

# Making Space for the Economy: Live Performances, Dead Objects, and Economic Geography

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## Abstract

The article explores the usefulness of the recent literature on markets and performativity for economic geography. The article is divided into two main sections. The first reviews work on performativity, the idea that our statements and representations actively produce reality rather than being mere faithful copies of it. Writers in science studies, in particular, have taken up this notion and used it to understand the making of economic markets. The second argues that economic geography usefully amends the work on performance and economic markets by adding a geographical perspective that plays out in at least four registers: the performance of spatial theory; the geographical performance of economic theory; the spatial performance of market constitution; and the political performance of spatial markets.

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## Introduction

During the second half of the 1970s, I sat through, but also on several occasions got up and left, a series of dismal lecture performances mounted by the teaching staff at the Economics Department where I was a student. The worst was by a former economist at the Organisation for Economic Corporation and Development and the World Bank. He never prepared his lectures, but instead would bring to class an unopened copy of *The Financial Times* that he would theatrically unfurl at its start. He would pluck from it a story and then ‘perform the economy’. This meant turning his back to us, mumbling, and filling the blackboard with equations. With 5 minutes remaining, he would say ‘damn’, having realised that he committed an error in an earlier derivation, and the blackboard would be wiped clean.

Even as allegory, this story resonates with several features of the real economy. Like the Professor’s performance in my story, an economy often turns its back to its audience, whispers its secrets, represents itself in ciphers, blasphemes, makes mistakes, and is subject to large scale erasure. A number of scholars, though, have recently argued that performances of economics, such as the one I endured, are more than allegory. The economy really is performed by economics and its props.

The purpose of this article is to explore the idea of performing the economy, and relating it to economic geography. Performing the economy as an idea has gained considerable currency over the last 10 years, connecting to a number of academic fields, studies, and approaches. For example, it is taken up in Tim Mitchell's (2002, 113–116) book *Rule of Experts* that argues that material objects were as important to the performance of Egypt's late 19th- and early 20th-century economy as any human actor. As Mitchell shows, accurate land property maps were critical to constructing and maintaining Egyptian markets, but, in turn, to draw those maps required trained surveyors, steel tapes, theodolites, measuring chains, iron rods, metal dividers, cardboard feddan combs, and cotton thread. Mitchell argues, though, that very materiality could produce problems, interfering with market performance: maps shrunk in the Egyptian humidity and heat, feddan combs went limp, and callipers turned rusty. Economic performance was jeopardised by flawed material props.

Or again, Anna Tsing (2005) in her book *Friction* set in Indonesia's Kalimantan region shows how the former Canadian gold mining company Bre-X performed the economy both on the ground (or rather in this case underground), and also as spectacle and drama in high-rise office suites in the downtowns of large Canadian cities. It enacted there a theatre of persuasion to convince pension fund managers to part with their investment finance. Those performances were initially 'new sources of hope', but, as it turned out for Bre-X investors, they later became 'new nightmares' (Tsing 2005, 77).

And finally, Donald MacKenzie (2006) in his book *An Engine Not a Camera* argues that the economy is pitilessly performed on financial markets: on New York's Wall Street, London's stock exchange, and at the Chicago Board of Trade. At these sites, young men and women perform markets through their bodily gestures, their clothing choices and accessories, and perhaps most importantly at their computer screens by applying theories and models of economists. Such theories and models are hardwired into the machines, not just describing the external reality of the market, but also creating it, performing the economy. Consequently, there is no dividing line between the academic economists who devised and performed such theories and models in their campus lecture theatres – MacKenzie focuses on the economists, Myron Scholes, Robert Merton, and the late Fischer Black – and financial traders who perform them on the stages of international financial centres. They all just do it.

I will suggest in this article that economic geographers do it, too. Economic geography adds, I will claim, sensitivity to space, place, and geographical circulation, which, while not transforming existing work on economy and performance, provides new inflections. The article is divided into two main sections. First, I review the non-geographical literature on performance and economy. Second, I sketch out an amended agenda for that work organised around four themes emphasising space and place: (i) the performance of spatial theory; (ii) the geographical performance of economic theory; (iii)

the spatial performance of market constitution; and (iv) the political performance of spatial markets.

*Performativity, Economics, and the Economy*

PERFORMATIVITY

Although apologetic about its ugliness, the Oxford philosopher J. L. Austin (1962) was the first to use the word 'performativity' in a systematic philosophical form. He made the distinction between 'truth-evaluable' sentences, such as 'the cat sat on the mat', and 'performative utterances', such as 'I name this ship Queen Elizabeth', in which the speech act produces the new object; in this case, a vessel named 'Queen Elizabeth'. His point was that language is used not only to represent the world, but also to change it by producing a new entity through linguistic performance. As Austin (1962, 108) put it, in 'saying something we do something . . . In saying what I do, I actually perform the action.'

Different versions of performativity were subsequently developed by social theorists of various stripes. The American sociologist Erving Goffman (1959) added to it his phenomenological interests to develop a 'dramaturgical approach' to everyday life. Or again, the American feminist Judith Butler (1990) joined performativity with Foucauldian notions of discourse and disciplinarity in her analysis of 'Gender Trouble'. My interest is in yet a third body of writing, and associated with science and technology studies (STS).

Science and technology study is a large, sprawling literature, and difficult to summarise. However, two points that emerge from its best known theoretical strand, actor network theory (ANT), are particularly germane for performativity studies (Latour 2005). First, 'entities take their form and acquire their attributes as a result of their relations with other entities' (Law 1999, 3). Those entities can literally be anything – Petri dishes, microscopic bacteria, scientists in white coats, mathematical models, academic papers, pieces of computer software. There are no limits. The important point is that the meaning of an entity is a relational effect of its association with other entities. As Michel Callon and John Law (1995, 485) put it, and returning to the larger theme of performativity: 'it is the relations . . . that are important. Relations which perform.' An STS approach to performance emphasises that entities come into being as a result of very different elements working in concert, collectively, joined. As long as those elements can be persuaded to continue performing together – ANT uses the vocabulary of enrolment – the new entity is stable. But if elements start baulking, for example, as did the maps, feddan combs, or metal dividers in Mitchell's study of Egypt, then there is trouble.

Second, STS makes clear that science and technology are never outside the reality that they describe or manipulate, but are always participants in its shaping, bringing forth – performing – new worlds. As Lily Kay (2000) argues in *Who Wrote the Book of Life?*, Francis Crick and James Watson's

experiments at Oxford in the 1950s on the structure of DNA were not just about holding a mirror to a bio-chemical relation. They constructed a new world that was not there before. It eventually produced new techniques and technologies, new academic disciplines, new objects, and generating novel moral debates and social relations. It was one of the performances of the last half century. The life sciences were remade, and life itself. Of course, very few scientific experiments are so transformative (Robert Oppenheimer's et al. at the New Mexico Trinity test site would be another). But the larger point is incontestable: science and technology is about 'intervening' (Hacking 1983), it is about 'doing something', and it is about performing.

#### SCIENCE AND TECHNOLOGY STUDY, PERFORMATIVITY, AND MARKETS

In 1998, Michel Callon (1998), one of the pioneers of STS, and especially of ANT, brought STS and notions of performativity to economics and to the production of markets in his edited book, *The Laws of the Market*. A market for Callon is a 'collective calculative device' permitting decisions about production and distribution as well as the assignment of values and prices. To make calculations involves detaching entities, bringing them together in a common space, and providing an assessment before 'allowing them to circulate elsewhere . . . (without taking along all the calculative apparatus)' (Callon and Muniesa 2003, 7).

The important point is that Callon believes that the calculative processes involved in markets and the economy are like those found in science and technology. Hence, in science and technology, there is also a need to separate in this case physical entities (even though they may be so small they are invisible); to control and monitor subsequent interactions and outcomes in a common space (in this case the laboratory); to make numerical assessments; and finally, to allow results 'to circulate elsewhere'. Because of these correspondences between the practices of making science and technology and making markets, Callon's (2002, 285) current economic research is an 'extension of [his previous] work . . . on the natural sciences. It's simply the continuation of the anthropology of science, but . . . concerned with economics.'

For the purposes of this article, let me highlight two particular performances that make the cross-over between doing science and technology and doing markets. First, markets, like science and technology, are performed not only by humans but also by many non-human agents, including 'prostheses, tools, equipment, technical devices, and so on' (Callon 2002). Markets do not exist in the abstract, as a pair of supply and demand curves drawn in Euclidean space, but are produced on the ground by an enormous effort bringing together, and aligning multiple agents in order that market calculation occurs. If things go wrong – paper maps shrink, Bre-X geologists fall out of helicopters, New York Stock Exchange computers go off-line – markets wobble, if not topple, and indicating the fragility of the construction.

As with science and technology, market stability depends on each of the heterogeneous elements playing their part, in concert with others.

Consequently, this is not the neoclassical view of the market as a rational space filled with spectral abstractions like *homo economicus*, or Adam Smith's invisible hand, or shadow prices. Rather, markets are performative effects of complex embodied and concrete socio-material arrangements. Nor is it Karl Polanyi's or Mark Granovetter's markets as social and cultural embeddedness, either. Callon is adamant that social context does not lie outside of the market, providing its frame. Rather, the relations among the heterogeneous elements that perform the market also create the social and the cultural; they 'are not a context within market behaviour is conducted but are themselves a result of the very same operation through which a market is (provisionally) defined in the first place' (Barry and Slater 2002, 182).

Second, just as science intervenes, performing reality, economics does the same for markets. Economics should be 'understood [here] broadly to include not just academic economic theory, but all the institutions, techniques and professional practices (such as accounting and audit) that serve to make citizens and objects calculable' (Callon 1998). Under this conception, economics does not just represent its object of investigation, the market, but helps to shape it, to bring it into being, and consequently, to change the world, fundamentally altering lives and livelihoods. Callon (1998, 2) says, 'economics . . . shapes and formats the economy, rather than observing how it functions.' Just as science performs the double helix of DNA, economics performs new markets in, say, carbon-trading or financial derivatives.

#### TWO ILLUSTRATIONS

While Callon provided the conceptual architecture, others fleshed out the empirical details in specific studies. One of the first was Garcia-Parpet's (2007) research on a contemporary strawberry auction market at Fountaines-en-Sologne in the Loire-et-Cher region in France. In this case, the market was explicitly designed by an economist to ensure perfect competition ruled. Perfect competition emerged not spontaneously, the collective consequence of calculative rational individuals atomistically pursuing their individual best interests as in the neoclassical narrative, but was planned down to the last detail. The number of buyers and sellers, where each sat, the nature of computer-controlled price board, the precise role of the auctioneer and their assistant, who could see whom when, and the strict architectural arrangement of internal and external spaces, were determined in advance. It was a laboratory space designed to ensure reality did as it was told. In this case, because of the particular material configurations, the overall spatial design, and the invited human agents with their scripts, reality duly performed as a perfectly competitive market.

A more sustained examination of the performativity of economics in the creation of markets is by the STS writer, Donald MacKenzie. His work is

on financial derivatives, tradable financial instruments based on the value of yet other instruments, and used especially to cover economic risk.

MacKenzie is particularly concerned with the market performance of a set of mathematical equations proposed in the 1970s by Fischer Black and Myron Scholes, and also independently by Robert Merton. Those equations won Scholes and Merton the 1997 Nobel Prize in economics (and Black would have won one too had he not died). Professor Bertil Näsälund of the Royal Swedish Academy of Sciences in making the award said that this Nobel was for 'developing a new method to determine the value of derivatives.'<sup>1</sup> But McKenzie argues that these equations were more than a method: they did not merely reflect an existing market but created a new one. And what a market, worth US\$431 trillion in 2006, a value many times more than the global gross domestic product.<sup>2</sup> For MacKenzie, that market is a consequence of performing equations in the trading pits and floors of the world's stock exchanges. The equations are about doing rather than representing. As MacKenzie (2006, 259) puts it:

The empirical success of the Black-Scholes-Merton model was [one] . . . in which the model itself played a constitutive role. To say that is in no way to diminish the brilliant achievement of Black, Scholes, and Merton; it would be a curious prejudice to see a theory that changed the world (as their theory did) as inferior to one that merely reported on it. Rather, it is to assert that the model was a theoretical innovation, not simply an empirical observation; that the model's relation to the market was not always passive, but sometimes active; that its role was not always descriptive, but sometimes performative . . . An engine not a camera.

While the idea of performativity sometimes comes with a lot of often difficult conceptual baggage attached, the gist is relatively simple, and seen in McKenzie's study. Reality is brought into being by the very act of performance itself. Markets and the economy do not have an independent existence, but only become reality through a performance. The economy and markets are no less real as a result. But they need to be thought about differently, which is what Callon, Garcia-Parpet, and McKenzie try to do. It is also important to think about markets and performativity in an economic geographical setting, and to which I now turn.

### *Performing Economic Geography*

Economic geography has always had an awkward relationship to economics and to economic theory in particular. A very early English-speaking professional economic geographer, George Chisholm, writing in the late 19th and early 20th centuries even 'wish[ed] . . . th[e] love of pure theory to the devil' (quoted in Wise 1975, 2).

Consequently, given that the main performative role of economics with respect to markets is through its theory – as in mobilising the assumptions

of perfect competition at Fontaine-en-Sologne or the equations of Black, Scholes, and Merton in international financial centres – it might be difficult to make a case for discussing economic geography. It could be a subject that does not perform.

While its performance is different from economics, I will contend, however, that economic geography has been performing ever since it was institutionally created in mid-19th-century Germany. In 1882, the German geographer, Götz, a student of Ratzel, first distinguished economic from commercial geography, charging the former with ‘the scientific task of dealing with the nature of world areas in their direct influence upon the production of commodities and the movement of goods’ (Götz quoted in Sapper 1931, 627). And Chisholm (1889) took up that charge, writing a textbook in 1889, *Handbook of Commercial Geography*, which he then used to give a joint performance of the new discipline initially at extension courses at Birkbeck College, University of London, and from 1908 in a new Bachelors degree programme in geography at Edinburgh University.<sup>3</sup>

But what kind of performance has economic geography put on since? While varied, it has emphasised an issue conspicuous by its absence in the STS-driven literature on economic markets and performance: space. While STS has sometimes paid attention to geography, the sub-branch examining markets and performance has not. It is ripe for geographical supplementation. Economic geography can make at least four contributions.

#### PERFORMING THE ECONOMIC GEOGRAPHY OF MARKETS

The first is the most direct complement to the STS literature. These are theories, models, equations, even maps, and diagrams that originate in economic geography and perform markets as in MacKenzie’s case study. Such economic geographical theories are found under the larger rubric of location theory. The connecting thread within this body of literature is space itself, the recognition that only angels dance on the head of pins, not real economies. Consequently, location theories perform in a self-consciously geographical world.

Johann von Thünen’s work inaugurated the theoretical tradition. A member of the landed aristocracy, von Thünen, bought the Tellow agricultural estate in Mecklenberg in 1810, and carried out a series of agricultural experiments over the following 40 years changing crop permutations and their locations. He kept the information in gigantic log books, the management of which he once said ‘had proved so colossal that [they] precluded almost all other study’ (von Thünen 1966, xvii). The qualifier ‘almost’ is important because in the end he did far more than keep meticulous records. He wrote in 1826 the book that later made him a household name in economic geography, *The Isolated State* (von Thünen 1966), and then later a second part that was not published until after his death (Dempsey 1960). *The Isolated State* developed a formal theory of agricultural location and rent, drawing on

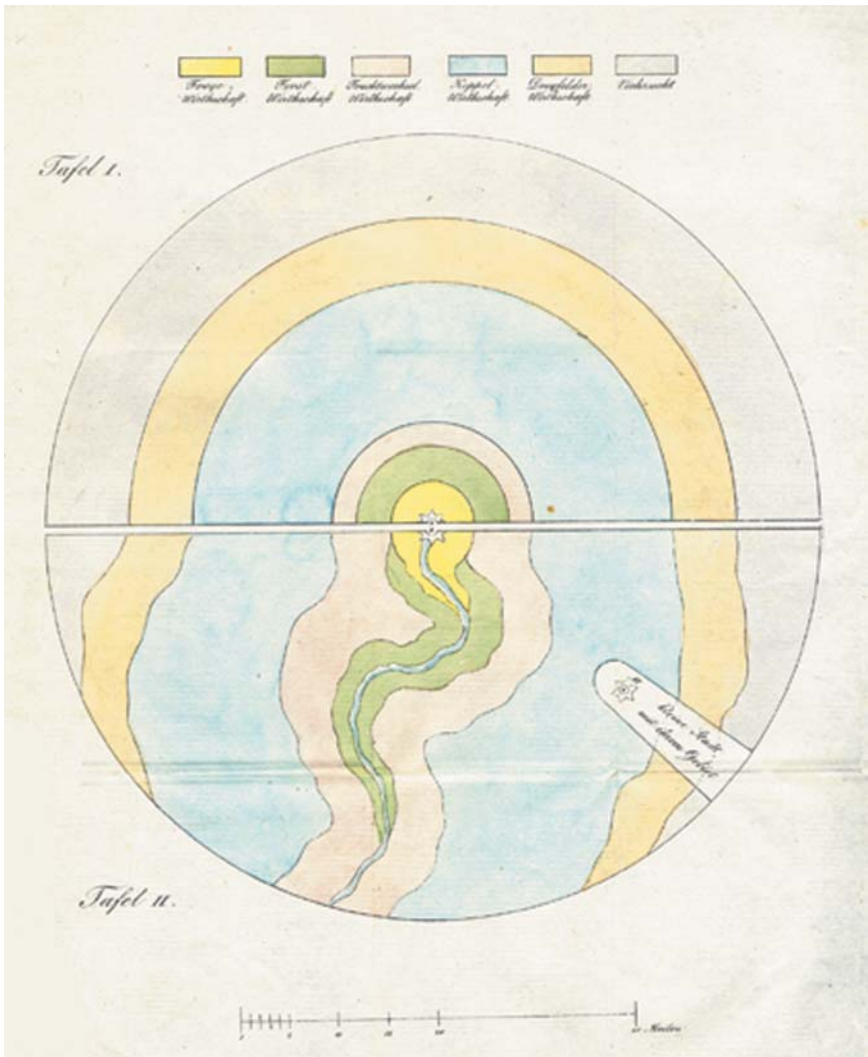


Fig. 1. Von Thünen's concentric model of agricultural landuse (1826).

geometry, algebra and calculus, and anticipating neoclassical economics by 50 years. He called his general method, *Form der Anschauung*, saying that 'I regard it as the most important matter in all my work' (von Thünen 1966, 4), and which allowed him to draw his famous diagram making self-conscious the spatial character of markets (Figure 1).

For the purposes of this article, what is so interesting about von Thünen's work and his diagram is that they were performed. As a member of the gentry, he enrolled at university and agricultural college before purchasing

his estate, but he never attended any lectures on the principles governing a farm's optimal spatial organisation at either institution. Nor could he have done. He was the person who would invent those principles, and derived from his equations, scrupulously written numbers, and the diagram that he worked out on his Tellow estate. They were the bases for altering his practices, changing his performance, until his performance accorded with his location theory. His theory came to produce his farm and its relation to the market, just as Black, Scholes, and Merton equations came to produce the market trading of derivatives at the Chicago Board of Trade and other such places. His Tellow estate was a performance of his diagram, just as the market at Fountaines-en-Sologne was a performance of the neoclassical theory of perfect competition. Furthermore, because von Thünen was performing location theory, his market performance was inherently spatial.

#### PERFORMING THE ECONOMIC GEOGRAPHY OF ECONOMIC THEORY

The second contribution is in understanding the economic geographical performance of economic theory. There are two closely associated issues. The first is in comprehending the economic geography of the economic theory or model that produces the market: where did that economic idea first emerge, and in what way is it connected to its place of origin? And the second is the geographical circulation of the theory or model. How and where does it travel, and what are the processes at work in different places that create specific market forms?

The philosophical context for both points is the (geographical) view that all knowledge, even scientific knowledge, is local. The historian of science, Steven Shapin (1998, 6) says, 'science is indelibly marked by the local and the spatial circumstances of its making.' Moreover, to say knowledge is local does not mean that it is sealed hermetically within its place of origin. Knowledge travels: as books, reprints, people, lectures, telephone calls, e-mails, and their various attachments. The result is not universality, but the movement 'from one local knowledge to another' (Rouse 1987, 72).

There are already several examples of economic geographers examining the local knowledge of economists, and its subsequent circulation and consequences in the form of markets. Jamie Peck (2007, 2008) has examined the role of Chicago as an incubator for that city's famous school of economics. And David Harvey (2005) has discussed one of the consequences, the shock therapy recommended by 'the Chicago boys' for Chile in 1975, and subsequently exported to Poland, Russia, and to a number of South American countries. The 'Chicago boys' were a group of Latin American graduate students who attended the Chicago Economics Department, and with the ousting of the Allende government and its replacement by the Pinochet junta in 1973, they were invited to Chile to perform their shocking market model.

My focus, though, is another case, Eric Sheppard's (2005) writings on the free-trade model, and its subsequent geographical circulation. The model

itself, the theory of comparative advantage, was first articulated by David Ricardo (1951) in 1817 in his *On the Principles of Political Economy and Taxation*, although clearly it drew on earlier notions of the market enunciated by Adam Smith. Ricardo's theory was not picked up until almost 30 years later (by which time he was dead), and championed not in southeast England where he lived, but in northwest England, and specifically, Manchester.

Ricardo originally constructed his model in part to contest the Corn Laws, legislation passed by the British Parliament in 1815 that controlled the price of corn by levying duties on cheaper foreign imports. As a move, it shielded landowners from international competition, establishing a protected market within the UK. By 1840, however, Britain was increasingly industrialised, especially its north, and industrialists demanded both access to outside free markets for their goods (which they believed were denied because of British protectionism of corn), and lower wages that they thought could be realised by reducing the price of staple foods, including bread, and kept artificially high by the Corn Laws.

The Anti-Corn Law League was established in Manchester in 1838 led by Richard Cobden. Cobden argued vigorously for the repeal of the Corn Laws, suggesting a radically different performance of the market, the one formalised by Adam Smith and David Ricardo and staged as free trade. For Sheppard, the geographical question is about local knowledge: why Manchester? To answer it requires an understanding of place, and which Sheppard begins to provide. Manchester was at the heart of England's industrial revolution, dependent on external commerce and foreign markets, was full of captains of industry like Cobden, with a strong vested interest in realising free trade. Moreover, the Manchester capitalists who joined – dubbed the 'Manchester Men', or the 'Manchesterists' – apart from having a common class and gender, were non-Conformist Unitarians, and so were also joined by the pulpit and the social network of chapel. Finally, there was the shadow of the past. Manchester had been the site of a famous protest in 1819, the Peterloo Massacre, in which 11 people died and over a hundred were injured protesting against the Corn Laws.

To be effective the Anti-Corn Law League needed to move the model of free trade from Manchester to London, where the power of implementation lay in the form of the Prime Minister and British Parliament; and then the world. That is, successful performance of the model called for its strategic circulation in place and space. Initially within Manchester, the key site was the Free Trade Hall, used for rallies, bazaars, banquets, and tea parties. In London, the Drury Lane theatre, Convent Garden, various gentlemen's clubs, and then most importantly, the Houses of Parliament became central venues of persuasion. In 1846, Robert Peel, the Prime Minister, was convinced, and used his parliamentary majority to repeal the Corn Laws, subsequently producing an uninterrupted 68-year performance of the Ricardian model of comparative advantage and free trade. Of course, other nations needed to be brought along as well, or as Sheppard says, 'scale jumping' was required.

Not that this was easy, but a power geometry enforced by a *Pax Britannica*, and when that failed, the occasional gunboat, allowed free trade to be performed globally until the turn of the 20th century. It subsequently went into abeyance, but returned during the 1980s, and which returns to the writings of Jamie Peck and David Harvey on neoliberalism. That latter theory had its most immediate origins in Chicago, but its process of performance was necessarily the same as in the earlier case, crucially involving geography, local places the strategic use of space and scale jumping.

#### PERFORMING THE GEOGRAPHY OF MARKETS

The third contribution is in understanding how geography enters into the performance of markets. That is, empirically what are the various spatial elements that make markets sustainable? And geography is always present, even in cases where it may seem absent. In MacKenzie's study of financial derivatives, for example, it appears that the instantaneous, almost cost-free communication, heralds the end of geography? But that cannot be right because even if distance is meaningless, place certainly is not. This point is well illustrated by Caitlin Zaloom's (2006) study of financial trading at the Chicago Board of Trade and the London International Financial Futures Exchange. While traders in both places perform the same equations, the Nobel Prize-winning ones of Black, Scholes, and Merton, the performances are quite different between the two sites. Place matters.

Specifically, at the Chicago Board of Trade, the history of the trading pit weighs heavy. The pit dates from 1848, and always involved bodily activities including shouting, hand gestures, frenetic movements, constant observation, and a sea of scrunched paper.<sup>4</sup> These characteristics were so ingrained, so much part of the identity of the place, that in the late 1990s, members of the Chicago Board of Trade rejected the move that had gone on in other financial market centres to comprehensive electronic forms of trading. Instead, they wanted the place to be as it always had been: stuck in the pits. Place still counted.

And place mattered also in Zaloom's (2006, Chapter 3) other case study of London International Financial Futures Exchange. Here, the move to electronic trading had already occurred, and partly to capitalise on the opportunity, including London's 1986 financial big bang, a Chicago brokerage firm opened a London branch. The firm, though, brought its own place, Chicago, with it; namely its beliefs in professionalism, credentials, higher education, employee diversity, pluralism, and strict standards of deportment and work hours. This was quite different from the London firms operating side-by-side at the exchange and whose employees tended to be overwhelmingly young, white, male, with no university education, no credentials, and lackadaisical in their hours and sartorial bearing. Consequently, as Zaloom (2006, Chapter 3) shows, different places clashed within a single place.

Zaloom's work is of different place-based performances within the same market. Economic geographers, however, have been interested from the

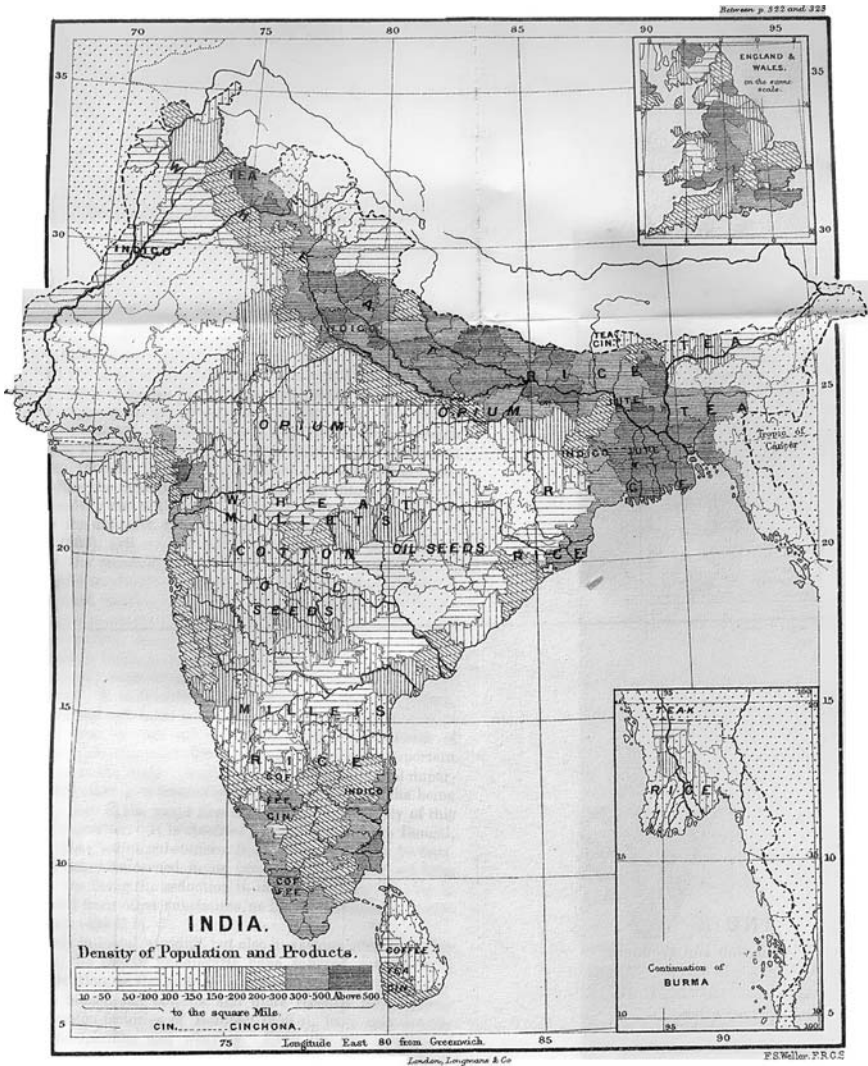


Fig. 2. George Chisholm's map of commodity specialisation in India (Chisholm 1889, 322–3).

beginning in the whole spectrum of different markets, and the material means for their geographical sustainability. For example, Chisholm's first ever English language economic geography text is a compendium of different commodity markets, and the material means of their performance. There are maps of steamship routes, railways lines, telegraph routes, lists of major ports and urban markets, and regional maps literally written on with the names of the commodities they produce. Chisholm inscribes on the very face of geography market spaces and the materials of their staging (Figure 2). As an intellectual form of inquiry, it continues to the present even though market spaces and

their material means of realisation have changed so dramatically. For example, in his recent collection, *Knowing Capitalism*, Nigel Thrift (2005) argues that the economic performance of new markets and technology are present like never before. While the specific actors, material props, and theatres may have changed dramatically, the show goes on.

#### PERFORMING THE SPATIAL POLITICS OF MARKET ORGANISATION

The final contribution is around what I will call the spatial politics of market organisation. Especially, Callon's work on market performativity is criticised by the left for upholding the *status quo* (Fine 2003; Mirowski and Nik-Khah, 2007). In particular, his work fails because it offers no critique of markets even though as a form of economic organisation they have been at the epicentre of a storm of social criticism. Ben Fine (2003, 483) says, 'Callon might reasonably be situated somewhere between complicity with and conformity to . . . economics imperialism.' And Philip Mirowski and Edward Nik-Khah (2007, 191) hand out the ultimate insult: 'Callon's version of "performativity" . . . turns out . . . to be an overture to a prospective alliance to be struck with neoclassical economists.'

Over the last 30 years, Anglo-American economic geography has resisted precisely that overture, sitting broadly on the left, and especially over the last decade under the mantle of the 'cultural turn' rejecting any talk of 'economics imperialism'. If these critics are right, economic geography should have nothing to do with Callon and the performativity of markets.

My contention, however, is that Callon's critics fail to recognise the spaces of alternative market experimentation that Callon opens up in his work and which are quite different from those offered by neoclassicism. In an interview with Barry and Slater, Callon explicitly recognises 'the experimental character of markets and market organisation' (Callon 2002, 299). He thinks such experimentation is precisely one of the virtues of working with performativity as an idea. Performativity opens up novel possibilities. There are no absolutes, inviolable strictures, or crushing necessities that produce markets of only one form. As MacKenzie (2006, 275) aptly writes, 'the notion of performativity prompts the most important question of all: What sort of world do we want to see performed?'

But while Callon makes the general point about the potential open-endedness of market performance, he has never demonstrated the concrete possibilities for performative experimentation on the ground. But economic geographers have, strengthening Callon's arguments, showing their relevance. They have demonstrated actual potential of alternative market performances in real spaces.

Leyshon et al. (2003), for example, have collected together a series of case studies illustrating various experiments with 'alternative economic spaces'; that is, experiments with different forms of market organisation and which vary from Local Exchange Trading Systems based on barter and labour time



Fig. 3. J. K. Gibson-Graham's iceberg model of alternative market economies (Gibson-Graham, 2006, 70; drawing by Ken Byrne).

to Credit Unions to alternative retailing venues such as farmer's markets and car boot sales.

Or again, J. K. Gibson-Graham (1996, 2006) are concerned with bringing into being alternative forms of market organisation in particular places, and which they believe is possible through the very performances of academic researchers themselves. Very briefly, Gibson-Graham suggest that the economy is performed in many different ways, although it is not recognised as such. Those alternative forms lie below the water line, they are the 90% of the economic iceberg not seen (Figure 3). For Gibson-Graham, the political task is to recognise such alternatives, and to begin to perform them. As they are performed in particular places, the wider economy and its associated spaces are transformed. Here, Gibson-Graham are going farther than Callon because they provide a mechanism for realising such experiments: the very performance of research itself. Calling what they do 'action research', they show, reporting on work carried out in Spain, the USA, and Australia, that interaction with research subjects provokes actors to see the market differently, to perform it in new ways, changing them and the world for

the better. It might even mean 'the end of capitalism (as we knew it)' (Gibson-Graham 1996).

### *Conclusion*

There is something disconcerting in talking about markets as performance. One of its connotations is unrealness, inauthenticity, superficiality, or, more deviously, covering up the genuine.

I argued following especially STS writings about performing the economy that we should resist such a judgment, however. As an intellectual project, it is compelling, energetic, with direction and empirical purchase, raising a series of issues germane to economic geography around, for example, hybridity, agency, rationality, and representation. Yet, peculiarly the STS writings ignore space and place, and geographical circulation. The geographical obviously continues to matter, though. Moreover, its importance can be readily demonstrated by joining issues raised by STS with economic geography that I illustrated in the article's second half.

In linking economic geography with STS and studies of market performance, I contend that the disciplinary voice of economic geography is best being heard. It is not heard in economics. Even seemingly sympathetic economists like Paul Krugman have given up on economic geographers because of their lack of advanced mathematical skills, their messy methods, and the absence of hard-headed models. But rather than liabilities, these are assets within STS. Amin and Thrift (2000, 8) in their well-known editorial about Anglo-American economic geography say that there have recently emerged 'new economic knowledges . . . [that] provide . . . at least glimpses of some alternative worlds.' I have described in this article one of them.

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### *Short Biography*

Trevor Barnes is a Professor and Distinguished University Scholar at the Department of Geography, University of British Columbia, Vancouver, BC, Canada. His current research interests are in Vancouver's new economy, forestry, and the history of US geography during the Cold War era. His latest book co-edited with Adam Tickell, Eric Sheppard and Jamie Peck is *Politics and Practices in Economic Geography* (2007). He holds an MA and PhD from the University of Minnesota.

## Notes

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<sup>1</sup> See [http://nobelprize.org/nobel\\_prizes/economics/laureates/1997/presentation-speech.html](http://nobelprize.org/nobel_prizes/economics/laureates/1997/presentation-speech.html)

<sup>2</sup> See [http://www.bis.org/publ/qtrpdf/r\\_qt0703b.pdf](http://www.bis.org/publ/qtrpdf/r_qt0703b.pdf), page 24.

<sup>3</sup> There was an even earlier Professor of Economic Geography in the UK, Lionel Lyde (1883–1948) and appointed at University College, London in 1904. His performance was based on meticulously kept clippings which he would share with students over long weekends before final exams (Clout 2003, 6).

<sup>4</sup> The trading pit at the Chicago Board of Trade was brilliantly captured in Andreas Gursky's 1999 photo, 'Chicago Board of Trade II' (available for viewing at [www.artnet.com](http://www.artnet.com)).

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