

# Professionals' lives as ongoing experiments . . in a field of class

*Script : 2018 08 20 : Mike Hales*

This is closely derived from transcripts of four interviews:  
<2018 08 10 - Appendix 1 - compiled skype chat transcripts>. This and other related historical material are at <<https://www.foprop.org/radical-science>> The video of this presentation is at <<https://youtu.be/9yD1sCz3aDU>> It can also be viewed, free from Google/YouTube tracking and surveillance, at <<https://hooktube.com/9yD1sCz3aDU>>

## Intro

### Slide #0 - Professionals' lives as ongoing experiments

Professionals' lives, as ongoing experiments . . .  
. . . in a field of classes.  
STS, failing . . as theory of 'radical' practice?

### Slide #1 - Two lives

Lucy Gao, born in the 80s, in China.  
Mike Hales, born in the 40s, in England. Over the decades, Mike has been in and out of STS - out of academia.  
Both came from tech backgrounds.  
Both entered STS in experimental teaching settings . . a cross-discipline hybrid programme at Tsinghua, in the 2000s . . and a proto-STS, cross-discipline setting at Sussex, in the 70s.

### Slide #2 - Three radical science movements?

In the **1930s-40s**. A movement of 'Left scientists' develops in Britain.

Around 1970. Gary Werskey publishes research on the Left scientists' movement.

In the **1970s** a radical science movement emerges in Britain.

2007 - Werskey publishes "The Marxist critique of capitalist science - A history in three movements." First, the 30s-40s Left-scientists movement, which produced *The social function of science*, by the Marxist, JD Bernal. Second, the 70s-80s radical science movement, and the neo-Marxist *Radical Science Journal*. And third, Werskey speculates about a future Marxist radical science movement.

**2010s - 40 years on**, is there a third movement? In Britain? In China?

The two 'lives in STS' in this presentation weave into, and around, the story of these three periods of **political experimenting**, 40 years apart.

## Part One : Two lives in STS

### Slide #3 - A life in STS. Lucy Gao [Lucy Gao]

After my PhD I joined the Western Division of the Institute for the history of natural sciences, in the Chinese Academy of Sciences. To research governance of biotech.

In my PhD I interviewed European biotech policy researchers, who said their research trajectory was changed through the 70s radical science movement. I was so surprised. Some time later I saw an article describing BSSRS. It seemed very interesting and I started to think, maybe, I could do something related to this.

Historical reflection on radical science, and the 70s Left scientists' movement, influenced my broad perspective. The British 30s-40s Left was known in China through *Dialectics of Nature*. But I realised it was different from the 1960s New Left . . and that the New Left had an influence in STS. I believe this is important for China.

I don't think other Chinese STS researchers have access to this kind of awareness. In China everything is compressed all together, old and new left. It all arrived in the Great Enlightenment, in the late 80s, in a package. We grow up in a messed time line! This makes the historical narrative so important!

It might be hard for me to be too radical. So **I think historical study could help me to speak out my words.**

### Slide #4 - Context

#### Practising STS and history of science in China [Lucy Gao]

Most STS scholars graduate from philosophy departments, and still publish articles in the *Journal of Dialectics of Nature*. After a PhD they will go to a university to teach *Dialectics of Nature* in the basic curriculum . . but there is not very much Marxism, maybe half half.

It is very easy for a Chinese scholar to accept constructivism, because of the Marxism origins.

Scholars from the First movement - Bernal and Needham - are well known in China. We don't talk about their political position so much. If we admit they are Left, it will degrade the objectivity of their historical research . . which is interesting!

There is something called 'participatory research' but this is not radical at all. What it means is researchers participating in the government policy making process. It does not mean involving ordinary people.

### Slide #5 - A life in (and out of) STS. Mike Hales [Mike Hales]

The 'Left scientists' were quite real for me as a PhD researcher. I worked in historical archives, interviewed members of that generation. I began to see what had happened to the practices they promoted in the 40s, and was very critical. I felt the ideology of the Left scientists - including their adoption of hard-edged, scientistic, Soviet, historical materialism - had absolutely nothing to offer. I was ashamed of them.

The *Radical Science Journal* collective followed from a 1972 conference on *Workers' Self-Management in Science* - I was a founder-member. RSJ was tactically compelled to fight the **relativism wars** - battles of 'science vs ideology' - and thus largely constituted its practice as 'critique'. 'Ideology' even crept into my PhD title!.

Of course, in the 70s there was no STS. Theory-of-practice - neo-Marxist labour-process theory - became the mainstay of RSJ. Before the 70s were through I had hybridised this with New Left cultural analysis, following Raymond Williams, ending up with 'cultural materialism', focused on *sci-tech work practice*. By 1980 my core concern had come to be **the production of the forces of production**, and the part that **the professional-managerial class** plays in this. This wasn't primarily about *science* but, rather, the 'organic intellectual' production of *radical* knowledges and capabilities, in a broad sense.

From being an experimental, **politicised**, organic intellectual practice, 'radical science' passed over, as the 70s wore on, into academic institutionalisation and quasi-disciplinarity. There were courses, professorial chairs, and so on. In the 80s it came out of the chrysalis as 'STS'. I kind-of feel that STS itself represents a political failure of the radical science movement - a collapse into professionalism.

In the 90s - as a senior research fellow in a business school - I was glad to work in an 'invisible college' of people who were part of the STS field, as it had developed during the 80s. I related to them not as

scholars but as organic intellectuals. This was especially true of the ethno researchers in the Work-Practice & Technology lab at Xerox PARC<sup>1</sup>, who I felt were **corporate PMC-insiders** like myself.

As a contract researcher I failed to get funded for research in computer supported cooperative work, and needed to 'make an honest man' of myself in my research group. So I worked on national systems of innovation at firm- and state-level. This felt like a failure to me - but contract researchers do have to put food in the fridge!

I tried to put an ethno-STS 'practice' frame on this work. It wasn't easy, in a community of innovation economists and supply-chain management pragmatists.

## Slide #6 - Context

### 70s-80s movements of radical professionals [Mike Hales]

In the 70s there were '**radical professionals**' in every field - philosophy, economics, education, statistics. **Ivan Illich** was just as important as Marx. He critiqued the destruction of vernacular capability, through State-enforced compulsory participation in professionalised domains of service. '**The professional-managerial class**' was widely debated and theorised, and there was a strong sense of the self-making of the working class, in the past and in our own present time.

The real underlying movement of the 70s was a radical sense of **history** rather than radical science. Baby-boomer graduates were going into community organising, local economic research and development, and the cultivation of a kind of rank-&-file 'literacy of development'. The Lucas Aerospace shop stewards' corporate plan was extremely important - focusing attention on workers' collective knowledge and capability. And coming from Italian Marxism, Gramsci's concept of 'the organic intellectual' spoke to the moment.

Cultural materialism' had the 'New Marx' and labour-process theory . . . hybridised with a new-Left analysis of cultural production, literacy, and the formation of post-war classes. And in the 70s and 80s there was a turn to the **materiality** of work, production and culture of all kinds. A historically aware 'turn to practice' was in the drinking water - it

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1 Lucy Suchman was head of WPT. Julian Orr was a particular mate - we bonded over our tech backgrounds, among other things. I was full of admiration for their (the group's) detailed ethnographers' care and attention. For their scholarship in presentation too - though I don't really 'do' scholarship myself!

wasn't an academic thing. The STS of the 80s was prefigured in this broad cultural awareness in the 70s.

In the 80s I was part of the cohort that conducted a live experiment 'in-and-against-the-state' at the Greater London Council. By 1990, computers were newly diffusing - into homes, workplaces, domestic goods, capital goods, infrastructures . . and my generation of technology-oriented activists took this as a new terrain for contesting capital. In a movement against de-skilling, participatory design was developed, for the production of **new** skills.

When I was in a business school innovation research group, in the 90s, colleagues treated **discoveries in post-Fordism** as matters of everyday practice. They were interested them as conditions of competitive, *capitalist* success.

## Part Two : Risks of failing in political experiments

### Slide #8 - Today's risks of failing (1)

#### Radical science, in China? [Lucy Gao]

In the professional expert in China I see almost nothing about "science for the people". The Dialectics of Nature community is close to the Government.

People say, "The soul of academia is gone". With the 'great enlightenment' of Westernisation in the 80s, the whole academia turned 180 degrees, back to the more academic, more expertise way. Some people say it's a protection for themselves, from political trouble, rooted in decades of upheaval and risk.

In China, as academics, "scientism is our default mode".

When we see Western policy researchers' movements like 'Responsible Research & Innovation' or 'Transformative Social Innovation', we will always tell ourselves it is because the European people have more wealth. So they have capability to care about things like environment or the ethics issues. We are lacking a social enlightenment such as happened in the West in the 60s and 70s.

Do I think Chinese scholars will develop radical commitments, like in last year's 4S conference? Nope, not in China. Maybe in environmental studies (smog, and so on). I remember a US professor at 4S said "Don't think about your publications too much". Chinese scholars are very driven to maximise publications, whatever their quality or value.

## Slide #9 - Today's risks of failing (2)

### Cultural-materialist R&D in peer-to-peer (P2P) infrastructure [Mike Hales]

Today I do see very significant current movements, globally - **the movement for 'the commons' and peer-to-peer production**. The movements are ten years old, but I have only begun to see them these past couple of years. Is this the Third movement? It's not Marxist. But a cultural-materialist approach to changing historical forces of production is crucial. The P2P-commons movement feels like the natural place for this theory-of-practice story of mine to pick up at the present time. It seems to me that this movement is just a further ripple from what was moving in the 70s. Capitalism has changed the conditions (and the means), and globalised it, but the enquiry and the spirit continue to be the same?

Like Occupy, for example, the P2P-commons movement is by no means a student movement, and is not in any essential way a movement in academia. I would say that the younger person who would have been radical in the 70s is now living a different kind of life because capitalism has changed their living and working conditions, their career prospects and their infrastructural means and challenges. So HOW they are radical - and how they NEED to be radical - is changed now, from the 70s? I think the formations of radicalism for professionals today are different from the Second movement, and the differences need to be carefully reckoned.

The 21st century (post-post-Fordist) production of forces of production differs from Fordist/post-Fordist forms, and I would say that ecology rather than economy seems to be a necessary frame of thinking now. Also, diversity - of locales and of issues - is unavoidable as a condition of politics, and practice in a 'pluriverse' is a profoundly challenging feature of the necessary formations.

## Slide #10 - Will STS fail or succeed? [Mike, Lucy]

**Mike : What must STS provide if it's not to fail the movements?**

Theory-of-practice for the **radical infrastructure movement**

To be helpful, I think STS is going to have to go outside its self-accepted frame of 'technoscience', and engage with broad challenges of **producing and mobilising knowledges**, in a 'dance of knowing' across modes. It will need more political economy - addressing class, the production of forces of production, geography and uneven development. At the same time it will need deeper emotional insight - engaging with the individual skill and courage, and the collective genres and stories, called upon in fully pluriversal living. Not Othering. Opening

to all the diversity and suchness that there in fact is, in every place, and across places.

STS has learned the *ethnography of infrastructure* and *invisible work*, and the **force** of collectives of objects and classifications in lives of persons and communities<sup>2</sup>. But this is really going to have to earn its keep, **supporting peer-to-peer production and commons culture**. It will need to handle the inter-operability of a massive multiplicity of *federated local tools*, and local knowledges of *necessarily differing rigour*.

**Lucy : What must STS in China concentrate on . . What is the main contradiction that may continue into the future?**

Government places governability above all else. I am terribly upset about what happened in China in these recent times. Command and management of the market leads to the sub-health of the economic system and the social system. Government needs the economy to blossom within a safe boundary of not risking their government. It excludes the normal, healthy economy. People easily choose the way to cheating with each other, and produce low quality, added-value product. I don't know if it could get better later . .

The discussion about 'radical' makes me more sober about what is the most important contradiction in this society now. I mean, what is really radical today, and deserves fighting for? I'm re-thinking, myself . . it may be much easier to follow the academic trend, like to introduce 'Responsible Research & Innovation' into China. But I might lose my own re-thinking about the real problem. "Following the West" has been a very tempting way to develop a career in China these past 20 years.

I think my problem is I came from an STS department, to an institute of history of natural sciences. I hope to bridge these two. I want to do more research on the 70s because -although we accept the results of 'the first movement' in history of science - I think in China we have no second movement yet, in radical science or in history. STS and history are not completely comfortable together. We have a messed timeline, the Western 'waves' are telescoped together for us, and the actual historical **movement** of events and cultural formations is not visible. Will Chinese STS make it clear? I think historical study could help me to speak out my words.

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2 Thinking particularly here of Leigh Star.

I can't imagine what the shape of the P2P-commons will be like, in the biotech sphere, in China. Will STS think about this, or just follow mainstream Western thinking?

But I will try to tell the story of STS in China.