

## Zac Bharucha correspondence : May-Sep 2017

Assembled by Mike Hales : 01Sep2017

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On 11 May 2017, at 16:07, Peter Harper wrote:

Dear Zac

I was a member of the *RSJ* editorial collective. Also of *Science for People* and *Undercurrents*. Let none call me sectarian! Much commentary can be found on the web site for the recent Radical Technology conference [www.radicaltechnology.org](http://www.radicaltechnology.org).

Funnily enough I never published anything in the *RSJ*, but have recently done in its successor *Science as Culture*.

Good luck  
Peter Harper

Then followed the correspondence appended below . . .

12 May 2017 - Initial comments : Peter & Mike

12 May 2017 : Gary Werskey, Bob Young

12 May 2017 - Lucas Aerospace, Catherine Forrester

12 May 2017 - Experiential accounts of alternative practice

12 May 2017 - Zac's thesis scope

14/15 May 2017 - Conference on workers' self-management in science |  
Radical Science Journal | Crucible

9/10 June 2017 - Mike Hales interview, pre-interview notes, 70s  
activist culture

18-21 aug17 - Fragmentation of 70s radical science?

19-21 August 2017 - Radical theory - Marxisms, Ellul, Illich

12 May 2017 - Initial comments : Peter, Mike

**From:** Peter Harper  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 11:19:20 BST  
**To:** Z&C Bharucha, godfrey boyle, chris squire, chris ryan, mike hales, David Elliott

Zac

A few preliminary remarks IN CAPS. It strikes me that we could circulate a discussion more widely.

On 11/05/2017 18:34, Z&C Bharucha wrote:

Dear Peter,

Lovely to hear from you and thanks for the tip about the book you co-wrote and the link to your resource-rich web-site. Well, you are certainly in a privileged spot from my point of view as you were involved in a number of areas I'm looking into. Were the RSJ, Science for People, Undercurrents, connected in any way (apart from the obvious fact of your involvement in all three)?

IN TERMS OF PEOPLE THE MAIN LINKS WERE ME AND CHRIS RYAN, WHO WERE PART OF ALL THREE. CHRIS WAS EDITOR OF SFP. RSJ WAS DOMINATED BY BOB YOUNG, WHO WAS LOUDLY CYNICAL ABOUT ENVIRONMENTAL MATTERS AND THE 'COUNTERCULTURAL' ASPECTS OF SOME PARTS OF THE MOVEMENT.

It seems that dissatisfaction with the modes of science and society, a communitarian spirit and a bootstrap approach characterised the various movements. Wow, the 70's were seething compared with the numb apathy that prevails today. Did you have the feeling that revolution was coming? Was a Marxist influence pervasive at the time, in your own thoughts?

YES, THE 'REVOLUTION' WAS WIDELY ANTICIPATED. 'REVOLUTIONARY ADVENTURISM' WAS WIDESPREAD. MOST PEOPLE THOUGHT OF THEMSELVES AS SOME SORT OF MARXIST. I WAS UNUSUAL IN FAILING TO SEE WHAT THE FUSS WAS ABOUT. RSJ WAS EXPLICITLY MARXIST, UNDERCURRENTS PEOPLE TENDED TO THINK OF THEMSELVES AS ANARCHISTS. BSSRS APPROACH WAS DESCRIBED BY ONE JOURNALIST AS 'RAUCOUS SEMI-MARXISM'.

Did you write anything about your involvement with the RSJ, and are you able to offer any comments about its editorial policy, objectives, financing?

SORRY NO. IT SORT OF RAN ITSELF WITH FREE INPUT FROM ALL CONCERNED. THE PRINCIPAL MARXISTS IMAGINED THE WORKERS WOULD BE QUEUING ROUND THE

BLOCK TO GET THEIR COPIES, WHICH I ALWAYS THOUGHT HILARIOUS. I DON'T THEY'D EVER MET ANYONE FROM THE SOI-DISANT WORKING CLASS.

Was there much influence from the New Alchemy Institute, Esalen, Whole Earth Catalog, to inspire the movements in the U.K. /your own thought, in your recollection? I've got my mitts on RSJ vols 1 2 3 so that is a nice primary source. Undercurrents is digitised but hard copy is always nice.

THESE WERE ALL INFLUENCES ON *UNDERCURRENTS* AND *RADICAL TECHNOLOGY*, NOT AT ALL RSJ. FAR TOO COUNTERCULTURAL AND ENVIRONMENTAL.

PROBABLY FAIR TO SAY THE BASIC IDEAS OF ALTERNATIVE TECHNOLOGY WERE FROM THE USA, BUT OF COURSE WE HAD OUR OWN EUROPEAN TRADITIONS. *THE WHOLE EARTH CATALOGUE* AND ITS SUCCESSOR *COEVOLUTION QUARTERLY/WHOLE EARTH REVIEW* WERE HIGHLY INFLUENTIAL.

I HAVE VAST AND DAUNTING ARCHIVES FROM THOSE DAYS, WHICH HAVE RARELY BEEN REVISITED, ALTHOUGH NOW IN SEMI-RETIREMENT I'M PLANNING TO START SORTING THEM OUT.

I'm also aware of CAT- I thought I might add a chapter in my thesis about it because it materialises many ideas. There's a nice archive available. I live in Vienna, (I commuted to Utrecht weekly last year and the HPS course was tough, now I'm writing a thesis from home to complete my MSc) but actually thinking about relocating to Penarth/Cardiff next year, so I'll be visiting in mid-June. My parents live in Cheltenham, I went to school there a very long time ago.

ATTACHED A COUPLE OF RECENT ARTICLES ABOUT CAT HISTORY. NEARLY EVERYTHING NOW STORED AT NATIONAL LIBRARY OF WALES.

I tried to contact both Gary Werskey and Bob Young- not even sure if they are still going strong. It was reading Bob Young's 'Darwin's Metaphor' that began this line of enquiry and led to my decision to write about Radical science.

NO CONTACT WITH EITHER FOR MANY YEARS. I'LL COPY IN MIKE HALES, WHO MIGHT HAVE BETTER LINKS.

ANOTHER STRAND YOU MIGHT CONSIDER IS THE LUCAS AEROSPACE INDUSTRIAL TRADITION OF ALTERNATIVE TECHNOLOGY. I'LL COPY IN DAVE ELLIOTT, WHO WAS MUCH INVOLVED. SEE ATTACHMENT FROM CATHERINE FORRESTER'S THESIS COMPARING CAT AND LUCAS APPROACHES..

Of course, I'm also interested in understanding the messes we are in today, not just digging up old times for the sake of documenting the past.

All the best and sorry to bomb you with questions, feel free to ignore them or better still come back to me anytime in the next nine months

with whatever you can, book learning is fine but the words of a participant, an actor, is precious indeed!  
COULD RUN AND RUN. HAPPY TO MEET UP IF YOU ARE IN UK. I'M IN WILTSHIRE, BUT THERE ARE OLD LAGS EVERYWHERE PROBABLY HAPPY TO CHEW THE FAT IF YOU BUY THEM A BEER.

Warm regards,

Zac

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**From:** mike hales  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 13:04:15 BST  
**To:** Z&C Bharucha  
**Cc:** Peter Harper, godfrey boyle, chris squire, chris ryan, David Elliott

Hi Zac (Peter, Godfrey, Chris, Chris, Dave)/

Having received Peter's response to you (thanks Peter, this is very interesting and timely) I'll be happy to provide memory related to RSJ, and to discuss what 'radical technology' became. I was a member of RSJ through the 70s, collaborated with Bob Young on a 'radical science' book in 1982, and wrote another in 1980 which I suggest is a radical technology book too, but on quite different terrain than the AT alternative communities practice (closer to the Lucas Aerospace, labour movement, industrial context that Peter referred to).

Just at this moment I'm unable to spend much time on a response, sorry, so here are a few opening notes.

The 1980 book is \*Living Thinkwork - Where do labour processes come from?\* (LTW). It's now republished in pdf/print-on-demand format at <lulu.com> {search: mike hales}<sup>1</sup>. It's (very neo) marxist: 'cultural materialism'. It's very much concerned with activism and everyday life within the corporate sphere of white-collar technical work. It's about the labour of making technology and knowledge infrastructures (ie, practices) in wage-work, rather than the design of specific 'alternative' technological systems or the construction of alternative communities. So, going off on radical technology at quite a different tangent from either the AT movement or the Lucas initiative. I feel it's important to attend to this kind of breadth and diversity, in taking stock today and moving forward.

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1 Included in a digital document bundle accompanying this note.

It's not that I was in any way dismissive of the AT direction (or of 'counterculture'), simply that my own background is not 'science' but industry, engineering design and the organisation and management of work in corporate settings (my first degree is chemical process engineering). This was far from typical in RSJ, as LTW will show. However, I was totally at home with the RSJ argument that 'science is social relations', and with the politics of producing social relations (ie 'work') as distinct from 'radical widgets'. This isn't a dig at AT. But it is a dig at the 'socially useful products' movement, as it developed through the 80s.

I've published a collection of papers that attempt to show a radical technology (or radical \*design\*?) thread through the 70s/80s/90s. The collection is \*Location - Explorations of powers and landscapes of design\*. Again, it's on Lulu<sup>2</sup>. This includes some reflection on the Lucas politics in the 80s (in the context of the Greater London Council's 'alternative economic plan') and ends up in the sphere of computing-related work-design in the 90s.

The 1982 book is \*Science or society - The politics of the work of scientists\* (SoS), which was commissioned by Bob Young. I got on fine with Bob, his loudness didn't get under my skin, his scholarship and hard work impressed me and I had my own (work-design and self-management) 'stuff' within the framework of RSJ, which was quite different from Bob's focus on critique of 'science'. SoS hasn't been republished in full but a chapter is included in 'Location', and the concluding chapters - on forms of organisation in 'radical science' - are available as a booklet: \*Science or society? Extracts 2017\* (yes, on Lulu)<sup>3</sup>.

I do admit, AT doesn't get proper reflection in SoS. At the time of writing I was very much involved in 'alternative planning' within the sphere of wage work, and quite out of touch with the 'alternative living' strands that Peter quite properly is emphasising. To an extent it's a matter of personal politics: I followed an industrial working class identity and a politics of subversion and alternative work within corporations, rather than an 'alternative lifestyle' identity and a politics of autonomous counter-cultural community building.

I would assess these strands quite differently now - this could be an interesting discussion? At the present time I'm very concerned that all of the different practices of 'dig where you stand' radical-science and

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2 Included in the bundle.

3 In the bundle.

radical-technology activism through the 70s/80s/90s should be seen within an overall perspective. We did rather get into silos, with our heads down in our chosen work (not surprising, we were up against it, in the later 70s and the 80s, Thatcher, Reagan, and all that). I feel our generation needs to be a bit more 'heads up' about things now, and aware of - and appreciative of, and making connections between - all the different modes of being 'radical' within science, within design, within technological infrastructure, within medical practice.

<snip>

Kind regards

/mike

12 May 2017 : **Gary Werskey, Bob Young**

On 11/05/2017 18:34, Z&C Bharucha wrote:

I tried to contact both Gary Werskey and Bob Young- not even sure if they are still going strong. It was reading Bob Young's 'Darwin's Metaphor' that began this line of enquiry and led to my decision to write about Radical science.

NO CONTACT WITH EITHER FOR MANY YEARS. I'LL COPY IN MIKE HALES, WHO MIGHT HAVE BETTER LINKS.

**From:** mike hales  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 13:45:51 BST  
**To:** Z&C Bharucha  
**Cc:** Peter Harper, godfrey boyle, chris squire, chris ryan, David Elliott

PS: I'm in touch with Gary Werskey, who retired from academic life and has lived in Australia for years, promoting eco-tourism. At present he and I are linked by a dialogue with an ex-East German PhD researcher, who is exploring Marxism and Science (!!), having been stimulated by Gary's research on the 30s' marx-influenced Left-scientists' movement. Do you know Gary's interesting retrospective:

The Marxist Critique of Capitalist Science: A History in Three Movements? *Science as Culture* Vol. 16, No. 4, 397-461, December 2007 <<http://human-nature.com/science-as-culture/werskey.html>>.4

Beware: Bob Young features large! 'The 70s Bernal' quote unquote.

Regarding Bob, I've had no response to attempts to open a conversation in the past couple of years. He must be in his 80s, I believe he's quite unwell. D'you know his huge archive: <<http://human-nature.com>>. The 'Science as culture' archive is part of the larger one: <<http://human-nature.com/science-as-culture/>>. Bob became prof of psychotherapy at Sheffield, and the scope of his archive reflects this important dimension of RSJ's libertarian-socialist (as distinct from 'communitarian-anarchist'?) radical science (\*and medicine\*) orientation too.

This is another way in which RSJ was a long way from AT. I find it quite important in these days of Brexit, Trump and very dangerous, billionaire-financed Alt-Right counter-democracy and counter-reason.

Q: Why \*don't\* people want a socialist, self-sufficient, convivial world?!

A: 'Human nature'!

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4 Included in the bundle.

You'll see that my Preface in 'Location' picks up on this - though not as clearly as I presently hope to do, in some work in progress. I have a couple of chapters in draft, if this interests you? But this is a long way from AT? How far d'you want to travel? Is 'technology' at the core for you? A thesis does need boundaries!

Also, did you know that BSSRS is compiling a BSSRS/radical science archive, to be hosted by the Wellcome Institute?<sup>5</sup> Charlie Clutterbuck is perhaps the person to contact about where this process is at, and whether the material is currently accessible online (I suspect not, work is in progress): <Charlie Clutterbuck email address>

Cheers  
/mike

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5 I plan to submit this present collection of correspondence to the archive, along with the accompanying digital document bundle. Many of these documents have in fact already been submitted.

12 May 2017 - Lucas Aerospace, Catherine Forrester

On 12 May 2017, at 11:19, Peter Harper wrote:

ANOTHER STRAND YOU MIGHT CONSIDER IS THE LUCAS AEROSPACE INDUSTRIAL TRADITION OF ALTERNATIVE TECHNOLOGY. I'LL COPY IN DAVE ELLIOTT, WHO WAS MUCH INVOLVED. SEE ATTACHMENT FROM CATHERINE FORRESTER'S THESIS COMPARING CAT AND LUCAS APPROACHES.

**From:** mike hales  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 14:12:31 BST  
**To:** Peter Harper

Catherine Forrester's paper<sup>6</sup> is interesting, thank you, I haven't seen it before, and don't know Catherine. Well reasoned and relevant. Relevant to my concerns too: I have a post-GLC, feminist-oriented assessment of 'Lucas-ist' politics of technology in the 90s, republished as a chapter of my 'Location' collection: The location of humans, ordinary people and women in system design - 'at the centre'? If you're in touch with Catherine, maybe she might find it interesting?

Can you tell me the context of her chapter: date? published or work-in-progress? institutional setting? I can find no clues in the document.

These stories are ongoing!

Cheers  
/mike

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6 Included in the bundle.

12 May 2017 - **Experiential accounts of alternative practice**

On 12 May 2017, at 11:19, Peter Harper wrote:

Zac

ATTACHED A COUPLE OF RECENT ARTICLES<sup>7</sup> ABOUT CAT HISTORY. NEARLY EVERYTHING NOW STORED AT NATIONAL LIBRARY OF WALES.

**From:** mike hales  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 16:41:53 BST  
**To:** Peter Harper

I'm really glad to have your Science as culture draft, thanks. It's important that experiential descriptions of 'alternative' practice are out there. Though I would say that wouldn't I, having been doing 'work practice' writing (and R&D) since Living Thinkwork!

I'm glad also for the illustration of AT reasoning in a movement from the very small to the rather large (and back).

What's the publication data Peter? Is it recent, like your NGO paper?

cheers  
/mike

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7 Included in the bundle.

12/13 May 2017 - **Zac's thesis scope**

**From:** Z&C Bharucha  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 20:49:58 BST  
**To:** Peter Harper, godfrey boyle, chris squire, chris ryan, mike hales, David Elliott

Dear Mike,

I'm extremely grateful for your reply and owe thanks to Peter Harper for forging the link. Whilst I was able to find details about Gary Werskey's eco-tourism I was unable to contact him by email using the address from his paper and the informative comments about the New Left. No reply from Bob Young's email, yes, I have seen his web pages. I read your book 'Science or Society?' a few months ago after reading 'Darwin's Metaphor'. I read Godfrey's first part about Undercurrents - most informative - but alas part 2 is unavailable.

Very briefly about my interest- I'm studying for a research MSc in History and Philosophy of Science at Utrecht University. <snip> I've chosen to write about 'radical science in the UK.' I'm aged 54, and frankly doing this for personal development/curiosity/to pass the time of day. This could run to a PhD, depends if I want to devote time to it, but that is not my plan right now.

I'm influenced by Secord's 'Victorian Sensation' in so far as I embrace the material aspects not just disembodied ideas. I would like to write about the following:

Chapter about radical movements in the UK 1968-75. I'm interested more in the revolutionary fervour than in endings. I'll sketch in some social/economic scene. Links between them?

Chapter about material output- focusing on Undercurrents, Radical science journal and BSSRS. Investigate the links, between them and with USA & elsewhere, examine some content, Bob Young's role in RSJ. Even the adverts/ recommended publications in RSJ are revealing.

Chapter on sociobiology/ideology in life sciences. Bob Young wrote extensively on this.

Chapter on intellectual background from late 60's. I have a nice bibliography already. Would like to investigate these topics: natural science/humanism. Pure and applied science. Scientism. Objectivity. Scientific knowing as a monoculture (the only valid way of knowing about anything.)

Perhaps a chapter on CAT. This would give a nice physical expression to one side of the radical movement—here you have to leave society and build a new community from scratch. In Wales too...where they shot 'Survivors.'

Chapter on 'radical science on t.v.' would be nice. Reach the masses. I'm trying to get my hands on 'Crucible' as I would like to examine the presentation of science on t.v. in this series. Any tips how to get it? So I'm not writing a paper 'about' Bob Young but he is a kind of 'hub' as he will figure in some chapters. But so too might Peter Harper be a hub. BSSRS, RSJ,

Somehow I will integrate the material above into a research problem/s. It is always nice to put some quantification in—copies printed, copies sold, most popular articles. Reader feedback. Most important—what did you think you were doing at the time???

Please feel free to catch up with me as your time permits. I'll take a look at everything you noted.

<snip>

Best wishes,

Zac

p.s. Thanks a million Peter!!!!

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On 12 May 2017, at 20:49, Z&C Bharucha wrote:

Dear Mike,

<snip>

Very briefly about my interest <snip>

**From:** mike hales  
**Subject:** Re: Radical Science Journal etc  
**Date:** 12 May 2017 at 22:21:46 BST  
**To:** Z&C Bharucha, Peter Harper, godfrey boyle, chris squire, chris ryan, David Elliott

Hi Zac, a couple of quick notes . . .

If your interest extends to Bob's 'Crucible' TV project, I'll be able to say a little about that in due course since, as you'll have gathered, my 1982 book was associated with the series. But I've no idea whether any footage survives, sorry.

Your interest "more in the revolutionary fervour than in endings" . . . that's kind of interesting. Given how concerned with 'endings' we old

stagers are at present, it might be nice to have somebody doing a flashback! And yes, Godfrey's piece is good on counterculture. It rings very true for the context of radical science in Brighton in the early 70s. Don't overlook Illich's anti-professionalism (the 'de-schooling' movement, etc) - it wasn't all Marxism. Oh, and then there was Wilhelm Reich's 'Sexpol', and the Situationists . . . etcetera. Revolutionary fervour of all kinds. Feminism(s), of course. The oral-history movement.

As you're interested in 'material aspects' and not just disembodied ideas, Peter's descriptions of life at CAT in the Science as Culture piece that he sent to you are very relevant. In a different way (relating to a different practice) you'll find that kind of material in my Living Thinkwork too. I attach a short piece that says a little about life in the 70s; some reflections around the death of Brian Easlea, a key figure in Brighton<sup>8</sup>. It's available on ResearchGate too. Says something about " what did you think you were doing at the time". I do feel that's an important kind of perspective: what do 20-somethings think \*they\* are doing, in 2017? All radicalism is in a bubble of some kind!

"Scientific knowing as a monoculture" rings bells for me. The 70s set me off on the trail of a whole bunch of forms of 'rigour', of which quote-unquote scientific method is only one. You might pick up some aspects of this in my Preface to the 'Location' collection? However, Peter has a strong and probably contrary line on this, with his 'physics trumps politics' principle, very committed to 'scientific knowing'. Peter as 'a hub' is a good idea.

Not wise to focus too much on Bob Young - for example, a historian of BSSRS, Alice Bell, wrote of 'Bob Young's RSJ', which badly misjudges the reality of that collective practice, I feel. I can let you have her paper, if you don't know it<sup>9</sup>. The 'science and ideology' theme is how a lot of this was explored in the 70s (along with that old chestnut/red herring, 'use/abuse'). This is where a lot of Bob's effort was given to; a shame really, a terrible waste of effort. But that's the force of scientism in the culture! I think 'multiple forms of rigour' is a better way to get hold of issues, practically. Mixed farming, rather than monoculture! Bricolage!

Radical science at CAT and radical science on TV are two very different stories. Good to tell them both, side by side. There were other 'radical sciences' and 'radical technologies' too: the Work Hazards

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8 Included in the bundle.

9 Included in the bundle.

movement, the food politics movement, Lucas-ish initiatives and 'human centred design'. The Forrester paper that Peter sent to you is good on the AT/Lucas comparison; have you got room to develop a profile of Lucas-influenced practice too? But this becomes 80s rather than 70s - can you afford to spread your focus that far?

You've only got 40k words? Seems to me you have a PhD on your hands!

Best wishes, more anon  
/mike

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**From:** Z&C Bharucha  
**Subject:** Re: Radical Science Journal etc  
**Date:** 13 May 2017 at 15:17:25 BST  
**To:** mike hales

Dear Mike,  
<snip>

I believe the Crucible series might be available from ITV but I read somewhere each programme is priced at 125 pounds. Do you recall the episodes, remember your favourite/most controversial one, I guess not, as I will probably concentrate on just one of them? When you have time perhaps you can say more about the order/relation of events: your writing of Science in Society, Crucible on TV.

Thanks for the leads about non-Marxist sources, wasn't aware of any of that.

BSSRS- I will write a bit about it, so frustration/ambition led you and others to get involved with RSJ? Did RSJ undertake any lectures?

Your tribute to Brian Easlea-very sincere. Thank you for sharing it. I understand.

I have read the Alice Bell piece, thanks for your view on that. Much more a collective enterprise in reality.

I'll go with the mixed farming approach. I think the Lucas practice would be a step too far. In general I would like to keep a balance between covering natural science and technology in my thesis.

14/15 May 2017 - **Conference on workers' self-management in science | Radical Science Journal | Crucible**

**From:** mike hales <michaelhales@mac.com>  
**Subject:** self-management conference?  
**Date:** 14 May 2017 at 12:17:25 BST  
**To:** Peter Harper

Peter, remind me - were you a member of the organising group of the BSSRS conference on workers' self-management in science, in 1972? The topic has come up in an exchange with Zac, and my memory of who was involved is hazy.

In case you should want to read it, in a separate email I'll copy you the exchange, which is about different directions within and from BSSRS and RSJ. I speculate a bit about AT practice becoming a strand separate from BSSRS, you may want to add further?

I guess, I'm hoping to give Zac a sense of multiple threads in the 70s. I'm very struck today by the way that 'communitarian' AT is the one that has stayed intact, with 'science studies' and industrial/trade-union ones having got lost in more diffuse cultural movements or come apart altogether, left behind by Thatcher-Reagan times. Though there's no simple causality.

Cheers  
/mike

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**From:** Peter Harper  
**Subject:** Re: self-management conference?  
**Date:** 15 May 2017 at 09:05:39 BST  
**To:** mike hales, Z&C Bharucha

Mike, Zac

Thanks for all the fascinating material. No I was not involved in that 1972 conference. The big one for me in 1972 was the first public use of the term 'Alternative Technology', the title of a conference held at the Bartlett School of Architecture in February that year. There I first met Godfrey Boyle and the *Undercurrents* group. Chris Ryan was there too. Apart from editing Science for People he was a principal founder of Ceres, Australia's equivalent to CAT.

Strikes me that although Zac has already too much on his plate, might be interesting to hear views from Jonathan Rosenhead and Dot Griffiths.  
Best, P



**From:** mike hales  
**Subject:** Radical Science Journal, crucible, BSSRS  
**Date:** 14 May 2017 at 12:01:07 BST  
**To:** Z&C Bharucha

Hi Zac/

- *Crucible*

These are the books that I remember, all can be found on AbeBooks or Amazon:

Nick Davidson & Jill Rakusen, *Out of Our Hands* (TV programme: I'm not ill, I'm pregnant). Authors were researchers recruited by the TV series I think, not BSSRS related as far as I know.

Edward Yoxen, *The Gene Business: Who Should Control Biotechnology?*  
Author was an academic in science studies, University of Manchester, BSSRS activist in genes domain.

Joel Kovel, *Against the State of Nuclear Terror*. Author was an American academic, on Bob Young's network.

Mike Hales, *Science or society? The politics of the work of scientists*. No TV for this, this was 'the book of the series'. As part of the book series, early in 1982 I was given a commission by Bob (Crucible editor) to write an RSJ-ish overview of ten years of radical science themes.

There may have been one other book, related to a TV broadcast, I'm not sure. Broadly, the idea was that each programme would have an associated book.

I have no idea whether any of the TV footage exists. I can find references to the series, but not to any footage. The only programme that I remember was about white-knuckle rides in theme parks; it had no accompanying book, as I recall. I found it disappointing, it didn't really hit the button in my view; had no recognisable 'radical science' focus. Perhaps this was why there was no book. Bob had a struggle with the TV professionals, over ways of representing critiques in TV media; and there was always a danger that Crucible would just be talking heads. I don't think they ever worked this through (though Bob was very aware of the need for new forms), and eventually the politics of 'TV professionalism' wore Bob down, perhaps marginalised him in the production set-up, and he didn't attempt a second series.

Apparently the following book discusses 'Crucible' and other treatments of science on TV: <<https://www.amazon.co.uk/Films-Fact-History-Documentary-Television/dp/1905674376>>

- *Non-Marxist sources*

Apart from 'seriously Left' Marxism and socialism, broadly Left anti-war politics and anti-militarist opposition to violence by the State, and the beginnings of environmental consciousness, I feel that the most important current in the 70s was 'radical professionalism'. You perhaps can see this highlighted in my Brian Easlea piece, and maybe in the Preface to 'Location' too. In the mid-70s there were 'radical' professionals of almost every kind, and as an ex-working class baby-boomer graduate/intellectual, that was a natural kind of identity for me. It made more sense than wages-oriented trade unionism, for example. As a work-centred politics, it made more sense than 'protest' too. The way I've described Brian may also give you a sense of the 'revolutionary ferment' which, in Brian's case, was quite obsessive, dear man. That was very much the atmosphere I felt myself to be in, on the Sussex campus. Peter Harper was an important part of that university-based community, until he went to CAT in Wales. He was close to Brian too.

- *BSSRS, RSJ, conference on Workers' Self-management in Science*

BSSRS activists like Jonathan Rosenhead and Dot Griffiths will probably say that the most significant early event was the demonstration and intervention at the British Association conference in Durham. For me, this was marginal, I was uninterested (not having much interest in 'science' myself and not having a 'protest' confrontational kind of persona). I suggest that the most significant event may in fact be the 1972 conference on Workers' Self-management in Science. I attach two documents that I've given to the BSSRS archive (the only material that exists, I think)<sup>10</sup>.

I think this event - which followed on from the 'modern biology' conference on Euston Road, where I first saw Bob Young in action, speaking impressively from the floor (in an American accent?!) - was the most 'Left' statement that BSSRS made in early years, and perhaps in all its years. Certainly, it's where my activism started from; the broad BSSRS 'Science for People' approach always seemed a bit wishy washy to me, a punches-pulled version of the US 'Science for the People'.

Radical Science Journal emerged directly from the organising group for the conference, not as a matter of frustration/ambition as you suggest (wishy-washyness hadn't emerged as an issue at that point), but as a

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10 Included in the bundle.

way of continuing the very politicised practice that had been initiated with the conference organising collective. In the event, RSJ was where \*theorisers\* went, BSSRS people weren't into theorising the politics (eg neo-Marxism, feminism, group psychodynamics), they were more populist. In another direction, I think that AT diverged from BSSRS, because its members had an agenda of 'work' rather than 'talk'.

It would be good, in your analysis, to identify the different kinds of science-based (and knowledge-based) work-practices that emerged from BSSRS - quite probably in the regions? As distinct from the 'counter-ideology' practice of the newsletter, in the London office? I don't mean to minimise the importance of the national committee. It was significant in fundraising for example, creating the Science and Society Trust, which still exists (it part-funded the RT event in Bristol last October). Bob Young was a member of that committee too, I think. Also, the editorial committee of CSE Books (Conference of Socialist Economists publishing company: published Living Thinkwork and stuff on 'new technology' as well as Marxian economics and labour history, very hybrid).

If you can get Chris Ryan - address in Peter's emails - to reflect on BSSRS, that would be really good. He was editor of Science for People. I'd certainly be interested to know what things look like from that perspective. Chris lives in Australia.

I attach a couple of late-70s/early-80s items of mine from RSJ<sup>11</sup>, including a 1983 review of two BSSRS pamphlets (further material from the BSSRS archive). The latter argues that there are 'more than two sides'. This might be a good theme to take up in your analysis of 'radical technology' and radical science. A \*very\* mixed economy, in the 70s! The other two pieces are about the distance between 'critique' and alternative practice, and the place of 'theory' in bridging the distance.

RSJ is the only place where this kind of approach could have been published, I'm sure. Equally, I'm not sure that anyone else in the collective felt it was as central as I did. By that time I had entered-and-left my subversive situation in ICI and was quite detached from metropolitical and academic communities. And RSJ (specifically, Bob) was fighting shameful attacks 'on the 'Left' from Hilary and Stephen Rose, co-founders of BSSRS. They seemed Old Left, probably still believed in Bernal's 'science of science', and in the autonomy of senior scientists: more is better, of both. But a lot of it was personal I think, against Bob, his charisma, his refusal to defer to

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11 Included in the bundle.

their sense of professional status. To me, the Roses seemed to be egotistical, condescending, sectarian people. Not being 'metropolitan', I was glad to be well clear of them.

RSJ did organise at least one series of seminars, at 26 Freegrove Road (Bob Young and Margot Waddell's home, where the collective used to meet). Being either in Brighton or Manchester, I was never involved in the London-based seminars (and not really aware of their existence), only in the journal editorial collective. But I think, for example, that the material by Cynthia Cockburn (a radical feminist sociologist and activist, never associated with BSSRS as far as I know) on technology 'in the print' - used in my SoS chapter 'A whole history of technology' - was from one of these RSJ seminars. I listened to the tape. Bob Young was an avid maker-collector of tape cassettes as well as paper documents. It was an important function, which you can see continued in his online archive.

- *Radical science/AT*

I understand the line you're drawing at Lucas. But it is necessary, I think, to recognise in your thesis that 'radical technology' did not only appear in the form of environmentally-oriented 'AT'. At the same time, AT *is* the community that has maintained an existence to the present time, and is thus very significant. Peter Harper is correct to say that a lot of members of the radical science movement didn't really give a priority to environmental issues and recognise how big they really were going to become. There were many 'fronts', many 'bubbles'.

My hunch is that 'AT' was the 'communitarian' bubble - people who were committed to developing an autonomous lifestyle and to experiment with communities for living and working. They *necessarily* were implicated in alternatives in technology.

In contrast, my own bubble was libertarian-socialist politics of (counter-hegemonic) knowledge production *of all kinds*; and self management in the wage-work workplace. Lucas in the 70s was my initial inspiration<sup>12</sup>. And because of my professional (and family) background, I chose workplace technology infrastructures as my field of radical practice. I had no personal investment in 'science' as a professional

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12 The work that the Brighton Labour Process Group did with shop stewards at Creeds (a teleprinter factory in Brighton) was perhaps more influential, in establishing 'labour process' as the way forward for my thinking about radical-science practice. The Lucas-related activism had a lot of appealing ideology, but no sufficiently tight language.

or cultural sphere, or in its values. I was interested in the (theorised) skills of competent husbandry in the 'mixed farming' of knowledges and ideologies and wage-work practices and white-collar work. A muddy field!

I think that in all these areas it would be good for you and I to talk; there's further 'feel' to be communicated, if not hard data. For example, about the Self-management conference. D'you plan to be in England Zac?

Kind regards /mike

9/10 June 2017 - Mike Hales interview, pre-interview notes, 70s activist culture

**From:** mike hales  
**Subject:** articles  
**Date:** 9 June 2017 at 14:52:18 BST  
**To:** Z&C Bharucha

Hi Zac, thanks for our conversation today, which I enjoyed very much. I appreciate the attention and thought you're putting into this study. I'll send you two emails. In this one I attach the articles I said I would send, with a brief description. In the other will be my notes that I prepared before our conversation; quite a bit of the content wasn't highlighted in our conversation.

Best wishes  
/mike

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These are the articles attached<sup>13</sup>:

Mike Hales (1980), 'Thinkworkers think class', *Radical Science Journal* 10, 135-137.

*A review of the Ehrenreichs' 1976 article.*

Barbara & John Ehrenreich (2013), *Death of a Yuppie dream*, New York: Rosa Luxemburg Stiftung.

*A pamphlet repudiating the idea of a professional-managerial class and asserting the political reality of a single working class (with fractions), whose professional-managerial component has been subordinated increasingly by capital in the decades since the 'PMC' article in 1976.*

Mike Hales (1983), 'Science - From whose side?', *Radical Science Journal* 13, 109-113.

*Critique of the (relatively untheorised) politics of two BSSRS pamphlets, highlighting different 'silos' or formations within BSSRS.*

Mike Hales (2017), 'Politics of production - Doing things with our work that really are different', Preface to: *Location - Some explorations of power and landscapes of design*, Brighton: Mike

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13 The items on the Professional-Managerial Class are included in the bundle. The Murray/Gilbert/Goffey article on post-Fordism is not.

Hales, Lulu print-on-demand paperback and pdf eBook <lulu.com>; this revised edition June 2017.

*This is a current summary of some 'professional-managerial class' concerns, in a preface to a collection of 80s and 90s articles. But it introduces the notion that the landscape 'in-here' is also an essential focus of analytical understanding, for activists. My current writing is already going beyond this formulation, but this example will do. The current work-in-progress is too lengthy to be a worthwhile focus for you at this time<sup>14</sup>. The \*Location\* book can be obtained from <Lulu.com> as a print-on-demand paperback or pdf eBook.*

Robin Murray, Jeremy Gilbert & Andrew Goffey, (2015), 'Post-Post-Fordism in the Era of Platforms', *\*New Formations\** 84/85 (Societies of Control), Winter 2014 / Summer 2015, 184-208. *Post-Fordism, labour process and the GLC industrial strategy, discussed in 2015. 'Labour process' Marxism involves detailed attention to the material organisation of work (and alternative organisations of work - including the details of technology) within the production process. This makes it 'associationist' and activist. As distinct from a traditional Marxist focus on the dynamics of exchange value in markets and 'the immanent laws of capital'.*

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**From:** mike hales  
**Subject:** notes  
**Date:** 9 June 2017 at 15:26:26 BST  
**To:** Z&C Bharucha

Hi Zac, these are the notes that I prepared before our conversation. They're written in Markdown (ie heading levels and italic emphasis shown by # and \* respectively).

I'm not sure that they're fully intelligible - but I hope they add some information and clarify a couple of things.

Anyway, you have far too much information already, at this point!!

Best wishes  
/mike

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14 This refers to the Prologue and introductory chapters to *Activists and the long march home*; Prologue is included in the bundle - see footnote 16 below.

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# BSSRS and RSJ notes for Zac

Mike Hales response to Zac questions, 09 Jun 17

Dear Mike,

You've already told me a great deal which has been immensely helpful. Just a few areas I would like to clarify.

You explained that you were not part of the London set on RSJ, so \*how did you keep in touch\* with the editorial collective given that you were not based in London? Correspondence by letter? Were some others on the editorial collective in closer contact with you?

Did you keep up a level of interest/activity within \*BSSRS\*? Until when, would you say? How were you occupied in the period 74-6  
Mike?

\*How was RSJ funded\* - Rowntree foundation grants/loans? Did the journal pay its way as a publication? Was 9 Poland st just a 'brass plate' for a number of groups, or did any activities of RSJ take place there?

Speak to you soon Mike!

Regards, Zac

Two threads:

- Mechanics of RSJ (participation, communication, funding)
- Relationship between RSJ and BSSRS (branches of 'radical science/ radical technology', silos)

*##Mike Hales participation in RSJ and BSSRS - forms of connection/ participation are highlighted with \*italics\**

### 69-72, living in Brighton, postgraduate researcher

National BSSRS: Gary Werskey '71 personal \*meeting\*, thesis related, a history of science contact. Social impact of modern biology \*conference\*.

Local BSSRS: Brian Easlea, Peter Harper, \*weekly contacts\*.

To me, Stephen & Hilary Rose seemed to be snobs, metropolitan political wheeler-dealers and elitists, personally disdainful, some kind of unwanted aristocracy. Eventually they became outright opponents of RSJ, only partly a personal antipathy to Bob Young, a deep

workerist/elitist political division, critique of scientific rationalism and 'progressivist' ideology vs 'abuse of science'.  
71-72 BSSRS (and other further-Left groups) workers' self-management in science \*conference collective\*. Jonathan Rosenhead, Bob Young, Brian Easlea (?), Margot Waddell(?)  
\*Shared reading\*: proto-science studies (eg Popper-Kuhn, 'anti-science' polemics), emerging environmentalism, Marx \*Capital\* reading groups, 'new-Marx' emerging literature.

### 72-74, living in Brighton, postgraduate researcher  
RSJ collective \*meetings\* in London. Cover designs, typographic design.  
\*Article\* in RSJ#1.

Reading submitted \*articles\*, editorial comment.

BSSRS: management theory and alternative ('demystifying', oppositional) \*corporate\* practice, \*conversations and drafts\* with Jonathan Rosenhead and Dot Griffiths; also Colin Thunhurst - thesis related. 'Radical OR', \*shared reading\* (eg Louis E Davis \*Design of jobs\*, socio-technical systems approach, Enid Mumford).

National BSSRS - passive, \*newsletter\* reader. Local BSSRS, activist (discussions only).

Conference of Socialist Economists CSE: Brighton labour process group \*working notes\*. Marx \*Capital\* reading group

\*Common reading\* - US and British New Left (and Maoism), science critiques, radical professional critiques (de-schooling), 'new working class' pamphlets, Reich 'authoritarian personality', environmental movement, lifestyle movement, \*Whole Earth Catalogue\*, labour history, oral history, workers' writing, Brighton 'alternative' culture (community bookshops).

\*Not shared\* - Raymond Williams, socialist-Marxist cultural theory.

### 72-79, living in Manchester, working full-time for ICI 74-77, part-time employment/house-husband 77-79

RSJ train travel to \*some meetings\* in London. \*Writing\* reviews. Cover designs.

Reading submitted \*articles\*, editorial comment; and \*shared reading\* - a de facto 'reading group' of Left science studies and activism, articles and pamphlets (eg social Darwinism, IQ, computing (\*Real time\*), pharmaceuticals, psychoanalytic approaches to violence authoritarianism scientism etc).

Bob Young \*visited\* us in Manchester, read \*thesis draft\*. Also, drafts leading to \*Living thinkwork\*.

BSSRS work-hazards activists \*visited\* Manchester too. Just a few occasions.

Continued management theory: conversations with Jonathan also Colin - \*thesis related\* (completed 1978).

CSE: Brighton labour process group \*working notes\*, CSE annual \*conference\* was important.

Pop-up Communist University of London was significant for a couple of years, in Rock Against Racism era.

mh connections developed within national network of trade union & community research & information centres ('resource centres') - eg annual \*conference\* - rather than BSSRS or RSJ or CSE.

Cooperation with Ken Green & Rod Coombs, liberal studies in science, Manchester university, \*ICI research coop\*. Marxian sociologist-economists.

Discussion with Bernard Leach, liberal studies in science, Manchester polytechnic, \*colleague\*.

### 79-82?: living in Crawley, part-time employment

RSJ \*meetings\* in London. No social or political connections outside of collective meetings.

Reading submitted \*articles\*, editorial comment; and \*shared reading\* - eg Donna Haraway.

79-80 Bob, drafts leading to \*Living thinkwork\*. Labour process; but industrial workplace 'organising' was not a common RSJ orientation.

'82 Crucible, \*Science or society\* close writing-researching collaboration w Bob Young, dialogue with network of BSSRS-aware academics: ghost-writing an account of 'British radical science' perspectives.

Occasional conversations with Jonathan also Colin - 'radical OR'.

No BSSRS now.

### 82-86, living in Crawley, 'technologist/economist' employed part-time at 'the Livingstone GLC'

RSJ/Free Association books - I gave Bob and Les a research \*commission\* for GLC work on 'knowledge economy'. Pam Percy (Linn) \*Greenwich Technology Network\*, was a personal friend.

83 BSSRS pamphlets \*review\*.

84? Tim Lang @ \*GLC\*, food strategy. Phil Blackburn ex-Manchester @ GLC, post-Fordist innovation strategy.

Post-GLC . . . office computing, human-centred design of workplace IT systems. No BSSRS, no RSJ. Other communities - community and labour activism, participatory design of IT. Libertarian organisation development. \*International\*, 'invisible college'. Business school academic. Action research (work-practice R&D consultancy).

## Communications in the 70s

All the way through the above period . . . No email existed, no digital filing systems, no word processors until mid-80s (in office not

home environments, until BBC Micro Wordwise/View/Inter-word, with floppy-disc storage). Carbon paper copies were made on manual typewriters - typically, master and three copies ; \*Science or Society\* (1982) was written on a manual typewriter using Tippex and multiple carbons, from research notes on file-index cards. Photocopying? I don't think so, maybe in universities? Larger-scale copying via Gestetner/Roneo duplicators. 'Proper' printing by offset litho, from physical paste-up layouts using 'golf-ball' fonts and, in the 80s, computer phototyping (not compatible with personal computers). Postal mail distribution. Of course, the telephone.

## ## Funding

RSJ was \*not funded\* except by revenue from journal sales (Publications Distribution Coop). All activity was voluntary and unwaged, took place in homes, university departments. In contrast with BSSRS, which raised charitable grant funding, created a trust, administered funds, published a regular newsletter, employed some staff, rented an office: a traditional voluntary sector organisation with a cash flow and accounts. RSJ was an association of individuals, not a legal entity, no pooled financial assets, no accounts. Publishing was irregular (editions were identified with a year and number but not a month), whenever a journal edition was ready. I have no idea how the print bills were paid or revenue received!! I assume Bob. Members brought shared lunch to all-day editorial meetings (at 26 Freegrove Road, a large house in the Islington/Holloway area of inner London).

I don't think RSJ did pay its way eventually - this may be why it ended (I wasn't involved in the decision, and I don't recall why not, or when it was made). Bob Young and Les Levidow (American ex-pat Londoner) - 'the terrible twins' of RSJ/CSE - moved into publishing \*Free Associations\* (critical psychoanalytic) and \*Science as Culture\* (science-is-social-relations); presumably Bob's personal finance, these were not collective ventures. Possibly Les received some payment, for editorial/production work, I don't know.

9 Poland St was a 'brass plate' for a number of groups. Activities of RSJ didn't take place there, I probably was there only once, in passing. But BSSRS volunteers did work in the office, and a paid worker(s) Chris Ryan? London-based people - Committee, formal groups - would be there more frequently - eg Bob - and might arrange to meet there and talk (or at their university office). Most of my meetings with a small handful of BSSRS activists were in university offices eg LSE, Jonathan (Imperial College, Dot? don't think so). Quite a bit of BSSRS may have been done on the phone, among committee?

The self-management conference collective used a basement meeting room at the JD Bernal Memorial Library in Bloomsbury (hired? BSSRS paid?).

*## Margot Waddell in RSJ*

Bob's partner, Margot, was important in RSJ. She wrote no 'radical science' articles; her field was feminist/psychoanalytic work on literature (she was writing a PhD on the author George Elliot and was in training as a therapist at the Tavistock Clinic). But she was the closest person to Bob (they had a son together) with very much her own perspective, and often - I felt - held a balance in any tensions around or challenges to Bob. Collective meetings were held in their living room. Margot had a strong intellect, strong political commitments and a depth of humanity which I always was aware of and glad of in debates within the collective. She and Bob carried an orientation to psychoanalytic perspectives which was a significant element of the unique RSJ 'mix'. Bob and Margot later separated; Margot became a senior figure in child psychoanalysis at the Tavistock. Bob, of course, also became a psychotherapist, with a Chair at Sheffield University.

*## Silos*

*###* By 1980, silos had developed? Different commitments and backgrounds of communities of Left activists?

Work hazards, politics of food, radical statistics, warfare and oppressive State. 'Customer-contractor' principle in science funding.

Alternative technology *\*living\** (energy, food/farming, communities, transport infrastructure).

David Dickson (BSSRS ex-General Secretary), *\*intermediate technology\** for development, science journalism.

Fraternal movements, *\*not scientists\** . . . Radical (Marxist) economic theory of labour process, alternative regional/international *\*economic\** strategy and labour-process radicalism.

. . . Feminists, socialists and labour activists - alternative, oppositional skills-based, development of cooperative IT-based *\*work\** (feminist, socialist).

*## 'Science', activism, libertarian culture*

Unlike most others in RSJ and BSSRS, I was not a scientist, not employed in science, had no investment in 'scientific method', peer-reviewed publications, professional institutions in science or engineering, national competitiveness within science, advancement of scientific research. My engineering involvement

(chemical engineering degree, 1967) was an orientation to objects and tools, work, skill and workplace practice (working-class family), not to a profession. By 1969 I had turned away from this: see LTW. By the time I met BSSRS I was entirely 'political', socially-motivated, libertarian (if confused!) with no 'scientific' commitment. For a majority (??) of BSSRS national activists in the 70s this was not the same, they had professional career investments or personal commitments?

My deepest orientation is anti-elitist, anti-capitalist, libertarian, 'poetic' (felt experience, private troubles rather than public issues, introspective), associationist-socialist, 'politics of production' in everyday life, 'organic intellectual' activity within communities and wage-work workplaces.

As I said in our conversation, the basic extremely broad politics - underlying BSSRS, RSJ, CSE, GLC etc etc - is about the production (and alternative production) and mobilisation (and alternative mobilisation) of knowledges. This embraces PMC, 'science and ideology', alternative technology, food politics, work hazards, 'popular planning' at the GLC, alternative industrial strategy, 'organic intellectual' practice in communities and workplaces, etc etc. You will see this, I think, in my Preface to the \*Location\* book (my other email).

A thing we didn't touch on is 'libertarian' as a label for political practice. It embraces feminisms, antiracism, 'emotional politics'. It's part of the fabric of network-based (ie informal), productionist, associationist activism. Nothing specifically to do with science and technology. And many roots in traditions outside of Marxism or socialism. This dimensions will also be apparent in my Preface. This is one of the deep connections of 'radical science' (eg RSJ) with the alternative technology movement \*for alternative living\*, and with the \*community politics\* of the 70s and 80s (eg GLC).

My stance presented in SoS (1982) was formed early, around 1971, partly through critique of 1930-40s inter-war 'radicals' in science (Werskey), partly through New Left socialist ethos, partly through grass-roots, rank-&-file political organiser-activist libertarian-anarcho culture (60s' shop-stewards' movement, community politics ethos, 'hidden history' perspective, 'dig where you stand', etc).

For me there was no opposition to the alternative technology (alternative \*living\*) movement. I simply wasn't wanting communitarian, self-supported living for myself, and had an identity as a wage-worker in industrial settings. It was a life choice but not a political antagonism. "Counter culture" was a very significant part of the radical culture as far as I was concerned - but I chose (identified with) wage-worker counterculture (counter-hegemony, class struggle, 'organising')

rather than rural-communitarian utopian making-and-fixing of actual technological means of living.

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On 9 Jun 2017, at 15:54, Z&C Bharucha wrote:

Dear Mike,

Many thanks for the time you spent with me today and for the links and articles, provided so generously.

Following our discussion I will probably make some changes in the direction I take, but bear in mind I need to keep matters grounded in a 'natural science' context. I think I might drop the 'Crucible' episode idea, probably give more attention to BSSRS, incl gender, work hazards, Battersea smell and of course worker self-management. I'll follow up on the radical professional theme. I'll pare back what I was going to include on Mumford/Ellul, keep in a little bit about tacit knowledge (as that matters a great deal for philosophy of science and ways of knowing) and add in content for the Ehrenreichs.

I'd like to get hold of the Barry Barnes book. It was great you mentioned some of the production aspects and the Unicorn bookshop, little details like that. I won't go into the GLC in any detail, beyond the time span and my locus, but good to know about.

Your follow-up mail with personal details is very helpful. I will be able to write a longer piece on the RSJ, without defaming anyone!

Many thanks,  
Zac

✉

**From:** mike hales  
**Subject:** Re: articles  
**Date:** 9 June 2017 at 16:58:25 BST  
**To:** Z&C Bharucha

I'm sorry, I can't find information on the Barnes collection, it's no longer on my shelves (over the years, things get cleared out - notably when we went to live and work in Sydney, 15 years ago!). I've referenced the Habermas chapter that is included in the collection as: Habermas, Jürgen (1971). Science and technology as 'ideology', in Habermas, Jürgen, *Towards a rational society*, Heinemann.

The Barnes book was a reader in philosophy, sociology and history of science - one of the first 'science studies' books, precursor to STS, published 1971. Barnes was a lecturer at the Science Studies Unit, Edinburgh, and probably the articles were course reading there.

The book has historical interest perhaps but I'm not sure how much effort it's worth, to find this old Penguin paperback? I remember its cover, but not its title.

If you're interested in the way I crudely appropriated the chapter by Habermas and his theory of cognitive interests, see 'Where are designers?' in my 'Location' collection. This is a better indication of how I ended up using him, than the article in RSJ #1. That was fairly 'Habermasian', from the early stages of my PhD research, but within a couple of years the main framework was being furnished by labour-process Marxism/cultural materialism (and, significantly, by a pragmatist interpretation of 'the systems approach' in US management science).

I didn't know anyone else in my radical science circles (even 'theoretical' people) who read even this much Habermas (except Bob Young, who read \*everything\*).

Best wishes

/mike

PS: Yes, tacit knowledge and ways of knowing are significant. And a lot more development has occurred since the Polanyi days I think - for example, in anthropology-of-science approaches in STS. As you can tell, I do rather tend to discount that whole early-70s philosophy of science context, as barking up a wrong (positivist-framed) tree!

🐼

**From:** mike hales  
**Subject:** Re: articles  
**Date:** 10 June 2017 at 17:21:31 BST  
**To:** Z&C Bharucha

On 10 Jun 2017, at 10:46, Z&C Bharucha wrote:

Dear Mike,

I've located the Habermas book in Utrecht library, I'm over there Monday so that's good- I'll soon be able to read the chapter.

I will leave the Barnes book for now (my supervisor has mentioned his name in passing).

I hope I will be able to develop a bit on the theme of science as a cultural product.

Mike, back in the day to what degree did you and your associates buy your own books, share them or use public libraries? I've noticed that in the nice homes in Utrecht books are displayed prominently. When I stay there (with a 73 year old student ex-neurologist- who is a fellow student- I am surrounded by books! When I was young buying books was hardly popular- we relied on the lending libraries for reading material. It interests me because there is an interesting chapter in 'Victorian Sensation' which dwells on how books were accessed, discussed and how notes were taken in the 1850's.

In the 70s there was lots of book buying. Cheap paperbacks were a phenomenon. Penguin, in particular, published series with uniform spine designs that became elements of decor (the Penguin Marx Library, I remember, looked very good! Penguin Management too.). As a postgrad there were some esoteric books that would be borrowed from the university library and through the inter-library loan scheme. But generally we bought a paperback copy of a book that we thought would be of continuing use. I guess we had more money then than students now? As I mentioned, the community bookshop (Left bookshop, 'head' bookshop, underground bookshop, whatever) was a key part of life - selling 'underground' magazines and comics too. Yes, having a wall solid with books was usual in 'academic' households.

As a child I'd devoured books in the public library, and our family didn't own many (but we did have The Encyclopaedia Britannica, 24 volumes!).

cheers  
/mike

All the best,  
Zac

☺

On 10 Jun 2017, at 10:46, Z&C Bharucha wrote:

Dear Mike,

<snip>

I hope I will be able to develop a bit on the theme of science as a cultural product.

<snip>

**From:** mike hales  
**Subject:** culture  
**Date:** 10 June 2017 at 17:32:34 BST  
**To:** Z&C Bharucha

On cultural production . . . I mean this in a specific, technical sense. In LTW I gave 'culture' a Marxian definition, as 'the totality of labour powers in a practice'. And the PMC were then (re)producers of culture in this (complex) sense, which was distinct from the production of objects, the (nominal, legitimate) products of manual working-class labour. The complementary, inter-penetrating totality - of objects in a practice - was called 'apparatus'. A practice = culture + apparatus.

In the pdf eBook of LTW a search on 'culture' would spotlight the theory of culture in the book. Part of the theory is that 'culture control' is the mechanism of hegemony (as distinct from fiat, which is achieved with apparatus).

Cheers / mike

🐼

**From:** mike hales  
**Subject:** dutch science shops  
**Date:** 11 June 2017 at 20:32:44 BST  
**To:** Z&C Bharucha

Hi Zac/

We talked about science shops the other day . . .

I attach extracts from Science or Society<sup>15</sup>, where science shops are presented as an example of one of several identified forms of politicised action by scientists (in Chapter 11, Consumers and knowledges). I think you said that you have Science or Society in hard copy? But the pdf is easier to search. These extracts focus on present-day (70s!) forms of activism, rather than on 'history', as earlier chapters of the book did. Cheers / mike

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15 Included in the bundle.

18-21 aug17 - **Fragmentation of 70s radical science?**

On 18 Aug 2017, at 12:54, mike haless wrote:

Hi Peter, hi Chris/

I gather from Zac Bharucha that Chris will be in England shortly. I'd very much like to meet up if this can be arranged.

Zac's focus is on radical science in the 70s. There are aspects of this I'd like to explore (and understand better) and Zac has suggested I might join in that discussion. I'm happy to do that if it works out. But my main concern spins in a different direction - prospects rather than retrospect.

Triggered by the RT2.0 conference last autumn, I've become very aware of how radical science fragmented during the 70s - to the extent for example that I've had 45 years' 'radical technology' practice of a kind quite different from that which you have developed so well. Reflecting on this, I find myself looking for ways to develop insights into this kind of fragmentation in our baby-boomer activist generation, and - this is the pivot - to launch some kind of learning/dialogue community that can link this understanding with the present-day practice of twenty-something activists.

Not just in relation to 'science' but widely, over the scope that I think of as libertarian socialist activism. That includes a whole span of 'radical professional' practices during the 70s, 80s and 90s. Alternative community and alternative economy and social-justice practices also.

Can we talk about this? I attach a draft which, best as I can, sets out my agenda<sup>16</sup>. It's a prologue for a work in progress. Peter and I had chance to talk a month or two back, but never really settled down to this. D'you feel like giving it a walk-through now? Hope so.

Kind regards and best wishes  
/mike



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16 Included in the bundle.

**From:** Christopher John Ryan  
**Subject:** Re: college of conviviality  
**Date:** 21 August 2017 at 06:45:24 BST  
**To:** mike hales  
**Cc:** Peter Harper, Z&C Bharucha

Hi Mike

I have been off email but just peaking at the accumulated important stuff.

I will read what you have sent.

<snip>

Would be great to see you. I missed most of the Conference last year due to illness so missed people reunions.

Cheers

Chris



**From:** mike hales  
**Subject:** Re: college of conviviality  
**Date:** 21 August 2017 at 09:45:14 BST  
**To:** chris ryan  
**Cc:** Peter Harper, Z&C Bharucha

Happy to hear from you Chris - I was sad to miss you in Bristol last year and glad to have an opportunity to meet now. I hope you're well?

I'd be pleased to sit in while Zac is exploring the 70s but, as he says, he and I have had quite a bit of airtime, so it should be you and Peter that are the main focus in that kind of discussion.

<snip>

My main issues these days are the fragmentation that we experienced in our radical movements in the 70s/80s/90s, developing bridging practices for this kind of thing; and developing a dialogue with twenty-something activists today - because I do feel our generation has learned some stuff (about different ways of doing 'radical?'), which is worth reworking in today's radically changed (and radically unchanged) circumstances, rather than re-inventing.

Hoping we can meet

Kind regards

/mike

19-21 August 2017 - **Radical theory - Marxisms, Ellul, Illich**

On 19 Aug 2017, at 16:36, Z&C Bharucha wrote:

Dear Peter,

snip>

Why use the Marxist framework as a critique, why not an anti-modernity/scientific rationality. Was Marxism just a cover for moral outrage, dressed up in 'scientific' terms? (I've been reading Polanyi).

<snip>

👤

**From:** mike haless  
**Subject:** 70s marxisms. 'science'. critique  
**Date:** 20 August 2017 at 11:19:23 BST  
**To:** Z&C Bharucha  
**Cc:** Peter Harper, chris ryan

Hi Zac - on 70s marxisms and 'science' and critique . . . A brief first-person essay . . .

From where I stood - stand - Marxism wasn't about critique at all (counter-ideology). It was a theoretical frame - a social-historical theory - for organising an alternative, prefigurative \*practice\*: constituting counter-hegemonic forces of production. Counter-hegemony, not counter-ideology. That's why, for example, trying to live off-grid was one form of practice: alternative practice rather than alternative ideology. That's why The Battersea Smell was a form of practice: an orientation to use-value (of science skills) rather than debate. The same with Lucas Aerospaceism: using skills differently, in different social alignments, to produce changed ways of living and working. Not primarily debate and philosophising.

That said, 70s radicals did put in an AWFUL lot of hours contesting in the ideological domain - especially academics? A terrible waste? Sometimes perhaps a convenient way of 'being radical' while not changing your practice in your day job and risking your career? But the force of scientism as conservative ideology - especially use vs abuse - did make it very hard to begin to establish the idea that the whole game of 'science' - as a historical form of work - could be played on a different economic and social field, and become a different institution, differently founded, addressing different objects.

Marxism offered . . . A model of dimensions of power that needed transforming, and displacing from everyday life and work. A language

for addressing work and the production of alternative modes of work, especially 'mental' work and the relations between various forms of labour-power, in concrete settings of labour, inside and outside of wage-work. It chimed well with what emerged towards the end of the 70s: a 'turn to anthropology' in academia, which in the 80s became one of the main foundations of what is now STS. Not a bad move at all, thought-wise (Living thinkwork is very 'anthropological!'). But as an abstract perspective on humans' practices and relations with objects, it was part of the academicisation of radical science. It was radical \*technology\* (in multiple forms) that held on to the issue of changed practice? Question mark.

I don't think I ever met anybody who was interested in a claim to 'science' by marxism. Sciences were just a particular powerful historical form of work, to be re-founded (as 'radical sciences', reformed forces of production, under changed relations of production). I don't think anybody felt a need to shelter under an ideological umbrella of capital-S science. It was transparently about political and human choices . . . which were rational in the sense of humane, and rigorous in a sense of being well-founded as foundations for practice, rather than developed through a reified, professional-elite-policed kind of laboratory-abstracted, quantitative 'scientific method' (which was itself plainly a myth). Hence science \*as ideology\* (a philosophical stance, as distinct from a system of material practices that could be done differently) was just AN Other conservative, incorporated force, full of its own new status by the 70s, as part of the post-war workings of the State and 'the white heat of technological revolution'. Not an asset at all for anarcho-inclined activists.

I don't think the Polanyi/Popper generation of philosophers had anything to say about 70s new-Left perspectives (and of course, they were \*philosophers\*, not social activists). They were stuck in a bubble, still addressing pre-war versions of communist, pro-Soviet ideology, which 70s new-Left, post-Hungary, neo-marxists (with a humanist 'new Marx' to work with) were keen to be separated from. The ideological resonance of this 'new' Marxism was humanist and historicist, not scientistic? And its pivot was the qualities of \*everybody\*, not of established 'science' (which should simply serve). Not 'moral outrage', but deeply moral.

So . . . new-Left marxism wasn't 'moral outrage dressed up' in anything? It was a different kind of theorising of a different kind of political practice - 'prefigurative' and 'associationist' and situated within everyday life and work (hence 'the labour process' applied to white-collar 'mental' work), rather than statist and collectivist and scientistic, as the pre-war Left-science generation had been.

This is written in my today-language. I doubt we would have been so clear, much of the time in the 70s (certainly, statism/collectivism/associationism wasn't available as a frame then, it's something historians have later brought to the game). We did a lot of firefighting and ad-hocery. But this seems to me to have been the structure of feeling in the collectives and movements that I was part of: RSJ, Conference of Socialist Economists, 'Lucas-Aerospaceism', Livingstone-GLC.

BSSRS? I don't know, it was never my primary setting. BSSRS was very much an umbrella, had quite diverse 'arms' of activism. Wasn't that much concerned with theorising and alternative theorising? Tending more to a metropolitan-intellectual kind of concern with alternative news-feeds and with 'banners' that might be displayed in public (as distinct from changed forms of work on the ground)? Question mark. So: a different structure of feeling there? For sure, Undercurrents was much more 'work' oriented, in a way that meant neo-marxian culture wasn't such a helpful resource for that community? Whole Earth Catalogue is more helpful, when you need to power a lightbulb or grow your dinner!

best wishes

/mike

PS: Anti-modernity and critiques of 'scientific rationality' - a note you raise - is another thing. \*Very\* much an issue today. My perspective is that 'radical professionalism' was/is a form of anti-modern stance. Illich, for sure, was anti-modern (or third-generation modern?) in this respect, with his arguments for 'conviviality'. That's why, in LTW, I found myself adding another relation to the marxian orthodoxy in relations of production: 'preconceptualisation' - the basis of the professional-managerial class. This is where associationist forms of socialist consciousness differ deeply from collectivist and statist forms. They could be said to be backward looking and in that sense anti-modern (early 19th century forms of pre-socialist organisation, Owenist cooperatives, 'religious' or 'ethical' forms). But in the 21st century, that's very forward looking. And anti-modern.

But somehow Illich lacked the economic 'bite' of new-Marx; and was more abstractly ideological ('merely ethical'? juridical?) than new-Left radical professionalism? And Ellul or Mumford, for example (or Habermas, for that matter), were just abstractly philosophical, not practice-oriented at all; 'mere critique'? For Marx(isms) - a 'theory of practice' rather than an ethics - 'the point, however, is to change it' (Theses on Feuerbach).



**From:** Z&C Bharucha  
**Subject:** C o C  
**Date:** 21 August 2017 at 10:29:40 BST  
**To:** mike hales, chris ryan  
**Cc:** Peter Harper

Dear Mike,

This is very helpful, thank you especially for your perspective on Marxism. Useful also to draw some lines between old left and new. If we hadn't begun corresponding I could have written a load of old rubbish in my thesis- probably would have got away with it though!

I note that Polanyi's criticism of science is located in the cognitive realm from an ivory tower vantage point, and stops short of investigating practice or social relations. His breadth and argumentation are really impressive yet I can see that from a new left position what he writes about is less relevant. He points out some of the cracks in 'science' as cognitive practice.

What I'm getting from your mail is a sense of Marxism as a framework for reforming practice, and the consideration of science as just another form of labour process/transformation. I'll hang on to that.

I find the 'theorizing' interesting where it reveals the ideologically laden aspects of natural sciences, including even particle physics. Seems to me that many RSJ articles were about de-constructing forms using the Marxist framework-theorizing seems the wrong word to describe what was being done- I think of theories as means to explain (and predict) phenomena with statements that are law-like.

Ellul's technological society is unsettling to read- going beyond the machine to technique- every activity, physical, mental, is conditioned by technique and the 'right' way of doing it . . . sport, sex, whatever. You can go to a bike shop to have an 'expert' set up your saddle or roast your coffee beans . . . just right. Such activities are trite, based on the premise that nobody knows anything useful outside their niche, they are also paths to monetizing commonplace activities and supremely useful means of maintaining inane consumerism. Apologies to aficionados of either practice, I'm sure your bike seats and coffee are fabulous. Looking at your backward looking forms we should lament their loss (remember the rash of mutual conversions to PLC in the 90's? Who would have thought Halifax could go bust . . .) it appears to me that capitalism is relentlessly closing down diversity-

Todd wrote about social and biological loss of diversity but it's much wider than that. I think Ellul saw it coming. The pursuit of efficiency reinforces monovalence, a theme I have picked up on.

<snip>

Best regards,

Zac

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**From:** mike hales  
**Subject:** Re: C o C  
**Date:** 21 August 2017 at 22:17:49 BST  
**To:** Z&C Bharucha  
**Cc:** chris ryan, Peter Harper

On 21 Aug 2017, at 10:29, Z&C Bharucha wrote:

Dear Mike,

<snip>

I find the 'theorizing' interesting where it reveals the ideologically laden aspects of natural sciences, including even particle physics. Seems to me that many RSJ articles were about de-constructing forms using the Marxist framework - theorizing seems the wrong word to describe what was being done - I think of theories as means to explain (and predict) phenomena with statements that are law-like.

<snip>

'Theorising' is indeed the way Marxian traditions speak of this; 'theory' is a significant value in this kind of tradition. And some versions of Marxism - the 'religious' ones, the Marxism-Leninism-Stalinism-Maoism Diamat state-religion ones of 80 or 50 years ago - even held the view that Marxian theorising involves law-like propositions which are 'scientific' and may be used predictively. 'The laws of motion of capitalism' or 'the law of value' or 'the tendency of the rate of profit to decline' or dialectical materialism as a bundle of generic laws (in China, right up to post-Mao revisions in the 80s, when non-lawlike STS pragmatic story-telling eventually took over from Diamat/dialectics of nature as a permissible frame).

But a sensible view of this kind of 'theory' commitment is to understand it as the production and mobilising of a *rigorous, specialised, out-of-the-ordinary language*, through which to highlight and frame aspects of society and history, and thus make them *more available as objects or means for action* on a historical level, and enable *strategic choices of commitment* to be made (sites of action,

modes of action, allies, targets). What 'rigour' means here is complicated, but it's the rigour of a historian, anthropologist or dramatist, say, rather than the rigour of a mathematician, physicist or geologist.

Also . . . what level or domain of society is worth theorising, as a site of would-be historical action, also is very variable across different traditions and eras: 'the personal' was a new 70s variant. But for traditions of this theory-valuing kind, prediction is not the name of the 'theorising' game; rather, enabling of better-informed choices over commitments of time and effort, and a better practical grasp of 'levers' in some branch of life. It's a pragmatics, it's not a deductive system.

Whatever: 'theory of practice (praxis)' is a term that describes the core of what Marxism meant/means I think, for the radical practices I signed up for in the 70s and 80s. Having said that, a lot of RSJ (and BSSRS) activity was - as you suggest - about 'deconstructing' (called 'demystification' in those days, before French structuralist philosophers got hold of the language): debates about ideas (or ideas about ideas), rather than a theorising of radical (revolutionary?) alternative practice. *One of the characteristics of the emergent 'radical technology' community - Peter and Chris will say, I think - was that they quite soon got impatient with the debating and needed to do some practical making of living and working alternatives, off-piste, in the non-corporate sphere. And as I said earlier, the Whole Earth Catalogue supported this a whole lot better than Marxism.*

*I'd be interested to learn what Peter and Chris make of 'theorising' as a need or commitment or aim in 'radical technology' (as distinct from a whole lot of either innovative or traditional technique, and a body of anti-industrial, anti-corporatist, anti-statist, anarcho, communitarian, self-help, off-grid ethics/aesthetics/ideology). I have a hunch that theorising, in some some sense, may have come to prominence later in RT - perhaps when the inescapability of engaging the world-system became manifest, as in energy practice for example - rather than having been a matter of foundational importance. 'Theory of practice' is not a notion that has a whole lot of resonance, I think, among card-carrying RT activists. Peter, Chris?*

*Deep down, I am these days very inclined to see this kind of issue as being very much about temperament. Not a matter of 'correctness' in any sense at all, but simply a matter of 'I can't (as a matter of temperament or constitution) see the world in those terms or value those commitments, and being up against what I've chosen to be up against (for reasons of temperament), I need other kinds of means and*

*have other priorities'. There are all sorts of people, and it takes all sorts of 'politicised' practices? The hard thing is, to stay in communication across radical 'branches', and act in alliance or in solidarity or in consort or with mutuality, rather than in 'radical-silos'? This lesson, still to learn. We've only been doing this for 45 years! Early days!*

/mx

Zac's thesis is published as:

Zac Bharucha (2018), *The radical science movement in the UK 1968-78*, self-published (contact <zac14mar at gmail dot com>). Available on Amazon.