

Kontroverse

A Critical Exchange in Two Rounds between Alfred Nordmann and Pelle Ehn

*I. Alfred Nordmann to Pelle Ehn
Darmstadt, February 1, 2016*

Dear Pelle,

I am writing to tell you about a profound sense of ambivalence that has haunted me ever since I heard your presentations in Trente and Copenhagen at the 2010 and 2012 meetings of the European Association for the Study of Science and Technology. I hope that you might put my worries to rest after I lay them out for you.

You were talking about design, about practices of co-design, and about design thinking. You drew on your experience and provided inspiring stories of successful design, where design was not a solitary activity and where there was no imposition of a design upon a predefined situation. You showed that, instead, successful design happens in communities that have learned to design well together and that, accordingly, engage in design thinking together. Design thinking, in turn, is an acquired habit of mind and practice. It involves capacities of visualization, anticipation, prototyping, revisioning, accommodation, cooperation, and more. Design theorists of various stripes contribute by being themselves designers of sorts, in that they create conditions under which design thinking can be acquired and communities of co-designers come into being. Paradigms for this might be found in urban planning and the design of public spaces where architects abandon their traditional rôle and become facilitators of processes that accommodate the constraints, interests, creative ideas of store-owners, employees, police, customers, pedestrians. And to the extent that scientists and engineers are engaged in design practices, they too should learn to situate themselves within larger design collectives. The business of shaping the world atom by atom or of designing the future is one that involves technoscientists with multiple stakeholders. And thus, Science and Technology Studies (STS) – with its notions of co-evolution, co-construction, co-production of science, technology, and society – merges happily with an expanded notion of design.

To be sure, you will find this synopsis terribly imprecise or unspecific. Indeed, rather than reconstructing your particular position, I have amalgamated quite a bit of design discourse with the STS discourse that culminated in the rallying call: »We should design the communities that design well together.« I believe it was you who articulated this brief in your Copenhagen presentation.

It is easy to be drawn to this vision. After all, it is seductively powerful, speaking of democracy in action, of diverse interests coming together in the ineluctably shared task of shaping the world. There is the promise here that we might accomplish deliberately what, so far, we have done only haphazardly. Constructivists have taught us that the world is one of our own making, why not take it then to be a world of our own design?

What could possibly be wrong or cause ambivalence in this image of people working together, of achieving the world as a happy compromise of concerted action? To the extent that the design process is open-ended, subject to revision and adjustment, it appears to be less authoritative and rigid than »construction«, and thus even Bruno Latour declared his preference for »design«. And yet, rather than serve as an image of democracy in action, this expanded notion of design appears to absorb or swallow up the very idea of politics, democratic or otherwise.

Such a critique can be motivated by considering and taking seriously the normative appeal of design as a model for social cooperation. In the mid-twentieth century, there was prevalent a similar ideal, namely that of the scientific community as a model for democratic deliberation. Scientists were said to abide by purely procedural norms of what Jürgen Habermas would call communicative rationality. They were seen as attempting, without dogmatic presuppositions, but only through the exchange of arguments, the establishment of a consensus on truth. This highly, indeed, unduly idealized image of science framed a modern conception of politics. Communicative rationality provides the stage for a clash of interests and opinions and their adjudication through a democratic process. There is no assumption here that all competing interests can be harmonized through successful design, nor are there any guarantees that the action that draws a majority produces a desirable future. In this space of uncertainty, the deliberative process is only a best bet, perhaps a desperate gambit as we seek to proceed faithfully and to the best of our knowledge – *nach bestem Wissen und Gewissen*.

By contrast, the design model of social cooperation erases the terms of politics – it is harmonizing rather than agonistic, it hegemonically internalizes all externalities, it renders the future as an object or target rather than as a mandate or historical obligation, it treats contingencies as opportunities for optimization rather than limits of control in an evolutionary process. Rather than detail all of these points, let me just refer to the so-called design cycle which, again, might be valorized as collective social learning, and thus a major element of design thinking. The design cycle begins with the humble acknowledgment that any design is imperfect and sketchy, that it satisfies some aspects of the brief but not others, that it draws attention, in fact, to previously unconsidered desiderata. The initial design thus produces a clash with the external demands that are placed upon it. This running up against reality amounts to a kind of learning that becomes integrated into a second version of the prototype,

and it is easy to see the process repeated, with each iteration absorbing more facts about the social and material environment as the prototype becomes optimized to a performance that harmonizes the initially competing interests. In the end, ideally, there is no outside to the design, its promise uniting all actors in the single common project of creating a desirable future. To opt out or claim that there are competing projects of making the future appears irresponsible – what stakeholders are supposed to do is to participate in stakeholder participation projects and thus to participate in designing the future, rather than leave it be a partly contingent outcome of agonistic negotiations.

To be sure, especially in urban planning and the structuring of work-places, I would prefer designs from communities that design well together to designs from autocratic planners. But I am apprehensive about considering communities that design well together as rôle models for social or political action. As they join together in the design process, terms are set, dissent on matters of principle discouraged, and a premature closure is required. Also, history, or a genuine contingent evolutionary process, is denied when one is motivated by the confidence that we do not just make, but consciously and collectively design the world.

In this generality, I am sure, you will not agree with my description. And indeed, this might be the beginning of saving politics from design.

Yours,
Alfred

II. Pelle Ehn to Alfred Nordmann *Copenhagen, February 26, 2016*

Dear Alfred,

Thanks for your careful thoughts on co-design and politics. You are haunted by the specter of design, especially that kind that claims to be collective, cooperative, and collaborative. You are worried that its ambitions to create a better common world unduly conceal societal controversy and hegemonic power and render the political obsolete. With reference to the 2012 »Copenhagen meeting« on design and displacement you turn to me, as someone deeply engaged in co-design, hoping that I can put your worries to rest and that we can agree on trying to save politics from design. I am not sure I can or will do any of this. I indeed share your critical concerns about the role of co-design in society today, but I do not want to save politics from design or, for that matter, design from politics. To me, politics and design neither can nor should be separated, but united in democratic design experiments (in the

small), in co-design as potentially powerful, crucial marginal political practices in the making of collective, cooperative, and collaborative futures.

On the first day of the »Copenhagen meeting«, there was a performance with me acting as a Scandinavian »collective designer (part of)« in a dialogue on co-design and making of futures with an anthropologist of techno-science from Silicon Valley and an archeologist of futures from the remote Orkney Islands. The archeologist of futures opened the performance by addressing the anthropologist of techno-science from Silicon Valley, asking what it means to design a future in her world.

I know your world by its absent present in mine. You haunt me. Your home haunts me. Where does Silicon Valley not haunt? You live in that place where my future is imagined and rolled-out from, rolled over my bones, over my home, my hills my islands.¹

Later, the conversation turned towards potential »alternative« ways of co-designing and making futures. This is where I entered in the role of the »Scandinavian collective designer (part of)«. I did this from my background of more than four decades of experience as a passionate and active participant (researcher and designer) in this »movement«. Hence no objective claims, but hopefully a few thoughtful reflections.

To summarize the Scandinavian co-design saga and its contemporary practice, this is how the character of the collective designer (part of) entered the Copenhagen meeting:

a collective designer (of sorts) / that's what i am / an oxymoron of course / but please bear with me / there is more to come / in contemporary techno-science lingua franca / the collective designer is not the omnipotent maker / of isolated objects (of desire) / but more a passionate participant / among many / in multiple unfoldings / things of design / these socio-material »collectives of humans and non humans« / are designerly appropriations of ancient nordic things / political assemblies, rituals and places / making futures / through controversial »agonistic« / »matters of concern« / (maybe as it was once on the islands of orkney)

the contemporary scandinavian collective designer / some forty years of age or so / norwegian of origin / focusing on democracy and worker participation / actively searching alternative futures / through collaborative design things / at the time when computers entered the shop floor / threatening to deskill workers and tighten managerial control / pioneered at »kongsberg weapon factory« / (maybe not the most likely place for an experiment in democracy and participation)

but here is another paradox / at that time the collective designer / traveled over the seas / actually made it to the valley / but not as a controversial design thing / foregrounding trade unions, class struggle, and democracy / but as object-oriented design / a computer simulation language / with active data objects / that inherit properties / from data clas-

1 Laura Watts, Pelle Ehn, and Lucy Suchman: »Prologue,« in: Pelle Ehn, Elisabet Nilsson, and Richard Topgaard (eds.): *Making Futures – marginal notes on innovation, design and democracy*, Cambridge MA 2014, pp. ix-x, available via https://mitpress.mit.edu/sites/default/files/Prologue_Intros_11_5_14_0.pdf (accessed: 04.05.2016).

ses / rumors have it / that translated into / the programming environment »smalltalk« / it became part of technological futures / being made in the valley
a decade later / the scandinavian collective designer / embarked on travels to »utopia« / not another »nowhere« / but the most socio-material interventions / in the controversial »now here« / a nordic design thing addressing / the potential technological destruction / of the typographer and his union / by an alternative design of / »computer tools for skilled workers« / and »collaborative work organization« / this was in the wake / of the mac apple revolution in the valley / and the collective designer actually traveled there for technological inspiration / (yes he was there thirty years ago incognito) / the outcome of »utopia« / resembled the mac as object / with mouse and graphical display / but was a different kind of thing / a participatory design thing / a typographer and designer collaboration / prototyping and exploring alternative socio-material futures / through technological class-struggle devices / and political actions
of this utopia / »where workers craft new technology« / the international technical press wrote / with appreciation and much exaggeration / »today scandinavia / tomorrow perhaps / the rest of the world« / paradoxically they were partly right / thirty years later / this political utopian future-making practice / still travels the world / but now politically marginalized / translated into a cornerstone / of mainstream neo-liberal »user-driven innovation«
today the collective designer / still concerned with matters of democracy and participation / has moved beyond the workplace / into ongoing evolving controversial design things / centered around innovative actors / from the outskirts of the city / and the margins of society
for the scandinavian collective designer / this public thing / by preference takes the form of prototyping / in »agonistic« »living labs« / as local activities collaboratively »rehearsing futures« / making and composing »matters of concern« / maybe these »living labs« / as performed here by the sound / are more like the »centrifugal infrastructures« / suggested from the island / then central to such »living labs« / as marginalized and designerly »infrastructuring« intra-actions / are immigrants like jila moradi and the herrgård's women association / counseling on violence in the home / bitterly struggling for recognition by the city / of their modest but beautiful design and social innovation prototype / a collective of displaced and resourceful women / producing catering services / for unaccompanied refugee children / a great offer the city wasted as of now
another controversial thing / of social innovation / is the design and recomposing of the city buses / from private advertisement planks / to public places and hubs / for musical exchange and reproduction / as appropriated by »the voice and face of the street« / a movement of youngsters from the projects
futures are also being prototyped / and value production reassessed / by »free labor« and in commons / in maker spaces like fabriken / situated in an abandoned shipyard building / opening up and collaboratively exploring / the secret workshop of production / drawing together open software, electronics, bikes, and textile / in do-it-yourself and craft intra-actions
the collective designer / also takes part in »agonistic« things / not always with a happy ending / like in exploring / new forms of governance / and publics in the making / in designing a city social incubator / drawing together / grassroots movements / local social entrepreneurs / ngos and civil servants / venture capital and politicians / collaboratively

prototyping / a future thing to implement / a distributed incubator / out there in the projects / where the action and the demos are / but so far business is as usual / hegemonic power opted out / and left the common thing / implementing their own incubator vision / a central market driven new jobs generator
infrastructuring and making things in cultural production / is neither without friction/ in creative class struggles / there is marginalization / but also future-making tactics / things countering capital and state / like the small indie team / behind the film productions / »nasty old people« and »granny's dancing on the table« / that by crowd-financing through the »pirate bay« / and collaborating with the public in the making / made their dream come through
in the margin / in rural places / there are also demos / coming together through »centrifugal infrastructures« / like »threads« a mobile sewing circle / patchworking traditional craft and mobile phones / stitching together matters of concern / and prototyping emerging publics in the making
these are but a few examples for contemplation / of collective design and marginal futures / as being made at this location / they may raise questions of power and design agency distribution / across humans and nonhumans / but there should be more to it than acts of design delegations / because collective design it seems / becomes in the very making / in everyday intra-actions / in comings together / in controversial collaborative composing / preferably performed as things of design / more kin to ancient political assemblies / on the island and around the sound / than to the new speak of innovation / and the modern object of design?²

As you can read, the history of co-design, as I found it, is a (political) struggle, but neither a success story nor a complete failure – in retrospect, maybe best described as a melancholic design stance. I guess we share a critical concern about the, to paraphrase Rudolf Bahro, »actually existing co-design« as we can find it in contemporary corporate life under the neo-liberal condition. Yes, participation may be a repressive tolerance strategy for cooptation, with a much longer history than co-design. And today, hegemonic power declares »user-driven design and innovation« as a creative, harmonious, liberating (even democratic) approach in the interest of all concerned. In the name of participative »crowd-sourcing«, the creative work of »users-producers-consumers« is being exploited. Due bureaucratic procedures and legitimate political controversies are rendered obsolete with creative »design thinking« creating one common future. I can see your wish to save politics from this. I can understand your worries that »design« might come to play the same legitimizing role for hegemonic interests, dressed as »democracy«, which once »science« played. And still I will argue for the political relevance of co-design as »design thinging« (not as design thinking), as the making of futures (in the many) through modest agonistic democratic design experiments (in the small).

2 Watts: »Prologue«, in: Pelle Ehn (eds.): *Making Futures*, a.a.O., pp. xiv-xx, xxv-xxxii.

Inspired by our colleagues in STS, I have with my Scandinavian co-design research collaborators recently suggested a figuration for co-design as such »design thinging«.

What we have in mind is a performative fluid and flickering figuration (Law and Mol 2001) we could name design thinging. This design thinging is a flickering between processes of collective decision making and collaborative material making, between »parliamentary« and »laboratory« practices, between engagements with objects of worry as »matters of concern« (Latour 1999) and the transformation of objective matter as »circulating references« (Latour 1999), forging strategies and tactics of participation and representation across these practices. This performative figuration also changes over time as a flickering between gathering assemblies and appropriating objects. The challenge concerns the legitimacy and the skills of codesign to draw these things together; the »parliamentary legitimacy« of assembling the assemblies (of drawing them together) as well as the »drawing skills« of making collaborative designing take place.³

In other words, co-design as design experiments (in the small) will always have to be concurrently concerned both with the challenge of how to extend and find forms for democratic participation and decision-making beyond the representative parliament, and with the challenge of doing this in a public collaborative composing experimental way beyond the concealed scientific laboratory. Issues of inclusion and exclusion, not least legitimate participation of those marginalized by hegemonic infrastructures, are specific and situated and will always have to be at the core of co-design as democratic design experiments in the small. Politics and power are not external conditions, but at the very core of design and participation. If not, I agree, there is just yet another »powerful« creative design method that we had better save democratic politics from.

In my view, democratic design experiments (in the small) should neither be reduced to idealistic democratic Habermasian visions of communicative rationality, nor to cynical Foucaultian views of co-design as simply political war and hegemonic power. The dialectics of these positions is maybe what should be played out independently of whether we perform a critique of actually existing co-design politics and future-making corporate practices under neo-liberal modes of production, or, as I have done, through engagements in co-design politics of making futures as concrete alternatives, maybe even utopian, democratic design experiments in the small.

These democratic design experiments may be seen as ways of vitalizing representative democracy. As experiments that extend the societal-political repertoire to situations where, as John Dewey noticed, there are no actual workable institutions to

3 Thomas Binder, Eva Brandt, Pelle Ehn, and Joakim Halse: »Democratic Design Experiments – Between Parliament and Laboratory«, in: *CoDesign* 11, no. 3–4 (2015), pp. 152–165, p. 154; cf. John Law and Annemarie Mol: »Situating Technoscience: An Inquiry into Spatialities«, in: *Environment and Planning D: Society and Space* 19, no. 5 (2001), pp. 609–621; and Bruno Latour: *Pandora's Hope. Essays on the Reality of Science Studies*, Cambridge MA 1999.

deal with an issue and where controversial issues can spark publics into being. These issues are, with reference to Chantal Mouffe, preferably approached as agonistic controversies in a kind of adversarial design thinging, not expecting consensus, but constructively and democratically taking differences of interests and power into account. When Scandinavian co-design emerged in the early 1970s as democratization of the workplace, we were heavily influenced by Paulo Freire and the »pedagogy of the oppressed« as acted out in Brazilian favelas. Just as then, when we were engaged in class struggles at work, now, when we are involved in »creative class struggles« and co-design as marginal practices in the making of collective, cooperative, and collaborative futures, I do not want to save politics from such design, nor design from such politics.

You might have noticed that as a »collective designer (part of)«, I did not have a lot of successful future-making stories to report on. On the contrary and in retrospect, progress has always been temporary, but still something important may have been achieved through this co-design. To me co-design is not a naïve, hopeless utopian dream, but valuable modest engagements in most uncertain makings of collaborative futures through democratic design experiments in the small. This is the melancholic stance on design I have developed over the years. This melancholic design is not a dystopian vision from a distant »nowhere«, but a modestly hopeful stance from a precariously situated and most material »now here«. Maybe we can think of such co-design as Blochian »concrete utopias«, of democratic design experiments in the small as *concrescere*?

Well, I am also haunted by the specters of design and politics, but my »utopian« inclination and temptation is to face them by invitations to agonistic collective, cooperative, and collaborative Latourian »parliaments of things«. I am not sure this put your worries at rest, but I look forward to your probably critical response to my refusal to agree to save politics from design, and even suggesting that our Scandinavian »alternative« co-design, beyond the »actually existing« corporate co-design, in reality might strengthen democracy beyond the »actually existing« representative democracy.

Yours,
Pelle (aka collective designer (part of))

III. *Alfred Nordmann to Pelle Ehn*
Darmstadt, March 20, 2016

Dear Pelle,

Thank you very much for your passionate and engaging response. It is simultaneously reassuring and provocative. While it testifies to shared commitments, it does not quite dispel my concerns, but renders them more specific.

It appears that we can definitely agree on this: With »design thinking (and thinking)« comes a conception of politics and the political that differs from the traditional Enlightenment conception, which was best articulated in recent times by Rawls or Habermas. And also, we can agree that, by numerous criteria, this new conception is more progressive: It is cognizant of how deeply politics is implicated in the material or infrastructural organization of things, it seeks plurality and participation while taking into account the precarious problem of inclusion and exclusion, and with reference to John Dewey or Chantal Mouffe, it claims a middle ground between Habermas and Foucault.

I am happy to leave to political theorists and philosophers how, in the abstract, the traditional theory of democracy compares to recent governance and design conceptions, how these might be evaluated on principled grounds, and how we should assess the constitutive fiction of the modernist account that there is a separate sphere of politics from within which we view actions as choices in a deliberative setting. In the more familiar context of STS, philosophy of technology and philosophy of technoscience, there are three aspects of your proposal that I find particularly telling, provocative, and productive. In each of them, my original worry comes to the fore again.

Scale. »Beware of the conceit that, in the final analysis, all of us together are designing all of our society!« We both agree with this injunction. Throughout, you emphasize design experiments in the small, which alone can produce the agonistic space which is vital for the production of alternatives, and which eludes hegemonial aspirations. The attention to particulars, one might say, holds *hubris* at bay. However, in terms of design thinking, it isn't all that easy to keep the design experiments small as you straddle the fence or seek a viable middle ground between two unpalatable analytic stances: You want to reject, on the one hand, the notion of the well-defined designer who seeks to impose a plan and then – at most and at best – needs to confront trade-unions and other big actors in a decisionistic conflict about designs as more or less rigid plans. You want to reject, on the other hand, a hegemonic power that »declares ›user-driven design and innovation‹ as a creative, harmonious, liberating (even democratic) approach in the interest of all concerned.« So, even on the conceptual level of defining and describing paradigmatic design experiments in the small, questions of inclusion and exclusion come into play and turn into a politi-

cal question of a second order. These questions serve not only to determine who is in and who is out, who is the collective designer and who is part of the design, what is properly an object of design and what is genuinely a matter of evolution, history, contingency. When they are kept in the foreground, these questions serve to carve out or delineate a notion of design that keeps the politics alive, and with it the alternatives, the agonistic space.

You perform this balancing act admirably and in your letter speak incisively for a grand vision that dares to be humble and needs to acknowledge a melancholic streak, a profound awareness of the in-built vagaries, failings, or loose ends. But this awareness speaks to an inherent tension and systemic difficulty that needs to be resolved and requires your resolve. As we confront the two unpalatable analytic stances, there are political reasons for rejecting the old-fashioned notion of design as the single-minded imposition of a plan, and these very same reasons produce an all too powerful pull in the opposite direction. Put differently, on the democratic intuition that militates against the designer, and according to which greater plurality and participation is always better, it is painfully difficult to maintain that design experiments need to be experiments in the small.

This question of scale reappears where you speak of designing not the common future, but many futures. The shift from singular to plural appears to limit the scope and ambition of design, but a larger conceit looms behind even the limited notion – namely, the idea that future(s) are objects of design and that there might be a real difference between the future that is produced in the course of history and futures that are made by design.

Experiment. You speak of design experiments. I find this intriguing on two counts, one historical, the other systematic. The somewhat superficial but perhaps meaningful historical observation comes from the world of STS and its various ways of conceiving of the relation of science and society. With reference to Wolf Krohn and Matthias Gross, to Astrid Schwarz, Ulrich Beck, and Bruno Latour, STS was talking about collective real-world experimentation long before it talked about design: Society is a laboratory in which societies conduct by and upon themselves experiments with new technologies. To be sure, it is easy enough to conceive of design thinking as implicitly experimental, that is, of introducing and probing and recasting prototypes in the mode of trial and error. Accordingly, one might argue that »collective design« is only a specific manner of »collective experimentation«. It tells us that the experiments in question revolve around proposed prototypes and that the experiment proceeds in the manner of testing, probing, refining, and adapting the prototype.

But perhaps it is not as easy or seamless as all that, and this is where the systematic consideration comes into play. As Wolf Krohn, in particular, has pointed out, the roots of »real-world experimentation« are modernist. Its pedigree includes Francis

Bacon as well as Karl Popper, John Dewey as well as Donald Campbell. But the argument is not in terms of pedigree, but in terms of a modernist conception of what experiments are. Though collective real-world experiments do not take place in the closed space of the laboratory, they are modelled on scientific hypothesis-testing, classically conceived. Carefully delineated in the mind, they consist in defined interventions in the external world, prompting an observation of effects, and on the basis of these observations an evaluation of their underlying hypothesis. In contrast, design prototyping is a very different kind of experimentation. Inspired by computer tools and modeled on software engineering, it optimizes behavior through an iterative learning process that tunes or adapts performances to expectations. Here, the interplay of trial and error is not one of the external world saying »no« to our proposal, but one of internalizing externalities, of absorbing the world into the design.

In other words: with »design« comes not only a different conception of politics and the political, but also a different notion of experiment and the experimental. In both dimensions, design thinking or design thinging implicates and supersedes the modernist stance of how social learning, how transformative interventions should be conceived. Whereas collective experimentation requires that one step back from the experiment to evaluate it in the sphere of deliberation, collective design never leaves the experimental mode and, in a sense, doesn't take »no« for an answer. There is also a difference in temporal orientation. Collective experimentation is hopeful, but prepared to face opposition and defeat when it advances a hypothesis or a proposal for a better arrangement of things. Collective design begins from the position of ulterior, perhaps melancholic wisdom. When everything is said and done, the one and only world we live in is always and necessarily the product of the many competing ideas and aspirations that went into its making. On the one hand, we can take for granted that everything finally resolves into collective design; on the other hand, we should not leave this to chance, but engage in this as deliberately and designerly as possible.

The discontinuity between collective real-world experimentation and collective design signifies that there is a choice in today's arena of STS, in the discourse on responsible research and innovation, or technology assessment: which of these idioms should be adopted as a framing device when one seeks to engage, negotiate, deliberate, manage, govern, organize the sustainable development of peaceful societies? Here, I still tend to prefer – on political grounds – the idiom of collective experimentation with its critical interventions to that of collective design and its foundation of human solidarity in the common pursuit of world-making.

Thinging. Finally, I would like to take up a notion that is of particular interest and actually very fruitful for the philosophy of technology. In your letter, you argue »for the political relevance of co-design as ›design thinging‹ (not as design thinking), as the making of futures (in the many) through modest agonistic democratic design ex-

periments (in the small).« With a nod to Martin Heidegger and Bruno Latour, »design thinging« designates the »thing« as assembly or assemblage, a gathering of the world in the thing, the parliament of things and their power to draw things together. But rather than valorize and celebrate *das Versammelnde* of the thing, or in the thing, or by the things, you refer to this gathering primarily for epistemological reasons. It allows you to break through the cognitivist baggage of »design thinking«, with its implicit appeal to a Promethean demiurge: »This design thinging is a flickering between processes of collective decision making and collaborative material making, between ›parliamentary‹ and ›laboratory‹ practices, between engagements with objects of worry as ›matters of concern‹ and the transformation of objective matter as ›circulating references‹, forging strategies and tactics of participation and representation across these practices.«

There is a lot going on in these few lines of yours, and I can pick up on only a single strand: »Design thinging« goes beyond »design thinking« in that it rejects a picture of the technological as the imposition of mind and will or the realization of an idea. Instead, it follows the things as actors and thereby undermines our inclination to contemplate and deliberate designs as mental constructs of how things can, should, or would be brought to work together. Instead, we are to attend to the specific »drawing skills« that include the skill of drawing people and things together in the design process: »The challenge concerns the legitimacy and the skills of code-sign to draw these things together, the ›parliamentary legitimacy‹ of assembling the assemblies (of drawing them together) as well as the ›drawing skills‹ of making collaborative designing take place.«

I find this shift of emphasis, if not focus, important and productive for a philosophy of technoscience that needs to articulate the difference between knowing theories that are true or false, and knowing right and wrong ways of drawing things together. But for this philosophical project, there is more required than »thinging« as you describe it here. And as before, I want to maintain that knowing the right ways of drawing things together involves detachment and criteria of evaluation that disrupt the collective design process and that restore well-defined, clearly delimited relations between makers or builders and their works.

The »gathering« of people and things in design thinging attributes a somewhat vague power to the things as implicating us in the making of futures. Design then becomes only another word for something that is always happening anyhow. What is the position, one might ask, from which to question the »parliamentary legitimacy of assembling the assemblies« and the proper »drawing skills«? And what is the criterion for distinguishing a contestable »design choice« from the haphazard adaptations that take place as things bounce off each other?

Since you are also asking these questions, maintaining their openness and importance for debate, I suspect that we share this interest in the philosophy of technology.

We are seeking a conception of »rightness« for the ways of drawing things together, that is, criteria for how and when people and things are working together well – when the fluid and flickering movement of things falls into place. Such criteria posit a corrective to our historical, *post hoc* appreciation of an open-ended dynamic that draws people together in the making of futures. They require that we behold not just the process, but also the socio-technical systems, the configurations or assemblages, or – as I prefer to call them – the works that are composed by people to make things work together in proper ways, each according to their particular rules of composition. Such technical works of art can be scaled from particular devices to large technical infrastructures; they involve an act of individuation and thus a boundary which creates an outside of the technological, rendering it an object (rather than the medium) of aesthetic or social evaluation. Indeed, every particular work provides an image of how people and things can work together and every technological infrastructure, system, or device provides a sociotechnical imaginary – quite independent of design thinking or design thinging as the process that brings the work about.

So here we are. We evidently share very similar passions, questions, and concerns, but we still differ in the choice of idiom for framing these. And as for the relation of politics and design, it appears that we have the same conception of democracy as an agonistic process, but differ on how to conceive its object, on how to delineate the *polis* of a politics of things, so to speak. And if I am right, these differences are far from inconsequential – which is the best reason for exploring them further.

Yours,
Alfred

IV. Pelle Ehn to Alfred Nordmann *Copenhagen, April 18, 2016*

Dear Alfred,

Passionate participant or detached critic, is that the question? Thanks for taking me out of my democratic design experiments (in the small), melancholic collective designer (part of) comfort zone. As you write, we appear to share very similar passions, questions, and concerns about hegemonic power, (co-)design and (agonistic) democracy, but with different idioms and framings that have consequences. In relation to my co-design position, your last reply focused on three specific matters of worry (scale, experiment, and thinging) and a more general worry about where »the future« is situated and made in such co-design. I will comment on the specifics first and finally return to the future in design and the role of assessment versus composi-

tion in this making. This time, I will focus on the agency of the *professional* co-design participants in democratic design experiments (in the small), whoever they may be, rather than on the broader framework of design and politics.

Scale. As I understand it, you are talking about two co-design difficulties. One has to do with the relation between expert design and lay design. Who is a co-designer? The other concerns the relation between deceiving neo-liberal accounts of »user-driven innovation« and more genuine democratic participation. Who is in and who is out in agonistic design thinging? »We are all co-designers, but not all co-designers are professional designers, and not all professional designers are co-designers.«

Professional designers have, since the Bauhaus, typically been educated at design craft schools with a basic education of some five years. (Something quite different from the »quick design thinking fix« classes at management and engineering schools.) The focus has been on architecture, product design, graphic design, and later, also on interaction design and service design. Independently of whether the orientation was commercial design or socially useful production, the design ideal has been the great signature designer. This may still be the dream of most young designers, but there are cracks in the wall. Major design schools, not only in Scandinavia, but also in design capitals like Milan, London, and New York, enroll students in demanding socially engaging, long-term co-design programs. What I am trying to argue for, with some optimism, is that there is a new kind of professional designer coming out of the design schools, a professional and reflective co-designer attuned to difficulties of inclusion and exclusion in democratic design experiments in the small, with a broad repertoire of how to »draw socio-material things together«.

This is not »scaling« as escalation through the magic power of »good examples«. These are important assets in the design repertoire (professional as well as public), but in »scaling« democratic design experiments, a critical and practical understanding of the specific socio-material controversies in each situation is at the heart of professional co-design interventions. This involves, as younger design research colleagues have pointed out, not only how to engage with »good examples« and »those marginalized by hegemonic infrastructures«, but also with the participatory practices of »powerful strangers« opting out, malicious »collaborators« sneaking in, and »idiots« slowing down.

In becoming professional, reflective co-designers and developing this repertoire, they may well be inspired by the work of John Dewey (and Donald Schön), modernist or not, on democracy, publics, education, art, knowledge, experience, and experiment. And by the way, designers are not the only professionals in co-design. Many co-designers are urban planners, social workers, teachers, and maybe even an occasional philosopher.

This kind of »scaling« through »educating the professional co-designer« is, in my view, not in opposition to more deliberative »designerly« public engagements in controversial issues, but maybe a prerequisite for the staging of such events.

I can understand if you do not find my »educational« detour to address the scaling question »philosophical« enough, and some time I would be happy to discuss with you professional reflective co-design, framed as a kind of Wittgensteinian understanding of design as intertwined *language-games* with family resemblance, and what it means in design to follow rules in practice and even change them as we play along, or co-design as »post-modern« Aristotelian *phronesis* and design as »an anxious act of political love«.

Experiment. Collective design does not take »no« for an answer, you say. I agree, but not because of the adaptive capacity through the iterative learning process with prototypes and »what if« scenarios. Even given a melancholic design stance, there are in practice every now and then glimmers of utopian hope that make it worthwhile to continue. Furthermore, I am not sure I share your view on the discontinuity between collective real-world experimentation and collective design. I am not sure we need to choose the one and not the other. In my view, conducting democratic design experiments (in the small) requires a kind of internal and external public deliberation (making things public) in its world-making efforts (based on human solidarity or not), and this socio-material »decision-making« is not opposed to critical assessment. I will return to this below in commenting on your worries about thinging, but first, a few more words about collective design as democratic experiments.

There are confusions about design experiments. These are based on iterative prototyping and probing processes materially exploring different »what if« scenarios. They very much follow a Deweyian, pragmatic (hypothesis-testing) learning process of naming, framing, experimenting, and experiencing. They are, however, always situated and, in the words of Deweyian design philosopher Donald Schön, often characterized by pragmatic »listening to the situations back-talk« and carried out as »on the spot experiments«. But where do the »what if« questions (hypotheses?) come from, in what way do the prototypes test them, and what is the collective dimension in these experiments?

The first question is crucial to collective design. It is, as discussed in relation to thinging, a question of invitation, of who and what invites and participates. But even so, some of those invited may remain in silence. The standard answer in participatory design has been to engage participants through the use of mock-ups, prototypes, games, and scenarios that can be hands-on and bodily experienced as a basis for deliberation and negotiation. I can see that we need to do more than that, but the iterative prototyping process is not necessary an optimizing refinement. In democratic design experiments (in the small), the outcome of every prototyped instance of a »what if« scenario is a potential controversial thing, open to democratic agonistic

deliberation and negotiation. This is one collective (human and non-human) aspect of co-design.

I should also mention a tendency within co-design research to be more and more oriented towards »programs«, and where the different experiments explore and challenge the borders of that program, allowing it to drift and be reformulated. Maybe one could think of »democratic design experiments (in the small)« as such an evolving program. (These programs have much in common with the normal use of the word as in »architectural programs«, but also with how Lakatos used the term in relation to science.)

Thinging. You ask: What is the position from which to question the »parliamentary legitimacy of assembling the assemblies« and the proper »drawing skills«? What conception of »rightness« can we have? There is no objective design from »nowhere«. You favor the detached critic and I the passionate participant, but we also know that neither can have the full answer. Neither possesses a God's-eye view, but maybe they can meet in the *concrete*, in inquiries into the socio-material practices at hand? Co-design as a modestly hopeful, bottom-up stance from a precariously situated, thoroughly material »now here«, creating »concrete utopias« and critique serving as top-down investigation and assessment of the materiality of those very same »concrete utopias«.

Every thing is a potential crime scene. Not only those things that eventually may destroy life on Earth, as we have known it, but also possibly the seemingly least harmful of democratic design experiments. You have elsewhere talked about critical technology assessment as a kind of »forensics of wishing«. Could this be a forensics of particular »concrete utopias« in-the-making? Then I think we can join forces.

Earlier, I did refer to collective design as a kind of melancholic design (of »utopias lost« and »futures in-the-making«). This collective designer (part of) is maybe not too different from the (anti-)heroes of contemporary Nordic Noir crime fiction. In a welfare state that is falling apart, there is not much hope, but still something worth fighting for. As Kurt Wallander, Henning Mankell's anti-hero police officer, who, in his gloomy private life and unhealthy body, mirrors the threatened and disintegrating welfare state, says: »We have to stand up for democracy«. In doing this, in Nordic Noir as well as in collective design things, a forensics (of wishing) seems a crucial participant for the democratic design experiment, in the large as in the small.

Futures. We are both worried about design and the future. Where I focus on collective design as engagement in the marginal, the small, and the many, you are worried that this cannot be distinguished from making of »the future«, which cannot be an object of design. To open this issue, let me return to the »Copenhagen meeting« and the performance on design and displacement. The »archaeologist of futures« from Orkney Islands (aka Laura Watts) explained how she »makes a *future* from the flotsam and jetsam left behind when people make the world – people like

designers, whose choices, whose socio-material practices, imaginings, stories, and digital ink, make the world one way and not another». And the »anthropologist of technoscience« from Silicon Valley (aka Lucy Suchman) in her reply recalled one evening in 1995, driving her car in Palo Alto, listening to National Public Radio: »The future arrives sooner here«, said the Silicon Valley technologist who was being interviewed. His world constituted a place – a »here« – that, in indexically referencing his location in Silicon Valley, performed the existence of that place once again through naming it.« In contrast to this, she suggested exploring less colonial and less certain centers. »So one way of relocating future-making, I'm thinking, could be an anthropology of those places now enacted as centres of innovation that shows the provisional contingencies and uncertainties of their own futures, as well as the situated practices required to sustain their reproduction as central.« The »collective designer (part of)« (aka Pelle Ehn) added his melancholic tale of Scandinavian participatory design, as he found it, in the making of futures as concrete utopias from extended marginal »now heres«, as »democratic design experiments (in the small)«. As we know, Kierkegaard, the romantic, ironic, melancholic, existential Nordic philosopher, remarked that »life can only be understood backwards, but it must be lived forwards.« To this, the collective designer (part of) suggests adding that »designerly futures are preferably collectively composed in the presents.« Would a forensic philosopher be interested in being part of the *polis* of such fragile and precarious design things, composing marginal futures as concrete utopias and democratic design experiments (in the small) alongside an archaeologist of futures, an anthropologist of techno-science, and a collective designer (part of)? That is, for now, my final question.

Yours,
Pelle

