste.
Financial infrastructures are tweaked by informal economies in which dollars are bypassed by peer-to-peer transactions of goods, services, knowledge and understanding. Money is no longer the only currency and work is no longer the only means to make a living.
In a society where consciousness is gaining market value and reputation is becoming the ultimate status symbol, we are redefining wealth.

Within this turbulent contextual geography, creative processes are shifting, hereby challenging all parties to reallocate their skills and respond to current changeovers.
Our perception of designers as cultivators of style is currently insufficient and no longer viable. Immersed in a pool of first-hand information, their esthetical skills are complemented with profound contextual understanding and opportunities to materialize this awareness through creation.

Rather than being solely sculptors, designers become searchengines, archeologists of innovation. Scanning the past while filtering out patterns of applied wisdom as feasible models for the future.
Designers become hackers, generating new solutions by hotwiring existing loose ends Mapping out the invisible synergies and shortcircuits that shape our environment in order to detect the hidden loop holes that need immediate attention.
Designers become entrepreneurs, experts of will, materializing visions through tangible creation. Proposing, rather than opposing, in a silent but firm struggle for change.
Designers become choreographers, elegantly outlining circular, non-hazardous product life cycles that free consumption from guilt and truly spur growth.
Designers become stuntmen. constantly shifting back and forth in between concept and action through continuous prototyping, never completely satisfied, but always driven by the belief that things can be improved.
And finally designers become modest, cultivating humble approaches to achieve bigger goals. Rather than rebuilding from scratch, they are upgrading, restoring and adding layers to an existing tissue, in an ongoing search for growth, imperfection, spontanity, authenticity, diversity and humanity.

Customers become designers, pro-active participants in a dynamic creative process, embedding their opinions, concerns and identities in the final product by tagging, hyper-linking and rating what they consume.

Each design object becomes a prototype, an update, a new version. If we shift from project to process, failure becomes opportunity and criticism becomes feedback, a different perspective we need to further develop and improve our ideas. If we see our society as something 'under construction', rather than something 'accomplished', we will free up space for progress.

Critique becomes proposal. As an audience we should shift from judging the existing (critiquing 'what it is') towards imagining its future version (critiquing 'what it could be'), hereby deconstructing objects into materialized ideas, rather than perceiving them as purely esthetical, static sculptures.

Producers become partners. Since manufacturers are no longer able to dream up desired brand images to their customers they are destined to maintain an honest brand reputation with these customers through transparent business models and instant feedback loops.

The ultimate design project then becomes the circular society.
A society with no drainage but only supply. A society that considers its human and natural capital to be the primary assets for a sustainable economy. A society that abandons its massive social and environmental monocultures and evolves into organic grids of interdependent, delicately balanced artificial ecosystems.

2. Application

In order to materialize this mind-set, in order to shift from massive linear production lines towards innumerous networks of small, interdependent product life cycles, we have to rethink the digital, physical and logistical frameworks that surround and shape them. We need to evolve towards universally applicable and radically open frameworks in order to guarantee a context for every object in every stage of their life.

Already today we can observe a shift towards open architectures within our digital frameworks, the source codes and programming languages of our current communication infrastructures. We witness the emergence of accessible and free codes that invite end-users to participate in the development of the source code through an open exchange of knowledge and experience.

But also within our physical frameworks we will need to further align material use, assembly and dimensions in order to facilitate restorative production methods, open exchange and universal compatibility.
The natural and synthetic resources of the future will be restricted to those that can either be infinitely recycled or fully degraded while in the process nurturing, rather than damaging, their surroundings.
Joints, construction techniques and assembly lines will be designed for deconstruction without damage or loss, aiming at infinite reconstruction cycles.
And future dimensional frameworks will shape new modular systems for the obvious reasons of scalability, flexibility and simplicity.
The current debate around sustainability has been gravitating towards the first two sets of physical frameworks, towards refining the principles of material use and assembly in order to establish closed resource and component loops.
So how could we improve the third framework, the dimensional restrictions that define modular systems, in order to generate closed object loops?

In the past architecture has cranked out countless proposals for modular structures in an attempt to streamline efficiency and enhance structural flexibility. Although these systems represent the first steps towards a more intelligently built environment we find ourselves today with an abundance of closed, incompatible modular systems that often generate impersonal uniform structures and a stockpile of fairly useless modular pieces after deconstruction.
So, if we want to improve the concept of modularity, if we want to facilitate compatibility and enhance flexibility, we need to open up and synchronize current dimensional frameworks. We need to define one universal standard that will allow the broadest range of people to interchange the broadest range of modular pieces and thus reproduce dynamic patchwork structures rather than rigid, monolith blocs.
We need to distill a kind of physical 'html', a three-dimensional open source code from our built environment that will enable us to build our hardware like how we are nowadays building our software.
These universal dimensional guidelines envision closed loop systems where old components feed into new frameworks thus creating an endless variety of hybrid structures. The resulting 'open' structures, ranging from simple cabinets to multistory buildings, will then be truly scalable, flexible and diverse.
New components will replace old ones whereas old ones can be sold and reused, and even when reuse is no longer an option, they will be deconstructed into single pieces to then serve as resource materials for new components (since their measurements are conform the dimensional restrictions). Each structure will thus have the ability to evolve and conglomerate old, new, cheap, expensive, original, bootlegged, manufactured and crafted components over time.

An open modular system will invite everybody, from the most remote craftsman to the biggest company, to design components using their own specific skills, materials and construction techniques within the same dimensional restrictions.
Online component databases will then facilitate their exchange since all component designs can be uploaded in order to be discussed, reviewed, certified and traded among their end-users. This vivid exchange of components will allow the parent structures to adapt, expand or shrink according to current needs, but also stimulate continuous upgrades over time through a phased interchange of components.

In a local context, components will float in between neighbors, creating dynamic houses within organic 'open' neighborhoods. From a global perspective, one universal standard will facilitate closed component cycles and generate 'living' structures that will stimulate widespread participation through open exchange.

Integrated within the whole product life cycle, dimensional frameworks will generate several cross-breeds in order to optimize logistics and reduce friction from construction to reconstruction.
Decentralized pick-up and delivery services, that combine the transport of people and goods, will facilitate component flow while in the middle of this all, central distribution hubs will close the loops by collecting, storing and redistributing both new and second-hand components.
These hubs, continuously serviced by pick-up and delivery shuttles, will become the focal points of interchange and regeneration within the context of an ever more interconnected society.

3. conclusion

The idea of open modularity isn't new, in our market driven society we have already witnessed the emergence of several open modular systems whenever their efficiency was able to enhance profit. Our logistical infrastructure, for example, is highly streamlined by open standardization (from palettes to container ships), most kitchen appliances are interchangeable and the standardization of our electricity net resulted in countless plug designs that all fit the same wall socket.

But if we dig deeper we even find open modular systems long before the existence of men. Nature itself proved that in complex systems, modular designs are the ones that survive and drive by advancing about 500 million years ago from single-celled organisms into multi-celled ones that offered far superior characteristics and therefor were able to spur evolution.

We, human beings, with trillions of modules (cells) per person, are modular from head to toe and are experiencing the benefits of modularity every single day. (Neil Rasmussen, Suzanne Niles, Modular Systems: The Evolution of Reliability)
Modular cell structures enable us to scale and grow, simply by adding new modules - cells - that interact with existing ones using standard interfaces.
They simplify the process of duplication. Duplicating a number of smaller, less complicated cells is easier, faster, and more reliable than duplicating a single complicated one.
Modular cell structures have the ability to rapidly adapt to their environments. By adding, subtracting, or modifying cells, incremental design changes could be more quickly tried and either adopted or rejected.
They are able to specialize the function of the modules. This delegation and specialization of cell tasks provides the same effectiveness and efficiencies inherent in teamwork.
And finally, they enjoy the benefits of fault tolerance. With cell redundancy, individual cells can fail without degrading the system, other cells carry on while repairs are made. (Neil Rasmussen, Suzanne Niles, Modular Systems: The Evolution of Reliability)

So why not borrow from nature's blueprint and shape our built environment towards an organic, modular puzzle of objects that, from micro to macro, float within closed loops and infinite cycles. Why not sync our existing logistical and architectural standards towards one universal standard that will generate an infinite diversity of blocs and combinations.
If we want to communicate (exchange words) we need to use the same vocabulary and grammer, if we want to exchange files, we need to work from the same formats. If we want to co-create our environment, we need to build with the same bricks.