The Slow Design Principles

A new interrogative and reflexive tool for design research and practice

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Abstract

We posit a new evaluative tool to encourage design practices to orientate towards social, cultural and environmental sustainability under the rubric of 'Slow Design.'

The Slow Design Principles offer an opportunity to find fresh QUALITIES in design research, ideation, process and outcomes. The six principles of Slow Design are presented here as a powerful tool for designers to interrogate, evaluate and reflect on their design ideas, processes and outcomes using quantitative, qualitative and intuitive means of assessment.

'Slow Design' is a unique and vital form of creative activism that is delivering new VALUES for design and contributing to the shift toward sustainability.

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1. Toward a New Evaluative Tool for Design

In this section we discuss the need for new tools and strategies for evaluating design with a view to social, cultural and environmental sustainability. We posit that 'Slow Design' provides a stimulating platform from which to consider, critique and improve best practices in design, while simultaneously putting forward new ones.

What are the standards of evaluation in the field of design? And how, if at all, do they drive design practices to enable a more sustainable future?

The fields of science and engineering apply rigorous standards of evidence and evaluation to guarantee accuracy and 'quality' outcomes. Similar standards exist in the design field, with a focus on functionality, ergonomics, manufacturing efficiency, consumer safety and inclusivity. Since the mid-1990s, there has been a growing, voluntary analysis of environmental impacts in the fields of product design and architecture (for example, eco-design, Design for the Enviornment - DfE, and Design for Sustainability - DfS); however, such practices are not yet widespread and, furthermore, they are not a guarantee of behavioural change that can substantially deliver sustainability.

Recognizing the marginalization of this way of thinking about design, Fuad-Luke raised a rhetorical question whether 'slow design', an approach predicated on slowing the metabolism of people, resources and flows, could provide a design paradigm that would engender positive behavioural change (Fuad-Luke, 2002, 2003). The concurrent emergence of slowLab founded by Carolyn Strauss (Strauss, 2003-present) enriched the dialogue about the possibilities of 'slow design'. A wider public dialogue heralded the positive impacts of slowness (Honoré, 2004) and new conversations about 'slow + design' ensued (Mojoli, Manzini et al, 2006).

In 2006, we posited six Principles of Slow Design (formally reported in Fuad-Luke, 2008) – see below. These principles were the result of diverse research, dialogue and iteration within slowLab and its international network of design thinkers and practitioners. The principles were informed and inspired by others, including diverse 'slow activism' expressions (New Internationalist, 2002), the global Slow Food and Slow Cities movements and threads of the sustainability debate like the Dutch foundation Eternally Yours (van Hinte, 1997-2004) and projects associated with the Faculty of Design at Milan Polytechnic (Manzini & Jégou, 2003; Mojoli, Manzini et al, 2006).

We put forward these principles as an approach and tool for design.   We do not regard them as 'absolute truths'; rather, they are GUIDING PRINCIPLES, open to dialogue, iteration and expansion.

2. The Slow Design Principles

Here we present the Slow Design Principles, each followed by concrete examples of design projects created by members of slowLab's network that demonstrate one or more of the principles in active use.

Those brief 'case studies' validate how the principles can work as a set of criteria against which the designer might interrogate and appraise her/his ideas, processes, motives, and outcomes. This should begin at the initial phase of any design project, with the designer returning to these criteria several times during the design process, and applying them again to evaluate the final design outcome and better understand its potential future impacts. In effect this creates a 'shifting brief' and a mutable outcome as the process unfolds.

We have found that the principles of Slow Design encourage and inspire a myriad of understandings, interpretations and uses. The process of applying them is a highly personal one. They provide a lens through which to more intimately understand one's own identity as a designer, to reflect upon the design processes one employs, to evaluate tangible outcomes, and to imagine new scenarios. This process of careful and continuous (self-)questioning challenges the designer to reach for the core of design and her/his role as a designer.

Note: In the description of each case study, we have **emboldened** words that we feel have particular resonance with the values, qualities and practices.

Principle 1: REVEAL

Slow design reveals experiences in everyday life that are often missed or forgotten, including the materials and processes that can be easily overlooked in an artifact's existence or creation.

Architect Karmen Franinovic (Croatia/Canada) uses situated interactive technologies in public architectural space to stimulate social interaction and raise awareness of the surroundings and their diverse ecologies. Franinovic's 'Recycled Soundscape' project (Franinovic, 2003-04) [Fig. 1] was designed as a system through which to explore the auditory aspects of experience in the city through a set of "kinetic, human-scale interfaces" which seek to facilitate reflective activity in the public sphere. Within the sonic context of a specific location, people are invited to augment, modify and perform acoustic landscapes by playing with surrounding sounds, tuning the composition of a sonic environment, and listening to/recording noises (human, natural, machine, electronic) that are otherwise difficult to take notice of. The result is 'an interactive system for public orchestration of an urban sound ecology' where anyone can transform the existing sonic characteristics of a place over time, recomposing its 'evolving memory in sound'.' By introducing interactive technologies into physical architecture and immaterial space, she seeks in her work to stimulate **social interaction** and to raise awareness of the surroundings and its **diverse ecologies**. The under-observed phenomena of a locality are **re-revealed**.

In the realm of objects, Julia Lohmann (Germany/UK) believes that acknowledging the origins of a product is the first step towards making more informed and ethical choices about what we consume. The designer finds new applications for otherwise undervalued materials, working primarily with animal materials and byproducts. She designs objects on the threshold between the physical materials of animals and the animal itself, which **probe our attitude** towards the creatures we share the earth with and how we use them to sustain us. Sheep stomachs become beautiful billowing lights, triggering feelings oscillating between attraction and disgust, the former through their warm luminosity and the latter as soon as one learns more about

their material origins. Her ceiling light 'Flock' was made from the stomachs of fifty sheep and installed at the London Design Museum. Meanwhile, a series of unique handsculpted Cow Benches, each with a different name and shape, serve as **memento mori** for the cows that died to make the leather they are made from. The mundane, yet hidden materials of life are **re-positioned**. (Lohmann 2007)

Slow perspectives and practices have also emerged in the realm of today's virtual experiments. Tracy Fuller (USA), a Los Angeles-based game designer, has been working for the past several years to create gameplay that "slows the player down and allows time and emotional **space for reflection and transformation**." In her current work at the USC EA Game Innovation Lab, she is collaborating with artist Bill Viola on 'The Night Journey,' where the core mechanics of the online gaming experience unfold at the extremely slow pace and characteristic visually richness of Viola's celebrated video works (Fuller, 2007-8). Meanwhile, by much simpler mechanisms, web-based projects 'Shredder' (Napier, 1998) and 'html_butoh' (Endlicher, 2006) reveal **unexpected aesthetic pleasures** embedded in the seemingly banal coding of Internet sites.

Principle 2: EXPAND

Slow design considers the real and potential "expressions" of artifacts and environments beyond their perceived functionalities, physical attributes and lifespans.

In her doctoral thesis 'Occupying Time: Design, Technology, and the Form of Interaction,' Ramia Mazé (Sweden) points out that, "Design is not only about the spatial or physical form of objects, but the form of interactions that take place – and occupy time – in people's relations with and through [them]. A central, and particular, concern of interaction design must therefore be the **'temporal form'** of such objects and the 'form of interaction' as they are used over time." Her projects at the Interactive Institute in Goteborg included the 'STATIC!' which investigated interaction design as a means of increasing our awareness of how energy is used and for stimulating **changes in energy behavior**. Revisiting the design of everyday things with a focus on issues related to energy use, with the goal of creating a meaningful presence for energy in daily life. (Mazé, Redstrom et al, 2004-05) Her thesis work also considers larger currents in how design permeates daily life, staing that "Increasingly, pervasive technology means that the temporality of form and interaction is implicated in more widespread changes to the material conditions of design and of society. Challenging conventions – of 'formalism' and 'functionalism', 'good' and 'total' design – temporal concerns and implications require new ways of thinking about and working with the **materiality**, users, and effects of design." (Mazé, 2008)

German designer Monika Hoinkis is similarly concerned with how we "live with things," but whereas Mazé addresses temporal concerns, Hoinkis searches for **intimacy** and interdependence with the objects around us. In 2005 she created a collection of objects that function only in direct reciprocity with their users: A desk lamp without hinges that begs to be cradled in a cupped hand. An umbrella that stays up only with help, draping over one's head and shoulders. A radio that functions solely in close proximity to a warm body. A metronome that, rather than dictating a beat to follow, instead keeps time to the rhythm of the person who shares the room with it…. As opposed to objects performing discreet functions, Hoinkis' objects must be negotiated with in order to benefit from their full functionality, challenging those who use them to reflect upon whether the other "things" in their lives could have similar **symbiotic dependencies**. (Hoinkis, 2005)

The processes of making products are also shifting to reveal new possibilities. Australian engineer and artist Natalie Jeremijenko (Australia/USA) leads an academic initiative for design and engineering students to trace the histories of everyday products, creating encyclopaedic entries that comprehensively **expose the life of the products**, from where materials are sourced to the labor conditions of those who manufacture them (Jeremijenko et al, 2005 to present). Participating students acquire healthy tools for critiquing consumer culture, as well as new ways of thinking about and executing their own design projects.

Such a rethink is evident in Olivier Peyricot's automobile concept, 'Slow Rider,' where a standard automobile is deconstructed and rebuilt as a purveyor of slow living. Peyricot (France) mounts a stripped-down motor on the back of a vehicle or exchanges it with a refrigerator generator, literally reducing power to **facilitate slowness**. The hood is removed and the chassis sawed down to make way for front-mounted seats. In motion, such a car roams the city like a motorized flâneur. At rest in a parking spot, the car becomes a piece of street furniture that invites the public to relax or **play** on its surfaces. (Peyricot, 2004)

Principle 3: REFLECT

Slow Design artifacts/environments/experiences induce contemplation and what slowLab has coined 'reflective consumption.'

Product designers are questioning not only ecological values, but also perceptual and emotional experiences that the unique materiality of products can deliver. Dutch designer Simon Heijdens believes that design should, like Nature, unleash a **continuum of expressions** over time. With his project 'Broken White, Heijdens created ceramic dishes that evolve over time to reveal visible **traces** of their relationship with the individuals who use them. As they facilitate the consumption of food and drink over many months and years, the smooth white plates, cups and bowls develop tiny cracks that slowly, very slowly, reveal intricate floral patterns. The varying states of adornment on each plate or cup directly reflects the relationship with its owner, so that his/her favorites have the greatest wealth of decoration while others may remain quite plain. In a world of disposable products, Heijdens embeds new layers of experience into everyday objects, enriching their meaning well beyond mere function and convenience, and thus rendering them increasingly precious to the user over time. (Heijdens, 2004)

The London design collective Raw Nerve had something similar in mind when they rescued the dilapidated piece of furniture and brought it into their studio. Over time, they began to contemplate its former life, imagining the **impressions** that the sofa may have absorbed, the stories it had heard, secrets whispered, urgent young lovers languishing in its folds. They thought that it might have served as a child's castle and envisioned a collection of lost objects buried in its depths. They saw the sofa not as an inanimate object, but as a living, breathing thing with its own life and its own story to tell.   The designers set to **reviving** that rich history, re-upholstering and imprinting upon it the imagined tales of its life so far. To unravel the secrets of its past, one must interact with the sofa, examining every intimate detail, lifting its cushions and listening intently to soft sounds emitting from deep within. The sofa has moved beyond being a mere functional object to being a **site of discovery**, infused with **layers of meaning** that challenge and delight those who come to sit on it. (Raw Nerve, 2006)

While such projects strive to achieve physical and emotional durability, Icelander Katrin Svana Eythórsdóttir (Iceland) explores the **preciousness** that is born of **ephemerality**. Her biodegradable 'Chandelier' (2006) slowly disappears over a period of several months, inviting its owner(s) to savour every moment of its existence. Comprised of a cascade of thousands of highly

reflective glucose droplets, this magnificent light source requires no electricity. The highly reflective nature of the material draws in ambient light and refracts it back out from the object, casting a subtle, warm glow.   Lasting only up to three months (perhaps even less if one's local insects opt to collaborate), the ephemeral nature of Eythórsdóttir's Chandelier induces a state of awareness and **deliberate contemplation** of the object's attributes, functionality and, not least, it presence in one's life. The very lightness of the physical form suggests an ephemerality as well, appearing and disappearing as the light around it changes. Eythórsdóttir says, "It hardly exists, yet it's there." (Eythorsdottir, 2006)

Principle 4: ENGAGE

Slow Design processes are open-source and collaborative, relying on sharing, co-operation and transparency of information so that designs may continue to evolve into the future.

Collaboration is a critical aspect of slow designing. This is perhaps what industrial designer Martin Ruiz de Azua (Spain) had in mind when he designed his 'Human Chair,' a group of people sitting on each other's knees, propped one on top of the other in friendship and **fragile dependency**. It is 'human', referring not only to the people who are its component parts, but more importantly to the delicate nature of the exercise. At any moment, the 'chair' could collapse, but then it could just as easily be rebuilt again, perhaps with a few more friends joining in. With this simple project, Ruiz de Azúa has given the precious gift of **immaterial substance** to our over-material world: a design 'object' that has no object unless people work together to create it in amity and fun. (Azua, 2002)

Few understand the value of interdependency as well as the folks at the Rural Studio, a design/build program within the School of Architecture at Auburn University that creates homes and civic structures in Hale County, Alabama   The projects rely on forging deep connections and **collaborations with the local community** to ensure that **place-based values** and identity are at the core of their architectural projects. The late Samuel 'Sambo' Mockbee, who founded the program, called for "**socially responsible architecture**... to inspire community, or stimulate the status quo in making responsible environmental and social structural changes now and in the future." (Mockbee 1998). He felt is was important that students be involved with materials investigations and technologies which have mitigated the effects of poverty upon rural living conditions. Students engage in"**context based learning**" where they actually live in and become a part of the community in which they are working. Structures are made from **affordable, local materials--** clay, waste materials, recycled glass, scrap metal-- with the students, too, living in structures reflecting the **visual vernacular** of the place as they they learn the critical skills of planning, design, and building in a socially responsible manner. In 1998 Mockbee stated that "The professional challenge, whether one is an architect in the rural American South or elsewhere in the world, is how to avoid being so stunned by the power of modern technology and economic affluence that one does not lose sight of the fact that people and place matter." (Mockbee, 1998) (The Rural Studio, 1993-present)

Principle 5: PARTICIPATE

Slow Design encourages users to become active participants in the design process, embracing ideas of conviviality and exchange to foster social accountability and enhance communities.

With it's project series, 'Slow Ways of Knowing,' the design collective slowLab (USA/UK/Netherlands) has developed an urban design tool to capture local knowledge and elicit public contributions to urban planning debates in their localities. Through **empirical observation, sensory awareness and intuitive imagining**, people are invited to connect with the histories and patterns that a given site reveals. To capture **local knowledge** and public imaginings about the evolving identity of the neighborhood or surrounding area, they are encouraged to annotate local area maps with their thoughts, memories, sensations, fantasies, drawings, and design gestures. By thus revealing unseen or forgotten aspects of those places, generating awareness and participation, the projects remind people of their own part in and responsibility to the life of their localities, and are encouraged into ongoing creative investigations. (slowLab, 2006-present)

In a similar vein, the Netherlands-based social design collective Butterfly Works believes that "structural improvement in people's lives is possible when people have the necessary tools of creativity." The collective has been recognized for their work in several African nations, co-designing new programs with **local makers** and producers, with the ultimate goal of stimulating people to start projects themselves. With 'NairoBits,' Butterfly Works initiated a digital design school in Kenya to train young people from the slums as web designers, with complete transfer of knowledge and responsibilities to Kenyan managers and teachers. While their 'Tyre Trade' project in Morocco got local manufacturers to collaborate on the creation of baskets out of discarded rubber tires, which are now being used locally as well as sold at design shops in Europe. The motto of Butterfly Works is **"Positive Chain of Events."** (Beamer, 2008)

Meanwhile, London-based designer Judith van den Boom of Studio Boomwehmeyer strives to bring human relationships to fruition within the processes of manufacturing her own ceramic designs. She proudly goes "below the surface of plain production" in her product development to explore **"warm relationships"** with manufacturers, as evidenced by her current collaboration with a large manufacturer in Tangshan China that includes design workshops and poetry readings with factory workers. (Van den Boom, 2008).

Principle 6: EVOLVE

Slow Design recognizes that richer experiences can emerge from the dynamic maturation of artifacts, environments and systems over time. Looking beyond the needs and circumstances of the present day, slow designs are (behavioural) change agents.

With 'Edible Estates,' architect and social designer Fritz Haeg (USA) proposes the replacement of the American lawn with a highly productive domestic edible landscape. With the modest **gesture** of reconsidering the use of our small individual private yards, Edible Estates takes on issues of global food production, our relationship with our neighbors and our connection to the the natural environment. Haeg is concerned not only with the short-term gains for participants, but also with how this system works as a tool for reorganizing neighborhoods, instigating new community relationships, and reviving the social commons. **Community stewardship** of the project into the future will determine its evolution over time. (Haeg, 2005)

Ongoing community involvement and ownership will also be key to the ongoing thriving of Louis Le Roy's Eco-Cathedral in Mildam, Netherlands, [Fig. 2] which he expects to endure for at least another 1000 years. It is a site of creative actiivism and **construction of new realities** begun by Le Roy over thirty years ago as a design experiment to demonstrate the potential of human energy interacting with the forces of nature. There, on a two-hectare site, he has piled up with his bare hands paving bricks, paving stones, kerbstones and other discarded street rubble

while allowing nature to proceed about him unhindered. Le Roy calls this fascinating jungle populated by large stacked edifices a 'cathedral' in reference to the people who built the great cathedrals and architectural complexes of the past— most of whom probably never saw the projects to completion in their lifetimes. Le Roy believes that "employing all the potential available from all human beings would provide a mega-source of clean energy." He says that, using such a method, a new habitat could take shape in which everyone could participate creatively in building a **living environment** without a ground plan and without the boundaries of private property. Following his ideas would mean a revolution in designing urban space. The project has spawned a foundation, (The Time Foundation, 2002-present) to ensure that longevity while promoting insight and knowledge of the notion of 'time' as a condition for the creative development of cooperation between natural and creative human processes. Le Roy says, "The methods of today's planners will not prepare them for the enormous problems that they will have to face in the next century. One of the first things they have to do is accept **infinite time** within their thinking system." (Le Roy 1982-present)

3. Case Study: The Slow Design Principles applied as a Re-design Tool in a workshop setting

In adddition to challenging individual designers, the Slow Design Principles can also be effectively applied as a collaborative tool for groups of designers and users alike to evoke new understandings and reinvigorate their design values.

In April 2008, Alastair Fuad-Luke tested this angle in a workshop he led at the Research in Art, Nature & Environment (RANE) research cluster at University College Falmouth. The workshop entitled 'Slowly Re-designing Now' engaged nine participants[3], ranging from fine art to design and architecture researchers, post- and under-graduates. The workshop proceeded in the following steps:

1) The text of each 'slow design' principle was shown to the participants and each one was asked to donate a word to form a 'word circle'. Once the circle was complete then each participant then had to join up two words with one line. This generated a participatory lexicon for each principle.

2) Working in groups of three, the participants were then asked to examine a conventional plastic (1.0 or 2.0 litre High Density Polyethylene, HDPE) milk bottle ubiquitous in UK supermarkets and generate ideas/concepts for its re-design using the word circles representing each principle.

3) The groups present their ideas/concepts and articulated their feedback in a closing discussion.

4) At a later date, Fuad-Luke collated the ideas/concepts into a series of concept sketches, under the fictional brand 'Milkota' [Fig. 3].

1) Feedback from the exercise: word circles

The word circles gave the participants a sense of ownership of the principles and, joining the most important words with a line, gathered the group around important ones for each principle:

Reveal – Pause, interval, awareness

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Expand – Elastic, being

Reflect – Understanding, natural, calm, contemplate

Engage – Listening, rhythm, communicating

Participate – Love, flourishing

Evolve – Journey, growth, process

2) Mutual learning to generate concepts/ideas: re-designing the HDPE milk bottle.

Key ideas and concepts emerging from the group discussion were:

Reveal – reform the bottle to show the source of the milk, a cow's udder and teats; label on the bottle to explain more about the source (cow, farmer, etc)

Expand – included 'bright ideas' on the side of the bottle; a refund on returning the empty bottle; show possible second-life uses for the bottle

Reflect – this group raised a number of rhetorical questions – Impact of the dairy industry? This is a ubiquitous product but do we need it? If we didn't have it would the other be better?   If it continues to exist how can we find better uses for the used bottle?

Engage – again more questions were raised than answered. The most important question was 'Listen to whom?', in a sense enquiring as to who are the actors and stakeholders.

Participate – the group quickly moved to the idea of keeping different materials separate to facilitate recycling of 'mono-materials'.

Evolve – a plethora of ideas was generated on getting second-life uses out of the bottle, e.g. embossing cutting plans on each bottle for a different second-life use or useful measure units for cooking; techniques for cutting and combining the HDPE into other structures (woven, joined).

3 and 4) Design freshness – the value-added of the slow design principles

Outcomes from each group were synthesized into a new design concept [Fig. 3]. Key components of the design include:

a point of sale system that uses passive cooling through evaporation in a terracotta stand-alone cooler that does not require electricity but only requires topping up of the water reservoir.

point of sale systems only available for the sale of *local organic* milk (farmers within 15-20 kilometres) – can be purchased by farmers, farmers co-operatives, shops, and other outlets.

re-usable, re-cyclable thick-walled HDPE bottle that is returned and washed

two detachable components (the top and bottom) enabling colour coding for nutritional/health consumption, making it an 'iconic' design statement in the home – endorsement of the economic system i.e. local is beautiful and viable.

The resulting new brand 'Milkota' represents an improved solution in terms of: eco-efficiency; a better profit share to the farmers, farmers co-operatives and local retail outlets; a local identity milk point-of-sale and recycling system; desirability and eco-iconic status for consumers (signals we support local, fair trading for farmers, we like functional yet 'high design' objects in our lives).

'Milkota' represents a concept with potential for development, one that is grounded in the guiding principles of slow design and that is owned by the participants of the workshop. It represents a different metabolism from the commercial, supermarket model of 'single-use' HDPE milk bottles.

Impressions of the workshop

This workshop successfully demonstrated the efficacy of the Slow Design Principles to facilitate mutual ideation and learning. One of the participants noted. "I'd forgotten the importance and power of words to communicate, to generate strong emotions and guidance." Another acknowledged how the principles had ensured that the object (the milk bottle) revealed itself as part of a larger (milk supply) system, whose efficacy and social equity had to be examined in order to re-design the object. All agreed that the Slow Design Principles allow us to re-adjust our sights, re-evaluate our design values, and bring fresh qualities to our design outcomes (and their legacy for future generations).

4. Slow Design: New Values, Qualities and Practices

We posit Slow Design as a unique and vital form of creative activism to deliver a new set of values, qualities and practices of design. These seem to gather around several inter-related themes, as suggested by our emboldened words in section 2, above. They include:

Shifting awareness and perceptions / creating new awareness (sensory, symbolic, holistic), probing our attitudes, re-positioning the unfamiliar or fogotten, playing with time (temporal form, time in design, facilitating slowness, designed for ephemerality), playing with materials (questioning materiality, the intimacy of material and symbolic layers of meaning), challenging beyond materiality (immaterial substance).

The **values move beyond the materialized object**…stimulating our intuitive imagining while concurrently making empirical observations or invoking a site of discovery.

Focus on **locality, community and Manzini's "local potential"** – materials, needs, community; expose the explicit and implict rhythms of people and place, markers of local identity, community stewardship, and affordability. Mapping local knowledge in new and unexpected ways and then incorporating those values into new planning decisions. Designing to enable social connections and community. Leveraging place-based knowledge.

The long view- a continuum – infinite time.

Reciprococity with the human and natural based environment – context-based learning, respecting diverse ecologies, symbiotic dependency. Slowing resource consumption.

Honoring 'slow knowing'/the slow mind: "a type of intelligence associated with what [is called] creativity, or even wisdom" (Claxton), perhaps encouraging more value association with "slow knowledge" (Thorpe, 2004).

And many more...

5. Conclusion: A Call to Slow Designers

The Slow Design Principles offer a flexible, pluralistic approach for designers to gently evaluate themselves as to the true purpose of their design activities.

With this publication, we hope to encourage a larger movement of designers who embrace these emerging (slow) values, explore fresh qualities in and step forward to declare themselves as "slow designers."

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Fig. 1: Karmen Franinovic, 'Recycled Soundscape'

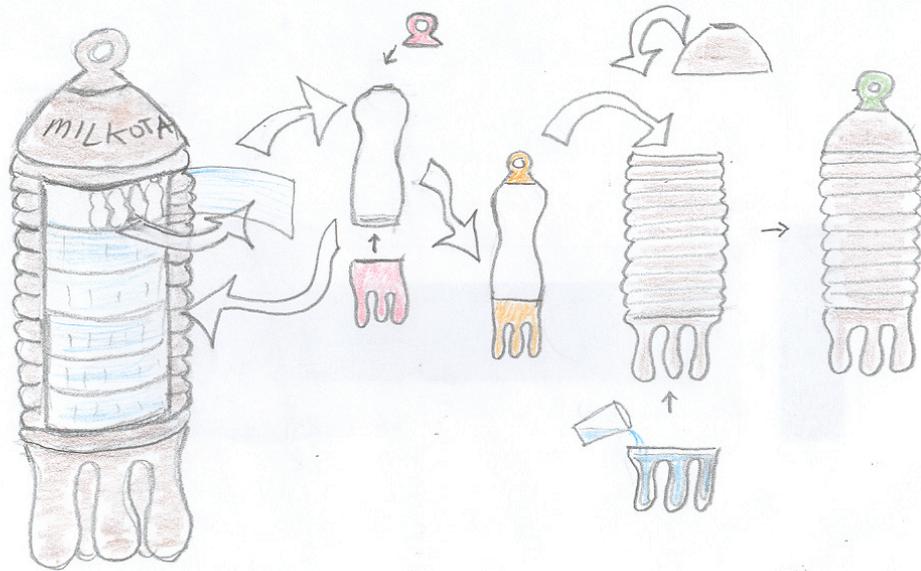This photo: Installation at Place Igor Stravinsky, IRCAM, Paris (France) 2004

Fig. 2: Louis Le Roy, 'Eco-Kathedraal'

This photo: "The living that lives..." Concept: Pierre Mansire, Dance/Improvisation : Moeno Wakamatsu

Fig. 3: Fuad-Luke et al, 'Milkota'
design sketch resulting from April 2008 workshop 'Slowly Re-designing Now' t