

# Reflections on Water & Interdisciplinary Practice



Notes from the Exeter Workshop  
27-28 September 2009

Draft in progress

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images from CCANW's *Reflections on Water* exhibition:

Front cover: Stills from 'Riverglass', 1997, a film by Adrej Zdravic, coutesy, the artist

Above: *Water Flowing to the Sea Captured at the Speed of Light*, Blast Hole Pond River, Newfoundland 2002-2003 (excerpt from Spring 2003), by Marlene Creates, image courtetsy, the artist



## Shifting Practice

Shifts are taking in place in the way that environmental professionals work. This is driven partly by changing regulatory demands, such as the need for increased community consultation and more integrated, multi-agency working, and, in particular, a requirement for projects to be developed based on qualitative rather than purely quantitative criteria<sup>3</sup>. Our changing practice is also driven by fundamental societal shifts: a growing recognition that in order to create meaningful and lasting places we need to rethink the way we assess and respond to our natural and sociological environment.

To deliver projects in new ways will require new skills, and different processes, many of which do not form part of engineering and scientific approaches but which do, however, underpin much arts-based practice.

Many contemporary artists, architects and curators are engaging deeply with environmental issues. This is not new - the roots of movements in environmental art and architecture can be traced back to the eighteenth century but really took off, with the land art and ecological architecture of the 1960's and early 1970's.

Now there are major arts and ecology programmes at the RSA<sup>4</sup> and the Arts Council and a growing number of postgraduate courses bringing arts and ecology together. The EA has recently appointed an artist in residence (see page 14), and architectural think-tanks, such as RIBA Building Futures are researching matters of climate change, flooding, coastal erosion and so on<sup>5</sup>. Recent events such as the Culture-Futures conference at COP15 show how cultural leaders are uniting to develop an appropriate response to the challenges of climate change<sup>6</sup>.

In September 2009, Arup in collaboration with the CIWEM AEN<sup>1</sup> and the Centre for Contemporary Art and the Natural World (CCANW)<sup>2</sup>, organised a two day workshop exploring alternative, interdisciplinary approaches to water and environmental infrastructure projects. In particular the aim was to investigate ways in which learning and skills from arts-based practice might become more integrated into the infrastructure delivery process.

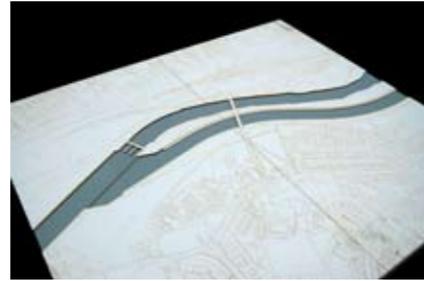
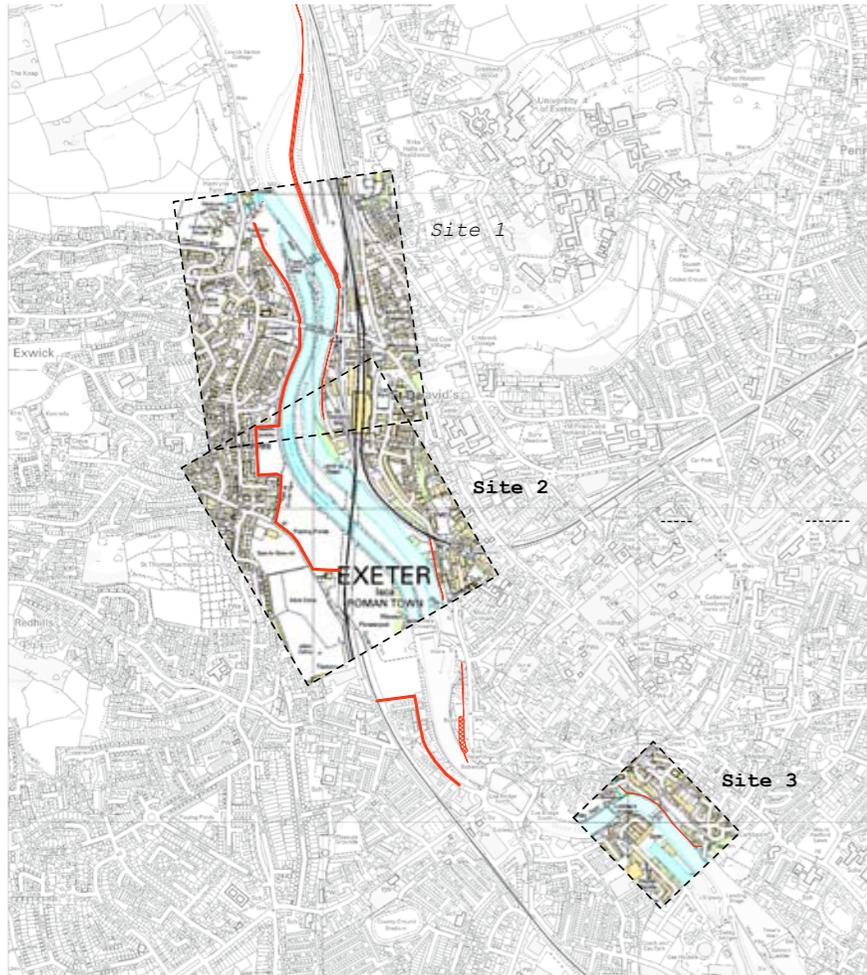
The workshop was held partly on site in Exeter city centre and at CCANWs project space in Haldon Forest Park. It was based around a real case study provided by the Environment Agency. The event, facilitated by CIWEM AEN members Paul Simkins (Arup), David Haley (artist and academic, Manchester Metropolitan University) and Clive Adams (Director, CCANW), was run to coincide with an exhibition at CCANW entitled 'Reflections on Water'. Sessions took place amongst the large-scale photographs of Canadian

artist Marlene Creates, the work of two Devon-based artists, Susan Derges and Vikky Minett, and Slovenian filmmaker Andrej Zdravic. Both Derges and Minett participated in the workshop, alongside other artists, curators, architects and landscape architects, engineers, ecologists, members of Environment Agency project delivery and national environmental assessment service (NEAS), and Natural England.

The first afternoon was spent walking the case study sites along the River Exe. Artist Peter Randall-Page gave a pre-dinner talk focussing on some of his specifically water-related works, which was followed the next morning Mark Ross, NEAS operational Manager, presenting the EA perspective. This sparked some interesting debates around the realities of infrastructure project delivery. Lively workshop sessions followed, with three interdisciplinary groups focussed around each of the sites.



Top: The River Effra Redevelopment Agency, Platform London, 1992, courtest, Platofrm; Middle: Project for abat house, by Jochen Rabe, Arup, Mike Wells and Stafan White Bottom: image from *Design with Nature*, by Ian Mcharg, (Wiley, 25th anniversary Ed., 1992). Opposite: The River Taw (Ivy) 1997, llyochrome photogram by Susan Derges, coutesy, the artist



Exeter city centre plan and models showing the three case study sites., with possible flood defence improvements shown in red.

## Exeter Flood Risk Management Project 2

It was felt that to make connections between arts practice and the world of infrastructure project delivery the Exeter workshop should focus around a real case study and engage with a real client. Arup approached the Environment Agency and their Exeter Flood Risk Management project was proposed as a case study.

A major scheme was undertaken in the 1960's to construct a flood relief channel running parallel to the River Exe. The Environment Agency is examining the possibility of upgrading defences. The project is currently at pre-feasibility stage – which means that high-level analysis has been undertaken and areas for possible intervention identified (these are shown in red on the opposite page and on the indicative site sections on the following pages.)

The Environment Agency's NEAS

team is already beginning to challenge conventional delivery mechanisms and improve environmental design<sup>7</sup>, and the Exeter team acknowledged that learning from and integrating of arts-based practice might add real value to this process. Since actual flood protection solutions are still to be developed, there is still opportunity to make propositions that may influence the real project.

Prior to the workshop, Arup visited the river Exe sites with the local NEAS team and worked with them to identify three case-study areas that carried potential for meaningful enhancement. Arup then prepared background material, including site models and maps to focus discussions during the workshop.

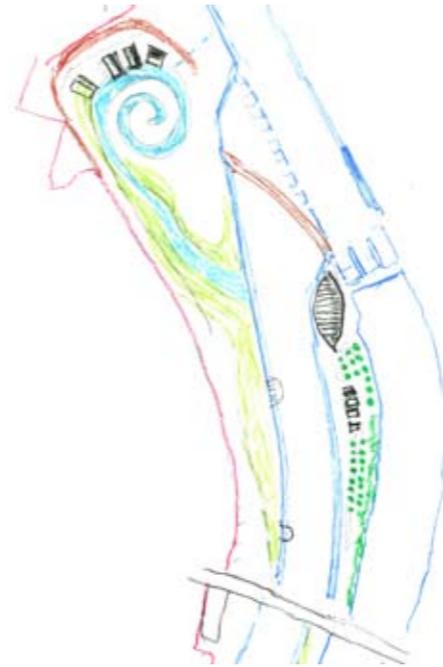
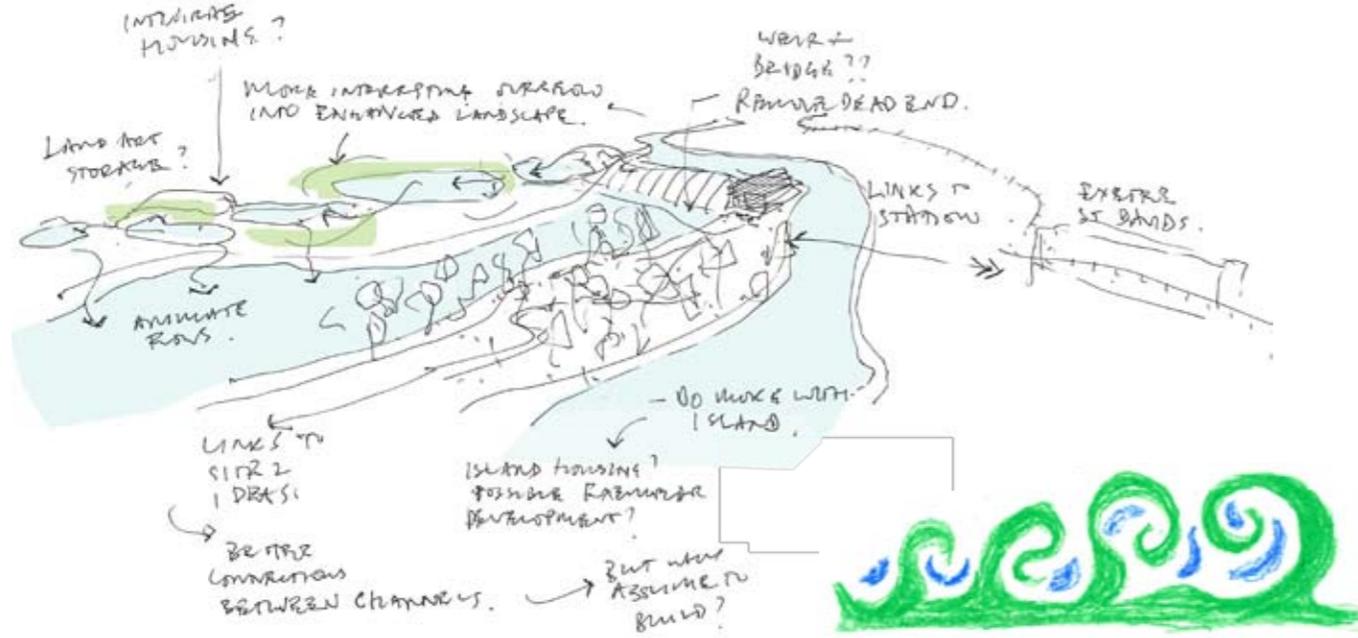
No names or specific objectives were attached to the sites prior to workshop. Indicative information about the proposed interventions was provided and the groups were left to respond with their own propositions. Within the available timescales, the aim was not

primarily to develop solutions or even make concrete proposals, but to use the sites as a focus for discussion, so that potentially abstract or theoretical approaches might become rooted in specific places.

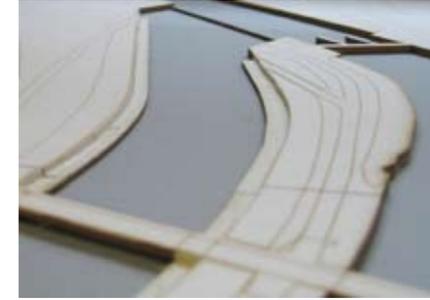


### Resume

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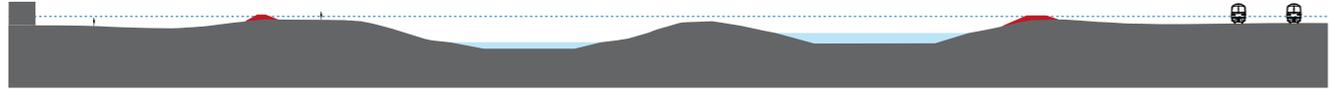
what is it?  
 make less regular - more diverse activity  
 what is risk? people 1 - property 2 - rails.  
 mitigation - physical change of channel.  
 Key/note:  
 example building housing - embrace floating  
 design in the plane.  
 Nat Eng - sweep out - inc. capacity - growing



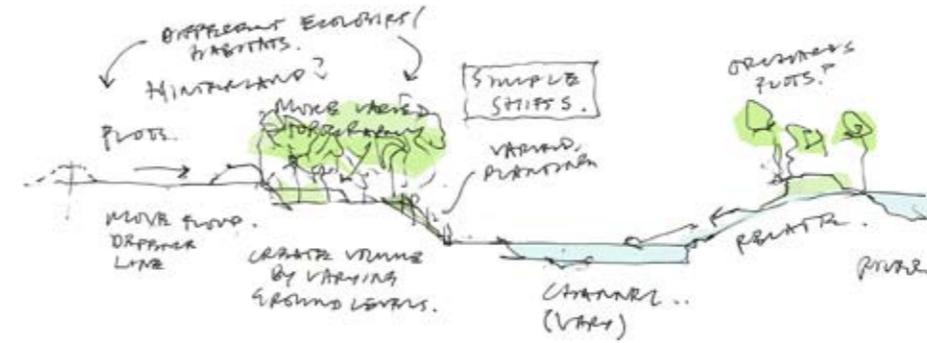
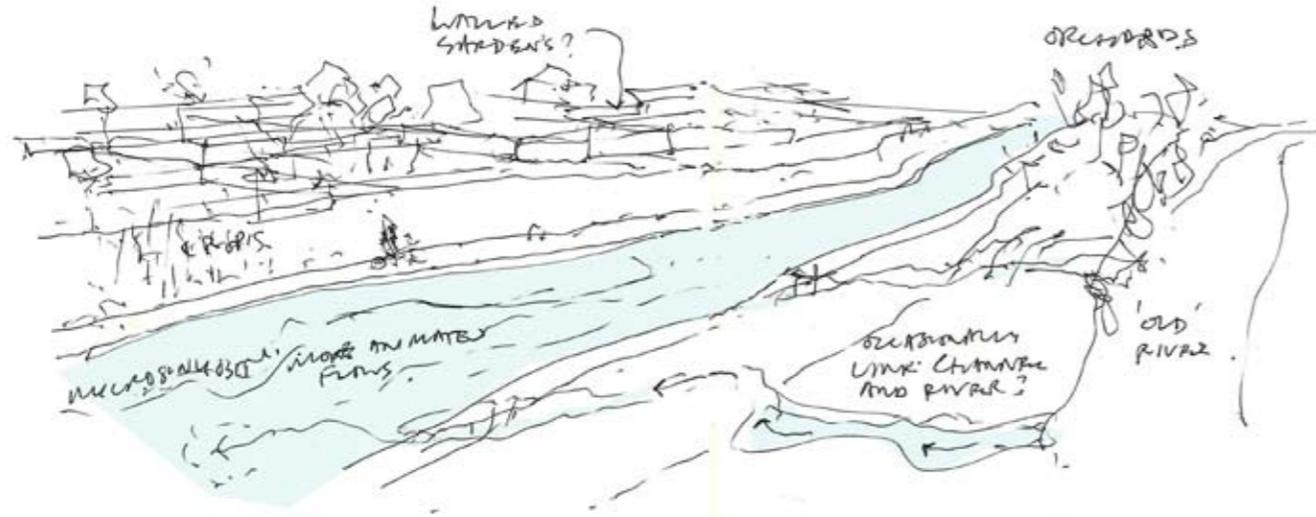
This site lies at the northern end of the flood relief channel, the point where the old river overflows into the new trapezoidal channel over a dramatic concrete weir. Footpaths and cycleways lead to this point creating a kind of destination that is currently a dead-end, dominated by the weir and the river control structures. Downstream, the site is strongly characterised by the relationship between the two contrasting channels and quite isolated central 'island' created between them.

Resume

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Top: Sketches from workshop brainstorming session. Middle: schematic section, looking north indicating possible defence positions; Bottom L-R: the natural river exe, the 'island', overflow channel; Opposite (clockwise): workshop sketches, notes, site model, workshop sessions, the overflow weir



? Echo form of channel through tree line set behind the defence.	Funnel views to Key land - MARKS	Create hinterland by providing raised banks next to channel not behind fields - floodbank are view points?	Community Orchard? Nurture Community hub/body	More dynamic 'seasonal' experience eg smell etc. enhance seeds
Vary depth and create Stepping stones in shallow areas	replicate form at a different scale - consistent with form of char	microsinuosity to encourage flow in current linear path in a narrow sub-channel.	Allow banks to grow with willow etc - maybe 'Hay Crop'?	Water 'springs' from river to water space. 'oasis' forms natural needs etc biodiversity

On this site, the relationship to the two river channels is still important, but the Environment Agency were keen to explore the possibilities around the adjacent large open space. The small-scale earthworks that might typically form defences on this kind of site could be constructed here with relatively little visual impact. The interest therefore was in how to turn the need for a simple intervention into an cost-effective opportunity to improve the quality of this place.

Resume

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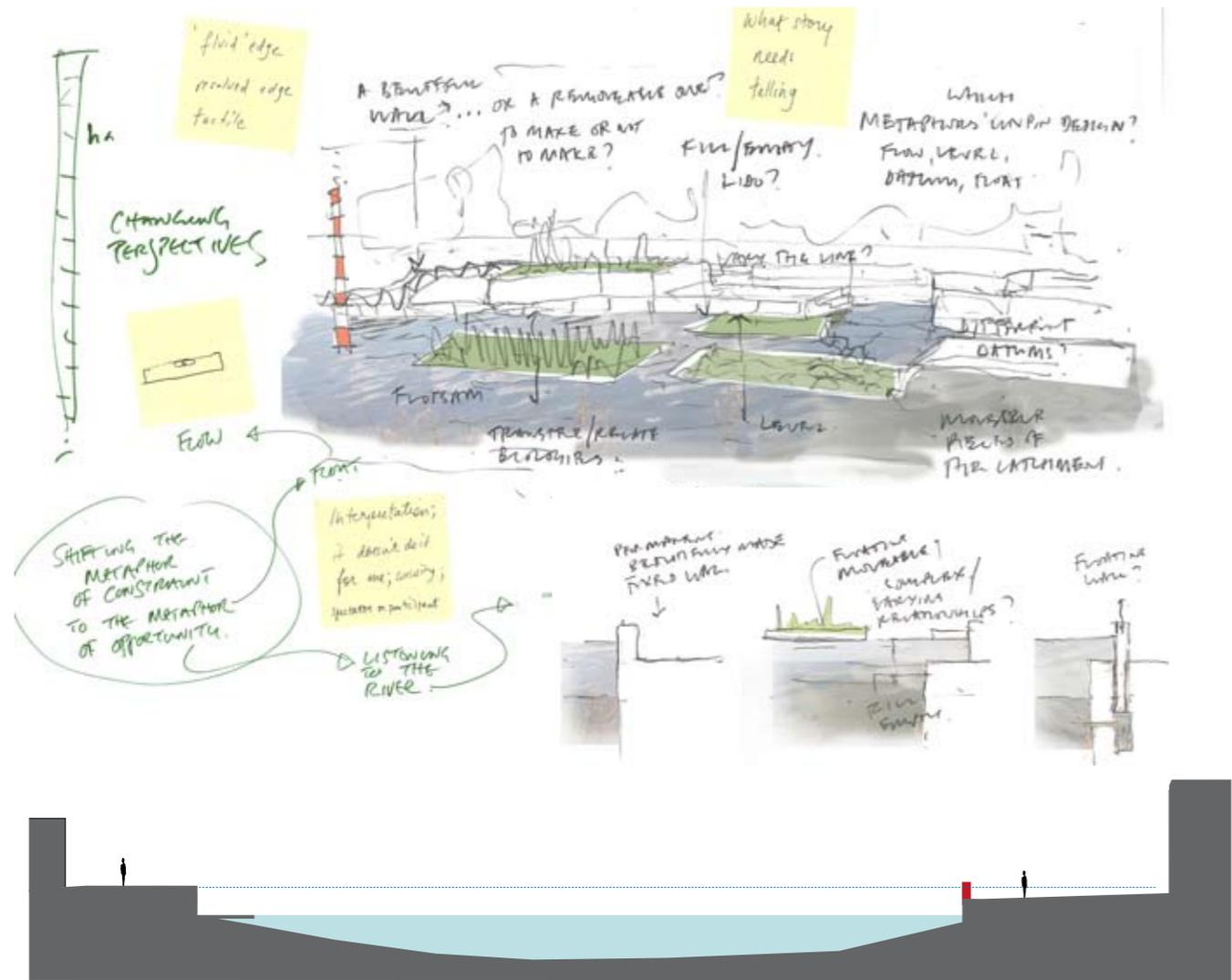
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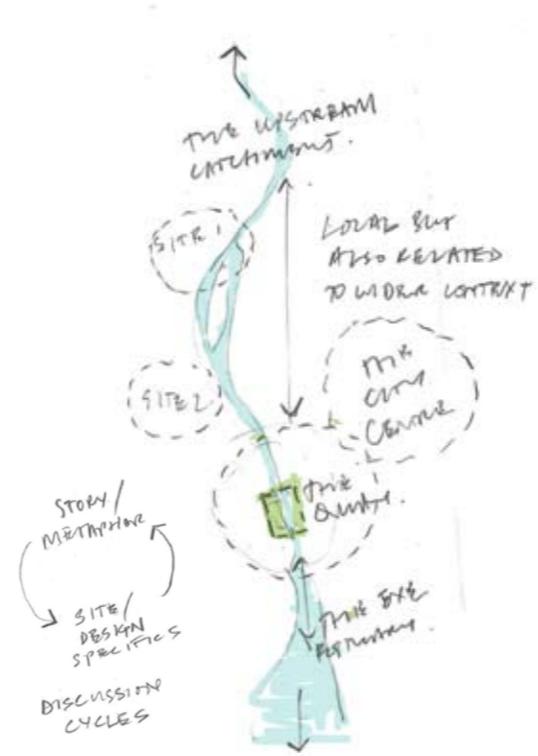
Top L-R: Sketches from workshop brainstorming session. Middle L-R: schematic section, looking north, some post-its from the workshop sessions Bottom L-R: the open space, the overflow channel, workshop feedback sessions, snapshot from 3D digital terrain model



# Site 3



Top: workshop brainstorming sessions Bottom: schematic section, looking north, with quay on right indicating floodwall location, site visits, Opposite (clockwise): sketches from the workshop, three images of the quay, site visit



The third site contrasts strongly with the other two. The historic quay is a smaller space, but more intense; urban, bustling, with very defined character, and a key destination within the city. Here possible interventions might be more visible may alter the long-standing river edge conditions. Discussions in this group oscillated between a search for ways to avoid permanent interventions altogether, and an exploration of how such interventions be turned into opportunities: *making*, but making something meaningful and appropriate to its context.

**Resume**

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## Understanding the role of arts-based practice

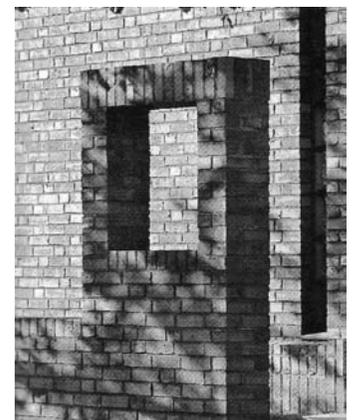
As expected, much of the discussion focussed around varying perceptions of the potential role of arts-based practice on real infrastructure schemes, and in particular how the artist/ architect/ designer might be engaged to best

effect. Part of this debate centred on the role of arts & ecology generally. If, as was generally held, is it not simply adding-on 'public art' to mitigate perceived negative effects, is it then to better communicate issues around the project, mediating between project teams and communities, or maybe to challenge conventional decision making

leading to alternative unexpected solutions? Some felt that artists are primarily communicators best-engaged during early consultation phases, others reacted against this narrowly defined role. What became clear is that there are many types of arts practice, and many ways of engaging arts professionals on projects, all of which need to be understood.

## Language, communication, shared values

Amanda Ravetz felt that better definition of terms such as 'creativity' and 'art' are required. Other words used by the Environment Agency, such as 'value' and 'enhancement' also need better definition. Group sessions highlighted different values and ways of working. One group in particular talked of how, seeing an engineer buried in the detail of a solution an artist asked 'what is the concept that underpins this approach, what is the underlying *metaphor*?'. At first such moments were uncomfortable, and communication seemed difficult, but both artist and engineer described gaining new insights as subsequent discussion cycled between stories/ concepts/metaphors and site-specific technical details. This simple example, and others, highlighted how easily language can become a barrier within interdisciplinary contexts; it also hinted at the benefits of overcoming such barriers and how this might be achieved.



### The Exeter workshop: initial feedback & evaluation

One of the participants, anthropologist Dr Amanda Ravetz (Manchester Metropolitan University) was invited to monitor and evaluate the event. Part of Ravetz's work looks at interdisciplinary practice across art-science boundaries.

Ravetz produced a questionnaire that was sent out to participants in advance of the workshop asking about their reasons for attending, previous experience of interdisciplinary practice and expectations from the event.

This was followed up by a second questionnaire following the workshop. During the workshop, Ravetz also made some recordings and spent time talking to participants and observing group behaviour during the discussion and workshop sessions.

Based on her observations and participant feedback, Ravetz has produced a draft report<sup>6</sup> which has been circulated to participants and members of the CIWEM AEN for comment. Some key themes are drawn out in this document, but it is recommended that reference is made

to Dr Ravetz's detailed report, which provides further theoretical context and useful additional references, insights and learning. Dr Ravetz made three specific recommendations following the Exeter event:

- To consider refining language used in relation to questions of 'art and creativity'
- To consider the kind and level of facilitation that would be useful in further initiatives of this kind
- To put adequate reflexive research and evaluation in place when developing further schemes.

Above: Stop and Slow Down, Laura Harrington 2009, Wooler, UK, courtesy, the artist Opposite (T-B): viewing towers, River Withier, Lincolnshire, Robbrecht & Daem Architects, image courtesy Sustrans; RSPB Bird Hide, Rainham Marshes, Landroom/Peter Beard, image courtesy RSPB; Floodwall on the river Leine, Rolf Ramcke, 1993, source Masonry Construction Manual Ramcke et al, Birkhauser 2001

## The Environment Agency's artist residency programme

A key participant in the workshop was the artist Laura Harrington. In May 2009 Laura was awarded a residency with the Environment Agency's local Levy Team<sup>9</sup> in Newcastle. Laura has been working in collaboration with staff, project teams and partner organisations to develop ideas for projects across Northumberland. This is the second residency and forms part of a unique and evolving partnership between Commissions North<sup>10</sup>, Inspire Northumberland<sup>11</sup> and the Environment Agency. It is intended that the process will be ongoing with further residencies.

The aims of the residency are to facilitate the sharing of ideas and research over a period of time within the organisation, build creative relationships with the different teams, look at ways of raising the visual design quality of projects, contribute to the wider communication of the Environment Agency's aims and to develop innovative

ways of engaging local communities with issues of flooding and climate change. The residency programme is provoking new and exciting discussions between a wide range of people. It is about collaboration, process and team-working - the artist immersed within the organisation, bringing different values and experience. Laura has participated in team meetings with marine biologists, engineers and communications officers, an approach made possible by the trust, open mindedness and enthusiasm of the Levy Team and Commissions North. Laura has developed projects involving a number of artists and collaborators, using various media, including printed matter, a live concert and collaboration with AV Festival, a sculptural installation on an interpretation trail in rural Northumberland - an intervention that has influenced the design and implementation of a wall within a nearby town - and a booklet which looks at hypothetical ideas from an artistic point of view. The residency programme will continue with the appointment of a third artist during in March 2010.



Work in the Field, a Pocket Guide  
Laura Harrington, with photographs by Julian Germain

## Funding and evidence

Infrastructure delivery organisations often ring-fence funding for the arts within public relations and community outreach budgets. This is because engineering tends to separate matters of communication and contextual response from technical solutions and built form.

A more integrated, response, could lead to a better understanding of the potential for built form to communicate, reducing costs of any enhancements, but also releasing new funding streams into capital delivery programmes.

Such approaches may also open up greater opportunity for collaborations, bringing in funding for enhancements from other organisations, such as the Arts Council, Regional Development Agencies, private investment and so on.

The need for clients and funding bodies to justify expenditure leads to a tendency to prioritise projects developed

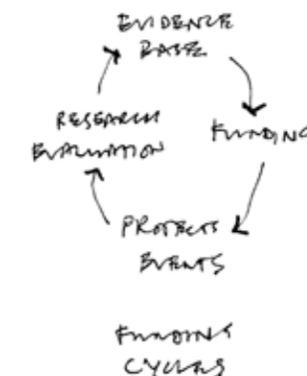
using quantitative rather than qualitative criteria. Where clients engage with arts-based practice they often favour discreet, easily identifiable 'pieces' of work with very specific outcomes. This tends to reinforce arts-science boundaries. Justification of a more integrated approaches will require new evaluation tools coupled with evidence of added-value on built/made projects.

It was in recognition of this fact that this workshop was initiated. Further similar events will help to build a body a research and 'seed' opportunities for action on real projects. Evidence and learning can also be gained from other programmes such as INTERACT, the Arts Council programme for placing artists in industry, and the Artist as Leader programme carried out at Gray's school of Art (both discussed further in Amanda Ravetz's report on this event<sup>8</sup>). Ultimately, it will be evaluation of executed project examples that will do most to demonstrate the benefits of alternative interdisciplinary approaches.

## Emerging themes



Rivers, Kaffe Matthews, fishing for sounds, river Tyne, February 2010. Photo Laura Harrington





Beside the Still Waters, Peter Randall-Page  
 Kilkenny limestone, 190 x 122 x 112 cm 80x118x118cm.  
 Image, courtesy, the artist

## Key Recommendations

### Continue to explore opportunities for action on real water and environmental infrastructure projects

Broaden potential collaborations to other organisations such as councils, water companies, private developers and so on.

### Consider further interdisciplinary workhops/ conferences to 'seed' opportunities and raise awareness.

Take into consideration Dr Ravetz's feedback/ evaluation of the Exeter event.

### Continue to address longer term matters of communication, language and shared values between disciplines

Through, for example, review of core criteria for entry into CIWEM and other professions, improving links between arts/ecology and engineering/science courses, and so on.

### Ensure adequate relxive research and evaluation alongside future actions to build 'added-value' evidence base.

Here is an update on some of the work ongoing since the event...

## The Exeter Flooding Scheme

Following the workshop, the Environment Agency asked Arup and CCANW to work with them to explore possibilities of engaging an artist on the Exeter project as it develops through further feasibility and design stages. Initial meetings have been held to discuss the programme for the next phase of the project and potential role an artist might play. The Environment Agency are also in discussions with various arts funding bodies. It is hoped this will develop as consultants are appointed and the project moves forward, creating further project-based evidence.

## Ongoing work with the Environment Agency

The continuation of the Environment Agency's residency programme will

continue to build evidence for the benefits of this integrated approach.

Mark Ross, Laura Harrington and Paul Simkins presented a paper on the workshop and Laura's work at the Environment Agency's annual NEAS conference in December 2009, further raising the profile of such alternative approaches.

There has been much interest in the event. A similar event is planned in Morpeth in March 2010. Opportunities to run other workshops and are being explored with the Environment Agency and other delivery organisations.

## CIWEM AEN

CIWEM AEN continues to look strategically at ways in which it can help to 'put creativity at the heart of environmental practice'. In direct response to this ongoing research, CIWEM initiated two interdisciplinary evening events on the theme of Water

and the City, in Sheffield and Leeds. These were organised in with the RIBA and the Landscape Institute. It is hoped that further similar events, together with the ongoing work of individuals and member-organisations of the CIWEM AEN, will continue to broaden the outlook across the core CIWEM membership and develop shared language and values across disciplines.

## Resume

Following the workshop similar, project-focussed events are currently under consideration. Various research activities and publications are also planned or under way. It is intended that this workshop should contribute to the wider body of ongoing research and practice in this area, the aim of which is to develop alternative, more integrated approaches to delivery of water and environmental infrastructure projects and see them make a tangible difference on built schemes.

## Notes and references

1. go to [www.ciwem.org.uk/arts](http://www.ciwem.org.uk/arts)
2. go to [www.ccanw.co.uk](http://www.ccanw.co.uk)
3. For example, PPS 1, Planning for Sustainability, calls for high quality, inclusive design, stating that 'Design which is inappropriate for its context, and which fails to take opportunities for improving the quality and character of an area and the way it functions should not be accepted'. The Urban Design Compendium, (Llewlyn Davies, 2000, English Partnerships and Housing Corporation) states that good quality places are prevented by using quantitative standards rather than qualitative advice and judgements. This thinking is increasingly being extended to evaluation of environmental infrastructure projects, with planners requiring design and access statements, statements of community consultation, presentation of key schemes to review bodies such as CABE. A response to recent calls for increased multi-agency working will require a broader range of skills and a more integrated practice.
4. go to [www.artsandecology.org](http://www.artsandecology.org).
5. Facing up to Rising Sea Levels: The Future of Our Coastal Cities, RIBA Building Futures/ Institution of Civil Engineers publication out for consultation following interdisciplinary design charette in July 2009. <http://www.buildingfutures.org.uk/projects/building-futures/facing-up>
6. Culture – Future programme organised by RSA Arts & Ecology and Arup - including Culture – Future conference at COP15 during December 2009, go to [www.artsandecology.org.uk/projects/news/november-2009/nov-11-culture-futures](http://www.artsandecology.org.uk/projects/news/november-2009/nov-11-culture-futures)
7. For example the Landscape and Environmental Design Guidance, published by the Environment Agency's National Environmental Assessment Service (NEAS), (Operational Guidance Volume 3, Issue 2, 2007) aims to improve the quality of landscape and environmental design on EA projects.
8. Ravetz, A., Reflections on Reflections – draft report on Reflections on Water and Interdisciplinary Practice rorkshop. November 2009
9. The Local Levy team raises money from local authorities and is managed by the Environment Agency.
10. Established in 1999 as part of Arts Council England North East, Commissions North works in partnership with a wide range of public and private sector clients to develop opportunities and artists' commissions that can enhance and develop the region's reputation for public art and innovation.
11. Inspire Northumberland works to advise, advocate and deliver public art and design projects in the priority regeneration areas across Northumberland. They identify opportunities where innovative artists and designers can bring unique and exciting perspectives to projects. Inspire Northumberland is a partnership between Northumberland Strategic Partnership and Commissions North/ Arts Council England North East.

## Participants

- |                           |   |
|---------------------------|---|
| <b>Alan Boldon</b>        | Curator, Director of Research, Anolfini Gallery, Bristol    |
| <b>Amanda Ravetz</b>      | Anthropologist, Manchester Metropolitan University / MIRIAD |
| <b>Bob Carrick</b>        | Project Coordinator, Environment Agency, north east region  |
| <b>Charlotte Rathbone</b> | Rathbone Partnership, Landscape Architect, CCANW trustee    |
| <b>Clive Adams</b>        | Director CCANW  |
| <b>Clive Onions</b>       | Associate Director, Arup                                    |
| <b>Chris Lewis</b>        | Finance Marketing and Development Manager, CCANW            |
| <b>Daro Montag</b>        | Artist, Academic, University College, Falmouth CIWEM AEN    |
| <b>David Haley</b>        | Artist, Academic, MMU/MIRIAD, Vice Chair CIWEM AEN          |
| <b>Jochen Rabe</b>        | Associate Landscape Architect & Urban Designer, Arup        |
| <b>Johanna Korndorfer</b> | Learning Programmes Manager, CCANW                          |
| <b>John Hartley</b>       | Arts and Ecology Strategy officer, Arts Council England     |
| <b>Laura Harrington</b>   | Artist in residence, Environment Agency                     |
| <b>Mark Fletcher</b>      | Director, Arup, CIWEM AEN                                   |
| <b>Mark Ross</b>          | NEAS Operational Unit Manager, Environment Agency           |
| <b>Melanie Hinde</b>      | Landscape Architect, Environment Agency                     |
| <b>Michaela Crimmin</b>   | Director of Arts, RSA                                       |
| <b>Paul Simkins</b>       | Senior Engineer, Architecture graduate, Arup, CIWEM AEN     |
| <b>Peter Coates</b>       | Artist  |
| <b>Peter Randall-Page</b> | Artist  |
| <b>Phil Collins</b>       | Devon Area Manager, Natural England, Trustee of CCANW       |
| <b>Simon Read</b>         | Artist  |
| <b>Susan Derges</b>       | Artist  |
| <b>Vikky Minett</b>       | Artist  |



South Teign River, Fernworthy, Dartmoor, 17th February 2008.  
Digital photograph by Vikky Minette, courtesy, the artist

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Centre for Contemporary Art  
and the Natural World



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