Participatory Design and the Collective Designer

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ABSTRACT
Is and should there be a place for the Aristotelian virtue of *phronesis* in contemporary participatory design practice and for design as an act of anxious love? In this paper we take a critical look at participatory design and reflect upon the virtues of the collective designer. Towards a background of the dreams and lost utopias of some related collective designers of the past: the Bauhaus, Nordic design and Scandinavian collective systems design, we suggest that our attention should not be on the great espoused design ideals but on the politics-in-practice of the collective designer. The really interesting collective designer in practice might very well be much more of a "machiavellian" reflective practitioner than an objective scientist or politically correct utopist.

Keywords
Bauhaus, collaboration, design, participation, *phronesis*, power, Nordic design, ethics, politics, Scandinavian collective systems design, utopia, virtue.

INTRODUCTION
Modern design was born with the Bauhaus in the beginning of the last century. It was a great political project with a background in the radical and revolutionary movements of that time in Europe. The Bauhaus designer was a collective designer and his design manifestos envisioned a new unit of art and technology in the service of the people. However, as all Utopias also the Bauhaus showed to be full of contradictions. Transformed into modernism and functionalism it produced rational living contexts of regular geometric shapes far from the dreams of the people that had to occupy them.

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Later we have had other collective designers. In Scandinavia we have had both Nordic design from the 1930s and Scandinavian collective systems design from the 1970s. Both approaches with great espoused politics as collective designers, with democratic dreams, and lost utopias.

The contemporary designers in the information age rather participate in hybrid networks of mind and matter than make modern products. Could this participation be carried out as professional wisdom and artistry taking the form of collective design as an anxious act of political love? Is this yet another espoused vain dream of democratic utopias lacking concrete power analysis, or is there action space in the new networks for the reflective collective designer to shape a new unit of art and technology in the service of the people?

This is the kind of inquiry into participatory design that we will pursue in this paper. The paper focuses attention onto the politics in practice of democratically oriented Scandinavian IT design following what we see as the collapse of the Scandinavian collective systems design tradition. In order to address this question, Scandinavian collective system design is set in the context of two earlier and influential design traditions with democratic intent: the Bauhaus and Nordic design traditions. Drawing out some of the similarities in these traditions' espousal of a grand democratic politics accompanied by a decline into a more technocratic or authoritarian practice, the paper will reflect on the need for new models of the politics in practice of collective designers, reflecting upon the concept of the collective designer, the designer as reflective practitioner and different views on design as community. Finally, we will contemplate the collective designer and participatory design after September 11.

COLLECTIVE DESIGNERS OF THE PAST
Who is a collective designer?
In this paper we use the concept of the collective designer sometimes to refer to a school or movement like the Bauhaus and sometimes to its individual members.

We do not think of the collective designer as a naïve neutral technician, nor as an independent free artist or a simple manipulator in the service of power. In general we think of the collective designer as someone who recognize the collective and political character of the design process and take a humanistic stance in design issues. What we have in mind is different aspects of the 'collectiveness' of design. We think of collective design as communities-of-practice where the situated practices are carried out in a direction towards legitimate participation and access to the communal artifacts. [26]

Such collective design communities can e.g. be communities-of-practice of professional designers, overlapping communities-of-practice between users and designers, or communities of stakeholders including not only designers and users, but also interpreters, jurors and legislators. Especially we think of collective design in terms of 'understanding others understanding' (as suggested by Krippendorff [23]) or as "being in service" (as suggested Nelson and Stolterman [38]).

Participatory design, finding its democratic legitimization in espoused participatory procedures, is one such approach to collective design.

With this understanding of the collective designer we now take a critical look at three related collective design approaches from he past with relevance to the future of participatory design: the Bauhaus from the 1920s, Nordic design from the 1930s and Scandinavian collective systems design from the 1970s.

The Bauhaus

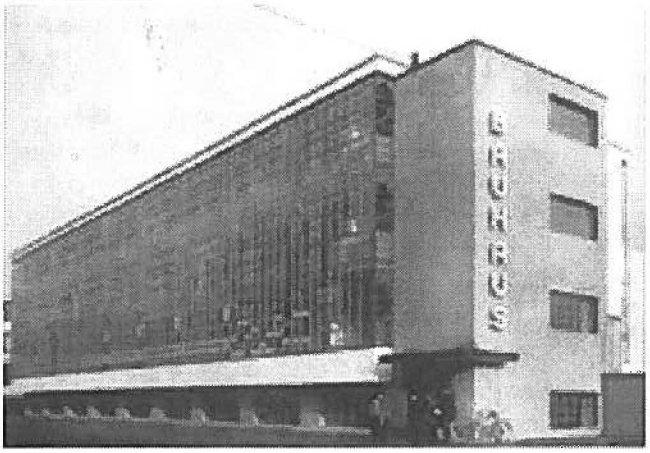

Figure 1. Bauhaus, Dessua, 1926.

Word War One had just come to an end. Humanism, the enlightenment project and Western civilization had suffered yet another defeat. The German economy was in ruins and the political situation was most turbulent, on the verge of a social and political revolution. The Weimar republic had just been proclaimed and in 1919 the parliament had moved to the hometown of Goethe, Shiller, List, Strauss and Nietzsche. It was in this conservative environment the architect Walter Gropius managed to open Hochschule für Gestaltung Staatliches Bauhaus, the radical design school Bauhaus. The vision was to create a new style for modern men and women, to realize an approach based on idealism, community and collaboration, to unite craftsmen and artists and to design the whole human environment from simple tools to the entire architecture. With this 'collectivist approach' the Bauhaus gathered a very interesting group of radical artists and architects including Wassily Kandinsky, Paul Klee, Oscar Schlemmer, Ludwig Mies van der Rohe and Laszlo Moholy-Nagy.

'Art and technology – a new unit' became after a few years the constructivist motto for turning social utopias into industrially oriented product design and architecture. Artefacts should be transparent as to their functionality. Buildings and other artefacts should be designed to engender social change. By design of progressive social and cultural values into the artefacts, these were thought of as vehicles for change by creating the necessary conditions. [13, 17, 30, 41]

But already in 1925 the authorities in Weimar forced the school to close down. There were too many Jews and the radical activities were considered anti-German. In 1926 the Bauhaus reopened, in brand new buildings designed by Walter Gropius, as a municipal project in the more progressive Dessua. Here the first worker housing projects were designed and realized as well as many of the well known Bauhaus everyday objects. In 1932 the Bauhaus had to move again since the Nazis had taken over the city. This time to Berlin, but already in 1933 the Gestapo marched in and put a definitive stop to the Bauhaus social design experiment in Germany. Now it was the Third Reich that should be realized and in this design there was no place for the radical Bauhaus school and rational functionalism as a meeting place for art, culture and technology.

On the international scene the reception was quite different. In exile, especially in the US, the master from Bauhaus, the 'white gods' from Europe, Gropius, Moholy-Nagy and Mies van der Rohe had great success as avantgarde for the modern "international style". [20]

As the Bauhaus became celebrated as "the international style" for the salvation of the modern society, it was at the same time diminished to a program of "hard" regular geometric white shapes in steel, glass and reinforced concrete under the dictum "architecture or revolution" with the corollary that a revolution could only be avoided if the modern architects and designers were given the freedom and power to change the world. [6]

Symbolically this program died on July 15 1972. The Pruitt-

Igoe low-income building complex in St Louis was an award winning project in steel, glass and reinforced concrete designed in the "international style" by the famous architect Minoru Yamaski in the early 1950s. The purist style, based on a clean hygienic hospital metaphor, meant to install the corresponding virtues in the inhabitants. Many of them were Southern migrants without experience of living densely packed in compartments with little room for expression of individuality and traditional social activity. In short time the covered walkways became the site for vandalism, drug abuse and crime. Hence, people started to move out of this nightmare. And finally after recommendations from the residents the authorities literally blew up the building complex. [42, 5]

What had happened to the great espoused social utopias from the early Bauhaus manifestos that envisioned how 'an idealism of activity that embraces, penetrates and unites art, science, and technology and that influences research, study, and work, will construct the 'art-edifice, of Man'. [36]

Despite the high moral and aesthetic principles, there was no real feeling insight or vivid realization of ordinary peoples everyday life and conditions. The 'soft' ideas of participation and democracy, supporting and developing a constructive dialogue between design and user communities, was never a corner stone of the Bauhaus.

Figure 2. Pruitt-Igoe, St Louis, July 15, 1972.

Nordic design

After World War Two the Scandinavian countries became internationally well known for Nordic Design. But already in 1919, the same year as the Bauhaus opened in Weimar, the director of the Swedish art and craft association published the manifesto *Vackrare Vardagsvara* (More Beautiful Everyday Things) in which the functionalist motto of form follows function was made very clear. 'To say that something is beautiful is to say that it has properties that make us happy and satisfies us, make us feel good. (...) Our demand on form is a demand on truth, and what we want to put an end to are such forms that belonged to craft and craft tools but that are alien to the machines. Instead we want to design in accordance with the new technology. By truth we also mean usability. The use of an artefact must be clearly expressed in its form' [33]

However, the real breakthrough of functionalism and the legacy from Bauhaus came with the Stockholm exhibition 1930 and the *acceptera* (accept) manifesto by Gunnar Asplund and other leading functionalist architects and designers. [3] Here the espoused vision of the interplay between art, technology and politics was made very clear. The belief in industrial development and progress was strong. Social problems could be solved with scientific rationality. Salubrious and functional compartments, cloth and everyday objects for the many was to be industrially produced and craftwork subsumed under this industrial production. "Funkis" as functionalism was nicknamed became synonymous with the growing working class or at least with the social democratic parties welfare ideology 'folkhemmet'. [22, 39, 40] The legacy from Bauhaus was obvious in what became known as Nordic design, but the forms were somewhat more inviting and warmer. Soft curves rather than German exactness, wood rather than metal, a more nuances than the basic colors proclaimed by the Bauhaus.

Some of the most radical and prominent Nordic design architects and designers were Danish e.g. Arne Jacobsen, Poul Henningsen, Børge Mogensen, Hans J. Wegner and Jørn Utzon. However, interestingly enough, in Denmark it was clearly the cultivated bourgeois middle-class that made the style their own. What in Sweden first and foremost was perceived as a political conviction was in Denmark more of a style, literally known as the 'white style'. And in Sweden, despite the initial utopian visions, the reality of Nordic design was perhaps more of an elitist doctrine from above than an approach based in democracy and participation of thus concerned. Today the national and international interest in Nordic design is really more retrospective and nostalgic than visionary for the future (and the prices for Nordic design items from the grand days are sky rocketing).

Rather contemporary Nordic design has become synonymous with IKEA. The furniture company has made the Nordic design utopia of more beautiful everyday things for the people to the official company vision and literally 'democratic design' a trade mark.

Scandinavian collective systems design

'So the impact of Utopia is continuing to expand, and the idea that workers and their unions have an important role in the design of new technology is reaching a wider and wider audience. Today Scandinavia, tomorrow, perhaps, the rest of the world.' [21]

This was the concluding remark in a most appreciative

article in MIT Technology Review 1985 on UTOPIA, a Scandinavian participatory design project (see e.g. [10, 15, 19] The appreciation of the Scandinavian collective systems design as a way to democratize the design of information technology, was growing internationally, not least in the US, as also exemplified by the American produced film *Computers in Context* in 1986. [12]

The UTOPIA project was a Nordic cooperation that specifically concerned newspaper production and new page-make up and image processing based on the emerging workstation and display technology. The technology was developed in close cooperation between graphic workers, their trade unions and systems designers (computer scientists as well as product designers). The design was based on the, at that time rather unusual and politically provocative idea, that the technology could and should be designed from work practice and be skill enhancing rather than deskilling. To achieve these goals a number of participative methods and techniques like extensive use of mock-ups and early prototypes in combination with different design games were applied in novel participatory ways forming the Scandinavian collective systems design approach (see e.g. [8, 10, 15, 19, 29, 34]).

But the story of Scandinavian collective systems design started in Norway fifteen years earlier. In a pioneering project from 1970 the Norwegian Iron and Metal Workers Union in cooperation with Kristen Nygaard, one of the inventors of object oriented programming, and other researchers from the Norwegian Computing Center took the initiative to a project towards democratization of the design and use of information technology at work. [32] The strategy aimed at creating a process which would build up knowledge and activities at all levels within the trade union, with the main emphasis at the shop floor level and participative production of knowledge that could be actively use in the daily work at the factories, the local unions, or the national unions. The strategy was developed under influence of the highly successful local activity strategy of the Norwegian anti-European Economic Community movement. (It may be worth noticing that Kristen Nygaard in the 1990s became the national leader of the second Norwegian anti European Community movement).

One of the most tangible outcomes of this project was the *data agreements*. These agreements primarily regulated the design and introduction of computer-based systems, especially acquisition of information and also led to a election of numerous so-called data shop stewards. Among other things the central agreement stated:

'Through the shop stewards the management must keep the employees orientated about matters which lie within the area of the agreement, in such a way that the shop stewards can put forward their points of view as early as possible, and before the management puts its decisions into effect. The orientation must be given in a well-arranged form and in a language that can be understood by non-specialists. It is a condition that the representatives of the employees have the opportunity to make themselves acquainted with general questions concerning the influence of computer-based systems on matters that are of importance to the employees. The representatives must have access to all documentation about software and hardware within the area of the agreement.' [31]

The project strongly inspired trade union strategy, as well as national legislation and collective agreements on the design and use of information technology throughout Scandinavia. Also, several new research projects refined the Scandinavian collective systems design approach, but the extent and impact of these activities did not meet the initial expectations. It seemed that one could only influence the introduction of the technology, the training, and the organization of work to a certain degree. From a union perspective, important aspects like the opportunity to further develop skill and increase influence on work organization were limited. Societal constraints, especially concerning power and resources, had been underestimated, and in addition the existing technology constituted significant limits to the feasibility of finding alternative local solutions which were desirable from a worker perspective.

As an attempt to broaden the scope of the available technology the main idea of the first projects, to support democratization of the design process, was complemented by the idea of designing tools and environments for skilled work and good use quality products and services. It was to try out and demonstrate this ideas in practice that the UTOPIA project was started.

Scandinavian collective systems design took place in the 1970s and 1980s in the era of democratization of the workplace in Scandinavia, when the belief in 'folkhemmet' (the peoples home), the Scandinavian version of the welfare state still was strong. Management opposed to changes in work suggested by the trade union. The trade union opposed to the technology suggested by management. However, trade union understanding of new technology increased and a trade union strategy on design and use of information technology was developed. Contributions to important changes in laws and agreements were made, but the work itself did not really become more 'rewarding'.

Today the legitimacy of trade unions is questioned, and 'folkhemmet' is rapidly de-mounted as are laws and agreements on the design and use of information technology. Production has not really changed in the radical participatory direction as suggested by the Scandinavian collective systems design approach more than twenty years ago. At the same time productivity has increased, work has,

somewhat contradictorily, become both more 'rewarding' and more stressful, and top management supports many more or less restricted versions of participation. [16]

When Scandinavian collective systems design in the 1990s become a 'success' in the US as participatory design it was not really for political reasons of democratization in the workplace. While the philosophy of participative design had some influence in the academic world, in the corporate and political arena it was transformed into a form of soft technocracy, as 'user involvement' in IT design became acceptable as a software development practice. Today what remains of Scandinavian collective systems design is more at home in the academic world, than in the political arena. The researchers and systems designers are no longer collective designers, but for good and bad pretty mainstream academic researchers and designers. Looking in retrospective what remains is more a design style, and some useful methods and techniques for ethnographically oriented participatory design.

And lets face it. Despite all its participative and democratic merits and all the influence it may have had, the UTOPIA designed technology never really made it to the market. When the Nordic IT success in the market place really came it was as part of the dot com economy in which boundless individualism and hubris meant sacrificing collective design and the rigors of democratic deliberation for the pleasures of vitalist enthusiasm as politics-in-practice. It is a remarkable irony that the most internationally successful, but now also erased, of these companies Framfab (The Future Factory) had an espoused vision that echoed the collective design utopias of the Bauhaus, Nordic design and Scandinavian collective systems design. The vision vas to build 'Folkhemmet 2.0'.

Espoused utopias and politics-in-practice

So here we are with three influential design traditions all with their specific meaning of and influence on participatory design, but at the same time three collective design traditions with lost utopias and at least debatable politics-in-practice.

The great Bauhaus vision of socially responsible design was transformed into a mere style. The fantastic new unit of art and technology partly ended up as science and control, not very different from Frederick Taylor's scientific management, which was used to deskill workers during the last century. And elitism rather than a real effort of understanding others understanding seems to be a good description of the politics-in-practice that came out of the Bauhaus.

The same transformation seems to be the case with the great visions of the architects and designers behind Nordic design. The movement was intimately interwoven with the building of 'folkhemmet' and the Scandinavian welfare states but was later more or less transformed into an aesthetic style – 'the white style'. And in the end the politics-in-practice of 'funkis', the Nordic version of functionalism, became more of an international sales pitch than a social reform program.

Scandinavian collective systems design grow out of the attempts to democratise Scandinavian work places in the 1970, but has survived more as a set of creative design methods. The politics-in-practice of these collective designers is limited to the developments within the academic field and disciplines like human computer interaction and interaction design, whereas workplace design in practice is left to a new kind of political entrepreneurs with an ideology of boundless individualism far from that of the collective designer.

THE VIRTUES OF THE COLLECTIVE DESIGNER

Legitimisation of the collective designer

We have outlined three stories of collective design with grand espoused politics and major impact, but with an observable politics-in-practice often leading in other directions.

The Bauhaus found its legitimisation in the unit of art and technology based on a political commitment to reforming everyday life. Likewise Nordic design found its rationale in the production of good modern design for everyone and Scandinavian collective systems design found its good reason in support of resource weak groups and the democratisation of the workplace.

We find the legitimacy of a democratically oriented collective design process a worthy cause to fight for, but now it seems this can no longer be done by a mere return to the modern project of functionalism and progress towards utopia. The focus will have to be shifted from espoused politics, utopias and ideologies towards politics-in-practice.

Collective designers facilitate cooperation and communication across and within design and user communities of practice. The 'politics in practice' of this activity is not, however, the simplistic 'espoused theory' of democratic participation. It is also an exercise in the 'realpolitik' of 'getting things done' in practice, an activity involving inherent conflicts, tensions, coercion, manipulation and ethical and political dilemmas, as well as cooperative facilitation. If this is not recognised, the history of the collective design traditions suggests that an espoused democratic politics will prevent an accurate understanding of politics in practice and contribute in part to the emergence of a more authoritarian technologies.

Hence, rather we may ask how the collective designer 'get things done his or her way'? What role coercion, manipulation and self interest plays in the politics-in-

practice of the collective designer? And what roles do the collective designer play as leader of and driving force behind collaborations and alliances?

As a general orientation towards addressing this question, what we have in mind is something like the practicum for reflective practitioners as suggested by Donald Schön [37] but now with focus on a systematic effort to develop political and other competencies to act a collective designer in practice.

Anxious acts of political love

For the collective designer this is a problem of the relation between art and technology in practice, but more fundamentally it is the relation between science and politics that is problematic. As Bruno Latour has suggested in a '(philosophical) platform for a left (European) party' this involves a fundamental questioning of the role of science as legitimization and a replacement for political judgment. [24]

In different design, art and philosophical contexts, it has been suggested that to rethink this relation it may be useful to return to Aristotle and an alternative view of knowledge to traditional Platonic dualistic models. [See e.g. 7, 18, 28] This involves a return to a time before our understanding of knowledge was completely focused on theories as explicit, abstract, universal and context independent, to a time before political practice and competence were expelled from rational knowing because of the fragile and unpredictable nature of human action, to a time before artistic practice and knowledge was discarded from rational knowing because of its sensuous, bodily and particular nature, to the time before the Aristotelian vision of ethical life, practical wisdom and the virtue of *phronesis* had not yet been suppressed.

In phronesis, wisdom and artistry as well as art and politics are one. Phronesis concerns the competence to know how to exercise judgement in particular cases. It is oriented towards analysis of values and interests in practice, based on a practical value rationality, which is pragmatic, and context dependant. Phronesis is experience-based ethics oriented towards action. [2]

Interestingly enough, as Richard Coyne has pointed out, Aristotle suggests that this competence has its ground in the politics-of-practice of collective of the household rather than in the academic context or in the market place. [11]

Phronesis, it seems, is fundamentally not concerned with statements of facts, nor prescriptions of what ought to be, but, with an expression borrowed from J.M. Bernstein, *speculative propositions enacted as anxious acts of political love*. [7]

And this is our tentative definition of the competence the collective designer should strive fore. But how? What about tensions between a commitment to democratic politics as well as to democracy as a form of interventions and manipulations by 'authentic' subjects?

Politics-in-practice, rationality and power

One strategic dilemma in acquiring the competence of enacting speculative propositions as acts of political love has to do with our understanding of the relation between politics-in-practice, rationality and power. How may design situations be characterised in terms of rationality and power, this asymmetrical relation in which, in Bent Flyvbjerg's formulation, rationality has a power that power understands, whereas power has a rationality that rationality does not understand. Will collective design be characterized by democratic utopias, as in the cases of Bauhuas, Nordic design and Scandinavian collective systems design, or must it be more subversive finding its ways for interventions through concrete and situated power analysis?

As Bent Flyvbjerg has pointed out we are faced with a kind of 'Habermasian-Foucaltian' controversy. [18]

On the one hand we have collective design as a democratic profession with a strategy of democratic visions, communication and reconciliation, standing the risk of in practice to act as naïve and idealistic 'do goodders'.

On the other hand we have collective design as political war with a strategy of power analysis, strategic actions and reconstruction, standing the risk of total cynism and the breakdown of design as profession.

In the tension between these two positions - communication versus struggle and reconciliation versus re/deconstruction - rather than from the one or the other, we find a position from which the collective designer may develop his or her speculative propositions as acts of political love.

Strange as it may sound, a kind of democratic Machiavellian emerges as the ideal for the collective designers politics-in-practice. [9, 27] This is not to say that the collective designer should turn into a cynical 'gutter designer', but to be someone able to switch strategies to suit context, nor is it to suggest that he or she is an 'amoral chameleon' or 'pragmatist', but a pragmatic change driver combined with a visionary moralist. This is not the smug unconscious hypocrisy of the moralist or the market, but a designer of integrity; doing the right thing even at a cost to themselves; sometimes however with a defensible type of compromise, deceit and hypocrisy. A sincere and realistic design approach combing pragmatic advice with an ethnographic orientation towards forms of action actually enacted.

In summary, the politics-in-practice of the collective designer may be expressed in terms of a (self)reflective humanistic design stance (as opposed to the position of the cynical professional or smug political moralist). The collective designer is conscious about political dilemmas (as

opposed to the humanistic technocrat or the 'ideological hero'). At the same time he or she is involved in political interventions (as opposed to the neutral expert, the apolitical facilitator or the distanced academic). The new role of the collective designer goes beyond the ideological and politically correct role of the modern designers from the Bauhaus, Nordic design and Scandinavian collective systems design as well as the vitalist enthusiasm and boundless individualism of postmodern free agent dot com designers. The collective designer will engage in collective reflection as opposed to striving for cheap point or hiding behind professional ignorance.

IN SEARCH OF THE COLLECTIVE DESIGNER

In the introduction to this paper we suggested that the contemporary designers in the information age participate in hybrid networks of mind and matter rather than make modern products, and we asked if this participation could be carried out as professional wisdom and artistry taking the form of collective design as an anxious act of political love? In other publications, we have explored further the ethical and practical issues involved in acting politically in organizations [9] and as collective designers [4]. In terms of participatory design, we are also interested in further exploring the dynamics of integrating a more traditional critical theory view of politics in the Habermasian tradition with a more contemporary post-modern view of power, discourse and agency as exemplified in post-Foucaultian work. However, in this paper, for the sake of the present audience, our main concern will be to identify examples of new kinds of politics-in-practice for the collective designer, rather than dwelling on these other (albeit important) issues. Consider the following two examples of collective design in relation to September 11 and as 'design noir'.

Collective design and the tragedy of September 11

It is a painful fact and cause for some reflection on modernism and design that the World Trade Center was designed by the same 'international style' architect as the dangerous and insecure Pruitt-Igoe building complex in St Louis that was blown up on recommendation of the residents.

There are however more straightforward ways to relate design issues to the tragic and inhuman attack on September 11 last year. A good example is the following message that was published by Phil Agre on his mailing list The Red Rock Eater News Service the day after the attack on World Trade Center instantly reaching colleges and design community all over the world. As a comment on the issue on security the message begin as follows:

'We do need to improve security, but we should not understand the need for heightened security in a broad,

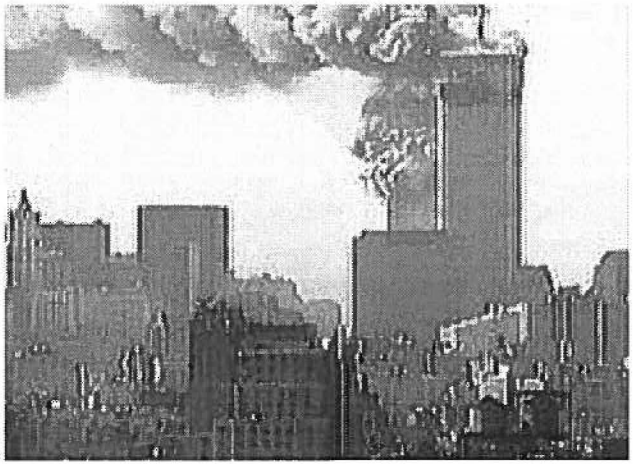

Figure 3. World Trade Center, New York, September 11, 2001.

vague way as a cultural imperative. We do not need a police state, and we should not militarize our society. Rather, we should view security as a design problem. We have an opening now, a brief window when the airlines cannot undermine improved security in their own commercial interests. Maybe we can also force Microsoft to design its products in a secure way, rather than exposing us to the severe information security problems we've seen in the last few months with its fundamentally shoddy architectures. We should take advantage of this opening to redesign our aircraft, buildings, software, and institutions in a rational way.' [1]

What he suggested was active participation by the design community to heighten security, but not as an uncritical and vague cry for security with the obvious risk of militarizing society. Instead he asked us as professional collective designers to see this as an opening for engagement in concrete redesign of our aircrafts, buildings, software and institutions in a more human and rational way.

Among his redesign suggestions for long ignored design problems were: the design of doors between aircraft cabins and the cockpit; the long delayed fuel tank safety; the digital aircraft electronics e.g. so that tracing can not be turned off; security procedures at check in including the design of conveyer belt and xray unit; the institution of airport security with minimum wage policy and the dysfunctional baggage size regulations, the identification system for personnel in airports and how identities get administered in practice, etc.

Maybe this is not as grand a utopia as that of the Bauhaus, but as the goal of a politics-in-practice of the collective designer and as a response to actual rationality and power of a new kind of internationalist designer, this might be an example of the kind of collective design practice we are

searching for. A design problem of committing to safety and security in a complex 'high risk' society, while attempting to safeguard against temptations to introduce new and more intrusive forms of centralised surveillance and control. How these ethical issues are addressed, and how designer/user cooperation is facilitated by the political manoeuvrings of concerned, is a concrete example of a future important area of collective design.

Collective design as 'design noir'

A more humorous, but not necessarily less serious or relevant, approach to design practice is taken by the designers Anthony Dunne and Fiona Raby. [14]

In the contemporary hybrid networks of mind and matter they do not contribute yet another modern digital product, but a critical interpretation taking the form of tangible design proposals. For example by investigating the secret life of electronic products they hope to stimulate debate about the dominant perspective in pervasive or ubiquitous computing. They react to an industry and technologist perspective where the consumer or the user is the hero that needs to do everything as fast and easy as possible. Instead they want to provoke reflections about 'design noir', where the user or customer is a kind of anti-hero as in film noir where things not always work out or end happily. Design noir products raise questions and provoke psychological puzzles, rather than meet pragmatic needs or solve problems. Hence, with design noir there is no claim to solve human needs, but to suggest dilemmas, conflicts and ambivalence and to provide narratives where these darker feelings are expressed, explored and acted out.

One example of such design noir is the furniture from the Placebo project. A number of people got the chance to explore their 'Hertzian space', the extra-sensory electro-magnetic fields we all are surrounded by, by adopting noir products like a 'compass table' table or a 'GPS table' for a couple of month. The compass table had 25 compasses set into its surface and could react to electronic devices like laptops or mobile phones when they were placed on top of the table, but there was no intended use by the designers this had to be invented by the users. If the GPS table could not see a satellite it literally 'got lost' and the people that had adopted it moved it to a safer place.

Design noir is not glamo rous with great utopias and modern heroes, but it still has a humanistic stance and a consciousness about political dilemmas. Proactive interventions in the name of design noir might very well turn out to be the kind of critical design politics-in-practice we are searching for. A practice carried out as speculative propositions and anxious acts of political love that can take us beyond modern design and challenge the Bauhaus, Nordic design and Scandinavian collective systems design by opening up for a new or at least complementary both participatory and collective design practice.

Artifacts as collective designers and participants

In this paper we have been reflecting upon the politics of collective designers and on how different actors participate in this design process. Doing this we have recommended a renewed concern with the issues and dilemmas of a 'Democratic Machiavellian' phronesis and collective design as an as an anxious act of political love.

However, so far we have left out important actors or participants in collective design: the designed artifacts. This is a serious omission of important participants in what Bruno Latour has called 'a collective of humans and nonhumans'' and in fact he has actually advocated a remodelled 'Machiavelli for machines'. So instead of a summary we will end this paper by some reflections on artifatcs and nonhumans as participants in our examples of collective design. What is the politics of these artifacts and how can they be enrolled by the collective designer in acts of political love?

In *Pandora's Hope* Latour argues that 'real artifacts are always part of institutions, trembling in their mixed status as mediators, mobilizing faraway lands and people, ready to become people or things, not knowing if they are composed of one or many, of a black box counting for one or of a labyrinth concealing multitudes'. [25]

But how is the participation of nonhumans in collective design enacted? How does crossover and exchange of properties between humans and nonhumans take place? Which are the practices of enrollment and mobilization of artifacts into the collective?

The GPS table that was 'adopted' and 'got lost' in the 'design noir' example may not have feelings or intentions, but how is it enrolled, seduced or manipulated into the collective?

Or more indisputable and decisive as in the September 11 example: the airplanes crashing into the buildings did not fly by themselves, but what hasd been delegated to them and how are they mobilized in ever expanding collectives of humans and nonhumans?

Or think about the three buildings depicted in this paper, their designers and their own participation in design.

Walter Gropius, the founder of Bauhaus designed the Bauhaus school in Dessua in 1926. With its transparent structure it became one of the landmarks of functionalism and the design dictum 'form follows function. But how has the building itself been participating in building Bauhaus as an international movement and modern design in general?

The Pruitt-Igoe low-income building complex in St Louis was designed by the famous modernist architect Minoru

Yamaski in the 'international style' based on a clean hygienic hospital metaphor. What prosperities and authority had been delegated to this artifact. Was it because of this politics that it on recommendation by the inhabitants was blown up in 1972? And is there in fact a rather strong influence from the Bauhaus school building on the Pruitt-Igoe artifact?

Minoru Yamaski was also the designer of World Trade Center, the very embodiment of the modern market economy, but what properties had been delegated to this artifact that does not exist any more? Which collectives of humans and nonhumans was it enrolled and mobilized in?

These questions cannot be answered here, but in design as an anxious act of political love the politics of artifacts seems just as important to take into account as that of humans.

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