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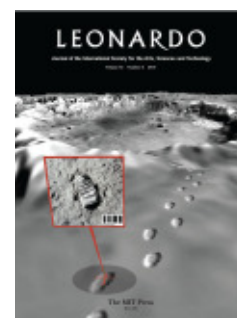
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Extending Contexts, Making Possibilities: An Introduction to Evaluating the Projects

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Extending Contexts, Making Possibilities: An Introduction to Evaluating the Projects

James Leach

If the old productive models for research, design and implementation have been successful, this is because they have adapted and changed to fit new circumstances and moreover have been able to incorporate change and dynamism. When a new discovery in science spawns new hypotheses, investment and energy are poured into infrastructure and research time to test the validity of that hypothesis. Once knowledge has been made robust in this way, it is put to many uses. These uses become quotidian, “naturalized,” one might say. We start to take for granted, for example, that radio waves can carry information and that we all have receiving devices for making that information available. In fact the technology, and certainly the science behind the technology, becomes almost invisible to us. Social consequences and possibilities emerge on the back, as it were, of this process of naturalization. We live now in a time when, as we are repeatedly told, what will become naturalized and quotidian is the rapid exchange of information, ideas and forms. This, however, suggests that exchange, networks and connections between people, and *collaboration* must also be re-emphasized as the purpose and value-generators behind the technology.

As Bronac Ferran has articulated clearly in her introduction to the program, the time has seemed ripe in recent years for research into the possibilities afforded by new forms of collaboration. Manuel Castells has argued [1] that the new information technologies have transformed global society as radically as the industrial revolution of the 19th century (Roy Ascott has advanced similar claims [2]). In Castells’s writings on the “network society,” he identifies one of the major effects of these technologies as the forging of new networks. Among other things, these networks reconfigure labor relations, politics and economic activity [3]. While many dispute the sweeping claims Castells makes (see my own analysis of elements of the imagination behind such claims [4]), there is little doubt that new possibilities *and* new dangers [5] for exclusion are part and parcel of current trends [6].

How might such changes affect the way science is approached, or the ways in which artists work and add value to society? In the face of dazzling technology, it is easy to miss the point that what the technology enables are collaborations and combinations of people’s work and ideas in new ways. Collaboration is obviously at the heart of what drives value forward in the “information society” and the “knowledge economy.”

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In the United Kingdom there is a perception that science can benefit from the creativity of artists and, perhaps even more interestingly, that such collaborations may produce some hybrid of either method, material or other output. In addition, then, to the potential for public engagement and increased understanding, other current collaborations ask more difficult questions. The papers brought together here are reports on nine of the projects funded under the first round of a new initiative between Arts Council England and the Arts and Humanities Research Council. They show great diversity of intention, method and outcome. The papers take the form of retrospective reports on the collaborations. A side effect of this format is to give an impression that this program was less experimental than it was. All the projects represented here were long-term, intense collaborations in which directions and possibilities emerged as a vital part of the process. They were genuine “research” projects.

There are two broad areas in which the Arts and Science Research Fellowships supported by the program contribute to the contemporary set of concerns outlined. One is in promoting novel collaborations in the hope that new and interesting pieces of research will be produced (this might be further divided, as I show below). The other is in generating an overview of how the process itself can be treated as a form of research object. What vistas and possibilities have been opened up by the sustained attention to collaborative and cross-disciplinary relationships? Where might we want to lead the process so that, if it is productive as a mode of engagement, it becomes quotidian and mainstream?

The first question is about whether these collaborations are productive. That is a complex question in itself, depending on where one sees value. As the program really is working with emergent technologies and new artistic ideas in new combinations, then it is a likely consequence that there is no ready-made context available in which to understand the outputs. They do not have a simple utility. It is for this reason that I chose the title “Extending Contexts, Making Possibilities.” In itself, the program is responsible for defining and opening up future areas of potential value.

My role as an “attached observer” [7] to the program was perhaps a unique element. As an anthropologist who has worked on ideas of creativity in a wholly different context, that

ABSTRACT

The author, an anthropologist, discusses his role as an observer attached to a collaborative arts/science research fellowship program. He examines the role of collaboration in research and in the Fellowships and explores new ways of conducting collaboration so that the research process itself becomes part of a project’s output.

of Papua New Guinea [8], I was interested to understand in detail how collaboration works as a social process in a section of contemporary British society (Figs 1 and 2). My work involved detailed and intensive fieldwork with two of the projects and visits to all but three of the others (of whom I have had discussions with all but one). Thus the research included both small-scale and detailed observations (from the intensive fieldwork) alongside an overview in which to situate and assess these observations (from interacting with the program participants as a whole). I elaborate below an unexpected effect of this process on the coherence of the program overall.

This was not the first time I had undertaken “fieldwork” among artists and scientists engaged in collaboration. Indeed, working on a pilot for this program [9] clarified my own interests in how ownership of knowledge affects collaboration in contemporary British society. As an anthropologist with experience in charting how people’s ideas about their connections to the objects they produce and transact inflect production itself, this was an exciting opportunity.

Contexts are a vital aspect of the work around these Fellowships. The given contexts of university departments and disciplinary structures are very concrete for academics. For artists, the art gallery or performance space may be seen as equally concrete and unavoidable. Alejandro Viñao, for example (a highly experienced interdisciplinary collaborator), makes this clear in discussing the dynamics of his project below. An important aspect of the program was the degree of flexibility accorded to the collaborators. As many make clear, investigation, exploring different avenues and sometimes reaching points of impasse were all central to the productive nature of their work.

Several of the projects represented here took as their working model the idea that the *interactions* would be a source of *general* value, a kind of mutually produced ongoing resource from which each participant could draw value for themselves and give it an acceptable form in the context in which they usually operate. In *Choreography and Cognition*, for example, the intention was never to make five psychologists into dancers, nor was a hybrid outcome planned. The time spent together as a group was carefully managed and structured so that each scientist could operate according to the requirements of his or her discipline (Fig. 3). Some took something away from the novel situation and



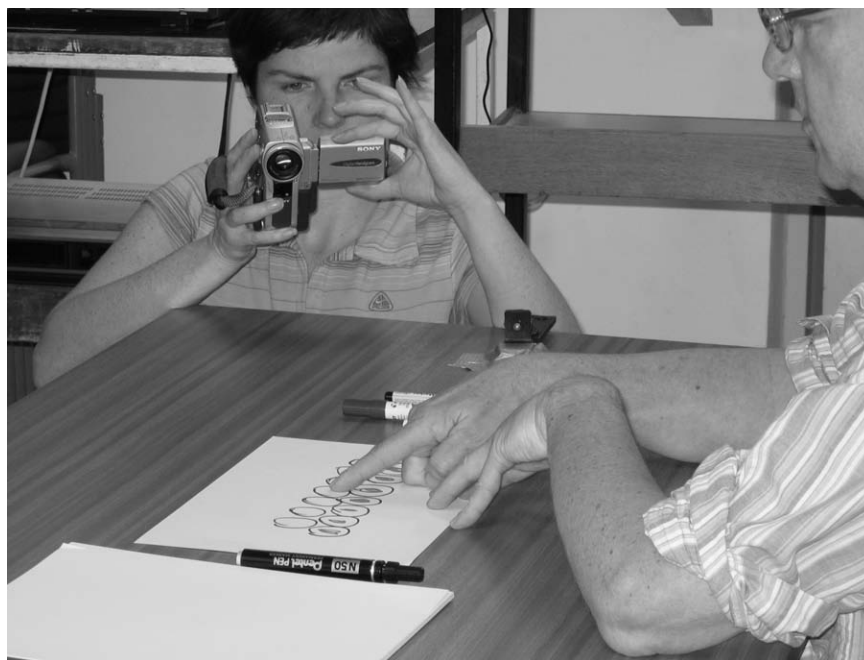
Fig. 1. Simon Biggs, Alan Blackwell and Eugene Terentjev observing reactions in prototype elastomer experiments. (Photo © James Leach)

translated it into value in a specific and much narrower domain by publishing detailed papers of research data and analysis. The dancers involved also took things from the experience that shifted the direction of the dance material they were currently working on. This was a highly successful project, and one that clearly used the space of the collaboration as a resource for all to draw upon, while never attempting to make a hybrid or common product. This is one model, dependent in this case upon careful orchestration of

time, people’s interests, personalities and needs. The number and quality of outputs speak for themselves.

What of projects that do not take the central collaboration as a resource for value to be drawn from but instead try to carve out new domains through novel kinds of output, outputs that, like the process of their creation, cross disciplinary and institutional boundaries? One example of such a project is the research on new materials—liquid crystal elastomers—undertaken by Simon Biggs

Fig. 2. Artist Heather Barnett observes a scientist’s use of sketch diagrams to illustrate his thoughts. (Photo © James Leach)



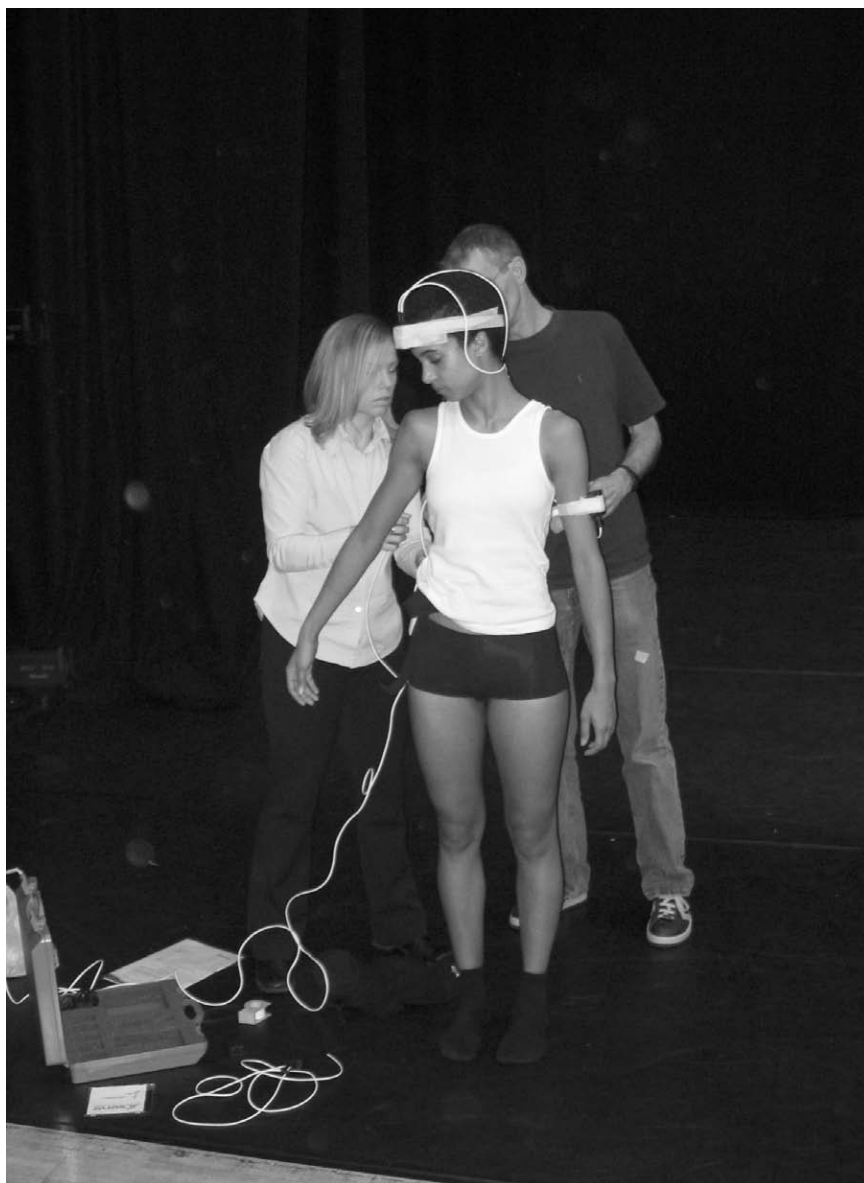


Fig. 3. Researchers attach motion capture equipment to dancer Laila Diallo. (Photo © James Leach)

and Eugene Terentjev. Here, the idea was clearly to find a common interest that sustained a collaborative output rather than a series of individual ones. In many ways, one might say this has been happening in the arts for some time. That is, technicians have been drawn into artists' projects and developed their own expertise and technologies in response to the vision of artists. The outputs in such cases are usually artworks, installations or performances. Biggs's and Blackwell's [10] point that artists have often been clients of technologists rather than full contributors to the research process is apposite, and shows how easy it is to find actors defined by their expertise and thus enclosed in a context. The possibilities are limited by ingrained expectations and roles.

In Biggs's and Terentjev's work, the

artist's investigation of, and novel demands on, the new material was just as likely to provide the scientist with new experimental data and ideas as his own work was. In other words, a genuine reversal occurred from the artist demanding technical support to the artist pushing the scientist to redirect and rediscover his own trajectory. I observed this project closely and believe the scientist was genuinely surprised at this outcome but also genuinely pleased. Moreover, the collaboration has taken the potential of liquid crystal elastomers in new directions, and those new directions, perhaps more than any finished physical output, are a genuinely collaborative product, unimaginable without the particular relationships between those involved.

The same could be said for many of the projects, another example being the

Metamorphosis & Design project, in which scientists' understandings of their own subject of study was productively re-framed. Elements of both models could be found in most of the projects (I observed the psychologists in the Choreography and Cognition project to be truly astounded by the physical control of dancers, reformulating their ideas about how and *what* one might research as "scientific psychology" in the light of this experience, for example.) The project involving Robert Zimmer and Warren Neidich (unfortunately not represented here by an article) spawned a new journal as a forum for interdisciplinary work on art and cognition (*The Journal of Neuro-Aesthetics*) and a major conference. It also opened up a new area of scientific investigation and inspired artworks (Fig. 4) and installations [11].

Other models could also be abstracted. The common element in all the projects was that value creation was not narrowly focused on pre-specified outputs in the singular; benefits were spread among participants and realized in different arenas. Many of the papers here speak to this issue.

What of the program as a whole? That is, if there was a chance for mutual learning and, more than that, the mutual generation of a new kind of context for value to emerge within, how was this realized? One role that I played in the program was to develop a network among the participants within which they could share experiences, exchange ideas, learn from each other and plan new ventures together. The network was achieved through hosting two residential weekend meetings at which collaborators in the program were asked to come and talk about their work. However, it was central to the planning of these meetings to identify a common focus outside any particular work. We chose the notion of collaboration itself, of the ownership of ideas and of transactions in knowledge, and of the value each recognized in others' disciplines. One central question was that of how one could translate value from one domain or context into another. How did they understand the value of their collaborators' inputs? What had changed in this understanding? In addition we asked participants to think about outputs that might fall outside the normal context for the reception of their work and what value they could realize from such outputs. The meetings were a chance to make explicit the constraints and demands faced by different people placed in different contexts and to increase the possibility for success by gen-

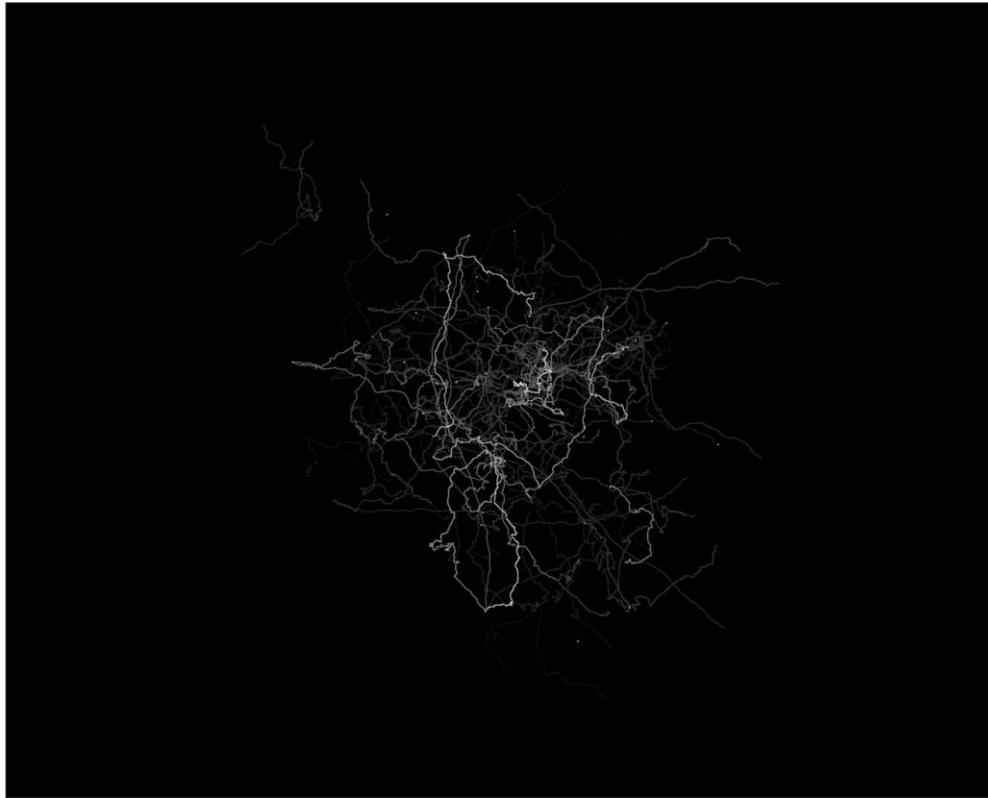


Fig. 4. Warren Neidich, *Son-Print Series*. (© Warren Neidich) One of the artworks resulting from Neidich and Zimmer's collaboration on neuro-aesthetics.

erating empathy and understanding between collaborators. The fact that all the projects represented here have an ongoing vitality speaks perhaps of the success of the overall arrangements.

What seemed clear from the fieldwork on the Fellowships was that the presence of an ethnographer asking questions at a tangent to the actual concerns of the collaborators (that is, I was not evaluating or judging their work for its outputs) in itself provided a useful external reference. The very different kinds of work the collaborators were engaged in were given a wider context, that of (my) investigation into the very workings of collaboration. The third position provided by the input of other ideas about collaboration and ownership, drawn from previous fieldwork in Papua New Guinea, cast the value of the interactions in a light that itself opened up possibilities. That in turn allowed the program a coherence, a reason for putting diversity together, that many participants cited as important to their experience. By the time people attended the first residential meeting, I had managed to visit many of them, and had already asked all of them to think quite hard about how they had experienced the collaboration, what effect claims over ideas might have in this context, and how they found value in their work together. In other words, the third position was already established as a common focus and interest for what thus had already begun

to look like a “group” with more than circumstantial connections. The wider context perhaps meant that although each project was highly unusual, participants were not left feeling like mavericks, out on a limb, but part of a current and a movement. This inspired the confidence to continue.

The question remains, however, where the outputs of such collaborations are to find their audience and therefore their value. The obvious routes for academics to gain from their work, through journal publications and conference papers, would tend to view the context *for* knowledge production as secondary to the particular disciplinary form that the *outcome* takes. Technologists would expect the utility and popularity of their productions to be the arbiter of worth. Yet this model does not facilitate the kinds of amazing and productive collaborations presented here. Indeed, there are very few contexts in which these kinds of novel combinations and novel outputs have immediately recognizable value. An example is the obvious worth that scientists found in the Little Earth project from re-examination of the developmental history of their field. The re-examination helped the scientists to better understand how to present their findings and research process in a more effective manner (they chose computer animation). This was more than an issue of just representation—illustration *of* the science

—it helped the scientists make more effective models used *in* the science, and thus was a material contribution to the scientific process of knowledge making. Joelson and Cowley mention a “widening of horizons.” I believe we must find ways to describe such processes that locate these relationships between people in specific research environments, and the space for new thinking within them, as the core source of value. Another example of this value generation is Dahlstedt’s and McBurney’s work with agent-based computing systems. Discovering the immaturity of the “agents paradigm” in computer science is positive knowledge, although not a product one can point to. Part of the value of interdisciplinary journals such as *Leonardo* is the forum or context they provide for the recognition of value creation that is not accommodated by rigid disciplinary strictures.

The work of the residential meetings was brought to fruition in a major international conference that brought concerns about collaboration, ownership and transactions in knowledge to the fore [12]. While Fellows and collaborators in the program were only a part of these conversations, their work and the program as a whole provided the impetus for questions of how collaboration works, how value can be achieved and what roles interlocutors, observers and description/observation itself play in creative work of various innovative kinds.

The program I observed has been the harbinger of much else. As we are well aware, there is constant emphasis on innovation and creativity in current economic conditions [13]. These collaborations have found their moment because of this emphasis. The program has pioneered possibilities for ways of working that others are already using as a model. In fact, the work of the Interdisciplinary Arts Department at Arts Council England has been a catalyst for change in other U.K. Research Councils, many of which now regard the possibilities of these kinds of research-led collaborations between arts and sciences as a fruitful area for funding innovation. Research councils are not static in their priorities, and one of the new territories that opens before them is in the area of novel research combinations. However, on a less hopeful note, there is also a perception apparent that spaces already exist within their programs for the kind of work represented here. I am skeptical about this. My role as I have outlined it here, that of an anthropologist (of all people!) called upon to situate the diverse projects, make a context (in the sense of a conceptual ter-

rain all collaborators could engage with) and facilitate meetings and a conference, seems to reflect the fact that there are no readymade contexts in which the value of these kinds of projects are readily apparent.

There is a need for continuing work to understand and make apparent the emerging contexts in which these experimental collaborations have value. It should be recognized that collaborative work of this kind, well planned and well supported, also produces value across contexts that already exist.

References and Notes

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9. See <www.junction.co.uk/ntaf>.
10. Alan Blackwell was engaged in two of the projects. He worked as one of five psychologists in Choreography and Cognition and as the research coordinator and grant holder in Biggs's and Terentjev's project on new materials. See A. Blackwell and S. Biggs, "Making Material Culture," *Leonardo* 39, No. 5, 471–473 (2006); R. McCarthy et al., "Bodies Meet Minds: Choreography and Cognition," *Leonardo* 39, No. 5, 475–477 (2006).
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