Islands of Stability

Engaging Emergence from Cellular Automata to the Occupy Movement

Andrew Pickering

My aim is to explore an important aspect of social life, which goes largely unrecognised in social and political theory and practice. First, I ask why ›being with‹ is a problem. This brings up questions of performance, stabilisation and emergence.[1] I then review some models of emergence that can serve to illustrate and clarify the problem. The third section reviews some in-principle difficulties in being with that follow from this analysis, and the fourth section points to important real-world exemplifications of these difficulties. Finally I outline some attempts to come to terms with them.

1.

In what sense is ›being with‹ a topic? We are continuously with an endless list of entities from the moment we are born until we die (and even before and after that). Being with is literally mundane. Here I am, drinking a cup of lukewarm coffee, typing at my computer, glancing at my watch or the snow outside the window, talking to my wife about the weather or lunch or the new Pope—so what? That's how it always is—what more can one say?

We could make a start by saying that ›being with‹ appears unproblematic because we tend to think about stabilised relationships. I know this computer pretty well; I

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have even managed to stop Microsoft Word checking my spelling; I know how to get along with it. But this is not always the case. Going to new places with my computer seems always to generate tense hassles in connecting to the Internet, reading my email, sending stuff to a new printer. Sometimes, then, we enter these zones of instability in which being with becomes difficult to the point of impossibility— and this certainly happens as much with nature and other people as it does with technology. Instability is thus also endemic to our being in and with the world.

Now we have some conceptual elbow-room—the gap or transition between stability and instability. What can we say about that? First, that negotiating the transition is a performative rather than a cognitive process. No-one ever seems to know how to connect to the Internet, though some frequent obstacles have names—user IDs and passwords for example, as well as more mysterious entities like firewalls, IP addresses, secure socket layers and PPPoE. Experience helps but is never enough. What remains is trial and error—trying this, trying that, seeing what happens, reacting to that. And eventually the connection is made and one is with one's email again.

This is our ontological condition, what being in the world is like. Getting on in the world is a performative achievement, continuously or from time to time performatively renegotiated. It is not, in the first place, a cognitive achievement. One does not think one's way into being with. Now I know that today I needed to go through that firewall, and that to do so I had to update my operating system and then download a new driver to connect to that printer. But all that knowledge was the upshot of stabilising a relationship; it came after, not before, being with. We are plugged into the world via performance, not cognition.

This whole process is emergent in time, unpredictable and inexplicable in advance of its happening. We are stuck with performative experimentation precisely because no one knows what will happen when I connect my computer to a new server. In this sense, we live in a world of becoming and the continual bubbling-up of genuine novelty. This again is our ontological condition.

Why is this not already clear to us? How is that we can take being with so often for granted? The answer has to be a refinement of the ontological picture. There are islands of stability in the flux—my relationship with my computer today, for example, is stabilised by all the settings established in getting this version of Microsoft Word under control and accessing my email through this network. When we find these islands, we live on them and celebrate them cognitively and we mistake them for the world itself. But we should instead remember that they are chancy performative achievements, and we can easily and unpredictably fall off them. The word ›Fukushima‹ can probably still serve as a mnemonic for this point.[2]

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2   Cf. Pickering: Being in an Environment (as note 1).

2.

This is one way to understand ›being with‹ as an interesting topic linked to a specific topology—as a chancy and emergent performative achievement of fragile and local stabilisations in a world of becoming. Now I want to come at the problem from a different angle. We do not usually think of a world of becoming; we think in terms given to us by the scientists and engineers, of a world of knowable and reliable entities: rods, pulleys and gears; molecules, atoms and black holes. That is the world in which the problematic of being with recedes; in which our relation to others can, in principle at least, be a cognitive one—we can think ourselves into stable relationships with stable entities as long as we know enough.

This is a powerful image; how can we get away from it? The first move might be to recognise that stories of fixed and knowable worlds are themselves built on these islands of performative stability I just mentioned. These stories are intrinsic to our ways of inhabiting them, shoring them up, extending, and repairing them. But then the question arises of how to imagine the world differently; how to break the spell of cognition and language and to enliven instead our imagination of performance and emergence? The strategy I want to follow here is to think of some simple examples—models—that stage vividly aspects of an ontology of becoming. These are the sorts of things that it helps to have in the back of your mind if you want to grasp being with as an interesting problematic. I could run through a long list, but I will confine myself to three: black boxes, cellular automata, and homeostats.

Black boxes are well known in science and technology studies (STS) thanks to Bruno Latour,[3] but the idea itself goes back to World War II, where ›black box‹ referred to a piece of enemy equipment that fell into the hands of the other side.[4] The first task of the receiving scientists was a sort of performative mapping, seeing what the box would do, subjecting it to trials as Latour calls them, exposing the box to various conditions and recording its response. This mapping of input-output relations could be our primordial model for being in the world and stabilising relationships. It is how babies learn to cope with their environment, but is also surely how all entities, human and nonhuman, organic and inorganic, do the same—a performative experimental coming-to-terms with otherness.

This mapping can, of course, be a prelude to reverse-engineering, a way of starting to open up the black box to cognition. But the black box as model serves

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3 Cf. Bruno Latour: Science in Action. How to Follow Scientists and Engineers through Society, Cambridge, MA 1987.
4 Cf. William Ross Ashby: An Introduction to Cybernetics, New York, NY 1956; Andrew Pickering: The Cybernetic Brain. Sketches of Another Future, Chicago, IL 2010.

to remind us that cognitive reverse-engineering depends on prior engagement. Cognition derives from performance. And opening black boxes is decidedly optional. I've been to university; I could sketch out the mechanisms of light switches and door handles. But my mode of being with them depends not at all on that sort of knowledge—I learned to get along with them long before I went to school. Stabilising that sort of getting along is what we need to think about to come to terms with being with. Just imagine a world of black boxes engaging with one another.

One limitation of black-box talk is that it still invites us to think of hidden but knowable and predictable mechanisms, even if we recognise that in practice such knowledge is often not important. How can we imagine becoming, the ability of the world to continually surprise us? We could go to a different extreme and look for models of becoming. The clearest and cleanest examples I can think of are cellular automata. A CA is a string of zeroes and ones, evolving in discrete time-steps according to some rule—for example, if both neighbours of a particular location are ›one‹ then the value at that point at the next step will also be one.
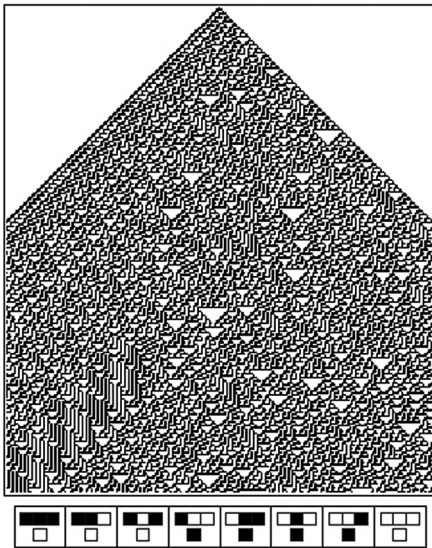

Fig. 1: Cellular Automaton, Rule 30. Time runs from top to bottom

CAs are simple determinate systems. The rule specifies with no ambiguity how any given array of zeroes and ones will evolve over time. Some rules generate predictable patterns, in the sense that having watched them evolve for a while you can say what will show up a thousand or a million iterations into the future. For example, if a CA dies—meaning that at some point its elements are all zeroes—it will not come back to life. A string of ones is likewise immortal. Some rules generate regular geometrical patterns or fractals, so it is easy to get the hang of where they are going. But what is fascinating here is that some rules generate utterly unpredictable behaviour. Nothing about them evidently continues predictably into the future—you just have to keep iterating the rule to find out what the system will look like after any specified number of steps.[5]

So CAs are good to think with if we are interested in the problematic of being with: imagine that the world is built from unpredictable and emergent CAs rath-

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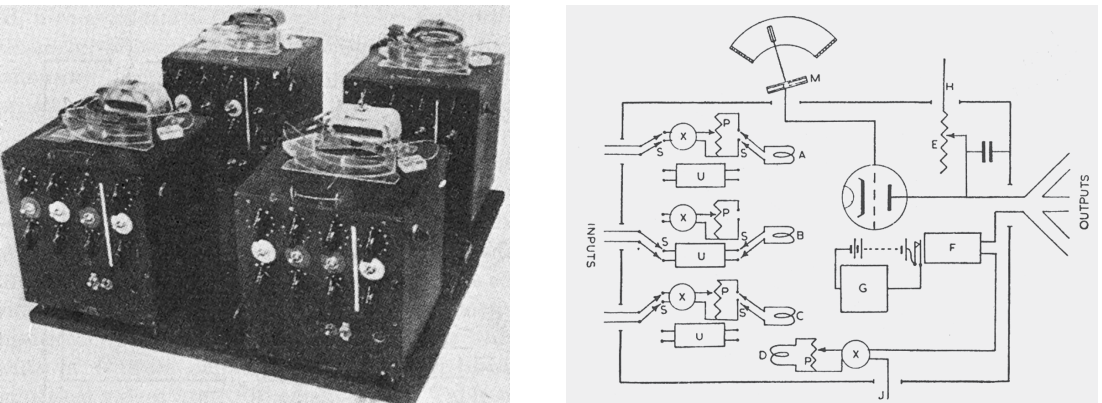5   Cf. Stephen Wolfram: A New Kind of Science, Champaign, IL 2002.

Fig. 2: Homeostat: Four-Homeostat Set-Up (left); Wiring Diagram (right)

er than quarks or clockwork. In a sense, this is going too far, inasmuch as one could never, in fact, stabilise a relationship with one of these entities. One would always be being surprised by it and adjusting again. There are no islands of stability to be found here.[6] We should move on, while just remarking on the uselessness of any cognitive opening up of CAs. We already know the rules that generate them, and that knowledge helps us not at all in knowing what they will do next. We should imagine the world like that.

Thirdly, we can turn to a gadget built in 1948 by Ross Ashby, the homeostat.[7] This was an electro-mechanical device that processed an input current, turning it into an electrical output. Its key feature was that if the current within it exceeded some preset value, a relay would trip and change the internal wiring—the machine would randomly reconfigure itself. Any single homeostat was inert and lifeless, but Ashby constructed multi-homeostat set-ups so that the outputs from each unit were the inputs to the others. When first switched on, such set-ups were typically unstable—the currents within the units tended to grow—but then the relays would start tripping and carry on doing so until the currents tended to vanish and the whole set up became stable and quiescent.

Homeostats are interesting here from several angles. Firstly, they can serve as models of a distinctly performative form of stabilisation. Their interactions were purely at the level of performance rather than cognition; each unit was a black box to the others. Secondly, they exemplify again the uselessness of opening up black

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6 Unless, as it happens, one looks at more complex CAs like the gene networks at the heart of Stuart Kauffman's theoretical biology, cf. Pickering: Cybernetic Brain (as note 4). These do fall into ›basins of attraction‹ and remain stable until one jolts them out of them. But this is to get too technical.

7 William Ross Ashby: Design for a Brain (1952), London 1960.

boxes. All there was to know about them is that under certain uncontrollable conditions they would reconfigure themselves randomly, and this knowledge was itself of no use in the process of achieving equilibrium. And thirdly and most importantly, they can help us go further in thinking about the process of stabilisation and being with. A multi-homeostat set-up is a nice model of a system that finds islands of stability, precisely the end states in which the individual units still react dynamically to disturbances from the others but in which no more inner reconfigurations are called for. In the rest of this paper, I want to explore this as a model for the achievement of stable being with.

3.

The first section of this essay translated the problematic of being with into one of the stabilisation of relationships. The second section reviewed some models that can help us think our way past the image of a fixed and knowable world that tends to dissolve this problematic. Now I want to lean on the homeostat to think further about the process of stabilisation. Ashby was interested in the length of time it would take combinations of homeostats to achieve collective equilibrium. He thought of them as models of the brain, so the question for him was whether one could build a brain that would adapt to the world in a reasonable length of time. Both calculation and his machines showed that four fully interconnected homeostats, each capable of taking on twenty-five different inner states, could come into equilibrium within a couple of seconds. But if one extrapolated that to an assemblage of one hundred fully interconnected homeostats (fifty as a brain; fifty for the world) the combinatorics were such that chancing on an equilibrium arrangement would entail search-times orders of magnitude greater than the age of the universe. Even if 99 of them found a way to settle down, chances are that the 100th would set them spinning again.

This is the point we need to focus on. It takes time to run through homeostat-like processes of reconfiguration, putting possibilities to others who are doing the same back, proposing and counter-proposing, vetoing and counter-vetoing. And the length of time it takes to stabilise such an arrangement increases astronomically with the number of participants and the density of their connections, meaning the number of others with which each entity interacts directly. Finding stability can easily become a practical impossibility.

Ashby drew an ontological conclusion from this. The elements of the brain and the world must be sparsely, not densely, connected to one another, since we do, in fact, manage to stabilise some relationships within a finite human lifespan. This counts, I think, as a genuine and strange ontological discovery, and I cannot see

how one would arrive at it without first grasping the problem of being with as one of performative experimentation. The remainder of the essay tries to draw on Ashby's insight in thinking about social relations and the political problem of being with other people.[8]

4.

Antonio Calleja-Lopez is studying the Occupy movement as a participant/observer, an active member of the movement.[9] Ironically, perhaps, his original aim was to study the development of a software platform tailored to the needs of Occupy members. Instead, he writes accounts of failures to agree how to go about this project, backing up into failures to agree what Occupy is and how to study it. These failures shade into stories of splits and divisions within the movement, which themselves always seem to shade off into tales of violence. Occupy Berlin Biennale in summer 2012 was the latest attempt to get the software development underway, but ended in conflicts with other Occupiers and the departure of the software group.

One might blame these failures to move forward on individual personalities, the usual penchant of the left for squabbling, and so on, and no doubt there would be something to this. But I am increasingly inclined to see it as an ontological

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8   There are many directions we could fruitfully explore here, cf. Pickering: Cybernetic Brain (as note 4). In psychiatry, Ashby thought of his findings as offering a rationale for lobotomy, a way of decreasing the degree of interconnections of neurons within the brain; Grey Walter likewise drove his robot ›tortoises‹ mad and cured them by disconnecting some of their circuits; while Gregory Bateson understood the double-bind as the achievement of pathological islands of stability, and psychosis as a mechanism that set the homeostats spinning again in search of other islands. The architect Christopher Alexander drew on Ashby's work to explain what he took to be the continually failing adaptation of contemporary buildings; again, his response was to thin the connections, trying to find subsets of architectural/environmental elements that were only weakly coupled to one another, leading up to his concept of ›pattern languages,‹ cf. Christopher Alexander et al.: A Pattern Language. Towns, Buildings, Construction, New York, NY 1977. Alexander conceptualised linkages in terms of one hundred interconnected lightbulbs, arranged as a two-dimensional cellular automaton. One can understand our dominant way of relating to the environment as a sort of arms race with nature, which never stabilises, cf. Andrew Pickering: New Ontologies, in: Andrew Pickering and Keith Guzik (eds.): The Mangle in Practice. Science, Society and Becoming, Durham 2008, pp. 1-14, Pickering: Being in an Environment (as note 1).

9   I am supervising his PhD research at the University of Exeter; what follows is a simplified version of the findings of his research, which is still in progress and unpublished. I am grateful for his permission to mention his work here.

problem at the heart of radical democracy. Like other contemporary radical movements, Occupy is endemically suspicious of experts, authorities and the exclusions that are their other side. Decision-making has to be decentralised and collective; everyone should be free to have a say. And it seems to me that Occupy is thus continually running into the multi-homeostat problem, with an indefinite number of people densely interacting with one another, creating endless possibilities, pushing them around, reacting to others, but never finding a stable configuration. And it further seems to me that this is a problem that must always face forms of radical democracy searching for unconventional islands of stability.

I am encouraged to think this way because such problems surface in many places, whenever established means of control collapse or are otherwise circumvented. Warren McCulloch, the chair of the famous interdisciplinary Macy Cybernetics Conferences (1946-53), recalled their meetings like this: »[W]e were unable to behave in a familiar, friendly or even civil manner. The first five meetings were intolerable. Some participants left in tears, never to return. We tried some sessions with and some without recording, but nothing was printable. The smoke, the noise, the smell of battle are not printable.«[10] At a more serious level, think about post-invasion Iraq. The standard expectation was that the Iraqis would react in some uniform fashion, possibly by giving flowers to the occupiers. Instead there was violence and chaos with a multiplicity of groups forming and reforming, pursuing different and changing agendas and never achieving any sort of equilibrium. We could see this as a playing-out of the multi-homeostat problem writ large. Likewise the collapse of the Soviet Union and, for example, the disintegration of Yugoslavia. Likewise the events which used to be called the Arab Spring, a term which Thomas Friedman now says »has to be retired« in the expectation of »a long period of intrastate and intraregional instability, in which a struggle for both the future of Islam and the future of individual Arab nations blend together into a ›clash within a civilization.‹«[11] I find it striking that no-one ever seems to anticipate these break-ups and failures of being with. We should do; they should be central to political thought; and Ashby's homeostats can help us get them into focus.

A case I know more about concerns radically democratic movements within the 1960s counterculture, which show striking commonalities with the experience of Occupy. The three-week Dialectics of Liberation conference, held at the Roundhouse in London in 1967, brought together the likes of Herbert Marcuse, Gregory Bateson, Allen Ginsberg, Stokely Carmichael, leader of the Black Power

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[10]   Warren S. McCulloch: The Beginnings of Cybernetics, undated manuscript, reproduced in: Claus Pias (ed.): Cybernetics-Kybernetik. The Macy-Conferences 1946-1953, vol. II: Essays and Documents Zürich/Berlin 2004, pp. 345-360: 356.
[11]   Thomas Friedman: The Arab Quarter Century, in: New York Times (April 10, 2013).

movement, and R. D. Laing, the leading figure in the antipsychiatry movement. It was the apotheosis of international countercultural politics, but instead of moving the revolutionary agenda forward, »there was this meeting afterwards . . . and there was extreme bad feeling and a huge argument and split between them all. Allen [Ginsberg] was going, ›This is dreadful. We have not argued this long for everyone to start getting at each other's throats and getting divided. This is not going to get us anywhere.‹«[12]

Antipsychiatry was a radically democratic movement centred in the 1960s on Kingsley Hall in London, where psychiatrists and the mad tried to live together in a non-hierarchic commune, but its social disorder in fact precipitated tense disputes on whether some directive management was required to make communal living possible at all:

»Disagreement among ›the brothers‹ as to how ›the place‹ should be run intensified. Aaron Esterson was advocating the appointment of a medical director […] Ronnie wanted a type of spiritual free-for-all, with no rules except for those that evolved through the experience of people actually living there.«[13]
»Life at Kingsley Hall became less pleasant. It became impossible to ask friends […] round, because a prior agreement […] had to be arranged from both camps. The usual high-level, all evening dinner discussions were replaced by glares, stares and recriminations […] Aaron used to walk about […] carrying a biography of Stalin […] Ronnie began to interspice his lofty metaphyical comments […] with quotes from Lenin.«[14]

The most extensive account concerning the academic experience I have to hand is Joe Berke's account of the Free University of New York. Founded in 1965, FUNY's self-description included the statement that »The Free University consists of its intellectual participants. Students and teachers meet on common ground to discuss the direction of the school and to develop curricula, course content, symposia, forums, etc.« In practice:

»Formal policy was made, officially by a co-ordinating committee of ten people, five students and five faculty. There was a formal FUNY constitution drawn up. Great. One day a week, after classes […] the committee met for hours, and hours, and hours. The meetings were open to all members of FUNY, and all were invited to participate in the deliberations (if they could last). I must say, anyone who came did have a say, and deci-

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12 Sue Miles, quoted in Jonathon Green: Days in the Life. Voices from the English Underground, 1961-1971, London 1988, p. 209.
13 Adrian C. Laing: R. D. Laing. A Biography, New York 1994, p. 106.
14 Mary Barnes and Joseph Berke: Two Accounts of a Journey Through Madness, New York, NY 1971, p. 255.

sions, for the most part, reflected the views of those who cared to show up. But on and on and on. How many times did Allen [Krebs] win his point solely because he could last out longer than anyone else […] The ultimate horror was the monster bi-yearly plenums, whereby all of FUNY was invited to meet at one time in the same place to ratify policy and vote for a co-ordinating committee. What wonderful shrieking-matches they proved to be […] Only the most battle-hardened politicos in the place could withstand these ulcer sessions. Ah well, like they say, the enemy is within.«[15]

There is always a note of bitterness in these accounts, as if something beautiful should have happened but didn't, and others are somehow to be blame. My own suggestion is that no one is necessarily to blame and that the »enemy within« is ontological. Even with the best will in the world, experiments in radical democracy will necessarily run into Ashby's multi-homeostat problem and find it practically impossible to arrive at collective decisions and find stable modes of living together. Being with is intensely problematic in such situations.

That is the sad onto-political conclusion of this analysis of being with in terms of performative stability and stabilisation. In the remaining sections, I review some tactics that address the multi-homeostat problem in social and political life.

5.

Ashby was right. The only route to stabilisation is to cut down the variety—to reduce the number of configurations an assemblage can take on, by reducing the number of participants and the multiplicity of their interconnections. This is the only way to have a chance of finding islands of stability in a finite time, and it is what social and political institutions do. Even the Free University of New York had a co-ordinating committee. Much more drastically, democratic politics in the West now consists of being given a single choice between a couple of more or less identical parties every few years. I tend to see my home institution, the University of Exeter, as a microcosm of modern management, and it tries to reduce homeostat-like interactions to zero. Our masters live in their own administration building and are almost never seen around campus. Layers of lesser managers function as a cut-off between them and the faculty. At the same time, horizontal interaction between faculty is made difficult in the extreme; there are, for example, no email lists we can use to contact others en masse—they exist, but only the managers can access them.

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15   Joseph Berke (ed.): Counter Culture. The Creation of an Alternative Society, London 1970, pp. 214, 221.

And these tactics work. By minimising variety, they make it possible to achieve a kind of stable being with, in which plans are quickly »agreed to« and specific actions follow. Many of us find these arrangements repellent. They are the means by which a small class of politicians and managers keep the rest of us under their thumb; they subjugate us to their vicious plans. This is, of course, the dissatisfaction that feeds the Occupy movement. But I have just discussed the problems inherent in truly radical democracy, and I want to close by discussing other ways of reducing variety that do not in themselves stabilise hierarchy and asymmetric power relations.

6.

If we have to reduce variety somehow, are there ways of doing it that do not feed into the control mechanisms of contemporary neoliberalism? Is there another paradigm for being with? The only person I know who has seriously addressed this question explicitly and in practice is Ashby's friend, Stafford Beer, the founder of what he called management cybernetics, and I can review a couple of his initiatives to indicate the sorts of arrangements we might want to think about.[16]
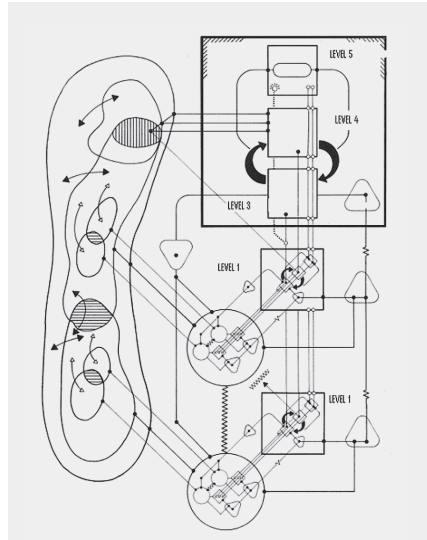

Fig. 3: Diagram of the viable System Model

16   Much closer to the present, Calleja-Lopez' findings on Occupy and related movements also point to organisational experimentation aimed at reducing variety as a way of coping with the multi-homeostat problem: »Most massive general assemblies, and surely the camps—the organizing forms more prone to fall into the multi-homeostat problem— tended to fade away everywhere. New local assemblies, autonomous groups and projects flourished, specially in Spain […] Distrust or disinterest of the GA in London grew with time. […] Decentralization grew more important than collective action almost everywhere.« Lopez also points to the importance of »facilitation, which is a qualitatively different role [from] the rest of the people-homeostats involved, [and] is more effective in small groups,« and of a class of »catalyzers« in the 15M Movement (personal communication, 23 March 2013). Conversely, Latour's politics of nature (2004) and Stengers' cosmopolitics (2010) aim to slow things down by multiplying interconnections relative to contemporary political arrangements, cf. Bruno Latour: Politics of Nature. How to Bring the Sciences into Democracy, Cambridge, MA 2004; Isabelle Stengers: Cosmopolitics I, Minneapolis, MN 2010.

From the early 1970s until his death in 2002 Beer worked as a management consultant, and the diagram of what he called the viable system model or VSM functioned as his trademark in thinking about organisational design.[17] In some respects the VSM is rather conventional, dividing organisations up into functional units, though Beer placed an unconventional emphasis on units devoted to operations research, planning and the simulation of possible futures. In the present context, the key feature is that Beer did not aim to squeeze all the variety out of the system, but instead to choreograph it. The links between units were designed as homeostat-like interfaces, indicated by reciprocal arrows in the diagram, rather than the one-way command structures familiar to those of us who work in English universities. Management, planners, OR people and production units would engage in processes of reciprocal vetoing as Beer called it, exchanging proposals and counterproposals until some sort of equilibrium, a condition of stable being with, was achieved between the parties involved.[18]

The VSM thus found space for emergent performative experimentation at the expense of structuring and localising it. The pay-off, of course, was that because not everyone in the organisation was involved with everyone else in this process, the prospect of finding islands of stability in a finite time was greatly increased.

The VSM might not be instantly attractive to the Occupy movement. It is not radical democracy; it involves a segregation of functions; the vertical structure of the diagram still speaks of managerial hierarchy. But Beer argued, at least, that it is the best we can get as far as organisations are concerned, certainly better than conventional forms of neoliberal management. Perhaps the trick here is to turn the diagram on its side; the homeostat-like couplings suggest we should see different functions like management, planning, production, etc. as being on the same plane, each part of the organisation, none of them in ultimate control.

The question remains as to what these homeostat-like couplings would look like in practice. In his early career in the steel industry, Beer improvised, trying to grab managers and trade-union representatives after work on Friday afternoons and take them off to his office to drink whisky. The idea was simply to break down established antagonisms and set the homeostats spinning to see what would emerge. Later this evolved into a more structured procedure Beer called syntegration.[19] Syntegration is a complex process of many iterations, usually extended over several days, but the central idea is to assign participants to the edges of a notional icosahedron, and to organise a process of sequential discussions between the

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[17]   Cf. e.g. Stafford Beer: Brain of the Firm, New York, NY ²1981; Pickering: Cybernetic Brain (as note 4).

[18]   The VSM had a recursive structure, so each unit was built from subunits, again linked homeostatically.

[19]   Stafford Beer: Beyond Dispute. The Invention of Team Syntegrity, New York, NY 1994.

parties whose edges end at a common vertex, alternating in steps between the vertices at the end of each edge. In this way proposals and arguments can emerge and progressively echo all around the icosahedron, eventually taking an emergent form controlled by no-one in particular. The topic of syntegration could be anything, ranging from the linkages between functions within an organisation I just discussed, to appraisal of the overall purpose and structure of an organisation—one of the first formal syntegrations focussed on the reorganisation of the Operations Research Society, of which Beer was then President—up to the Israeli–Palestinian relations and world peace.

In general, we can get the hang of what is going on here. Beer called syntegration a form of perfect democracy. It evidently falls short of the radical democracy of Occupy and the counterculture, but at the same time it evades the ontological problems of being with that they necessarily run into. And it does this by reducing and orchestrating the variety in a way that, unlike conventional structures and decision-making procedures, does not create a privileged centre that magically reproduces the status quo.[20] Together with the VSM, it can stand as an exemplar of a different and open-ended mode of being with from the neoliberal control and management strategies we know and love.

My aim here is not to recommend the specifics of the VSM as a way of patterning organisational life or syntegration as form of constructive negotiation. I have tried to follow through an analysis of being with as a process of performative stabilisation to get clear on the problems this brings to the surface, and to follow the ontological story through into some features of communal life that are probably not well enough appreciated, either by activists for radical democracy or social and political theorists. This closing discussion of Stafford Beer's work was intended to point simply to possibilities for organising ourselves differently that follow from the analysis, possibilities for producing another world systematically different from neoliberalism.

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[20] Beer had a nice analysis of questionnaires, polls and agendas as ways of stacking the deck—reducing the space of possibilities in advance. Topics for syntegration were supposed to be as loosely defined as possible, simply names of areas of active concern to whoever chose to participate, and the first phase of a syntegration then aimed at finding more precise articulations. In the course of the Cybersyn project in Chile in the early 1970s, Beer also sought to design feedback mechanisms directly linking the people to the government and setting up further homeostat-like balancing acts, cf. Pickering: Cybernetic Brain (as note 4).

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Fig. 1: Cellular Automaton, Rule 30.

Fig. 2: Homeostat: (A) four-homeostat set-up; (B) Wiring Diagram

Fig. 3: Diagram of the viable System Model