their own they might read only as known landscapes, fixed and available for appropriation, but appearing as they do in the article, carefully placed next to photographs of the ocean in its continuous motion and changing topography, it is more the gap between them that is foregrounded, the apparent impossibility of representation. One of the strengths of practice-based research can be that it presents questions, rather than resolutions.

More evocative is the porcelain extrusion both falling into the apparent void and held above it. Here the edges are determined by an unpredictable encounter of material forces rather than the rigid programming of the 3D printer. Lee's dockside performance walking a length of string long enough to reach the deepest surveyed trench on earth also transforms a fixed quantity into a slippery self-touching mass of material (as perhaps the ink of the pen hanging from the underside of the table in her cabin finally joined into a fluid pool) dissolving its original capacity to quantify.

What becomes clear is that Lee's art practice struggles to represent the fluid as do the science practices she interrogates. The struggle and the desire of both seem to have more to do with each other than it first appeared. Indeed, as Irigaray is herself aware, in some areas of science as in the study of turbulent flows (which requires in one of its key formulas that the medium in which flow occurs is taken into account), science might in fact offer figures for fluid thinking rather than simply inhibit it. Curiously it is through language that Lee, and the commentators she cites, seem to get closest to describing the deep ocean environment, and Lee suggests that her next step might be to work with the words of the scientists at the National Oceanography Centre.

If we are concerned with an architecture that takes into account the fluid, as Hawley is or as I recently heard her one-time student the architect C. J. Lim state (who also writes about his work in the same issue of **arq**), then research like Lee's which investigates scientific practice through fine art is extremely interesting and fertile, and I hope we will see more of it in architectural discourse and publications such as yours.

KATIE LLOYD THOMAS
Newcastle

Katie Lloyd Thomas is Lecturer in Architecture at the School of Architecture, Planning and Landscape, Newcastle University

Note
1. Christine Hawley, 'Invisible Lines', in *The Architect: Reconstructing her Practice*, Francesca Hughes (ed.) (Cambridge, MA: MIT Press, 1996), pp. 168–69.

Mapping deep space-time

arq is to be congratulated for publishing Rona Lee's 'Truthing Gap: Imagining a Relational Geography of the Uninhabitable' (15.3, pp. 216–29). At a time when, despite governmental and academic rhetoric, the *realpolitik* of research funding is reinforcing the ghetto mentalities (and power) of those who manage intellectual disciplines, it is heartening to see an architectural journal inviting its readers to engage with work of this kind and quality. I particularly welcome this as an artist/academic engaged in and supporting new hybrid practices such as deep mapping, who finds himself having as much in common with lecturers in architecture, cultural geography and landscape design as with those in the disciplines in which I was trained.

My appreciation of the project reported in Rona Lee's article is in part informed by having worked between 2007 and 2009 with colleagues from a wide range of disciplinary backgrounds within the transdisciplinary Living in the Material World: The Performativity of Emptiness network, funded by the Arts and Humanities Research Council (AHRC). The unexpected parallels between what emerges from her compelling account of a highly unusual project and my own experience working in that network made reading it particularly valuable. To give an example, she observes that: 'Liquids can be said by their nature to resist attempts to "map" them, evoking a desire to corral their fluidity and engineer them into recognition.' If this is read metaphorically it applies equally to the 'fluid' nature of space that Doreen Massey refers to as a 'simultaneity of stories so far'. An understanding that requires what Mike Pearson and Michael Shanks identify as 'different *ways of telling* and different types of recording and inscription, which can incorporate different orders of narrative'.

Thought through in this way I found her article suggests a rich common field of metaphorical resonance and reflection that I can now draw on in relation to my engagement in the practice of deep mapping.

For those unfamiliar with the emergent critical poetics of deep mapping, one that tries to engage in a critical solicitude with the ecology of place, it shares a number of the underlying concerns that emerged from Kenneth Frampton's working through of Alexander Tzonis and Liane Lafaivre's *Critical Regionalism*. That is with a critical place-conscious poetic that seeks to mediate between the impact of globalisation and the concrete particularities of a particular place, so as to reflect on the way that the human 'species-being conceives of its relationship to nature, including its own nature', a debate in which a critical ecology provides both a natural limit to the myth of progress and 'a new-found respect for the symbiotic limits of being and cosmos'.[1] Although Critical Regionalism has been seen in the West as largely ineffectual in articulating place and sustaining community, it has been noticeably effective in doing so elsewhere, a fact that may yet inform its potential dialogue with a creative praxis such as deep mapping.

This praxis, developed in its non-literary form in Britain by Mike Pearson, Michael Shanks and Cliff McLucas, is still less well-known than works such as William Least Heat-Moon's *PrairyErth* or Tim Robinson's two *Stones of Aran* books, but is becoming increasingly important for a variety of reasons. (Interestingly in the present context, McLucas trained as an architect but might best be identified as a site-specific, multi-media arts-led transdisciplinary practitioner.)

In theoretical terms deep mapping directly engages with what Rona Lee refers to as 'the trope of fluidity and flux' that, as she points out, has largely been addressed through the high theory of feminist thinkers such as Luce Irigaray. However, while Lee correctly observes that this thinking offers 'a means to disturb and dissolve the dualisms upon which Western culture is founded', that is only the academic half of the story. The task of practically translating that and other related thinking into praxis, while it has been greatly assisted by feminist work like Geraldine Finn's exposition of a 'politics of contingency', has to a large extent

been undertaken by innovative individuals and groups deploying hybrid and relational creative approaches in transdisciplinary and community contexts.

Deep mapping aims, broadly speaking, to engage with, narrate and evoke 'place' in temporal depth by bringing together a multiplicity of voices, information, impressions and perspectives as a basis for a new connectivity. I have argued that 'open' deep mapping interweaves image and concept to work in and with what Stephan Harrison, Steve Pile and Nigel Thrift describe as the 'curious space between wonder and thought', recognising this space as vital to 'a knowledgeable and impassioned engagement with the world' and, in turn, that this requires an approach in which 'there is no single Disciplinary (in an academic sense) voice'.[2] Good examples of this approach in practice are the work of a number of ecologically engaged artists, landscape architects and other members of the Mapping Spectral Traces network committed to directly addressing complex hydro-social issues. I have in mind here Christine Baeumler's work in Minnesota (supported by the Bush Foundation), the work of the Bristol-based Irish artist and ecological designer Antony Lyons, that of the artist Margaret Cogswell (recipient of the John Simon Guggenheim Memorial Foundation Fellowship Award in Fine Arts, 2009) and the work of Gini Lee, who is Elisabeth Murdoch Chair of Landscape Architecture at the University of Melbourne. Each of these exemplary practitioners is, in her or his own way, engaging with and articulating relational and dynamic hydro-socially inflected ecologies of place. However, deep mapping is also being used to study and articulate the connectivities of older people in rural environments and in a variety of pedagogic contexts: for example by Liam Heneghan, an ecosystem ecologist and Professor of Environmental Science working at DePaul University in Chicago; Brian Katen, Chair of the Landscape Architecture Program in the School of Architecture and Design at Virginia Tech; and by myself and practice-led doctoral students at the PLaCE (England) Research Centre at UWE, Bristol.

The use of deep mapping to engage 'in depth' with ecologies of place obviously has an intrinsic value in its own right. That is to say as a means to make sense of, and find effective means to articulate and create interventions into, the complex convergent 'meshing' (to borrow Tim Ingold's term) of beings, material phenomena and spectral traces within the fluid space/time that make up what the cultural geographer Nigel Thrift calls 'ecologies of place'. However, and this is where I think Rona Lee's reflections are particularly pertinent, deep mapping as a practice is also a contribution to efforts to enable the emergence of the intellectual and pedagogic orientation I have called 'disciplinary agnosticism'. By this I mean a mode of thinking that is both more nuanced and more holistic than the dominant disciplinary mode that privileges the processes of objective categorisation through exclusion, and at the expense (to extend Rona Lee's list) of the ambiguous, the heterogeneous, the haptic, the opaque, the embodied, the in-between.

This frame of mind is vital to any thinking that wishes to properly address ecologies of place by moving beyond the innately conservative and counter-ecological presuppositions of disciplinary exclusivity. As I have already indicated, that exclusivity still underpins both the *realpolitik* of our increasingly institutionalised academic and professional spheres and, more fundamentally, the corrosive culture of possessive individualism that they both serve and nurture. Disciplinary agnosticism offers an alternative mode of thinking that is, first and foremost, *agnostic* with regard to the intellectual and social assumptions upon which the authority of disciplinary exclusivity rests; that remembers (with Geraldine Finn) that beings are always both more and less than the categorical designations that identify and separate them. However, unlike 'post-disciplinary' thinking, it resists the temptation to forget that disciplines, in their exclusivity, also provide the necessarily focused training ground for learning essential practical skills for engaging with the world.

The project to which Rona Lee refers did not embark on a process of 'deep mapping' as such. It lacks for example what Cliff McLucas calls engagement with 'the insider and outsider', 'the amateur and the professional, the artist and the scientist, the official and the unofficial', although it might well provide the starting-point for just such a mapping. However, her article does offer a host of powerfully suggestive observations which, taken metaphorically rather than literally, are of considerable interest as provocations in relation to issues of selection thrown up by 'deep mapping'. Perhaps chief among these is her identification of the need for our thinking in areas like this to move away from the presuppositions of geophysics, from what she refers to as its 'predisposition towards the "dry", fixed and definable', so as to be more open to 'new kinds of liquid [or fluid] encounter'.

IAIN BIGGS
Bristol

Iain Biggs is Reader in Visual Art Practice at the University of the West of England, Bristol, and Director of its PLaCE (England) Research Centre. He recently authored 'The Spaces of "Deep Mapping": A Partial Account' in Journal of Arts and Communities, *2.1 (July 2011), pp. 5–25.*

Notes
1. Kenneth Frampton, 'Place-Form and Cultural Identity', in *Design After Modernism: Beyond the Object*, ed. by John Thackara (London: Thames and Hudson, 1988), pp. 51–66 (p. 65).
2. *Patterned Ground: Entanglements of Nature and Culture*, ed. by Stephan Harrison, Steve Pile and Nigel Thrift (London: Reaktion, 2004), p. 7.

Letters for publication should be sent to:
Adam Sharr
adam.sharr@newcastle.ac.uk

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