"We love the beautiful with frugality and knowledge without softness."[1] This famous phrase from Pericles' Funeral Oration is often considered foundational for the Western way of living which is now dominating the world. It is supposed to signal the interrelated projects of science and art in a secular world. Westerners, rejecting or losing any sense of the transcendent (i.e., gods), set about cultivating motivating rituals through disciplined economies of beauty. The modern world is born of people striving for non-transcendental beauty in things, in ideas, in everyday ways of living.

The classic expression of the legacy of Pericles' phrase is the romanticism of German idealism, and Friedrich Schiller's *The Aesthetic Education of Man* in particular. Here, science and art are unified by a secular faith in the motivating power of beauty — *Bildung*, aesthetic formation, the ability of the beautiful to lead (e-duce) humans toward individual and collective excellence.

Recent work, by Philippe Lacoue-Labarthe and Jean-Luc Nancy for example [2] argues that this myth of the immanently transcendent power of beauty has stalled. The 'bootstrapping' that the romantic project, as the modern heir to Pericles' edict, hoped to accomplish, has been interrupted. Beauty, far from empowering formative change, remains as the merely pleasing (which etymologically refers to pacifying, rendering silent, flattening).[3] All that we have left, apart from the occasional violent attempt to re-enforce an aesthetic politics, [4] are the ruined vestiges of art in a world of eco-technics (which Jean-Luc Nancy defines as never-finished housework, purely technical and economic, utterly fractured and meaningless).[5]

Clearly, this hiatus in the e-motiveness of beauty has not been realised by many advocating 'ecological politics'. Failing to heed Baudrillard's warnings about the distracting appropriation of aesthetics by late capitalist sign economies, [6] many ecologists, especially biocentric deep ecologists, still believe that the aesthetics of nature are inherently moralising.[7] Even when imitated by artificial products and environments, such beauty, they hope, can change people's values and therefore their behaviours.[8]

I would like briefly to explore this issue by way of an exercise that the EcoDesign Foundation often sets tertiary design students. Following the short brief in italics is a list of responses that tend to emerge as students work in groups.

Design a tea cup that can and will be used every day for at least 100 years.
"It would have to be made out of stainless steel, aluminium, titanium.

"Some new type of nano-level fused super-strength ceramic. Or a smart material filled with small bubbles of unsolidified plastic that break open to initiate self-repair when the cup is fractured.

"Maybe a shock-absorbing synthetic rubber, so that the cup bounces rather than breaks.

"Good ergonomics would also lessen the chance of the cup being dropped. So, finger-sized indentions, non-slip grips, tight-fitting strap-on handles.

"Come to think of it, most cups are broken when washing up, not when drinking. So perhaps a washing device needs to be designed as well as the cup, one that delicately handles the cup in slippery cleaning conditions.

"In which case, why not create an entire device that automatically handles the cup at every stage (extraction, filling, drinking, cleaning, drying, restoring). It would be one of those intricate mechanical devices that cartoonists always create, from Heath Robinson to Wallace and Grommit; a machine that removes fallible humans from the process altogether, apart from imbibing. After all, a 'cup' is just a beverage delivery system.

"Perhaps that’s going too far. Not a very pleasant way to drink tea after all.

"Which reminds us; aesthetics. This cup better be nice if it’s going to be around for a century. And not just good looking, but nice to use.

"Maybe that’s the trick to the brief, the thing in the problem-statement that is always missed on the too-quick first read through: “a cup that can and will be used every day.” Not just: somebody will use this cup everyday, but: somebody will want to use this cup everyday.

"So, it’s got to be a ‘design classic’, timeless. Simple, yet elegant — that’s the usual formula. What have been the ‘classic cups’ to date? Are there any 100 year old cups around still in use?

"The old cups that are still around are bone china, and, what’s more, most are as thin as paper.

"Aha. A cup that can and will be used everyday for at least 100 years will be not just beautiful, but beautifully fragile. It will not be robust at all. Its beautiful fragility will encourage humans to take care of it, handling it with more sensitivity than any automated system ever could.

"Yet it won’t be reifyingly beautiful, the sort of thing that sits on a mantelpiece. Its beauty will draw humans to use it despite its fragility. It will be beautiful to use, so beautiful-in-use that it will become the centre of a secular ritual, a tea ceremony, passed from generation to generation.

"And in this way, each use will enhance its useful beauty, reinforcing its value as an heirloom, strengthening its beauty, and therefore adding
layers of care to its use that will compensate for its unavoidably increasing fragility."

If you can imagine a decreasing log scale down the page, this would be an indication of how far students get in half an hour; most make it half-way, very few make it to the end.

On most occasions, when the teacher offers the final 'ritual solution' to the class, the move from robustness to fragility comes as a surprising gestalt switch to the students. As always, some are delighted, others feel like they have been tricked by the ambiguity in the brief's wording in a time-pressured situation.

EcoDesign Foundation educators tend to use the exercise as a way of suggesting to designers that their capabilities and responsibilities extend beyond the design of things to the design of relations between humans and things. Whether they are conscious of it or not, designers do have the power to influence how people relate to things. Design semantics constrain, map and afford not just the instrumental use of what is designed, but how the designed is perceived and valued. [9] Designers can, do and should design patterns of behaviour like rituals of care.[10] They cannot design these in the way they specify materials and components, but they do, every time they design, emphasise, promote, and foster certain practical dispositions toward what they have designed.[11]

The context for this argument is that there is no such thing as a sustainable product or built environment, only more sustainable uses of products and built environments. Unsustainability derives from the way we relate — or more accurately, fail to relate — to the things we use everyday. This is why a design awarded for its sustainability can be used in utterly unsustainable ways.[12] The exercise points designers to the sustainability that comes from the reduced material flows that accompany longer product use-lives.[13] It is part of an ongoing research project called decadesign, which works from the assumption that there is almost no product that should have a use-life of less than a decade. Whilst this is technically feasible, the barriers are almost always cultural.[14]

So the exercise is designed to demonstrate to designers that they cannot be excused from responsibility for the variables of use in the life-cycle of damage to sustainability associated with any product. There is no regulatory, educational or technological panacea to deal with these 'attitudes', so designers must begin to play their powerful part, especially if this means changing general cultural trends (such as those associated with the misnomers like 'maintenance free', 'disposable', 'cheap' and 'convenient').

This polemic is not unique to the EcoDesign Foundation.[15] Ezio Manzini for some time has been advocating what could be called design-for-care; most recently he has proposed 'DIY+' maintainability.[16] His vision of a 'garden of objects', [17] each tended for longer service-life, continues to
inspire the anthropologically inventive work of Eternally Yours.[18] Manzini’s leadership in this regard takes up earlier proposals in other contexts by Abraham Moles (the comprehensive guarantee — Extended Producer Responsibility *avant la lettre*) [19] and Christopher Alexander (repair-as-transformation for a timeless way of building).[20] If Moles lays the foundation for advocations of Product-Service Systems,[21] where responsibility for extended service life is designed into an expert business (possibly deskilling users, enhancing their dependence and perhaps their irresponsibility),[22] Alexander’s more craft-like sensibility draws attention to the importance of enabling user participation in the lengthening product life.[23]

How then to cultivate user participation in more sustainable product-lives?

The ‘solution’ to the one hundred year cup exercise argues that one way of designing care relationships between users and what they use is: beauty.

Two philosophical problems face the designers who take up this task of designing the sort of beauty-in-use that will design users into the sustainers of all those designed products that sustain them. Very quickly:

First, the sort of Platonism that instituted design — *techné* as the projection of an *eidos-morphe-telos* separated out from, and placed before, and at the head of, the actual work of making — is also the Platonism that privileges the *idea* over its earthly, temporal manifestation.[24] In this (un)worldview, [25] things may be beautiful, but their beauty is exactly what shines *out* above their material existence. Beauty is metaphysical; exactly what inspires us to turn away from the *vita activa* of everyday life and toward contemplation of the truly eternal.[26] For Plato, beauty could never cultivate a desire to labour at the preservation, restoration or transformation of things. Apart from having their origin in this same distinction between things and their projection, designers tend to still get their aesthetic education from the contemplation of museumed objects, silhouetted out from their background everyday life, and recast in the ethereal neutrality of the photographic studio. When all sense of *aesthesis* as the experience of things is lost beneath the hegemony of vision, then designers are ill-equipped to design what was called in the tea cup protocol above, beauty-in-use.

Second, modern senses of beauty have their foundations in Kant’s *Third Critique*. What is pleasing, according to Kant, is useless purposefulness.[27] We call beautiful what we each believe everybody should acknowledge as perfect, complete.[28] We take pleasure, from a disinterested distance, in finalities. That such beauties appear to have been made by an expert is exactly why it is impossible to think that they would need more making, or remaking.[29] The beautiful needs no sustenance; it is anorexically self-satisfied. It puts us in touch with pure reason, not the practical reason of duties of care.[30]
If designers then manage to style a beauty that has an appeal beyond sociologically differentiated fields of taste, they will still find that their designs are not motivating active sustainment; being beautiful means being cast as the self-sufficient object of a distanced pleasantness. Instructive of this is the recent western appropriation of *wabi sabi*, where beauty is found in imperfect and changing products and environments, but precisely by sitting back and watching disrepair take place.

Within this Platonic-Kantian legacy, designing the sort of beauty that will motivate humans to develop rituals of care for century-long product service lives is impossible; beauty points away from, not toward, the changing materiality of things.

Importantly though, the paraphrased protocol of responses to the hundred year cup brief implicitly attempted to negotiate this legacy by specifying a very particular type of beauty: not merely a pleasing form, but pleasurable function; beauty-in-use.

I want to underline the extent to which such a notion is missed by Platonic-Kantian aesthetics qua what can appear and can be sensed — and I want to conclude by suggesting that it is for this very reason that such an escaped beauty just might be motivating of sustainment.

Post-Heideggerian design theory suggests that good design withdraws. The sign of successfully satisfying human needs through appropriate design is the disappearance of the designed into ready-to-handedness. Things that are beautiful to use are no longer things in the reified way that uselessly beautiful things are. In doing what they are designed to do, the useful, by definition, become incorporated into the background of whatever actions they are enabling. Only when they breakdown do such well-designed things return to our senses as objects. Only then could a Kantian appreciate their Platonic beauty.

Beautiful use is therefore non-sensical: it doesn’t make sense within the Platonic-Kantianism that structures modern thought; and it is not something that is able to be sensed, according to the ontological account of what it means to use well-designed things.

In short, is it possible to design a beautifully fragile, yet eminently desirable to use, cup? Would not the former force the cup behind locked glass doors? Or would not the latter lead to such a transparent tea drinking experience that one would forget to place the cup back in the cupboard, and instead expose it to the next careless gesture?

If there is a beauty-in-use, it must be other than the appreciation of pure aesthetic beauty, and it must be the sort of appreciation that does not coincide with use, but perhaps comes afterwards.

The pleasure of beautiful use must be the sort of devolved pleasure that comes from a sense of accomplishment. It is not a Platonic-Kantian appreciation of beauty, but nonetheless still an appreciation. Rather than being pleasing, it is a thankfulness. One thinks of the designer, invariably
anonymous, who made possible this cup of tea, and thanks him or her that there is this thing, where there could be have been nothing.

It is because this unmetaphysical judgement of beauty-in-use takes the form of giving thanks, that it is active, returning the favour by taking the form of care.[37] Its retroactivity is what allows it move it from contemplation to preservation and extension.

The fable then of the exercise of the tea cup is that beauty alone is no longer motivating of care. We are no longer romantic and love beauty with a soft excessiveness that is cluttering our world with junk. For the designer to design rituals of care, a different sense of the beautiful needs to be designed into the experience of designed products and environments. Things need to be designed that will and can be thanked; design them well, to do appropriately what needs to be done; and then afford ways in which lay users can say thanks, lending a hand to maintaining the designed. This is the virtuous circle of the usefully beautiful and thankfully maintained, one that should be centripetal against the Platonic-Kantian forces that are concealing piles of wasted short-life ‘durable’ goods beneath the changing appearances of the beautiful.

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[8] For just one amongst many examples see the rather simplistic work of Sim van der Ryn and Stuart Cowan *Ecological Design* Washington D.C.: Island Press, 1996. The metaphors in this sentence from P. Hawken, A. Lovins and H. Lovins' *Natural Capitalism* London: Earthscan, 1999 are pure Schiller: 'We may never grow as skilful as spiders, abalone, diatoms or trees, but smart designers are apprenticing themselves to nature to learn the benign chemistry of its processes.' (16)

Jaap Jelsma has been bringing the work of Bruno Latour on ‘technology as delegated morality’, and Madeleine Akrich’s notion of ‘technological user scripts’ to the design of more sustainable ways of living in a number of recent papers: see for example, ‘Design of Behaviour Steering Technology’, a briefing paper for the International Summer Academy on Technology Studies, available at www.ifz.tu-graz.ac.at/sumacad/sa00_jelsma.pdf (last accessed March 31, 2003).

It was Aristotle who, contra Plato, made clear that the prescriptiveness of techné was inappropriate for the relational finitude of human being. This does not mean however that ‘you can never change human nature’ or that it is impossible to predict how users will respond — humans are constitutionally open to being persuaded. It does mean however that such a ‘design as rhetoric’ is in no way a technique, like behaviourism — it is a never completely masterable skill of attunement. On what a non-techné-based designing involves see Joseph Dunne Back to the Rough Ground: Practical Judgement and the Lure of Technique Notre Dame: University of Notre Dame, 1993 and Bent Flyvbjerg Making Social Science Matter: Why Social Inquiry Fails and How it can Succeed Again Cambridge: Cambridge University Press, 2001.

In ‘The Voice of Sustainment’ in the first edition of Design Philosophy Papers, Tony Fry reiterated what he has called for some time the danger of ‘sustaining the unsustainable’. It worth emphasising that this phrase refers to both, poorly targeted ecodesign, reducing the ecological impact of fundamentally unsustainable lifestyles — for example, making more energy efficient clothes dryers for climates where air drying is always possible, if ‘users’ can just learn to wait to do washing on sunny days, or have well-designed passive solar architecture — but also piece-meal ecodesign, making possible and sometimes promoting lifestyle Rebound Effects — for example, more energy- and water-efficient clothes washers (combined with diligent air drying) encouraging ‘users’ to wash more often than is perhaps necessary, because it is cheap and apparently ‘less harmful’ (per wash, but then not overall). This second could perhaps be called ‘unsustaining the sustainable’.

Well-travelled students point out that in India cups are made from mud-based ceramics that can be smashed after use into a pile that is later re-turned into cups. Manzini has for some time proposed the need to differentiate i) short-life products that are biodegradable, ii) mid-life products that are repairable and remanufacturable, iii) eternal products: cf Michael Braungart’s Intelligent Product System — http://www.epea.com/english/ips.html (accessed May 1, 2003).
[14] People are asked to nominate products that need to be single-use disposable. Of those nominated, 'alternative function fulfilment' almost always exists in the past or other cultures: the hand replacing toilet paper, the reusable 'rubber' condom, the washable sanitary pad and nappy.


[22] See Manzini’s warnings about these lifestyle Rebound Effects in ‘Scenarios of Sustainable Wellbeing’ Design Philosophy Papers no. 1.

[23] In this context, Eternally Yours go a step further in the century tea cup design, initiating 'user care relationships' by getting users to participate in the making of their own cups, or, at the least, in remaking the cups in some way,
such as personalising them. See Ed van Hinte ed *Eternally Yours* Rotterdam: 010 Publishers, 1997.


[25] This worldview is unworldly because in a Platonic-Christian way, things of this world are considered less 'real' than their appearance whose truth lies in some otherworldly eternal realm.

[26] This is Hannah Arendt's diagnosis of the problem 'The West' has inherited from the romanticisation of Plato's aesthetics, one which leads directly to a 'waste economy': see s17 'A Consumers' Society', *The Human Condition*, pp. 126-135 and the whole final part 'The *Vita Activa* and the Modern Age'.

[27] 'Explication of the Beautiful Inferred from the Third Moment: Beauty is an object's form of *purposiveness* insofar as it is perceived in the object *without the presentation of a purpose*.' Immanuel Kant *Critique of Judgement* trans.Werner Pluhar Indiana: Hackett, 1987, 84.

[28] Kant expressly differentiates the judgement of beauty from that of 'perfection' because the latter assumes 'adequation' either to what something is (quantitative) or what it is for (qualitative). Beauty is a perfect instance of one knows not what. This is precisely why judgements of beauty offer short-cuts to a completion that reason can only approach developmentally and so always inadequately: see s15 'A Judgement of Taste is Wholly Independent of the Concept of Perfection', 73.

[29] See s46-50 of *The Critique of Judgement* where Kant insists that the artistically beautiful is the work of genius, meaning both having-been made by an expert maker (nature's spirit working through Man), and, unable to be developed any further, like science, or imitated.
Kant concludes Part One of *The Critique of Judgement* by arguing that 'Beauty is a Symbol of Morality' (s59, 225-30). His point however is that beauty presents to humans the conjoining of freedom and lawfulness; that is, it presents that harmony as something intelligible, not as something motivating. The latter is exactly what the Jena romantics felt the need to undertake to supplement the abstract purity of Kant's *Critiques*.

This is Pierre Bourdieu's critique of Kant's Third Critique in *Distinction* Cambridge: Harvard University Press, 1984.


One of the clearest applications of Heidegger’s ready-to-hand to design is set out in Fernando Flores and Terry Winograd’s *Understanding Computers and Cognition* Reading: Addison-Wesley, 1987.

For a beautiful description of this, see Fatma Korkut’s contribution to Wolfgang Jonas’ *Basic Paradox* Forum: http://home.snafu.de/jonasw/PARADOXKorkutE.html (accessed May 1, 2003).

For an extended analysis of the ontological difference between the ready-to-hand and the broken-down, with radical consequences for the interpretation of Heidegger’s philosophy, see Graham Harman’s *Tool-Being: Heidegger and the Metaphysics of Objects* Chicago: Open Court, 2002.

What I am trying to get at here is what I think Peter-Paul Verbeek and Petran Kockelkoren are trying to get at in ‘The Things that Matter’ *Design Issues* vol. 14 no. 3 (Autumn 1998). My small essay is part of an ongoing attempt to flesh out what Verbeek and Kockelkoren point to in this important article. After criticising alienating Platonism in the same way that I have here, for the way it misses the thingliness of things, and thus necessity to take care of things, Verbeek and Kockelkoren propose as a response the ambiguous idea of ‘transparent yet engaging objects’.

I am here trying to make a way of translating some Heideggerian motifs into design for sustainability: his use of Periander’s command, ‘take into care beings as a whole’ in his 1941 lecture, *Basic Concepts* Bloomington: Indiana University Press, 1993; his linking via English etymology of thinking to thanking at the start