Aesthetics and Affect: Engaging Energy Communities

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ABSTRACT
Engaging publics in participatory events has been regarded as a central means to introducing lay people's voices into processes of technoscientific innovation and governance. While many criticisms have been levelled at the methods and techniques of participation and engagement, little attention has been paid to the role of aesthetics. This is especially the case when aesthetics is understood in terms of opening up new and potential ways of critically and creatively engaging with technoscientific matters of concern. The terms *semblamatic* and *matters of potentially* are proposed as usefully capturing this dimension of aesthetics. Drawing on practice-based design research, a probe workshop was developed and members of energy communities were invited to it. These lay people had an invested interest in reducing energy demand in their communities. Three probe exercises were implemented: these were designed to playfully to open up potential re-articulations of, respectively, such core themes as energy, communities and futures. Our goals were to examine the extent to which such probes enabled semblamatic responses in relation to the core themes, and to explore whether the exercises facilitated participants' engagement with these themes as matters of potentiality. Findings were mixed. The retention of standard meanings of these core themes was certainly in evidence, showing that such events can be, despite the best intentions, *anaesthetic,* blunting people's affective access to the semblamatic aspects of engagement. Conversely, there were also instances of a novel opening up in which the core themes were creatively re-articulated, though this required a semblamatic reading of collective participant responses. The present perspective, with its three novel terms - semblamatic, matters of potentiality, and anaesthetic - might prove useful in alerting scholars to the complex role of aesthetics in the methodological and analytic practices entailed in engagement with publics.

Keywords:
Energy, Public Engagement, Community, Speculation, Aesthetics, Future, Design

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Introduction

The canvassing of publics and communities in relation to their views on, and contribution to, scientific controversies, technological issues, or environmental concerns has become commonplace amongst governments and organizations. Engaging lay people in participatory events has come to be been regarded as a central means to introducing the public's voice into processes of technoscientific innovation and governance. Various techniques have been developed to access and record those views and voices. However, numerous shortcomings with those techniques have also been identified: while they might encourage the participation of lay people, they can also serve to mute or misrepresent public views. Indeed, it has been argued that these techniques actually shape the character of participating publics by privileging some types of responses over others. Nevertheless, it is possible to develop techniques which attempt to enable more open, creative and critical views that challenge usual ways of thinking about controversy, etc. In particular, by focusing on the aesthetic dimension of such engagement techniques, it is possible to design forms of participation through which people might derive novel views, and, potentially at least, alternative political stances.

In this exploratory paper, we discuss a particular role for aesthetics in public engagement processes. Drawing on research with members of energy communities (communities directly involved in the processes of energy demand reduction), and working within the tradition of Public Engagement with Science and Technology (PEST), we aim to open up (energy) publics' potential views of particular issues, or matters of concern (understood as a matter of fact whose underpinning assumptions have been placed under scrutiny).[1] We are thus interested in how engagement practices might be aesthetically expanded to furnish participants with the means for inventively exploring the parameters of pertinent matters of concern (specifically around the processes of reducing energy demand).

Crucial here is the view that attention to aesthetics can point to the possibility of a more open public engagement with the relevant matters of concern. Aesthetics, from the particular processual philosophical point of view adopted here (Massumi, 2011), entails a *semblance* in which the aesthetic object or event takes on what we call a *semblamatic* quality that renders it sufficiently strange, playful, or emergent that it affects people in ways which can lead them to question their existing perceptions and perspectives. Thus, the object or event can enable *matters of potentiality* whereby alternative, but undefined and undetermined, possible framings (of, in the present case, energy demand reduction) become available. Conversely, such strangeness, playfulness and emergence can also have contrary affects that yield a closing down and retrenchment of existing perceptions and perspectives. Under this circumstance, the aesthetic (in the sense developed here) is undercut - the effect is what we call *anaesthetic* and people revert to more familiar framings.

The overarching aim of the paper is thus to report on how a specific intervention - a probe workshop - that drew on semblamatic design techniques did and/or did not facilitate the emergence 'matters of potentiality' with regard to energy demand reduction. The related questions we pursue are: how might public engagement devices - in this case, the different probes - have aesthetic and/or anaesthetic effects? what matters of potentiality emerge and/or what matters of fact are reproduced in relation to energy demand reduction? what are the broader lessons to be derived from such aesthetic intervention in public engagement events?

In what follows, we begin with an account of recent developments in PEST. In this we focus on three emerging aspects of PEST: the concern with affect and emotion as ingredients in citizen engagement processes; arguments for a PEST that takes on mundane as well as exotic technoscientific matters of fact as well as matters of concern; and the recent interest in engagement as a means to exploring the potentialities of matters of concern. The paper then moves on to explicate a version of aesthetics that promisingly maps on to these three elements. We then describe the probe workshop, and, in the process, situate it within the larger energy research project – Energy and Co-Designing Communities – of which it was a part, and link it to a number of features that characterized the wider empirical field of energy demand reduction (including UK government policy and research strategy). We pay particular attention to the elements that comprised the research event of the probe workshop, notably, the novel visual materials that were designed and the ways in which they were completed by the participants over the course of the workshop. We show how some elements worked in the aesthetic sense of producing a semblance, and enabling matters of potentiality to manifest.

However, we also show how elements in this workshop failed to work in other respects – notably insofar as they disabled people's willingness to engage with the practical and political possibilities of energy demand reduction. As such, we suggest, we also need to attend to the ways in which such engagement procedures and practices can turn out to be anaesthetic in that they elicit insensitivity to matters of potentiality. We end by reflecting on some of the broader implications of introducing our version of aesthetics into the field of PEST.

Public Engagement with Science and Technology: Three Developments

Without wanting to provide yet another rehearsal of the now standard accounts outlining the emergence of PEST, we can note that it has been explicitly driven by a perceived need to exercise citizen participation and interject the voices of lay publics into the processes of scientific decision-making and technological innovation (e.g. Irwin and Michael 2003, Chilvers 2010, Tsouvalis and Waterton 2012). By contrast, more critical accounts of PEST have variously characterized it in terms of implicit dynamics that in actuality diffuse, mute or constrain that voice – from limiting the impact of PEST in policy circles, through deflecting more radical democratic processes, to enacting particularly impoverished versions of scientific citizens (e.g. Irwin et al. 2013, Chilvers and Kearnes 2016).

Alongside these criticisms of PEST, there is a growing sense of the ways in which the techniques of PEST are performative: they are partly constitutive of their objects of study (e.g. Felt and Fochler 2010). As Law (2004) has persuasively argued, this is a feature of all social

scientific methodologies. However, what happens within the research event is not exhausted by the overt parameters of the research methods, techniques and practices that are deployed, not least when participants derail these in a number of ways (e.g. Michael 2012). In this context, researchers are becoming aware of some of the tacit dimensions of PEST processes. For present purposes, we focus on three such dimensions.

Firstly, there are tacit assumptions about the appropriate scientific or technological topics for PEST. In the main, these have concerned the controversial-topics-of-the-day. Needless to say, it is only right and proper that these be addressed. However, at least within the field of PEST, it does leave mundane technologies and scientific knowledges under-examined (clearly this is not the case in other fields such as the sociology of everyday life – see Michael 2016). The point is that perhaps it behoves PEST to broaden its collective horizons to encompass less exotic technoscientific phenomena. After all, as Latour (2004a: 234) insists, settled matters of fact need to be grasped in terms of the conditions and contingencies that have enable them to emerge as such. These matters of concern, as Latour has called them, can thus encompass even the more mundane concerns of everyday experiences. As we shall see, the probe workshop discussed in detail below addressed itself to such matters of concern as they emerged in relation to the everyday experiences of community, information and energy.

Secondly, PEST researchers are beginning to take note of the less epistemic elements of their practice, especially the role of affect and emotion such as passion and pleasure (e.g. Davies 2014, Davies 2016) in engagement events. Of course, affect and emotion have always been central to PEST, especially if one accepts that rationality (or the epistemic) and emotion are hardly separable (Barbalet 2001). What is also belatedly emerging is an interest in the aesthetics entailed in PEST, where aesthetics comprises a particular sub-set of affects that are attuned to the form of objects or occurrences (we shall specify this in more detail below). In some ways, this is surprising given existing traditions in art-science intersections and collaborations (e.g. Century 1999, Born and Barry 2010, Gabrys and Yusoff 2012, Ginsberg et al. 2014). In other ways, this is less surprising given that art-science projects have often been duly concerned with the nature and political import of interdisciplinary collaboration and intersection, rather than the complex interweaving of aesthetic experience and participation.

Finally, at other points of interdisciplinary intersection between PEST (and STS more broadly, see: Wilkie 2016) and certain trends within design, there has been an interest in using engagement events – mediated by designed objects and modes of interaction – not only as a means to critique specific technoscientific matters of concern, but also to explore their potentialities, that is to say, prospective and possible ways of refashioning and reformulating those matters of concern (e.g. Binder et al. 2011, DiSalvo 2012, Michael 2012). For instance, Binder et al. (2015: 163) speak of democratic design experiments through which ‘‘the possible’ becomes tangible, formable and within reach of engaged yet diverse citizens’. As we shall suggest below, this also implies a shift in what it means to do politics in relation to issues that are approached aesthetically where we can detect a move toward something like a concern with matters of potentiality.

Angela Last’s (2014) analysis of the Wellcome Collection’s ‘Who’s the Pest?’ initiative goes some way to capturing our proposed shifts in PEST. Accordingly, there is a focus on a

mundane topic, namely insects, that are explored through aesthetic operations in which, for example, 3-D printing of insect-derived protein is used to address matters of taste for insect-based food, while enabling a re-thinking of the prospective inter-relations between insects and humans (and the status of insects as pests). Our case study similarly works through these three shifts by focusing on mundane topics (using energy, a sense of community), explicitly incorporating the aesthetic dimension of engagement (through the use of particular visual design materials and techniques), and aspiring to open a space for the potential and the possible reworking of the matters of concern. However, before we go on to describe the case study, we need to clarify our particular version of aesthetics.

A Version of Aesthetic Experience

We take aesthetics to be a type of affect that is particularly attuned to experience and form. We understand affect in terms of recent writings which have downplayed the emphasis on affect as a corporeal excess that escapes discourse or representation (e.g. Massumi 2002). As such, we do not regard affect as necessarily countering existing social processes which as it were constrain emotional experience, thereby opening unforeseen possibilities (for distinctive reviews see: Wetherell 2012, Anderson 2014). Rather, we regard affect as subsuming both aesthetics and emotions, and, taking a lead especially from Ben Anderson (2014), we see affect as inherently heterogeneous, and, indeed, fundamentally relational. Affect thus emerges from, and feeds into, more or less discrete and distinct arrays of relations (e.g. apparatuses, atmospheres), and is mediated and resourced by both the representational and the nonrepresentational, the material and the discursive.

Crucially, within this view, affect (and aesthetics for that matter) is seen in processual and iterative terms – a case of being affected and being able to affect (e.g. Latour, 2004b). Accordingly, affects are shaped in their specificity by the sets of heterogeneous relations in which humans and non-humans are enmeshed, even as those affects come to impact those very relations (in their specificity) out of which they emerged. Clearly, then, our version of aesthetics does not just pertain to questions of beauty nor to the reception of works of art, but rather to sensible experience and form in general.

In terms of this broad analytic schema, aesthetic experience can be understood as imbricated within an array of heterogeneous relations which might be more or less permissive of the iterative process whereby one is affected and can affect. That is to say, being affected by a particular event or object can facilitate one's capacity to affect. On this view, the aesthetic is an index of the extent to which a particular form – which is occasioned in everyday artefacts and events as well as in artworks and artistic happenings – affect one in such ways that one is becomes open to flexibility, plurality or a broadening of experiential and interpretive horizons. As such, one is also potentially enabled to affect others in novel ways. This reading of the aesthetic is heavily influenced by Massumi's (2011) work on semblance. Accordingly, the aesthetic entails the evocation of semblances that enable access to the potential, the virtual – understood as a panoply of emerging possibilities; in consequence possibilities for action, and affecting others, are enlarged. Indeed, for Massumi, this semblamatic exposure to such a field of potentials is akin to an aesthetic politics in which the options to affect proliferate (even if

these do not readily fall within the traditional categories of doing politics – Massumi cites the Situationists and the anti-globalization movement as exemplars of such an aesthetic politics).

For our purposes, within the confines of an engagement (probe) workshop, the workshop is designed in ways that emphasise the aesthetic dimensions of the probe exercises participants complete together. As the name suggests, generically, probe exercises are designed to playfully and obliquely challenge participants, thus ideally enabling them to probe new possibilities that might attach to the topics that are being engaged (e.g. Boehner et al. 2012). The aim is to implement probe exercises whose aesthetic design operates semblamatically to prompt new, unexpected ways of thinking about, in the present case, energy demand reduction, and of asking more interesting questions about the meanings of community, energy and the future (see Fraser 2010). As such, the aesthetic politics evoked in the probe workshops takes a more limited form as a semblamatic expansion of those matters of concern pertaining to energy demand reduction to encompass emerging issues – what we call matters of potentiality.

Of course, as Massumi notes for interactive artworks (and here we include the probe exercises as a version of these), there is no guarantee that these will furnish semblance. Through a formal shaping of an audience's responses – through setting up what he calls action-reaction circuits, such works can actually deflect access to the virtual. Further, as Anderson (2014) acutely observes, there are many ways in which affect – in our case aesthetic experience – is shaped by affective apparatuses or atmospheres that can similarly truncate the virtual. And of course, we also need to acknowledge that participants themselves bring particular biographical elements to aesthetic experience – what Dewey (1934/2005: 60) calls apprenticeship: arguably, this can both enable and disable the capacity of aesthetic experience to incorporate semblance.

Now, this raises the possibility that aesthetics might actually operate to deny or inhibit access to the virtual or, in Massumi's (2011: 130) terms 'It produces a semblance of not being a semblance.' In terms of the notion of affect, that we have sketched out above, this can be understood as the inhibition of an actor's capacity to affect and to be affected. On this view, smart energy monitors can be understood to have an anaesthetising affect. Instead of opening up possibilities for engaging with energy, they close them down insofar as they limit experiential and interpretive horizons. In particular by enacting energy consumption as a data/feedback-driven economic reality, whilst simultaneously, black-boxing their operation and shortcomings, they reduce the virtualities (and by extension, the aesthetic politics) available to users (e.g. Buchanan et al. 2015).

To be sure this is a very particular – and perhaps peculiar – version of aesthetic experience but it has the advantage of allowing us to re-think the elements of engagement. At a minimum, it permits us to explore the complex role of aesthetics in enabling, or otherwise, political possibilities, or what we have called matters of potentiality, while resisting the sociological reduction of aesthetics to, say, a reflection of class positioning within a cultural field (Born 2010). Further, in the context of energy demand reduction literature, we supplement tacit references to the aesthetics of energy use. Thus, in contrast to the aesthetic as it is manifested in the politically suspect enactments of comfort (Shove 2003), or in the politically disabling and anaesthetising formal design of smart monitors wherein 'involvement (is) made easy'

(Marres 2012: 514), we try to draw out some of the political possibilities of the aesthetic, specifically in relation to engagement.

As such, our approach to aesthetic experience foregrounds the following three aspects of engagement. First, it highlights the role and form of workshop materials and happenings within PEST events. In what follows, we provide a detailed discussion of the various visual materials that were a central feature of the probe workshop. Second, we attempt to trace the ways in which the visual materials affect workshop participants, not least in semblamatically facilitating the emergence of matters of potentiality. Thirdly, in trying to think critically about the extent to which our PEST techniques can be more or less successfully implicated in matters of potentiality, we also reflect on the ways in which they might 'anaesthetically' diffuse these.

In the next section, we present our probe workshop case study, starting with a brief sketch of its place and role within the broader research project and an account of the multiple conditions out which it emerged.

'Probe Workshop': A Case Study

The workshop itself played a key preliminary role in a larger project entitled Sustainability Invention and Energy-demand Reduction: Co-Designing Communities and Practice (ECDC for short) which was one of seven projects funded under the Research Councils United Kingdom (RCUK) Energy Programme. The remit of the ECDC project was to explore 'How individuals and communities use energy, their understanding of energy use and effective, community management of energy and energy regulation' and was part of UK efforts to meet government energy and environmental policy targets for reducing carbon emissions and thereby addressing climate change (see the reports of the now defunct Department of Energy and Climate Change: 2009a, 2009b).[2] Towards this aim, and briefly put, the ECDC project engaged with a number of local UK communities involved in various energy-demand reduction efforts by raising issues about the nature of social and technical community activities and intiatives.[3]

The engagement with the issue of energy-demand reduction as well as with local energy communities took numerous forms over the course of the three-year project, most notably culminating in the design and three-month deployment amongst the communities of a computational and interactive research device entitled Energy Babble (see Figure 1 & Gaver et al. 2015, Boucher et al. 2018). This was an automated talk-radio like appliance that scraped, sourced and emitted energy-related content from social media, notably Twitter and the UK National Grid. Additionally, it collected spoken input from individual community members via a microphone handset, SMS messages as well as spoken statements generated by way of a Markov algorithm that created word transition probabilities drawing on the corpus of content harvested by the previously mentioned sourcing mechanisms.[4]

So, alongside the workshop, which we describe in more depth below, the project featured ongoing ethnographic engagement with energy community members before and during deployment, a re-scripting workshop examining the efficacy of smart monitors in use, the deployment of energy cultural probes (Boehner et al. 2012) and a long prototyping process that led to the eventual formal specification of the Babble. Here, the Babble can be viewed as a

research device, the design of which, both synthesised the semblamatic aspects of the ECDC project, including those of the probe workshop, as well as itself staging the possibility of further aesthetic experiences during deployment.

Figure 1: The Energy Babble research device. Photograph © Alex Wilkie.

As mentioned above, the Probe Workshop took place during the early scoping stages of the ECDC project (12 July 2011) and served a number of practical and methodological purposes. First, the workshop was conceived as a forum in which research participants (30 community members, local council representatives and other implicated actors) could meet researchers as well as one another. A principal aim of the project was to gain insight into the communities involved in developing and implementing energy reduction initiatives and to explore the dynamics of these communities – for example, how communities come in and out of existence, endure or not, the extent of their identification with, or differentiation from, one another. Secondly, the workshop also aimed to generate material that could inform the subsequent design of the main artefact that would be deployed amongst communities – what would eventually turn into the Energy Babble. The use of probes to inform design has been a mainstay of practice-led design research (and has also become common within cognate design traditions – see, for instance, Boehner et al. 2012), though probe workshops are a relative rarity. Probes themselves are essentially exercises which do not necessarily make immediate sense – they ask participants to engage in more or less unusual activities that serve as a spur to re-imagine a particular setting, phenomenon or event. Thus, participants might be asked to photograph the spiritual centre of a household, or doodle while on the phone, or compose a dialogue between household appliances. The point is, to reiterate, to de-centre usual or routinized ways of thinking (see Michael, 2012), or as we have framed it here, to invite reconfigurations of the issues at stake in which there is a move from matters of concern to matters of potentiality.

The workshop was held at the Geffrye Museum (‘the museum of the home’) in Hackney, East London. This was chosen as an appropriate and accessible location (the communities hailing from around England) and, more importantly, as a setting distinct from the institutional connotations of the University. Second, the workshop served as an initial instrument with which to investigate and probe the sociotechnical, more-than-human composition of each community (how communities incorporated particular sorts of natural or technological elements (e.g. landscapes, energy reduction technologies and arrangements). Third, we wanted to derive a sense of the interplay between the interests and expectations of community members, not least insofar as they exceeded or differed from the ways in which they had been enacted through the instruments, practices and discourses of UK energy policy. On this score, we were interested in exploring alternative versions of energy communities that were not underwritten by notions of behavioural change (see: Dietz et al. 2009), as evidenced in the UK policy promotion of smart energy monitors (and already the subject of considerable skepticism, e.g. Abrahamse et al. 2005, Hargreaves et al. 2010, Buchanan et al. 2015). By comparison to these mainly cognitive and instrumental relations to nature, from the outset of the ECDC

project aligned itself with the possibility of other kinds of affective and aesthetic entanglements with energy (such as comfort, e.g. Shove 2003, Shove and Walker 2014).

The workshop itself was comprised of three collective activities that could serve to probe the semblamatic aspects of community and its composition, hope and expectations, as well as affective relations with energy and energy demand reduction. Each task involved and revolved around a set of visual materials designed to elicit responses and support the exploration of the issues. To this end, the first session featured AO sized topographic and printed diagrams of a notional or minimal community space (see Figure 2) with graphical pictograms (see Figure 3) inspired, in part, by the isotypes of Otto and Marie Neurath (Cartwright et al. 2008: 85). These were informed by our earlier ethnographic engagements with the communities. The diagrams were printed out and placed on tables and featured graphical elements that were either fixed as part of the community diagram or presented as stickers for workshop participants to affix where they felt appropriate on the diagram. Over the course of the session, which lasted approximately an hour and a half, the workshop participants, who were grouped with participants from other communities, were tasked with jointly constructing a diagram of a highly abstracted and hybrid community, drawing on their own experiences, knowledge and activities of energy communities.

Figure 2: The community diagram. © Interaction Research Studio.

Figure 3: The designs for the pictogram stickers for affixing to the community diagram during the workshop. © Interaction Research Studio.

The second activity, similar to the first in that it lasted approximately one and a half hours and involved research participants divided into mixed groups, employed visualizations (see Figure 4) of the front pages of fictitious and generic print media publications. These included broadsheet and tabloid newspapers, a popular science and architectural journal as well as a local community newspaper. Notably, each print media visualization included an entry for the date of the publication, to be filled in by the workshop participants who were requested to use key UK renewable energy target dates (e.g. 2020, 2030, 2050, see for example: Department of Energy and Climate Change 2009a). Workshop participants were asked, in their mixed groups, to devise and fill out the missing headlines, section leads as well as other content, such as diagram annotations. The aim of this session was to elicit community members' expectations around energy futures associated with, but not limited to, the environment, climate change, economics, local issues, politics, science and the built environment.

Figure 4: The front cover visualizations of generic and fictional media publications. © Interaction Research Studio.

The third and final activity aimed to explore and understand the community members' experience of energy in their respective domestic settings. For this purpose, the activity entailed the use of isometric (see Figure 5), cross-section and floor-plan visual projections of generic

domestic architectural spaces. Workshop participants were invited to mark-up areas of energy experience associated with routine household practices using coloured ink-pad stamps. The rubber stamps were designed to produce dot, wave and line patterns and the ink colours included ranges of orange, yellow, red, blue and green tints. With the stamps in hand and sets of prompts on each projection, the participants produced visualizations of their domestic activities as patterned and coloured renderings of values which included the physical (hot-cold), the emotional (stressed-relieved), and the motivational (ambitious-lazy). As with the other two activities, the workshop participants were organised into mixed community groups and worked both individually and in sub-groups to produce the visualizations.

Figure 5: An isometric projection of a generic UK domestic building.

This format for group work had a number of methodological advantages not least in that participants, for example, could support one another in eliciting accounts of domestic energy practices as well as sharing views on their specific experience of such practices. After each of the three workshop activities, the participants were asked to convene and share the resulting visualizations created in their group with the other groups. In the section that follows we present partial analyses of the visualizations that were produced in the three workshop activities. Here, we aim to grasp how the various probe tasks entailed the aesthetic (or anaesthetic), thereby facilitating (or otherwise) the semblamatic and the emergence of matters of potentiality, specifically in relation to the workshop enactments of community composition, expectations and in-situ energy-related activities.

Partial Analyses

In what follows, we go through each of the three probe exercises in sequential order. However, we need to bear in mind that to analyse each of these exercises separately is also to simplify them. After all, we are bracketing other elements of the workshop as a whole, including the initial introduction and discussion, the lunch period, coffee and tea breaks, the final wrap-up and the distribution of probe packs that contained additional exercises (also made more widely available, including by request from the project website). Given that the workshop as a whole should be understood as a research event (Michael 2012), these seemingly extraneous elements (e.g. lunch, coffee and tea breaks) of the research engagement are themselves performative (Law 2004), contributing to the co-emergence of research, researched and researcher. In other words, while we concentrate on the aesthetics (as delineated above) of the designed probes and their use, we are aware that these are complexly articulated with the aesthetics of these other elements of the research event.

This is one of the reasons that our analytic claims are partial. In addition, our data for the analyses that follows are the probe materials as produced by the participants – the writings and drawings that emerged, and the post-its and stickers that were deployed, in the course of probe exercises. In large part this was, as mentioned above, because the aim of the workshop was to produce textual and pictorial materials that would inform the eventual designed artefact or

research device, of what turned out to be the Energy Babble (Wilkie and Michael In Press). In any case, in the setting of the busy workshop it was impracticable to make recordings (whether written or digitally – although the workshop was documented photographically), and while we could have retrospectively composed our own field notes, the feeling was that we were so much involved in the process of facilitating the workshops that our recollections would be fragmentary and disjointed at best.

a. Community Maps

Casting one's eye over the various maps (e.g. See Figure 6), one of the most obvious features is the sheer heterogeneity that enters into the collective representations of community. To be sure, the maps certainly encompass dimensions typical of energy community – signalled in the use of, for example, stickers of wind turbines, electricity pylons and solar panels. Further, there were also depictions (stickers and drawn) that positively and negatively enacted a sense of environmental concern more broadly (e.g. respectively, flowers, bees and beehives, recycling, car sharing, community gardens, bicycles racks, versus supermarkets, traffic, flight paths). However, all this was mixed up with other less immediately obvious elements: some were discrete objects, stickers of dinosaurs, spiders webs, cups of tea, space ships; some were written emotions such as the terms 'shame' and 'pleasure'; still others were arenas of activity such as schools, marketplaces, art festivals. We could interpret these additions to maps semblamatically as minimally evoking aspects of community that escaped the typical characterizations of energy community, and, as such, the maps hinted a community's matters of potentiality that were not exhausted by energy.

Over and above these, there were contributions that remained rather mysterious, or at least difficult to grasp: a mouse or a rat drawn onto the printed monumental arch; a post-it note depicting 'a spring' stuck seemingly at random on the map; a train of arrows connecting the drawing of a beehive, the written text 'green shoots community garden', a sticker of an airplane, the written text 'flight path', and then nothing. Here, we are faced with, to put it crudely, participants' semblamatic responses to the semblamatic potential of the map exercise and we can treat these difficult to grasp responses in a way that explicitly combines the aesthetic and the analytic. Thus, we can posit a reading in which community is thoroughly interwoven with the ironic, the unforeseen, and the rhizomic. Thus, we might read these peculiar participant responses as, respectively: celebrating community in terms of an ironic monumentalization of the mundane; noting how community is inseparable from the sometime unpredictability of the natural environment; and recording how community can be partly composed of connections amongst arbitrary heterogeneous elements. Here, then the very notion of community is opened up to allow a glimpse of its prospective reworking on a range of different levels.

Figure 6: Workshop participants producing a community map.
Photograph © Alex Wilkie.

In addition to this internal heterogeneity of community, there were also depictions of its porosity. Thus, communities were crisscrossed with flows of traffic – cars and airplanes. Relatedly, there were representations of flows of pollution. In one case 'funding' was written at the edge of a community map presumably indicating the flows of funds that entered into and sustained (at least in part) that community as an energy community. Clearly this conjures up a sense of the limited social and environmental boundedness of community: whatever efforts are expended within the community; it is still subject to external impacts. Conversely, the porosity of community also points to the limitations of energy communities' own external impacts: what are the actual positive consequences of all the energy reduction activities conducted by the communities when placed in the midst of all these polluting, energy-consuming flows? Semblamatically, this hints at matters of potentiality which engage with the prospective ways in which the lessons of energy communities are distilled and their influence extended (or otherwise).

Finally, we need to turn to the anaesthetic qualities of the community map task. By asking members of different communities to concoct a common community, the differences between, and tensions amongst, these communities were very likely downplayed. Energy communities become so because they are funded under various schemes – schemes which require competition amongst the communities who must bid for funds (Boucher et al. 2018). None of this tacit conflict amongst energy communities found expression through the map exercise. Indeed, semblamatically, this was a missed opportunity to enable examination of the political and economic framing of energy communities. Designed otherwise, the map exercise could have aesthetically facilitated a collective reflection on the ways in which the very idea of energy community was premised on competition. Relatedly, it might have enabled a possible exploration of alternative political, economic, social and cultural modes of supporting and enabling such communities (or their equivalents), or rethinking the very structure of collective energy demand reduction initiatives.

b. Future News

In the second probe task, participants were asked to add text about future events – headlines, by-lines, bullet points, etc. – to the first pages of national and local newspapers and specialist magazines (architecture, science). Much of the text that was entered into these probes was anaesthetically 'realistic' in the sense of depicting apparently realizable futures both global and local, as it were: 'first genuine carbon neutral city', 'solar cell operation in the Sahara' or 'used electric minibus for sale in Reapham'.

However, several responses took a more semblamatic turn. For example, one headline read 'Grow your own shed' (associated with text referring to 'edible furniture'), another headline over the picture of a mayor and a number of other smiling dignitaries read 'Success with Abolishing the post of mayor' (this was reinforced with the statement in another box: Grassroots Activism – Everyone's a Mayor Now); finally there is an example of a radical change to the status of people in the context of environmental degradation 'Trees and Nature Given more Legal rights than humans'. In these illustrations, we see glimpses of futures

opening up across technological, political and legal/moral domains. These we can summarize respectively as: prospective integrations of the biological and the inorganic; emergent political forms that tend toward radical democracy if not outright anarchy; and a potential recalibration of the relative status of human and nonhuman actors.

Figure 7: A workshop participant adding headlines to a newspaper front page.
Photograph © Alex Wilkie.

Now some of these headlines and by-lines might suggest that participants are going off-topic – bringing in issues that are at best tangential to their identity as members of energy communities committed to energy futures. Taken together, however, these texts (e.g. See Figure 7) indicate is how energy demand reduction and energy communities are part of a broader and shifting array of futures. We see this again in other contributions in which there are references to nano ('Nano Implants at Birth') and DNA ('DNA Repair Kit – Cancel Aging (If Rich)'). These suggest that the future of energy demand reduction should not be extricated from other possible corporeal futures where (selected) human bodies are subject to some sort of fundamental change.

In the examples presented above, we also catch sight of depictions of the future that at once reproduce and exceed the futures of energy demand reduction. Semblamatically, we have seen how energy futures seem to connect to – perhaps even be inseparable from – other technological, political, legal/moral and corporeal/genetic futures. However, treating probe materials together as a sort of aesthetic corpus, we get a foretaste of an enactment of futures that is less about the eventual realization of specific futures, and more about the plurality and proliferation of futures, and, crucially, their potentiality. Rather than enact more or less specific closed futures (e.g. of energy demand reduction), we can semblamatically propose a collective enactment of futures that emerge, multiply, gather, transform and disperse, an evocation of an open field of futures, as it were.

c. Domestic Experience

The aim of this probe exercise was to enable to participants to engage with energy affectively: that is, to re-imagine energy in terms of its relation to emotions. In reviewing the various completed probes (e.g. See Figure 8), we found that energy consumption was linked to a series of practices (e.g. 'cooking', 'playing music', 'relaxing', 'ironing clothes', 'commuting', 'watch TV', 'play PC', 'reading', 'household maintenance', 'fixing the banisters', 'washing hands', 'turning lights off', 'exercise'). These were presented mainly as trajectories which linked up individual activities. Sometimes these took the forms of bundles such as 'hair drying whilst eating cereal'. Sometimes they entailed extended narratives wherein participants were getting ready for work/leaving the house, or fixing a meal for friends/family. While the stamps used to portray a range of values associated with these activities and trajectories sometimes represented physical experience (hot/cold), more often they tended toward affective experience – the scale stressed/relaxed was especially prominent. Overall, we might treat these responses as a reflection of the anaesthetic qualities of the exercise: there was little by way of semblamatic

values composed by the participants (perhaps this was also an upshot of this being the final exercise in a long and intense day). In any case, many of the responses echoed similar findings in the practice-oriented literature on energy consumption (e.g. Shove, 2003).

Figure 8: An isometric domestic projection with workshop participants' contributions. © Interaction Research Studio.

However, in the present case we provide a semblamatic reading of the probe materials that focused on stressed/relaxed, treating these as a corpus. In this respect, we aim to read across the materials as a way of exploring the ways in which affect and energy might be intertwined. To begin, we note that affective scale relaxed/stressed was associated with a range of domestic elements and activities: anger over leaving lights on and turning lights off ('a shared house game!'); the work of cooking for friends ('use every pan. Oven/hob for ages while I slave away'; 'catching chicken + killing it…plucking + gutting chicken'); managing hectic family routines ('get kids up'; 'breakfast hurry!'; 'time to go we're late!'); the culinary worries of cooking for friends ('worried that I've given guests food poisoning!'; 'stressed that it tastes bad'; unwanted cooking advice from family members ('family member comes in and suggests better ways of cooking'); and the relief of finally completing and consuming the meal ('sat down eating – relieved it's all done'; 'go to bed feeling relieved'; 'relaxing feeling very full').

We can initially note that the affects 'stressed' and 'relaxed' are associated with a range of everyday elements, including: discrete entities (lights, pans, chickens); family and friends; domestic routines; corporeal states (poisoning/feeling full); hints of community (evoked by friends; keeping chickens); aspects of energy policy/politics (switching lights off; using all the hobs/oven). This suggests that the affects stressed/relaxed are not simply interior experiences but are distributed across practices and objects (e.g. Michael 2011, Anderson 2014). Indeed, we might even propose that these affects emerge from, and circulate within, a nested set - or cascade - of practices and objects that simultaneously encompass individual activities, daily routines, and extended investments in energy communities and energy demand reduction.

So, for example, the anxieties associated with the making of a meal for friends can co-exist with the satisfactions that friends, in eating in the participant's home, are not eating in their own (there is a potential energy-use reduction on the basis of commensal savings of scale). At the very least this suggests that we need to address the multiple, complex – co-existing and contradictory – emotions that emerge in energy-related activities. More optimistically, we can suggest that the emotion categories available to us – and thus the relations to energy demand reduction – are a lot more complicated than we might assume. Instead of the singular, common-sensical emotions depicted in the domestic experience probes, we can propose emotion trajectories or hybrid emotions that gather together emotions in novel configurations that prospectively open new ways of formulating the experience of energy.

Conclusion

At the broadest level, as noted in the Introduction, this paper has attempted to address how aesthetic elements of public engagement processes might enable publics' critical and creative re-orientation toward matters of concern. To this end, we drew on a Massumi's framing of aesthetics which emphasized the role of semblance - the playful, emergent, unfolding aspects of objects and events. By attuning us to the ways in which design interventions operated to generate unforeseen possibilities, Massumi's concept of semblance enabled us to grasp how engagement might be understood as an aesthetic means for opening up novel ways of critically and creatively exploring matters of concern. On this score, matters of concern become matters of potentiality. At a concrete level, this was practically investigated through a particular set of engagement exercises that drew on design's probe methodology. These exercises were meant to operate semblamatically to facilitate the critical and creative capacities of members of energy communities to open up potential meanings for such key themes as energy, the future, and community (and thus prospectively to re-imagine what it means to do energy demand reduction).

As the discussion of our findings demonstrates, our results were rather mixed. Despite our attempts to prompt semblamatic readings through our probe workshop and our engagement devices (the community maps, future news, and domestic experience probes), together these routinely yielded rather aneasthetic responses. Over the three probe exercises, again and again, community, energy and the future were enacted in somewhat standard and unsurprising ways. Generally speaking, the probes afforded only glimpses of matters of potentially (for example, the mysterious additions to the community maps, or the open futures collectively insinuated in the future news probe exercise).

However, in order to detect these matters of potentiality, we have had to approach participants' responses aesthetically. That is to say, we have engaged with, and analysed, the probe returns as if they were themselves potentially semblamatic. In this respect we have not strictly adhered to the usual social scientific standards of analytic practice. To reiterate, we have explicitly and semblamatically read into the texts provided by our participants, in the process deriving a number of matters of potentiality. Of course, we might be being altogether too pretentious here. Our efforts at treating our workshop materials aesthetically could well be regarded as yielding at best mere anaesthetic commonplaces. Do our suggestions about the complex semblamatic heterogeneities of energy communities really unveil – however partially – fruitful matters of potentiality?

Perhaps some of these reservations and incredulities might have been resolved had we adopted a more wholeheartedly ethnographic approach. Recording our observations of the participants' practical engagements with probe tasks and collective interactions might have shed additional light on the meanings they attached to their responses to the probes. Interviews too might also have helped. They might have allowed us - possibly - to derive a sense of the extent to which commitment to energy demand reduction, being a part of an energy community, and being concerned with the environmental future of energy consumption patterns, affected participants' disposition toward aesthetic or anaesthetic responses. One broader, if unsurprising lesson, is that situating probe responses in relation to other empirical materials might allow us to better

grasp the meaning of those responses. However, to do so would be to bracket the aesthetic dimensions of the data that we have collected (or might have collected through usual social scientific means). In other words, it might close off semblamatic readings. On this score, a central implication of our approach is that the aesthetic and the semblamatic potentially pervade all sorts of objects and events, including the more usual forms of social scientific data and data collection. Indeed, we might – perhaps cheekily - suggest that the present paper deserves its own aesthetic reading in which the reader seeks out the semblamatic elements of the text: that is, each semblamatic reading of participant materials can itself be approached aesthetically.

In sum, the paper, in addition to addressing the concerns laid out in our overview of PEST (attending to mundane technoscience, explicitly drawing on the aesthetic dimensions of public engagement, and using such aesthetic engagement to the potentiality of matters of concern), points to two key concerns. The first is that aesthetics and semblance inhere in all versions of public engagement with science and technology. This can be overt (as in the present deployment of probes) or tacit (as in more usual social scientific forms of engagement). The task is to sensitise ourselves as researchers to the semblamatic elements of engagement events such that we are in a position to detect the matters of potentiality that might be emerging. The second issue is that however semblamatic an engagement event might (designed to) be, there is no guarantee that there will be an opening toward matters of potentiality (as was mainly the case in the present study). A range of factors might militate against semblance: for instance, the aesthetics of engagement might be so threatening, so enjoyable, or so boring, that participants prefer to close anaesthetically around more familiar matters of concern.

Nevertheless, we hope that the approach outlined here and the three terms we have introduced – semblamatic, anaesthetic, matters of potentiality – prove useful for PEST. Together, they might contribute to the continued elaboration of public engagement practices and their analysis. In particular, we hope to have shown how using aesthetic engagement can serve as a means to enable the exploration of the potentialities of issues and their articulation, and thus open these up to a broader array of political and practical, critical and creative, possibilities. The same, we would propose, applies no less to the processes and procedures of PEST research and analysis.

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Endnotes

[1] We use the term 'energy community' to designate both pre-existing local groups that have partly formed on the basis of UK government Low Carbon Community initiatives (e.g. Department of Energy and Climate Change 2012) and broader Community Energy strategy (Department of Energy and Climate Change 2014) as well as communities-in-the-making that coalesce through aesthetic and affective activities. More generally, we conceptualize community as a dynamic entity that is fluidly constituted in relation to a heterogeneous range of factors, including local process of micro-sociality (e.g. Studdert, 2016), shared forms of practice (e.g. Wenger, 1998) and external forms of symbolic construction (e.g. Cohen, 1995).

[2] See http://www.esrc.ac.uk/news-and-events/press-releases/3400/Using_communities_to_find_the_answers_to_energy_demand_problems_.aspx

Date accessed 29th March, 2013. Project code: ES/1007318/1

[3] The local communities involved in energy-demand reduction activities included: Energise Hastings; Low Carbon Living Laddock and Grampound Road, Cornwall; The Meadows Partnership Trust, Nottingham; New Cross Transition Group, London; Reapham Green Team, Norfolk, and; Sid Valley Action Group, Sidmouth.

[4] For an in-depth analysis of the development of the Twitter software Bots that were consequently built into the Energy Babble see (Wilkie et al. 2015).

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