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THE BERLIN KEY OR HOW TO DO WORDS WITH THINGS¹

Bruno Latour

A social dimension to technology? That's not saying much. Let us rather admit that no one has ever observed a human society that has not been built with things. A material aspect to societies? That is still not saying enough; things do not exist without being full of people, and the more modern and complicated they are, the more people swarm through them. A mixture of social determinations and material constraints? That is a euphemism, for it is no longer a matter of mixing pure forms chosen from two great reservoirs, one in which would lie the social aspects of meaning or subject, the other where one would stockpile material components belonging to physics, biology and the science of materials. A dialectic, then? If you like, but only on condition that we abandon the mad idea that the subject is posed in its opposition to the object, for there are neither subjects nor objects, neither in the beginning – mythical – nor in the end – equally mythical. Circulations, sequences, transfers, translations, displacements, crystallisations – there are many motions, certainly, but not a single one of them, perhaps, that resembles a contradiction.

In Carelman's *Catalogue des objets introuvables* (Carelman 1995) one does not find the surrealistic key that appears below – and for good reason. This key does exist, but only in Berlin and its suburbs.²

Here is the sort of object which, though it may gladden the hearts of technologists, causes nightmares for archaeologists. They are in effect the only ones in the world to study artefacts that somewhat resemble what modern philosophers believe to be an object. Ethnologists, anthropologists, folklorists, economists, engineers, consumers and users never see objects. They see only plans, actions, behaviours, arrangements, habits, heuristics, abilities, collections of practices of which certain portions seem a little more durable and others a little more transient, though one can never say which one, steel or memory, things or words, stones or laws, guarantees the longer duration. Even in our grandmothers' attics, in the flea market, in town dumps, in scrap heaps, in rusted factories, in the Smithsonian Institution, objects still appear quite full of use, of memories, of instructions. A few steps away there is always someone who can take possession of them to pad those whitened bones with new flesh. This resurrection of the flesh may be forbidden to archaeologists, since



Figure 1.1 Ceci est une clef

the society that made and was made by these artefacts has disappeared, body and goods. Yet even if they must infer, through an operation of retro-engineering, the chains of associations of which the artefacts are only one link, as soon as they grasp in their hands these poor fossilised or dusty objects, these relics immediately cease to be objects and rejoin the world of people, circulating from hand to hand right at the site of the excavations, in the classroom, in the scientific literature. The slightly more resistant part of a chain of practices cannot be called an 'object', except at the time it is still under the ground, unknown, thrown away, subjected, covered, ignored, invisible, in itself. In other words, there are no visible objects and there never have been. The only objects are invisible and fossilised ones. Too bad for the modern philosophers who have talked to us so much about our relations with objects, about the dangers of objectification, of auto-positioning of the subject and other somersaults.

As for us, who are not modern philosophers (and still less post-modern ones), we consider chains of associations and we say that they alone exist. Associations of what? Let us say, as a first approximation, of humans (H) and non-humans (NH). Of course, one could still make a distinction, on any given chain, between the old divisions and the modern. H-H-H-H-H would resemble 'social relations'; NH-NH-NH-NH-NH a 'machine'; H-NH a 'person-machine interface'; NH-NH-NH-NH-NH-H 'the impact of a technology on a person'; H-H-H-H-NH 'the influence of society on technology'; H-H-H-NH-H-H-H the tool shaped by the human, while NH-NH-NH-H-NH-NH-NH would resemble those wretched humans crushed by the weight of automatism. But why endeavour to recognise the old divisions if they are artificial and prevent us from following the only thing that matters to

us and that exists: the transformation of these chains of associations? We no longer know just how to characterise the elements that make up these chains once one has isolated them. To speak of 'humans' and 'non-humans' allows only a rough approximation that still borrows from modern philosophy the stupefying idea that there exist humans and non-humans, whereas there are only trajectories and dispatches, paths and trails. But we know that the elements, whatever they may be, are substituted and transformed. Association – AND – substitution – OR: this is what will give us the precision that could never be given us by the distinction between social and technological, between humans and things, between the 'symbolic dimension' and 'material constraints.' Let us allow the provisional form of humans and the provisional essence of matter to emerge from this exploration through associations and substitutions, instead of corrupting our taste by deciding in advance what is social and what is technological.

'What is this thing? What's it used for? Why a key with two bits? And two symmetrical bits? Who are they trying to kid?' The archaeologist turns the Berlin key over and over in her hands. Because she has been told, she now knows that this key is not a joke, that it is indeed being used by Germans and that it is even used – the detail is important – on the outer doors of apartment buildings. She had certainly spotted the side-travel allowed by the fact that the two bits were identical, and the lack of asymmetry in the teeth had struck her. Of course she was aware, because she had been using keys for a long time, of their usual axis of rotation and felt clearly that one of the bits, either one, could serve as a head in order to exert enough leverage to disengage the bolt.

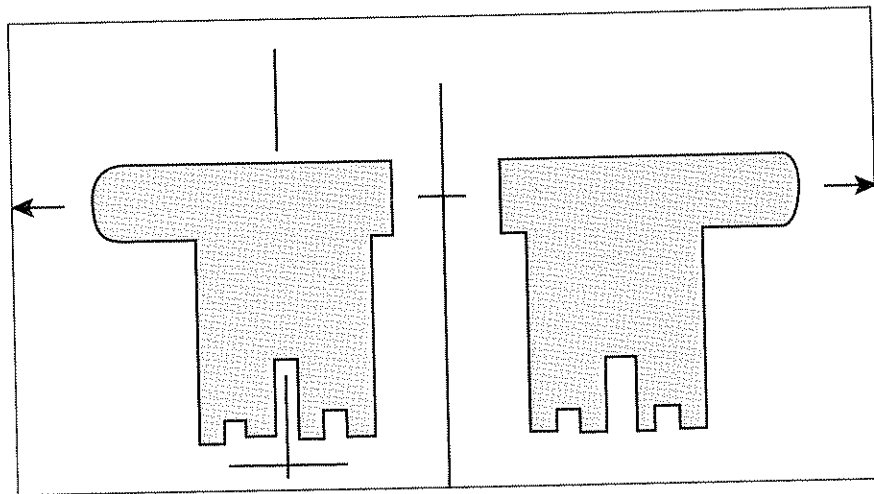


Figure 1.2 Berliner key symmetry

It was only afterwards that she noticed the groove. The latter did not break the side-travel but re-established an asymmetry when she considered the key in profile. However, by turning the key 180° on its vertical axis, one found the same groove at the same place. Translation, 360° rotation on the horizontal axis, 180° on the vertical axis – all this probably meant something, but what?

There had to be a lock for this key, she felt sure. It was the lock that would provide the key to this little mystery. However, when she looked at the hole into which it was to be engaged, the mystery only increased.

She had never before seen a keyhole shaped like this, but it was clear to her that the whole business, the whole affair, was based on the arrangement of the notch of the horizontal hole that would or would not allow the hole to receive the groove in the key.

Our archaeologist's surprise was still greater when she was unable to withdraw the key after having introduced it vertically and having turned it 270° counterclockwise. The lock was certainly open, the bolt had certainly retracted into the black box as in the case of any honest lock, the outer door was certainly opening, but try as she might, to pull, push, twist her key, our friend could not extract it again. The only way out, she found, was to lock the door again by a 270° clockwise rotation. And so she found herself locked out again, back where she started. 'What foolishness!' she says to herself. 'In order to get my key back, I have to lock the door again. Yet I can't stay behind the door, on the courtyard side, while I bolt it again on the street side. A door has to be either open or closed. And yet I cannot lose a key each time I use it, unless the door in question is an asymmetrical one that has to remain unbolted while one is inside. If it were a key to a mailbox, well, then I could

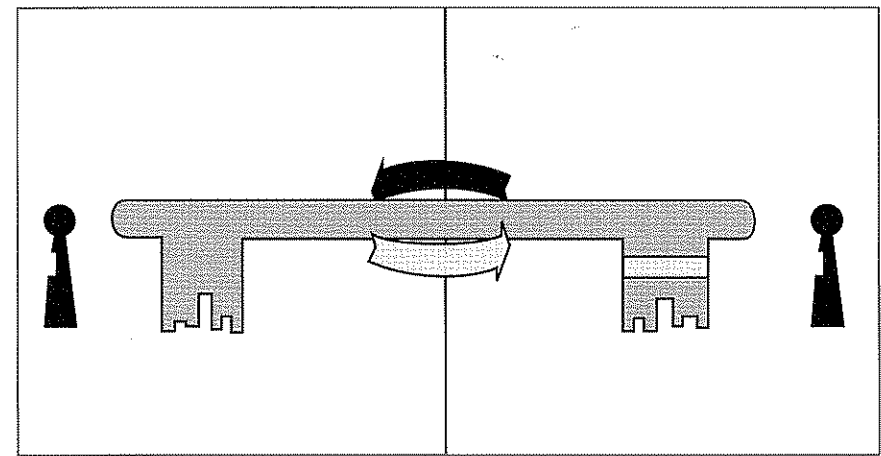


Figure 1.3 Berliner key reversibility

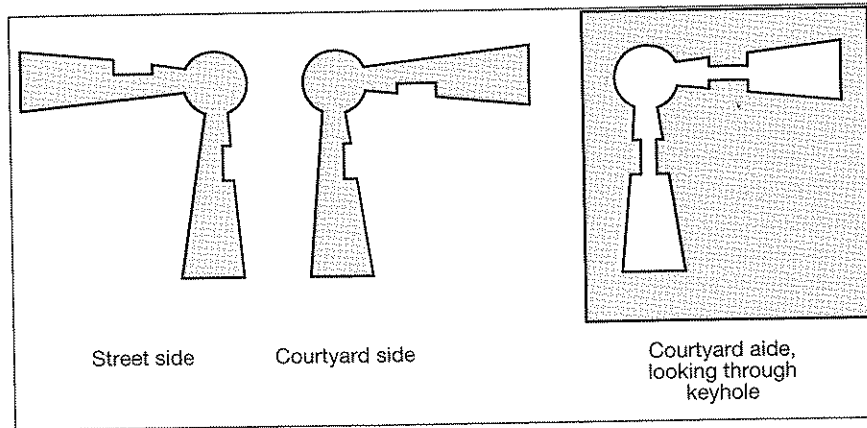


Figure 1.4 Berliner keyhole

understand it. But this is absurd, anyone could lock me in with a turn of the key, and anyway, we're talking about the door to an apartment house. And on the other hand, if I bolt the lock without the door being closed, the bolt will stop it from closing. What protection can a door offer if it is carefully bolted but wide open?

Good archaeologist that she is, now she sets about exploring the specifications of her miraculous key. What action would permit her to preserve all the elements of common sense at once? A key serves to open and close and/or to bolt and unbolt a lock; one cannot lose one's key each time, nor leave it inside, nor bolt an open door, nor believe there would be a key to which a locksmith had, just for fun, added a bit. What gesture would allow one to do justice to the particularity of this key – two bits symmetrical through 180° rotation around the axis and identical through side-travel? There must be a solution. There is only one weak link in this little socio-logical network. 'Damn, of course!' A reader avid for topology, an inhabitant of Berlin, the astute archaeologist, have probably already understood the gesture that must be made. If our archaeologist cannot withdraw her key after having bolted the door by a 270° rotation as is her habit with every key in the world, she must be able to make the key, now horizontal, slip from the other side through the lock.

She tries this absurd move, and actually succeeds. Without underestimating our archaeologist's mathematical aptitudes, we can bet that she might remain standing at the door of her building the whole night through before learning how to get in. Without a human being, without a demonstration, without directions, she would certainly have an attack of hysterics. These keys that pass through walls are too reminiscent of ghosts not to frighten us. This gesture is so unhabitual that one can only learn it from someone else, a Berliner, who

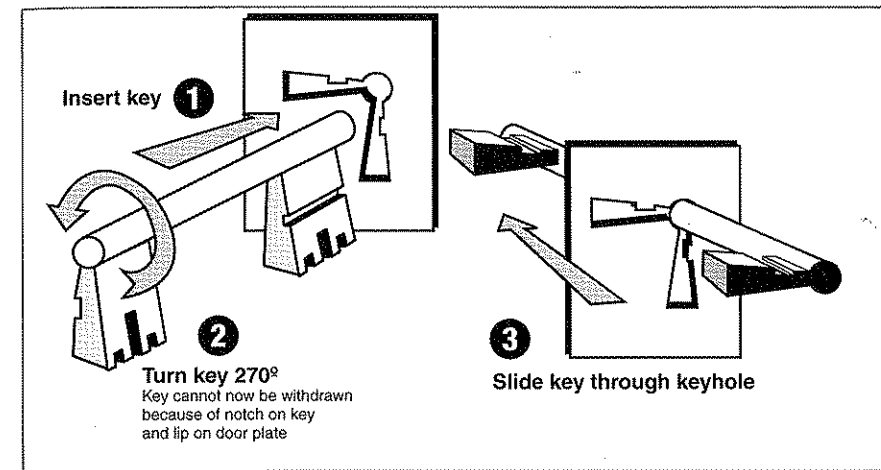


Figure 1.5 Key operation – street side

has in turn learned it from another Berliner, who in turn ... and so on and so forth by degrees all the way back to the inspired inventor, whom I will call, since I don't know him, the Prussian Locksmith.

If our friend were fond of symbolic anthropology, she could have consoled herself for not being able to get in by endowing this key with a 'symbolic dimension': in West Berlin, before the Wall fell, the people supposedly felt so locked in that they doubled the number of bits on their keys. 'There, that's it, a repetition compulsion, a mass psychosis of the besieged, a Berlin-Vienna axis; hm, hm. I can already see myself writing a nice article on the hidden meaning of German technological objects. That is certainly worth spending a cold night in Berlin.' But our friend, thank God, is only a good archaeologist devoted to the harsh constraints and exigencies of objects.

She finds herself on the other side of the door again, the key still horizontal, and feels that she will at last be able to recover it. 'That's the Germans all over', she says to herself. 'Why make something simple when you can make it complicated!'

However, just when she thought she was out of the woods, our archaeologist once again comes close to a fit of hysteria. Once she and her key – one in a human manner, the other in a ghostly manner – have passed to the other side, she still cannot recover her sesame. In vain she pulls, pushes, there is nothing to be done, the key is no more inclined to come out than it was when one engaged it on the other side. Our friend can find no other solution than to go back to where she started, on the street side, by pushing the wall-penetrating key back through in a horizontal position, then once again bolting the door, finding herself back outside, in the cold ... with her key!

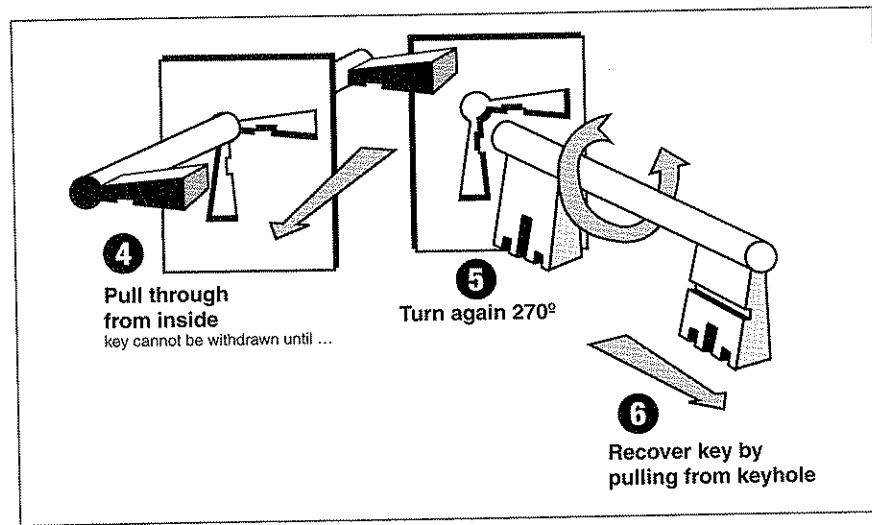


Figure 1.6 Key operation – courtyard side

She starts everything over again from the beginning, and finally sees (someone has shown her; she has read some sort of directions; she has groped around for a long enough time) that *by bolting the door again behind her*, on the courtyard side, she is at last authorised to recover her key. Oh joy, oh delight, she understands how it works!

These shouts of joy were premature. When, in the morning at around ten o'clock, she wanted to show her friend what a good Berliner, as well as a good archaeologist, she had become, she covered herself with shame. Instead of demonstrating her brand new attainments, she could not turn the key more than five degrees. This time, the door remained open permanently without her being able to bolt it. It was only at ten o'clock at night, when she came back from the movies, that she could exercise her know-how, for the door, as it had been the night before, was hermetically sealed. She was forced, then, to participate voluntarily in this hermeticism by bolting it behind her in order to recover her precious key.

It was only at eight o'clock in the morning the next day that she met the concierge; as he withdrew his key from the door he gave her the key to the mystery. The caretaker's passkey had no groove, was thinner, and in quite the classical manner had only one bit. The concierge, and he alone, could bolt or unbolt the door as he pleased, by inserting his key in a horizontal position but then withdrawing his key as one does in Paris, remaining snug on the side where his lodge was. After that action, however, the inhabitants of the building found they either could not bolt the door (during the day), or were obliged to bolt it from eight o'clock at night until eight o'clock in the

morning). In Berlin, this steel key performs mechanically the same function as is performed electronically in Paris by the door codes.

Our archaeologist, somewhat versed in sociology, was quite delighted by the way in which the Prussian Locksmith obliged all the inhabitants of Berlin to conform to a strict collective discipline, and was already preparing to write an article rather in the style of Foucault on the subject, when her colleague from the *Wissenschaft Zentrum* took from his pocket a Berlin key from which he had carefully filed away the grooves! His key had become a passkey similar in every aspect to that of the concierge. Instead of being obliged to lock the door behind him, he could either leave the door open for his nightwalking visitors, or bolt it during the day in the face of intruders, thus annulling the concierge's unlocking. ... Master of his destiny, he escaped the Prussian Locksmith once again. Berlin was decidedly the ambivalent city symbolised by the doubling of the bits and then their preclusion ...

If we call the 'script' of a device its 'program of action' (Akrich 1992), what is the programme of action of such a key? 'Please bolt the door behind you during the night and never during the day.' Into what material is this

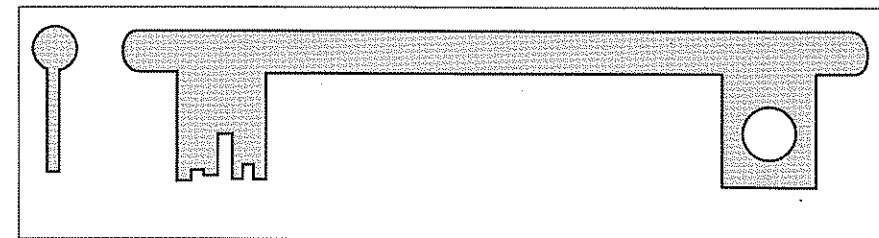


Figure 1.7 Berliner master key

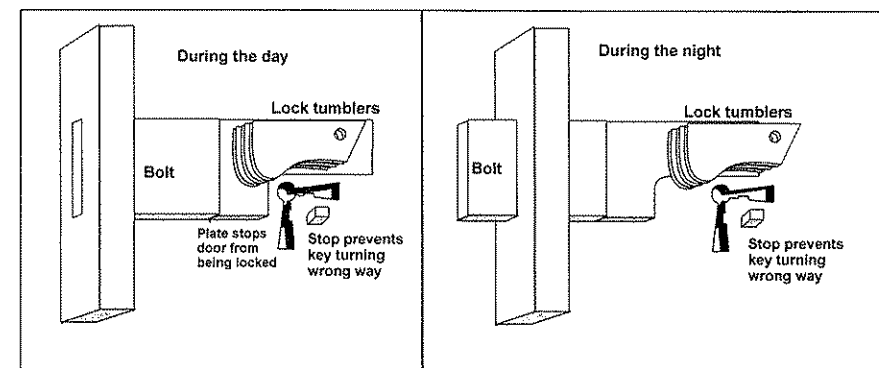


Figure 1.8 Lock mechanism

programme translated? Into words, of course. All large cities, all groups of co-owners, all union newspapers, all concierge's lodges, are full of complaints, notices, recriminations and groans about the doors, the fact that they are impossible to lock and impossible to open. But if it was a question of words, or notices, or howls of 'Lock the door!' or placards, we would merely be in the world of signs. If we were still living in the blessed days in which concierges kept watch night and day so as to pull the door-cord only for those they had carefully examined, we would be immersed in social relations – except for the door-pull, we forgot that, which allowed the slave in the lodge not to reveal her undies by getting up. The denunciations, palm-greasing permitted by these relations fed the plots of more than one novel. But now with this Berlin key we find we are neither altogether in the world of signs nor altogether in the realm of social relations. Are we in the world of technology? Of course we are, since here we are confronting keyholes and a handsome steel key with teeth, grooves and lips. And of course we are not, since we are encountering know-how, punctual concierges, and obstinate cheats, not to speak of our Prussian Locksmith.

All devices that seek to annul, destroy, subvert, circumvent a programme of action are called anti-programmes. The thief who wishes to get through the door, representatives of the opposite sex, are pursuing their anti-programmes, from the point of view, of course, of our dedicated concierge. No one has acknowledged their competence to go through the front entrance, but they insist on going through. Delivery people, tradespeople, mail carriers, doctors, legitimate spouses, also wish to go through during the day and believe they have the necessary authorisation. The Berlin key, the door and the concierge are engaged in a bitter struggle for control and access. Shall we say that the social relations between tenants and owners, or inhabitants and thieves, or inhabitants and delivery people, or co-owners and concierges, are mediated by the key, the lock and the Prussian Locksmith? The word mediation, quite useful, can also become an asylum for ignorance depending on the meaning one gives it. One person will take mediation to mean *intermediary*, another to mean *mediator*.

If the key is an intermediary, it does nothing in itself except carry, transport, shift, incarnate, express, reify, objectify, reflect, the meaning of the phrase: 'Lock the door behind you during the night, and never during the day', or, more politically: 'Let us settle the class struggle between owners and tenants, rich people and thieves, right-wing Berliners and left-wing Berliners.' Give me the society of Berlin, and I will tell you how the key is shaped! Technology is nothing more than discourse, totally expressible in other media. But then, why this key, these grooves, these surrealistic keyholes and this subtle inversion of the horizontal slot? If the transition to steel, to brass, to wood changes nothing, all technological mediators count for nothing. They are there for show; to give the idle something to chatter about. The material world confronts us only to serve as a mirror for social relations and a source of

entertainment for sociologists. Of course, it carries meaning, it can receive it, but it does not fabricate it. The social is made elsewhere, always elsewhere.

Everything changes if the word mediation fills out a little in order to designate the action of mediators. Then the meaning is no longer simply transported by the medium but in part constituted, moved, recreated, modified, in short expressed and betrayed. No, the asymmetrical slot of the keyhole and the key with two bits do not 'express', 'symbolise', 'reflect', 'reify', 'objectify', 'incarnate' disciplinary relations, they make them, they form them. The very notion of discipline is impracticable without steel, without the wood of the door, without the bolt of the locks. The proof? Owners did not succeed in constructing a social relation solidly established on discipline, on verbal coercion, on printed notices, on warnings or the gentleness of customs. The doors remained wide open during the night or locked during the day. This is why they had to extend the network of their relations, forge other alliances, recruit the Prussian Locksmith, and mobilise mathematics and its principles of symmetry. It is because the social cannot be constructed with the social that it needs keys and locks. And it is because classical locks still allow too much freedom that keys with double bits are needed. Meaning does not antecede technological devices. The intermediary was not a means to an end, whereas the mediator becomes at once means and end. From being a simple tool, the steel key assumes all the dignity of a mediator, a social actor, an agent, an active being.

As for the symmetry and the little break in symmetry that one sees when looking through the keyhole, are they or are they not social relations? This would be endowing them with, at once, too much and not enough. Not enough, since all of Berlin must pass this way: it is impossible to withdraw the key because of the stagger of the horizontal slot. Are these, then, social relations, relations of power? No, because nothing allowed Berlin to foresee that a break in symmetry, a key with two bits, and an obsessed concierge had to unite to transform into an obligatory point of passage a programme of action that, until now, was composed only of words and customs. If I take my key with two bits that authorises me to re-enter my house and obliges me to bolt the door at night and forbids me to bolt it during the day, am I not dealing with social relations, with morality, with laws? Of course, but made of steel. To define them as social relations continued by other means would not be too bad, if we were capable, indeed, of recognising in means, media, mediators, the eminent alterity, the eminent dignity that modern philosophy has for so long refused them.

Along with their alterity, one must also recognise their fragility, that eminent weakness that the technologists, this time, refuse to grant them. A cunning little person equipped with a file is enough to rob the concierge of his role as alternative caretaker. And this concierge, in his turn, must also be disciplined. There is no point in holding the key in one's hand, for the human concierge must be kept in hand also so that he will trigger the mechanism

morning and night punctually. And the solidity of this chain consisting of good-social-behaviour-practical-know-how-concierge-key-lock-door is no less provisional, for a poser of an electronic code can now transform the vigilance of the concierge into an electric signal regulated by the clock and turn the steel key into a code I will have to memorise. Which is more fragile, '45-68E' (my door code) or the handsome steel key? Which is more technological, the steel or the little counting-rhyme 'end of the war, May 68, Europe' which I say over to myself at the end of the day in order to remember the thing that authorises me to re-enter my house? Which of the two, this solid key or that mnemotechnological counting-rhyme wired into my neurons, is more durable?

Consider things, and you will have humans. Consider humans, and you are by that very act interested in things. Bring your attention to bear on hard things, and see them become gentle, soft or human. Turn your attention to humans, and see them become electric circuits, automatic gears or softwares. We cannot even define precisely what makes some human and others technical, whereas we are able to document precisely their modifications and replacements, their rearrangements and their alliances, their delegations and representations. Do technology, and you are now a sociologist. Do sociology, and now you are obliged to be a technologist. It is no more possible for you to avoid this obligation, this connection, this consequence, this pursuit, than it is permitted for you to enter your building at night in Berlin without taking out your key and locking the door again behind you. It is now (and has been for two or three million years) inscribed in the nature of things.

Readers must have been wondering from the outset how people in Berlin contrive to hook this surrealistic key onto their keychains. Not to mention the fact that two bits instead of one gives that much more chance of tearing one's pockets. I do not wish to leave them in suspense. The Prussian Locksmith has applied himself to inventing a Berlin keychain, a little case endowed with claws that holds the bit, to which is attached a ring, which, in its turn, allows one to hook it onto a keychain, which can be attached to one's belt.

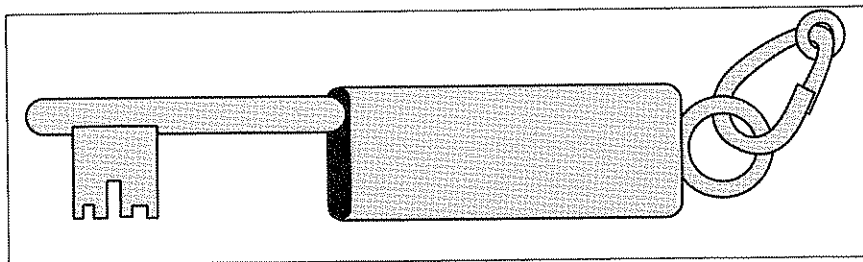


Figure 1.9 Key holder

With mediators, in fact, there always begin chains of mediators, otherwise known as networks. One is never done with them. But sociologists, like technologists, enemy brothers, believe they can come to an end, the former with the social, the latter with objects. The only thing they do not manage to end is their fratricidal war, a war that prevents us from understanding the world in which we live.

NOTES

- 1 This chapter originally appeared as : 'La clef de Berlin et autres leçons d'un amateur de sciences', *La Découverte* 1993 pp. 25-46. This English-language version was translated by Lydia Davis with additional editing by PMGB. Illustrations redrawn by PMGB.
- 2 My warmest thanks to Bernard Joerges for having presented me with this key and to Wanfred Schweizer of the Kerfin Company for having sold me a sample of his lock, real enough to guarantee him his livelihood. It should be pointed out that this article was written before the Berlin Wall came down, in West Berlin, which was at the time besieged by real socialism.

References

- Akrich, M. 1992 'The De-scription of technical objects.' In W.E. Bijker and J. Law (eds) *Shaping Technology/Building Society*. Cambridge Massachusetts: MIT Press, pp. 203-224.
- Carelman, J. 1995 *Catalogues des Objets Introuvables*. Paris: Livre de Poche.