

**‘The Finished Middle: a Hot Wired Live Art conversation about
collaboration, prototypes, tools as art and rules of engagement’**

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In January 2002, I responded to a call for proposals from Elizabeth Goodman for their book and online publication for an Oxford series that “focuses on performing and visual arts and digital interfaces, so we must emphasise those types of projects in this book, though of course other kinds of work can be highlighted on the website or in other publications”.¹ I proposed to edit the interviews I had done with the artist-participants of ‘Hot Wired Live Art 2’, August 2001 in Banff, Canada into a single conversation covering the following themes: Keystroke, Collaboration, Terminology, Debates, Tools, Wireless/ Wearables, Social Space, Games, Prototypes.² Eventually the book was published by the Office for Humanities Communication and is also available on line: <http://ahds.ac.uk/creating/guides/new-media-tools/> (accessed 7 May 2010).

¹ Email to the author, 16 Jan 2002.

² Documentation website: <http://www.ubermatic.org/hwla/airwaves.html> (accessed 7 May 2010).

The finished middle

A Hot Wired Live Art conversation about collaboration, prototypes, tools as art, and rules for engagement

Scott deLahunta, with Niels Bogaards, Sher Doruff, Gisle Frøysland, Hans Christian Gilje, Jeff Mann, Per Platou, Amanda Ramos, Ellen Röed, Amanda Steggell, and Michelle Teran

Hot Wired Live Art (HWLA) is a laboratory model for artistic research into a playful, inventive, collaborative, and critical engagement with electronically networked environments. In peer-to-peer intensive working sessions, HWLA brings together an interdisciplinary group of practitioners with a combined range of creative skills and expertise in electronics, streaming media, programming, sensors, wireless and communications technology, live video and audio processing, architecture, film, dance, theatre, and music.

The first HWLA – title, concept, and event – was the creation of Amanda Steggell and Per Platou of Motherboard, an interdisciplinary performance company based in Oslo, Norway, whose work engages with digital pop culture and social interaction. Organized over a two-week period in January 2000 in collaboration with the Bergen Centre for Electronic Art, Norway, HWLA-1 involved sixteen artists from Norway, The Netherlands, Canada, Germany, Austria, and the United Kingdom.

The second HWLA was initiated by Michelle Teran, a Toronto-based artist whose performance and installation work seeks to integrate the digital and the organic in networked environments. HWLA-2, subtitled 'Airwaves', took place from 18 August to 2 September 2001 as a co-production with the New Media Institute, Banff Centre for the Arts and involved eleven artists, nine of whom took part in HWLA-1. Their biographies can be found at the end of the following conversation, which is edited together from three separate conversations broadcast during HWLA-2 over Radio 90, a pioneering Internet radio/pirate FM station based at the Banff Centre.

Talking about collaboration, prototypes, tools as art, and rules for engagement

The conversants are Niels Bogaards, Scott deLahunta, Sher Doruff, Gisle Frøysland, Hans Christian Gilje, Jeff Mann, Per Platou, Amanda Ramos, Ellen Røed, Amanda Steggell, and Michelle Teran.

SdL: The KeyStroke software has been central to both HWLA sessions; Sher is the project director, Niels has co-developed the user interface and Michelle wrote the user manual for it. While I know we don't want to focus solely on KeyStroke in this conversation, perhaps one of you could describe what it is? Sher?

SD: I am always describing KeyStroke, could someone else say what he or she thinks it is?

MT: I think of it as a real-time, multi-user, multimedia, cross-media synthesis tool that enables collaboration over a local area network or over the Internet.

ER: I can see why they had you write the manual.

SdL: Ellen, Michelle and you started to work with KS on your own after the HWLA-1 session. Can you say a few words about how you have been working?

ER: Sure, we have been calling it 'Girls Meet in Different Ways Now'. And it's not a public performance using KS. It is mostly an online visual jam session between the two of us as a way of generating and working together on material. We use webcams to give us live input and from this use the software to mix different kinds of visual expressions. We've scrambled these into a very loosely organized website that people have been able to see, and we've also exhibited the images as photography in a gallery.

SdL: So the software is a process rather than a performance tool for you? Using KS for the online collaborative construction of visual images that can be then redisplayed in different contexts. Can you say a few words about the collaborative aspect?

MT: Yes. We are making the visual image together, because we literally meet in the middle at the interface of KS. This is what makes the software unique. I'm sitting in Toronto and she's in Trondheim, but what she's seeing is what I'm seeing in real-time, so she's responding to what I'm sending and I'm in turn responding to what she sends back. So it's not like we have our own interpretation, we are both seeing and responding to the same thing. The resultant image is that finished middle that is a combination of our two inputs.

SD: I am curious about something. There is a lot of effort going into trying to define what goes on in these 'online virtual collaborative environments',

and what seems to always come up is the need to know things beforehand, to set up certain parameters within which one can establish trust, etc. What sort of parameters do you start out with? Do you begin with a shared intention around what it is you wish to make together?

MT: I don't know. I think each experience is different but we have found that if we start with an intention or with the aim to create a particular meaning, then it just screws it all up. As far as parameters, we both work with the live camera, and we both work with an environment we feel we can immerse ourselves in. But these are completely different. Ellen is very interested in using the projection of the KS output as part of the environment and then layering it. Her environment is a dark room totally isolated from any type of light. I have a studio that has south and west windows so there is no way that I can avoid light, partly because of the time difference of six hours. So my second monitor is a television monitor, and if I'm sending feedback I am capturing the monitor. There's no way in my studio to match the environment that Ellen has created.

ER: Which brings us back to the whole collaborative aspect. It's not about getting rid of intention; it's about keeping hold of your original starting point. I think that we've been seeing it a little bit in this lab as well. Whenever we are doing something it is the person or the people who are genuinely interested who are contributing. And I think that this is the essence to the whole Hot Wired Live Art collaboration. We get to keep our starting point within the group.

AR: I can say something based on the experiences I've had working within collaborations. Firstly, I could probably say that I only work in collaboration. It can happen on different levels; you might set up a productive collaboration where you work with others to make something, and this might be more or less interdisciplinary, or you might set up a situation that is collaborative in the sense that the audience gets involved. But what has surfaced during this workshop is a form of collaboration that combines these in a way I've never really experienced before. I think that one of the things that I'm really intrigued by and enjoyed being a part of is this idea of having a space that fosters these different kinds of collaborations. We've set up this laboratory so that there are times when we can work in collaboration, or times when the space becomes collaborative or we are just helping each other out. It's sometimes almost a casual opportunity to collaborate, but very generative.

JM: Well, I almost never work in collaboration. So this is a different situation for me. I've done things that were more like a group show where there is this kind of group environment, but still people working generally on their own projects. Hot Wired Live Art has been a little like that. There

have been a number of individual projects that have been going on, but it's all kind of happening together and there is a lot of back and forth about things, ideas bouncing off of each other. I find that there is a lot more energy than there is if there is just one person. I guess the question is how to focus that energy, all those different ways of working.

AS: Speaking for myself and how our group Motherboard works, we base our collaborations on social aspects. We like to work with people that we gel with socially, because getting to know each other includes gaining respect for each other's skills and ways of working as well as their approaches to life. From this we find there is a greater chance of a collective consensus emerging without needing some sort of planned or overly analysed approach to the collaboration.

SdL: Yes, I have been in collaborations where there is a tendency to try to deconstruct the collaborative process as it is happening, whereas I prefer to think of collaboration happening as a consequence of a situation or a set of conditions. This reminds me of Sher's question about establishing parameters, which can also be about conditions. In our case I think one of the conditions we agreed to was this concept of the prototype, which emerged from the notion of making things quickly, several things every day. When Michelle mailed me that she was thinking of using the 'prototype' as a way of working I was excited. It suggests to me a sort of recipe, a quick sketch of the ingredients and description of the meal that should come from them. As a recipe it becomes something somebody else can take and use. Because it doesn't quite exist yet, it is sort of more transferable.

AS: Well, I like cooking but I never follow the recipe. I have recipe books, but I kind of scan over them and get a general feeling for them. I'd rather go out and eat in the restaurants and ask them what kind of ingredients that they are using, and then go home and play around with the knowledge that I had before. But for getting a number of people to work together over a short intensive period of time, this idea of the prototype has been excellent for sharing ideas, gathering information from different people with different skills. Maybe in a way we are making recipes, putting these things together quickly. Sometimes hacking in to connect things that weren't compatible before.

JM: I think that the focus of Hot Wired Live Art is the 'live art' so it's really about being live and being improvisational. Not coming with prepared ideas, not coming with prepared media. We have just brought in mostly raw materials and some tools and things. I think the prototype idea was used to support spontaneity and a situation where we are trying a lot of things out. Of course we're going to learn things, how we can do this and why we can't do that and here's a new idea, etc. If we document that and keep a record then

it's useful, but I don't think it was the intention of this project to come up with a lot of recipes that are going to be used by other people. It may be a result of what we have been doing, but it wasn't the starting point.

SdL: You mention the concept of 'tools', Jeff. The 'Human Generosity' conference here at Banff had as one of its themes the concept of software tools that enable collaboration and creativity. We presented the work of the laboratory there in the form of about a dozen prototypes we have come up with so far in the first week, and there was a lot of interest in KS as one of these tools. There was also a discussion of this shift towards the programming of tools as an arts practice, so that the making of KS is the making of an artwork as much as the making of a tool, and a part of this phenomenon includes its rapid dissemination via the Internet. Does anyone wish to comment on this?

GF: There are some interesting software tools that I think are more like an artwork, but only when it is part of an overall concept like with nato.0+55 (*a cross-media synthesis program somewhat like KS except for the multi-user functionality*) in which the software is one small part of a larger picture, which includes an evolving community of users, etc. If you are a nato.0+55 user then you tend to get involved in this community. Of course, the software in itself can be used in many different ways, but as a member of the community one is constantly being drawn to the Netochka Nezvanova ` kind of aesthetics through the mailing list and the website and these Quicktime movies that he or she puts out all the time. It kind of imposes that this is the way to use nato.0+55 and very many do.

NB: I agree, I think the fact that the work of many nato.0+55 artists looks the same is because there are not so many of them anyway and they all came out of the same mailing list, the same environment. But they don't have to look the same. I think anyone could pick up nato.0+55, or KS for that matter, and make work that is very different and original. Sometimes we hear people say that the software itself sort of makes you go into certain directions, artistically, such as Flash or Photoshop, but this is often due to the reliance on the use of defaults that are set up to make certain things easier or more obvious. Hence you get these apparent styles that some people never break out of. But I'm not sure if you should blame the tool for that, as long as it's open enough to experiment with for someone who wants to take the time to learn how to work with it.

GF: I think the only solution is for every artist to make his or her own software tool. Then you know every aspect of what that program really does, because with commercial software, you can't really do that.

SdL: That might be good, but it seems it may not be realistic. So, I'm still thinking we are in a situation where more artists are making tools out of software

and there will be other artists who will be using these tools. To some extent then, those who made the tools set up some limitations on the processes and products of the users. I'm just trying to think if this is unique due to the existence of software as a sort of medium or material for toolmaking?

PP: I think you could say that this started to happen in the 60s or in the 70s, in particular when the means for making and distributing media became more accessible and available. For example, take what happened in the early 70s when the Portapak came out, putting the means for making and distributing media in the hands of artists and no longer solely with the big TV studios.

SdL: Well, I suppose if you got a hold of a Portapak, you might possibly hack into it and work with its raw electronic materials to manipulate and distort the video signal, for example, but I don't know to what extent you might say, 'Look, now I've taken this apart and I've reconfigured it into a new tool that I now want to give to other artists to use.' That's what I mean.

PP: Look at Woody and Steina Vasulka and how they pioneered the work with electronic media tools, setting up collaborations and establishing The Kitchen in New York in those days. I wasn't there but I think this is exactly the same as what you are talking about: giving access to a certain set of ideas, ways of working, tools if you will, creating possibilities. I would say even in setting up the Hot Wired Live Art sessions, this is kind of the same thing. So I would think that just because there is software does not mean that this toolmaking and distribution by artists is radically different now.

MT: I agree with Per, there seems to me to be a relatively long tradition of providing access to and exchanging methodologies and ways of working that has not only begun with the take-up of software. For example, take our ability to go deeper into someone's process – so when you meet someone for the first time you might start with certain assumptions, like, 'Well, this person is an architect, they design buildings and know all about building materials and spaces, etc.' But then you have to go through a process of getting to know them, through discussion or listening to them talk about their work, before you understand what that person's practice actually is. Is her or his way of making things all ordered and nice? What is beneath the materials themselves, what is their creative approach? So this means that an artist's input is not just limited to perhaps the hardware or software tools and related skills that they brought. That is why we organize presentations to each other as part of the HWLA laboratory.

SdL: I think you are absolutely right Michelle, and it's an interesting point you both make. But just to take the toolmaking thing a bit further, I wonder what the connection is between artists making tools in the twentieth century with the nineteenth-century surge of instrument-making for scientific purposes, tools for measuring things.

- NB: Well, I think that artistic and scientific toolmaking was actually very much linked back then; look at the way optical instruments of the nineteenth century so quickly became small platforms for creative activity. But for me, if we are looking for what is new, the big difference nowadays is the Internet in the way it provides a measure of independent and cheap production never before available.
- PP: But I have the impression that kids today think the Internet is for the 35-year-olds. Because it is a static thing that is now associated with sitting in front of the fucking computer in a boring office with a mouse and a keyboard. That is one reason it's been exciting to concentrate on wireless networking during this HWLA laboratory, because, at least in Europe and in Asia, the Internet is going to become much more a site for mobile and wireless communication.
- JM: Speaking of kids today, I also think it's worth taking a hard look at gaming culture. I think gaming is informing a lot of art and performance making. It's a lot less about work as work and more about work as play. When we talk about KS, we talk about the 'multi-user environment', but this is really a gaming environment. I think that what else is happening is we are moving away from an industrial and manufacturing based economy to one that is knowledge or information and service based and that perhaps in this context, artworks are going to be less about physical manifestations and more about thinking about the language and rules involved in social interactions. All of these kinds of things are a lot more evolved already with games. I think we could think about this whole HWLA laboratory as a game. We're trying to figure out what the rules are and make them up at the same time.
- AS: That is interesting to think about, because if I go to make an artistic intervention in a social space, whether it's online or offline, for me it's important to try not to construct something that could happen in that place, a performance or something, but to become involved in the environment that is there and work from that. Recognizing the protocol, the rules governing the social interaction of a particular place, is the way to go about this, I think.
- AR: This is partly what enticed me to go from being a practising architect to someone making installation artworks. I found that creating installations allowed for a combination of experiences and small elements at a certain scale that could start to prototype new ways of living or new ways of being in a space with a lot of people.
- JM: The thing with the game, though, that seems to be unlike a prototype is that if you make up a game it's simply there for everyone to play. It isn't about following a recipe to produce or reproduce something. It is somehow more process-oriented than that.

ER: And I think we have to go back to that communication tool thing, because 'live art' implies some kind of performance, but it's so often not about making or being in a performance for us. It is definitely not about being on a stage. I'm not saying that in the work Michelle and I have been doing we would never do that, but then it would be something completely different. It would be the result of wanting to do something particular, create a common space in a performance setting, but that is not what we have been working on.

SdL: I sense we are about to open up another area of discussion here, but it's probably getting close to time to wrap this conversation up. Michelle, as the initiator of this second HWLA session, do you have anything to conclude with?

MT: Well, I'm sure Amanda and Per can attest to the difficulty of persuading supporters to recognize the value of these types of open-ended working laboratories. However, I think we are developing useful frameworks for the forms of collective creativity that are emerging in the context of networked environments. We each carry these outcomes with us when we return home where they can be tested and adapted further in preparation for the next HWLA session.

For a list of the materials and several of the prototypes that were developed during HWLA-2 'Airwaves', please visit <<http://beagle.WAAG.org/~hwla2>> (accessed, May 2005).

Artists participating in HWLA-2 'Airwaves'

Niels Bogaards (The Netherlands) is a musical composer and computer programmer interested in both artistic expression and technology. He is currently the developer of the user interface for the KeyStroke project at the WAAG Society for Old and New Media. <<http://www.keyworx.org>>, <<http://www.WAAG.org>>. Accessed, April 2005.

Scott deLahunta (The Netherlands) does research, writing, speaking, and consultation work related to the impact of new media and information technologies on live performance arts practice with a particular focus on dance. <<http://huizen.dds.nl/~sdela/>>. Accessed, April 2005.

Sher Doruff (The Netherlands) is a media artist working with real-time interactive performance technologies for hybrid physical and virtual spaces. She is currently project director of KeyStroke/Keyworx and co-artistic director of the Sensing Presence department of the WAAG Society for Old and New Media in Amsterdam. <<http://www.keyworx.org>>, <<http://www.WAAG.org>>. Accessed, April 2005.

Gisle Frøysland (Norway) is co-founder of the Bergen Centre for Electronic Art (BEK) and develops interactive systems for the web. <<http://www.bek.no>>. Accessed, April 2005.

Hans Christian Gilje (Norway) is a media artist currently based in Berlin working with mostly video in different contexts: live jamming, interactive installations, scenography, and time-based works. Most works currently infected with nato.0+55. <<http://www.nervousvision.com>>. Accessed, April 2005.

Jeff Mann (Canada) has been working with telecommunications art since 1985. He is the founder of the Art & Robotics Group at InterAccess, and is currently creating electronic systems for electrophysical installation and performance. <<http://www.interaccess.org/arg>>. Accessed, April 2005.

Per Platou (Norway) is co-director of Motherboard. In 1995 he started NOOD, a project dedicated to sound exchange on the Internet. He is also a freelance journalist writing on digital art and hacktivism. <<http://www.liveart.org>>. Accessed, April 2005.

Amanda Ramos (Canada/USA) is an architect who focuses on creating environments that integrate architecture and media. She provides skills in developing public opportunities to explore the connections between physical and virtual spaces.

Ellen Røed (The Netherlands) is a digital media artist whose offline and online performance and installation works involve various hybrids of KeyStroke, Nato 0+55 and Max. <<http://www2.khib.no/~ink/>>. Accessed, April 2005.

Amanda Steggell (Norway) is a choreographer and co-director of Motherboard, an interdisciplinary performance company whose work engages with digital pop culture and social interaction. Motherboard unscrupulously uses a combination of ancient technical gadgetry and modern hard- and software to create dynamic environments for performers and audiences, and seek to make visible the seamless connection between on- and offline existences. <<http://www.liveart.org>>. Accessed, April 2005.

Michelle Teran (Canada) is an artist interested in networking the digital and the organic, social spaces and mixed reality. Her online and offline performances and installations are fuelled in part by KeyStroke, live video streaming, video teleconferencing, and the basic webcam. <<http://www.ubermatic.org/misha>>. Accessed, April 2005.