

Introduction.
**Technological Commitments:
Marcel Mauss and the Study
of Techniques in the French
Social Sciences**

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Besides presenting the thrust of Marcel Mauss's works on techniques, technology and civilisation, I will dedicate particular attention here to the historical and ideological dimensions of his contribution¹. Indeed, beyond the nowadays commonplace scholarly requirement of contextualising scientific ideas and productions, this focus reflects a more specific thesis which needs to be spelt out. Contrary to what is often left to appear, technology – the study of techniques – is not some arcane, disinterested or merely 'objective' inward-looking undertaking, but rather one that is integral to the social sciences as a whole, partaking, explicitly or not, in the key challenges and debates which permeate and motivate these disciplines. Thus, much as I will expand in the coming pages on Mauss's technology in terms of its *contents*, I will also call attention to its *constitution*, to the various conditions that fostered and influenced its coming about, the questions asked, the issues tackled, the theories enlisted, the methods used, the knowledge produced. Such an outlook will admittedly complicate to some extent, but also considerably enrich and deepen, our reading of Mauss: in addition to their substantive value for understanding technical phenomena, the texts here assembled will also prove useful as 'object lessons' for appreciating the intrinsically non-technical stakes, as it were, surrounding the making of technology.

I Approaching technology

The very idea that there might be something non-technical about technology calls for a brief terminological excursus (see also Mitcham 1994; Sigaut 1994). Definitions of techniques as such are not really at issue here; almost invariably, these definitions involve considerations of materiality, artificiality, the appropriation of nature, the production of goods and the application of knowledge, usually augmented with references to society, culture or civilisation. In due course, we will appreciate how inspiring Mauss's own conception of techniques as 'traditional efficient acts' can be, drawing attention as it does to the collective context of efficient agency, and embracing together material and non-material dimensions such as magic and aesthetics (see texts 9, 10 and 12).²

What requires clarification at present is rather the distinction, or distinctions, commonly made between 'techniques' and 'technology'. In its prevalent Anglo-Saxon usage, 'techniques' applies ordinarily to phenomena that are primitive, traditional, small-scale, or else skilled and tacit, while 'technology' refers to those phenomena deemed modern, complex, sophisticated, knowledge-based, objective. In both scientific and common parlance, we intuitively accept essential differences between, say, basketry techniques and ballistic technology, or between the technology of the synthesiser and the technique of its player. Similarly, mentions of 'fishing techniques' and 'fishing technology' quite naturally bring to mind contrasting historical, material and socioeconomic circumstances. Indeed, the mere labelling of some phenomena as 'technical' and others as 'technological' is bound to create a divide between them, and thus to impact, however unwittingly, on their scientific perception and study.

If this distinction is not problematic enough, the duo 'techniques'/'technology' participates in another equally important semantic pairing. Here techniques are the object, and technology is its logos, its discourse, its disciplinary study. In this sense, technology is to techniques what musicology is to music, what climatology is to climate, or again what criminology is to crime. This particular connotation has long prevailed in the French research tradition. The treatise by Alfred Espinas* on *Les origines de la technologie* (1897), to give one example, deals not with the earliest palaeolithic implements from caves or gravel beds, but rather with the philosophers of classical Greece who first pondered the relations between *technê*, the gods and the polis (see also text 11). Mauss himself consistently followed this distinction. His unambiguously titled article 'Les techniques et la technologie' thus begun with the claim that 'In order to talk meaningfully about techniques, it is first necessary to know what they are. Now there actually exists a science dealing with techniques ... it is the science called technology' (text 12). Conversely, he noted that, 'Among the ethnologists, therefore, technology has a great and essential role which corresponds to the fundamental nature of techniques' (text 5). A similar distinction, with comparable disciplinary and ideological thrust, appears in a

well-known text entitled 'La technologie, science humaine', by the scholar who was possibly Mauss's most faithful student, André-Georges Haudricourt (1964). Likewise the book by Robert Cresswell, *Prométhée ou Pandore?*, sub-titled *Propos de technologie culturelle* (1996) deals not with the technologies or technologisation of culture, but rather with the study of techniques from a cultural (anthropological) standpoint. All that being said, there is clearly no question of enforcing any terminological exclusivity in the use of 'technology' and 'techniques'. Mauss himself left outstanding quite a few ambiguities between these terms, but we will see that such inconsistencies are not really distracting or detrimental (the same goes, it is hoped, with those I have myself left here). What is important, nevertheless, is that we acknowledge this semantic array, if only because it will serve to remind us yet again that techniques do have 'a science called technology' dedicated to their study.

This is a point well worth making. The very fact that such a terminological excursus is at all necessary can only attest to the relative disciplinary and epistemological fragility of technology in the social sciences – a discipline which, all through the half century of writings here assembled, has remained rather uncertain in both status and remit. Several factors and circumstances can be mentioned to account for this state of affairs. At a high level of generality, it is certainly possible to invoke this notorious 'occidental' reticence towards techniques, towards things manual, lowly or non-intellectual, towards that which pertains to the *homo faber* and not to the *homo sapiens* (accepting for the moment these distinctions at face value: and see Mauss's discussion below). More pragmatically, a distracting factor has been the institutional 'vagrancy' of technology during the past hundred years or so, shifting between museums with their curatorial outlook and research oriented universities. And within universities, depending on time and place, one finds technology distributed amongst archaeology and anthropology departments (in the 'four field' conception), or within prehistoric archaeology, or archaeology and history, or again archaeology and history of art (in the continental version), with more recent occurrences in cultural studies or in history of science – the whole under constant threat of being repatriated to the materials science faculty where many consider it to 'properly belong'. Objections are also manifest at a theoretical or substantive level, notably upon the invocation of the supposedly objective, solid and quantifiable subject matter of technology. It would seem upon this that techniques themselves require no interpretation – such that their study would naturally pertain to the natural sciences which need only explanation – or on the contrary, and worse still in some eyes, that they do away with interpretation altogether – and thus end up excluded from those social and human sciences who primarily calls for understanding. Be that as it may, technology does not only thread an uncertain path between engineering and philosophy (as Mitcham 1994 puts it), precariously balancing overbearing objectivity and neutral irrelevance: as a discipline, it also manifests a dearth of self-conscious reflexivity of precisely the kind widespread across most

contemporary social sciences. With various exceptions, many mentioned here, the study of techniques still lacks sufficient historical and critical awareness with which to grasp those essential non-technical meanings and motivations implicated in its constitution.

In this respect, and notwithstanding the classical philosophers dear to Espinas, it was in the course of the nineteenth century that technology took its relevant form and *raison d'être* as a social science. From Crystal Palace to the Exposition Universelle, from the Eiffel Tower to the Suez Canal, from the steam engine to the metropolitan underground, techniques became both the instrument and the embodiment of the Age of Progress (see Mumford 1934; Winner 1977; Adas 1989). At the same time, this formidable physical presence also began to generate around it a considerable body of research and reflection. Awareness of the mechanical constructions and social reconstructions entailed in industrialisation, coupled with a desire to enhance national prestige and performance, account for the eagerness of private and public bodies to invest intellectual and institutional resources in technology – in the study of techniques. Philosophers, economists, historians, engineers, and increasingly also sociologists and anthropologists, began to launch critical and analytical investigations of such themes as the laws of progress and the patterns of historical development, the relations between nature and artifice, the degree of emancipation or dependence brought about by mass production, and indeed the role of mechanisation and commoditisation in shaping the modern condition. Among those pursuing these lines were evolutionists like Herbert Spencer and General Pitt Rivers in Britain, and particularly German scholars such as Franz Reuleaux* on the theories of machines, E. Kapp on organ projection, and of course Karl Marx on, *inter alia*, the means and relations of production under capitalist conditions. In France, Republican positivist faith combined with competition against 'la science allemande' contributed to the formation or enlargement of various *sociétés savantes* and *grandes écoles* (see Zeldin 1977; Fox and Weisz 1980; Paul 1985; as well as Guillerme and Sebestik 1968, Sebestik 1984 on the rise of technological consciousness across eighteenth- and nineteenth-century Europe). Interest in technological matters also reached social thinkers and evolutionist anthropologists such as Gabriel de Mortillet and Charles Letourneau of the Ecole d'Anthropologie, as well as Alfred Espinas of the University of Bordeaux.

This briefly sketched background lends further credibility to the following proposition: what motivated Marcel Mauss in his technological contribution was his aim to advance and spread his own distinct position as part of a scientific or disciplinary debate, *and also*, at an ideological level, his recognition that techniques were of such crucial importance for contemporary societies and civilisations that their dedicated study was an urgent necessity. On both these counts, and with due acknowledgements to prevailing intellectual traditions and their posterity, it will prove useful to begin this inquiry into Mauss's technology with his famous uncle and mentor, Emile Durkheim.

II Durkheim and the containment of technology

Indeed, Mauss did more than put technology back on the agenda of the social sciences – he effectively rescued this topic from the marginal position to which Durkheim had, more or less deliberately, confined it. If so, we must clearly dedicate some critical attention to Durkheim's hitherto unexamined stance towards matters technical and technological: both because Durkheim himself underwent a radical shift from initial approbation to virtual repression, and because his attitude sheds considerable light on the broader theoretical and disciplinary standing of technology in the social sciences in general. Durkheim actually had some good reasons for being concerned with techniques, especially as they related to the modern social condition whose science he was setting out to establish. Indeed we have it from Mauss that Durkheim had 'learnt to read Marx' already during his formative stay in Germany, and also that he had introduced his young nephew to the histories of industrial progress by Louis Figuier and Becquerel (text 12). Thus, at the beginnings of his career, when he was grappling with contemporary social phenomena, Durkheim manifested a definite interest in technological and materialist perspectives.

Material density and methodological materialism

This positive disposition is evident in his first major work, on the *Division of Labour in Society* (1893). Seeking to understand the nature of the bonds uniting the individual and society, Durkheim focused on transformations in the social solidarity brought about by developments in the division of labour – from the 'mechanical solidarity' typical of small-scale societies based on individual resemblance or interchangeability, to the 'organic solidarity' prevailing in modern industrial societies, based on differentiation, specialisation and mutual dependence. Such progress in social solidarity and in the division of labour, he then argued, was caused by variations in the social milieu, and more specifically by an increase in the number of individuals and the intensity of their interactions. This increasing 'moral density' was itself paralleled by growth in 'material density', a term Durkheim coined to refer to (a) the spatial distribution of societies, which become more and more concentrated as they shift in their mode of subsistence from hunting and gathering to agriculture, (b) urban life, which enables frequent and close contacts between its settled dwellers, and (c) the number and speed of the ways of communication, which obviously encourage interactions and which become more numerous and performing as societies advance (Durkheim 1893/1902:237–44).

The sociologist stood here at a crucial juncture of his argument, in a chapter entitled 'les causes', and yet he remained surprisingly uncommitted about the relations between moral and material density. Noting that material density is a 'visible and measurable symbol' of moral density, which it can therefore replace, he left unspecified the root causes behind transformations in the social

milieu: 'it is useless to specify which of these [moral or material density] has determined the other; suffice to observe that they are inseparable', or again: progress in the division of labour is due to progress in social density, 'whatever the causes of the latter' (ibid.). Such disclaimers could only reinforce the materialist tone of his argument. While he probably had no intention of researching these themes any further, Durkheim certainly drew attention to such matters of 'substrate' as the spatial, demographic and technical factors implicated in the increased densification of modern societies. In other writings, he emphasised the role of material objects in the social world, as in this suggestive passage from his 1897 book *Le suicide*:

It is not true to say that society is made up only of individuals: it includes also material things, which play an essential role in collective life. The social fact materialises itself to the point of becoming an element of the external world. For example, a given type of architecture is a social phenomenon; it is nevertheless partly embodied in houses and constructions of all sorts which, once built, become autonomous realities, independent of individuals. The same goes for the ways of communication and transport, and for the instruments and machines employed in industry or in private life which express the state of techniques, of written language, etc. at each moment of their history. Social life, as if crystallised and fixed on material supports, thus finds itself exteriorised, and it is from the outside that it acts upon us. (Durkheim 1897a:354)

An additional focus of attention had already transpired in the 1895 *Rules of Sociological Method*. As he introduced the notion of 'social morphology', Durkheim also noted that material density usually proceeded at the same pace as moral density, and could in general serve to measure it (Durkheim 1988 [1895]:206–7). He admitted, with some circumspection, that he had been mistaken to overemphasise in the *Division of Labour* the material density as the exact expression of the moral density (1988 [1901]:207). Nevertheless, this methodological aspect was particularly crucial to Durkheim's positivist epistemology, as conveyed through the polysemous notion of *choses* or 'thing'. The repeated claim whereby 'social facts are things, and should be treated as such' was meant to underscore the reality of social facts as data, as objects of knowledge, and also (as part of Durkheim's long-standing disciplinary quarrels) to affirm their independent, irreducible and coercive character vis à vis individual consciousness. However, the follow-up claims whereby this 'only conformed to their true nature', so that 'social facts have naturally and immediately all the characteristics of the thing' (1988 [1895]:120–23) could not fail to foster objectivist expectations – and also counter-reactions, as for example from Jules Monnerot who, from his Collège de sociologie perspective, castigated 'Durkheim et son école, comme jaloux des archéologues qui, eux, ont des objets matériels, vraiment des choses, à décrire' (Monnerot 1946:67). Be that as it may, at this stage of reflection, Durkheim championed a sort of 'methodological materialism', in which the selection of explanatory factors and social determinants was guided by their mode of presentation, and particularly their objective and material character.

Retraction – Sorel and Labriola

At a general level, Durkheim certainly expected his propositions to raise controversy among his peers, and he relished the opportunity to further delimit and defend his sociological domain against individualist, psychological and irrationalist objections (for example from G. Tarde or H. Bergson*). In the preface to the first edition of the *Rules*, Durkheim actually granted that in making social evolution dependent on objective, spatially determined conditions, his method could well be criticised for being materialist (1988 [1895]:73). But beyond these specifically scientific skirmishes and definitions, it soon dawned on Durkheim that, in the political and ideological sphere, his ostensibly materialist position might prove far more challenging to handle.

In the prevailing *fin de siècle* climate, the relevance of science for the understanding and betterment of human affairs was coming under debate (Prochasson 1991; Hecht 2003). Nevertheless, the actual convergence between these two aspirations – the scientific and the political – was not questioned. On the contrary, it was being embodied at that very moment in a single, newly-named actor brought to the limelight by the Dreyfus affair: the ‘intellectual’. Proceeding under the premise that positive rational science could secure human progress and cure contemporary ills, various new or revamped projects were being devised and advocated to address ‘la question sociale’. These were proffered as simultaneously pragmatic and principled solutions for consideration by the republican political establishment, which, for its part, was busy fending off threats from both the traditional monarchist and Catholic right, and the emerging radical left. To a large extent then, the social sciences in France came to fruition in close contact with the ideological needs of the Republic, and specifically those of its mainstream advocates and custodians. The declared ambition to deal with the facts of moral life according to the methods of positive science could serve to secure consent in the values of bourgeois democracy, and also to repel perceived revolutionary threats to the social and economic order.

Durkheim was among those who fully subscribed to this mainstream republican project, but he also encountered specific difficulties related to his seemingly ambivalent political position: ‘[his] case was somewhat more ambiguous for he was considered a socialist in certain right-wing circles. But in emphasising the evolutionary, pragmatic and sometimes conservative aspects of his thought, Durkheim successfully reassured leading academics and politicians’ (Weisz 1983:115). It was indeed urgent for Durkheim to provide such reassurances of his Republican bona fides – namely, that his scientific sociology did not equate with revolutionary socialism. In parallel with conservative accusations, the bluntest confirmation of this urgency actually came from the left, from Georges Sorel*. Attentive to the latest scientific advances, this heterodox Marxist thinker and publicist gave place of honour to a lengthy review of Durkheim’s *Rules of Sociological Method* in the inaugural issue of his radical journal *Le devenir social* (1895). Sorel criticised the sociologist

for his simplistic appreciation of classes and naivety in political matters, but he also acknowledged the intellectual eminence of his adversary, and added that were Durkheim to advance towards socialism, he (Sorel) would be the first to acclaim him: 'no thinker is as well prepared as he [Durkheim] is to introduce the theories of Karl Marx into higher education, for he is the only French sociologist ... capable of grasping in their historical changes the scientific laws and material conditions of [social] becoming' (Sorel 1895:179; Stanley 1981:81ff.).

Damning praise indeed! Sorel's nonconformist opinions may have had little echo in republican circles, but this apparently plausible allegation of materialist affinities – made by one sympathetic to this cause – must have been deeply galling. Not only did it misrepresent Durkheim's convictions, it also threatened to effectively undermine his claims to offer, as a man of science, reasoned and disinterested guidance for the moral and intellectual reform of French society. It was thus imperative for Durkheim that such misunderstandings be avoided, and that his more controversial or ambiguous claims be smoothed out, rephrased and, if need be, retracted.

Besides mulling over the matter in private (see below) Durkheim seized the opportunity to publicly clarify his position through a critical analysis of Antonio Labriola's *Essais sur la conception matérialiste de l'histoire* (1897) – introduced, as it happens, by Sorel. Durkheim concurred with Marxist historical materialism that the causes of social phenomena resided in factors beyond individual consciousness, and also that the root causes of historical development do not reside in 'natural' organic circumstances, but rather in the artificial milieu and resulting modes of life created by 'socially combined' members of society. However, Durkheim vehemently disagreed with the Marxist attribution of the motor source of social evolution to the state of techniques, the conditions of labour and the instruments of production, indeed the techno-economic infrastructure:

Just as it seems true to us that the causes of social phenomena must be sought outside individual representations, so does it seem to us false to bring them down, in the last analysis, to the state of industrial techniques and to make of the economic factor the mainspring of progress ... Not only is the Marxist hypothesis unproven, it is contrary to facts which appear established. Sociologists and historians tend increasingly to come together in their common affirmation that religion is the most primitive of all social phenomena. It is from religion that have emerged, through successive transformations, all the other manifestations of collective activities - law, morality, art, science, political forms, etc. In principle everything is religious. (Durkheim 1897b/1982:172–73)

The religious turn

Durkheim's 'discovery' of the crucial importance of the religious and ideational dimensions of social life, some time between 1895 and 1898, was thus as much ideological as theoretical in its motivations and implications. Apart from individual or biographical aspects (e.g. the reading of Robertson Smith, or the

death of his rabbi father, see Lukes 1973; Lacroix 1981; Pickering 1984), this notorious shift has also to do with broader sociological factors related to the institutionalisation and consolidation of sociology, including various 'constraints' surrounding this new science and its promotion. Compelling confirmation of this comes from the recently published correspondence between Durkheim and Mauss. While only Durkheim's letters have survived, they fully document the intense links uniting the utterly serious and determined uncle, acting as father-figure and intellectual mentor to his more laid-back nephew. Writing from Bordeaux in 1897, Durkheim applied the usual remonstrance to secure Mauss's collaboration for the forthcoming *Année sociologique*, and he also entwined the affective dimension of their intellectual complicity with some revealing claims on the 'matrix' of social life:

But mostly, what I have been afraid of – for such difficulties in dealings with publishers are in themselves easy to bear – what I have mostly feared is that, following your historical and philological scruples, you were to escape me definitively or that, at the least, you were to endorse the appropriate point of view only in order to please me and while imposing such constraints upon yourself that the value of your contribution would be diminished. However, you are one of the linchpins of the combination and thoroughly essential, not only because you are in Paris, but also because, as I foresee and hope, from the *Année sociologique* will emerge a theory which, in exact opposition to historical materialism, so gross and simplistic despite its objectivist tendency, will make of religion, and no longer of economy, the matrix of social facts. The role of the person who will specifically deal with religious facts –notwithstanding that religion should be found everywhere, or rather because of this – will therefore be considerable. But for this it must be accepted with good grace, by which I mean with the sentiment of its utility. (Durkheim to Mauss, June 1897, in Durkheim 1998:71)

Lastly, if I ask you to sacrifice a large part of your time for the coming *Année*, this is because I genuinely believe it to be worthwhile. In addition to its documentary interest, the *Année sociologique* should mark an orientation. In fact, this sociological importance of the religious phenomena is the outcome of all I have done; and this has the advantage of summarising our whole orientation in a concrete way, more concrete than the formulae I have hitherto employed. The more I think about it, the more I believe that we should align our articles so as to secure an advance in a defined direction. This then [the sociological importance of religion] is the direction that is needed. (Durkheim to Mauss, November 1897, in Durkheim 1998:91)

These passages (the 'insider' versions of the Labriola review, as it were) make it clear that Durkheim quite consciously used religion to cast aside any lingering connotations of historical materialism – all the more so by the turn of the century, when 'religion' was no longer considered an obscurantist and reactionary threat to the free-thinking Republic, but rather a legitimate object of scientific study as a potentially constructive moral and spiritual force. When plotting with his intimate associates, Durkheim could pitch religion in a sort of 'retributive' strife which simultaneously rehabilitated the sociological discipline

in ideological and political terms, and served to displace and supersede the explanatory role of the economic, infrastructural and technical dimensions of social life.

Disengagements from technology 1 – the Année sociologique

This is indeed why the subsequent near-absence of technology in the Durkheimian sociological domain cannot be seen as an inadvertent oversight (because interest lies, quite legitimately, elsewhere) so much as a deliberate attempt to keep at bay and defuse a potentially subversive or counterproductive encumbrance. In the scientifico-ideological configuration of the day, the republican morality to which Durkheim aspired had simply no use for technology, in neither disciplinary nor theoretical terms.

On the former disciplinary level, it was, paradoxically enough, Durkheim himself who introduced the rubric of *Technologie* in volume 4 (1901) of the *Année sociologique* (see text 1). Given the notoriously programmatic and expansionist ambitions of the journal, such a textual foothold could well have served to launch new research directions and herald the disciplinary recognition of technology in the social sciences. Much like ‘social morphology’, which also became a distinct rubric just when Durkheim had relinquished it as a sociological explanation (see Febvre 1922; Andrews 1993), so did the inclusion of *Technologie* in the *Année* – in the seventh and last section, entitled *Divers*, and alongside *Sociologie esthétique* and *Linguistique* – represent more of a disciplinary manoeuvre for stalking the grounds than a genuine theoretical opening. Gone then was the erstwhile ambiguity on the causal relations between moral and material density. What most interested Durkheim in his inaugural statement was the methodological principle whereby techniques are symptomatic of a given state of civilisation, and that they relate as witnesses or markers to the societies in which they are found. To be sure, he had some doubts regarding the strength of this correlation (e.g. Durkheim 1988 [1901]:181), and he also came to consider civilisation as a sort of ‘moral milieu’ or supra-social individuality which was quite independent of the state or degree of technical development, as in the ‘Christian civilisation’ (see text 3). Nonetheless, in this introductory text what Durkheim primarily valued about techniques was their potential to serve as measurable markers of civilisation, and not their properties as social facts or constituents.

This bias is all the more evident when compared with the position pursued, or at least hinted at, in the subsequent entries to the rubric *Technologie*. The archaeologist and museum curator Henri Hubert, who was in charge of this rubric, took a substantially more sociological stance in his own introductory statement (text 2). Hubert considered tools and implements to be social things and ‘veritable institutions’, with their creative and inventive dimensions, and he also stressed the collective, collaborative character of technical practices. This attitude transpired in his book reviews, which included publications in

ethnography (H. Balfour*, F. Boas*), in prehistoric archaeology (G. de Mortillet, O. Montelius) and also more specifically technological works, such as W.H. Holmes* on aboriginal pottery, G. Forestier on the paleo-technology of the wheel, and Charles Frémont on the evolution of copper smelting. Hubert's critical comment on the later is well representative of his outlook:

But he [Frémont] considers these technical issues as if they were mechanical problems, unaffected by heterogeneous data, and soluble by purely individual reasoning procedures. We do not think that things are precisely thus. ... To this institution, which is an industry, are attached collective representations, religious, magical, aesthetic etc. Among the elements of the invention, there are some that go beyond the control of individual reasons – there are certain ideas of efficiency, of traditionally transmitted forms that cannot be conceived as the work of isolated individuals. It is actually for this reason that the history of an industry should be part of its theory, because the order of inventions does not necessarily conform to the logical order of the mechanical problems it comprises. (Hubert 1903:681)

Promising as they sounded, these perspectives had nevertheless little scope for expansion in the prevailing circumstances. With the publication load and ambitions of the *Année sociologique*, the rubric *Technologie* was never allocated more than a couple of pages per volume, with brief reviews and listings but no room for in-depth studies. As for Hubert and Mauss (who had also contributed to this rubric), both were in these days being kept busy, at Durkheim's behest, with their research on primitive rituals and religions.

Disengagements from technology 2 – the Elementary Forms of Religious Life

Indeed, disciplinary containment aside, this confinement of technology was also grounded in the sociologist's increasingly idealist and dualist position. In the second edition of the *Rules*, Durkheim granted that society is made not only of individuals but also of things, but he was now quick to specify that only individuals are the active elements (1988 (1901):81). With even greater consequences, he explicitly excluded technological classifications from consideration in the groundbreaking essay on primitive classification co-authored with Mauss in 1903. Designed to link ideas together and unify knowledge, primitive classifications were therefore scientific in their essential characteristics. In this, the authors explained in a lengthy footnote,

These are very clearly distinguished from what could be called technological classifications. It is probable that man has always classified, more or less clearly, his food resources according to the procedures he used to obtain them; for example animals who live in the water, in the skies, on the ground. But for one, the groups thus formed are not linked to each other and systematised. These are divisions, distinctions of notions, and not schemes of classification. Moreover, it is evident that these distinctions are closely

connected to practice, of which they merely express some aspects. It is for this reason that we have not discussed them in this work, where we specifically aim at highlighting the origins of the logical procedure which lies at the basis of scientific classifications. (Durkheim and Mauss 1903:82)

This abrupt demotion of allegedly unsystematic and ‘merely’ practical technological classifications sounded fairly definitive, at least for the senior author. Indeed, this jettisoning was consecrated (so to speak) in his *Elementary Forms of Religious Life* (1912). With its ‘elementary’ emphasis, this book aimed to apprehend the fundamental aspects of social life through the study of simple or primitive civilisations, supposedly still uncluttered by the historical developments and political complexities characteristic of contemporary societies. Drawing extensively on Spencer and Gillen’s Australian Aboriginal ethnography, Durkheim sought to confirm that religion was an essential and permanent aspect of humanity, indeed the veritable source, the *fons et origo*, of human civilisation.

Here at last were being fulfilled the claims advanced some fifteen years earlier, in the Labriola review and the letters to Mauss. While historical materialism no longer exerted comparable scientific or ideological pressure – both the discipline of sociology and the bourgeois Republic were by then firmly established – Durkheim seems to have retained the retributive logic of yesteryear, and also a predilection for all-encompassing explanations and prime causes. Indeed he insisted that the categories of knowledge, as well as science, moral rules, law and jurisprudence – and effectively all the main social institutions – were all born out of religion: also ‘techniques and technical practices, both those which insure the functioning of moral life (law, morality, fine-arts) and those which serve material life (natural sciences, industrial techniques) derive, directly or indirectly, from religion’ (Durkheim 1912:319–20). While this derivation was merely asserted, Durkheim explained in a footnote that the ‘indirect’ referred to industrial techniques, which can be traced to religion through the intermediary of magic – as Hubert and Mauss have supposedly shown in their 1903 ‘General Theory of Magic’. In another footnote in the conclusion of the book (1912:598), Durkheim again asserted that all forms of social activity have been specifically related to religion. Economy was still an exception, but given the relations between techniques and magic and the convergence between the economic and religious ideas of value and of power, this derivation was bound to be confirmed: in the end, as in the beginning; ‘everything is religious’.

In addition to its ‘seedbed’ quality, religion, with its distinction between sacred and profane, also served Durkheim to anchor his dualistic conception of human nature. Indeed his whole thesis rested on the predicate that: ‘Man is double. There are two beings in him: an individual being which has its foundations in the organism and whose circle of activities is therefore strictly limited, and a social being which represents in us the highest reality in the intellectual and moral order that we can know by observation – I mean society’ (1912:23). The social, moral and cognitive implications of this metaphysical

conception have been much debated in the secondary literature, but it is also the case that it has far-reaching repercussions on techniques and their appreciation. In effect, Durkheim made his *homo duplex* alternate between two worlds or phases of existence, each with their distinctive technical features and material effects. In the one phase, the individual members of society were dispersed into small autonomous groups, following their organic impulses and going about their daily business of gathering, hunting, fishing, and other such utilitarian activities which apparently do not stir much passion nor break the monotony of ordinary existence. In the other phase, in between these periods of dispersal, the group came together and convened for bouts of revitalising creativity. These intensive gatherings were generalised by Durkheim from Australian Corrobori ceremonies into a distinctive feature of humankind as a whole. As he saw it, these scenes of orchestrated ritual turmoil generated collective effervescences in which the partakers transcended themselves as isolated self-centred individuals. With their minds freed to each other and to their surroundings, they could rekindle together their ideals and sentiments of social belonging (1912:307, 313, *passim*).

It should come as no surprise that Durkheim had virtually nothing to say, in the *Elementary Forms* or in other publications, on the technical operations and equipment (let alone the relations of production) implicated in the world of everyday organic existence. In contrast, he focused on a particular set of objects – totems – and famously argued that they constituted the tangible expression of the sentiments and representations generated in the course of extraordinary collective rituals. These collectively achieved ideas on truth, morality, obligation, indeed on society itself, are often abstract and complex, and they therefore come to be grasped by the members of the group during their collective communions as perceptible emblems or concrete objects, be they animals, plants, decorations or flags (1912:314–15). Reliance on these elected objects and their symbolic transformation is actually due to human nature, or rather human limitation: ‘We can never escape the dualities of our nature and completely liberate ourselves from physical necessities: to express to ourselves our own ideas, we need ... to fix them on material things which will symbolise them’ (1912:326). These ‘material intermediaries’ are both necessary and arbitrary: they serve as concrete magnets on which are stamped collectively generated thoughts, and they go on serving as mnemonic devices to recall and evoke these superadded sentiments when the assembly has dissolved and *homo duplex* languishes again through routine days of ordinary existence.

Transition to Mauss: beyond things that present no danger

As we know, the divide so clearly drawn by Durkheim between subsistence and symbolism still operates today, and its various expressions remain perceptible in anthropology, archaeology and material culture studies. These may well have other antecedents than Durkheim’s direct legacy, and many can be traced back

to a more generalised Western mind/body dualistic conception. Still, the above discussion of Durkheim's shifting attitude on matters technical and technological can serve to render these splits and their entailed interpretive frameworks more intelligible, and thus also more amenable to criticism – with, indeed, the help of Marcel Mauss.

And precisely in order to appreciate to the full the originality and implications of Mauss's contribution, and thus fulfil the critical aims of this introductory essay, it is important to realise that Durkheim's disengagement from technology converges with and echoes a certain disengagement from modernity. Here, after all, was a scholar who had begun his life's work preoccupied with problems of social solidarity and its consolidation in the face of a persistent moral malaise, a pathology or anomie due in part to changes in contemporary conditions. We now find him dedicating what turned out to be his last major work to a metaphysical fascination with arcane hypostasising rituals, and in the process transforming far-flung 'primitives' into the privileged subjects of the French social sciences (see Vogt 1976; Kurasawa 2003). Of course, Durkheim is fully entitled to have evolved and diversified his research themes and disciplinary orientations in the course of his career. But sufficient grounds have been covered in the preceding pages to suggest that this almost inexorable shift of emphasis or retrenchment from 'modern' to 'primitive' rested on and reflected important ideological underpinnings. All the more so, as we saw, in the case of techniques, whose valuable objective qualities were undermined by suspicions of latent materialism. So much so that with Durkheim techniques ended up being, on the one hand, confined to the realm of infra-social individual subsistence activities and, on the other, deflected to the realm of supra-social markers of civilisations – and thus, in either case, relegated to the very margins of the sociological domain.

Concomitantly – so my argument goes – it is to Marcel Mauss's continuous and wholehearted engagement with modernity, with the ideological currents and political movements of his times, that we can attribute his recovery of techniques and their study as a central domain of sociological and anthropological inquiry. Durkheim had of course a social and political consciousness of his own, most forcefully and notoriously expressed in his discussion of individualism and intellectuals around the Dreyfus affair, and later on through his blatantly patriotic pamphlets during the First World War. But in the long stretches of ordinary existence spanning these exalted moments of collective fervour, Durkheim's studious and austere personality took the upper hand, leading him notably to deplore his nephew's youthful distraction in political action (see Durkheim 1998). Acknowledging these admonitions, Mauss certainly worked long and hard for the disinterested good of the *Année sociologique* and the science of sociology, but he also proved remarkably steadfast in pursuing his action as a 'citizen and comrade' and indeed in his 'written interventions in the sphere of the normative' (Mauss 1930/1998:42, and see Karady 1968; Birnbaum 1972; Gane 1992; and Fournier 1994).

The socialism which Mauss endorsed from the outset was of a rational and non-revolutionary kind, inspired by Lucien Herr and Jean Jaurès, and indeed largely approved by Durkheim. At the turn of the century Mauss paid particular attention to issues of cooperative action (including hands-on work in a cooperative bakery), professional associations and syndicalism. To these were added, following the Russian revolution, questions of cosmopolitanism and internationalism. The popular press constituted the main medium of Mauss's contributions, initially through such outlets as Sorel's *Le devenir social* but soon enough through long-term collaborations with the less radical (and better distributed) *Le populaire* and *l'Humanité*, of which he was a founding member. His political writings were certainly diverse and for the most part circumstantial, but they fully expressed his commitment to a humane socialism grounded in science (see Mauss 1997). As he later explained in a remarkable passage on 'applied sociology', the discipline he had made his own could and had to contribute to a theory of political arts, both in order to justify its own 'material existence' and to argue that sociologists could not remain in their ivory tower, leaving politics to civil servants and such 'theorising bureaucrats' (Mauss 1927:238). It was actually the moral duty of social scientists to take a less purist and disinterested attitude, for indeed:

The public will not allow us to deal exclusively with things that are facile, amusing, curious, bizarre, passé, things that present no danger, because they concern societies which are either extinct or remote from our own. The public wants studies with conclusions relevant for the present ... let us not be weary of bringing [scientific] facts into the debate. And if our practical conclusions will turn out to be meagre and hardly topical? All the more reason for us to propagate them liberally and energetically. (Mauss 1927:240, 242)

III Humanity in crisis – between *homo faber* and the *homme total*

Having dutifully read through the histories of industrial progress recommended to him by his uncle, and having no doubt pursued Durkheim's own relevant works, Mauss was undoubtedly aware of techniques and technology from early on. Besides contributing some brief reviews to the rubric *Technologie* in the *Année sociologique* (Boas, Bogoras, Van Gennep), he apparently taught a *questionnaire de technologie* at the Ecole Pratique des Hautes Etudes in 1903. More importantly, Mauss paid considerable attention to the topic in his long essay on magic, a phenomenon which, besides religion, he specifically related to techniques: both magic and techniques had practical ends, both implicated know-how, dexterity and *tours-de-main*, and both corresponded to the definition of *actes traditionnels efficaces* (Mauss 1903, passim). Just what impact his ongoing involvements with the cooperative,

syndicalist and internationalist movements had on all of this remains to be established, though we can surmise that these militant concerns increased his practical and pragmatic sensibilities. Be that as it may, it was upon the First World War that technique became for Mauss something that, as he put it, 'presented danger', and that technology became a scientific discipline whose achievements were to be 'proclaimed liberally and energetically'. In chronological, conceptual and existential terms, Mauss's unprecedented interest in techniques and their study effectively emerged from his involvement in what may be conveniently called the fieldwork of modernity – that is, the life-shattering experiences of the Great War and the intense 'intellectual organisation of political passions' that ensued (as Julien Benda put it in *La Trahison des clercs* (1927:40).

On both patriotic and personal grounds, Mauss did not hesitate to leave his pacifism behind as soon as the First World War was declared, and to volunteer for the Front. The unprecedented combination of mechanised brutality and routinised anxiety that he encountered there left permanent intellectual and existential marks on him. Besides mourning his lost friends and colleagues, Mauss discussed the sentiments of fear and panic he had to endure, and his awareness of the physical and moral force of instinct which, during extreme moments, animates – or, on the contrary, discourages and isolates – the individual (see Mauss 1924a; text 9; Fournier 1994:359ff.). As Mauss was obviously not unique in this respect, an initial appreciation of the ways by which some of his contemporaries came to terms with this experience will help us understand his subsequent 'discovery' and valorisation of techniques.

Bergsonian challenges

Together with the demographic, political and economic perturbations that followed, the Great War generated a veritable outpouring of emotional, artistic or intellectual responses. These included a substantial corpus of eschatological writings specifically concerned with the causes and consequences of this catastrophic trauma. *The Decline of the Occident* by Oswald Spengler* or *The End of the Renaissance* by Nicolai Berdiaev are some of the better known titles of this literature, whose stylistic and topical diversity is underscored by the pervasive leitmotif of doubt, despondency and disintegration. The themes of techniques and machines were favourite subjects of apocalyptic discussions: now that their efficiency as agents of death and destruction was made so evident, their inescapable presence throughout all reaches of life could be seen as a tangible objectification of the moral crisis, if not one of its original causes. With the dazzled optimism of Victorian progress long abandoned, the examples of over-industrialised America and Bolshevik Russia suggested to many that humanity, for all its impressive material achievements (if not because of them), had dismally failed to improve its present condition and future prospects. To all intents and purposes, humanity appeared bent on accelerating the process of

its destruction by making it the outcome of its own self-devised machinations (see Cruickshank 1982; Johnson and Johnson 1987; Winter 1995; Prochasson and Rasmussen 1996).

A particularly eloquent discussion of techniques can be found in *Les deux sources de la morale et de la religion* published by Henri Bergson in 1932. When he finally completed his book, the ailing Collège de France philosopher was past the peak of his pre war popularity, but the influence he exerted over French intellectual, artistic and political life was still considerable and multifaceted, attracting both emulating disciples and virulent opponents (Burwick and Douglass 1992, Antlieff 1993). So far as techniques were concerned, Bergson argued in *Les deux sources* that the same instrumental ingenuity and inventiveness that has made us humans into what we are, now threaten to run out of control, to wreak havoc and spread emptiness. Industrialisation and mechanisation have encouraged artificiality and luxury, widened the gap between town and country, transformed the relations between labour and capital, and, in general, fostered a growing disparity between 'the human dimension' and the enormity of its technical creations: 'In this bloated body, the soul remains as it was, too small now to fill it, too weak to direct it'. Indeed, clamoured Bergson, we desperately need a 'supplément d'âme', a *mystique* to oversee, control and moralise the *mécanique* if the world is ever to fulfil its universal vocation and become, as he asserted at the conclusion of his essay, a 'machine à faire des dieux' (Bergson 1932:327 ff.).

As this famously enigmatic phrase intimates, Bergson's argument was not limited to the theme of disruptive *machinisme* and techniques as an uncontrollable *golem*. As a complement to this classic critique, he also promoted a markedly different conception of techniques, around the notion of *homo faber*. When it first appeared in his 1907 *Evolution créatrice*, this *homo faber* could well be understood in a relatively weak sense, as a diagnostic classificatory feature to distinguish humanity from animality: 'If, to define our species, we were to restrict ourselves to what history and prehistory show us to be the constant characteristic of humanity and of intelligence, we would not say *homo sapiens*, but *homo faber*' (Bergson 1907:140). In the 1932 *Deux sources*, however, it became clear that Bergson conceived of *homo faber* in a far stronger ontological sense, as an essential and constitutional attribute of humanity itself. As he argued, civilisation is but a superficial, acquired veneer: scratch it, and you will reveal behind it natural man – a man who is naturally moral because morality comes from nature, from biology and not from reason, from lived intuition and not from detached intellect. This natural morality has as its purpose the perseverance of the original form of social life, when man lived in 'closed societies' – self-centred and belligerent societies where the 'aberration' of democracy was unknown, and where cohesion was related to the need to exclude others. Thus, Bergson proceeded throughout *Les deux sources* to diffract and divide techniques along an ethical fault-line. He attached negative, destructive and amoral properties to the techniques associated with

intelligence, rationality, civilisation and modernity, and he attributed positive, revitalising and moral qualities to techniques associated with individual organic tendencies, vital forces, mystique and volition (Bergson 1932:21ff., 54, 222ff., 249).

As we can imagine, Mauss had no sympathy for this anti-technicist and anti-intellectualist stance. At a formal level, he pursued the long-standing confrontation between Durkheim and Bergson over the epistemological merits of intuitionism and objectivism. In his 1933 panorama of French sociology, for example, Mauss singled out Bergson and his latest book as an opponent of Durkheimian sociology, noting that Bergson ‘relegates the facts studied by sociologists to the domain of the “closed”, of the frozen [*figé*]: he reserves to psychology, to philosophy, and even to the philosophy of the mystique, all that is “open”, vital, really psychic and creator in the realm of moral and religion’ (Mauss 1933a:436). Over and above these reactions, Mauss also responded to the whole of Bergson’s oeuvre at a deeper, substantive level – a level that, crucially, bore upon his deeply felt experiences of the First World War.

Socialising techniques

It was upon technology, and upon the study of *actes traditionnels efficaces*, that Mauss sought to overturn this mystical *homo faber* with his own rationalist and humanist conception of *l’homme total*. To begin with, Mauss had no doubts regarding the inherently social nature of techniques. Granted, the term *homo faber* had the merit of claiming a place of honour for techniques in the history of humankind. Nevertheless, this formula could be used only on the crucial condition that ‘it denote, not a “creative power” which too much resembles the “dormitive force” of opium, but a characteristic feature of communal life, and not of the individual and profound life of the spirit’ (text 5). Moreover, he argued elsewhere, the Bergsonian idea of creation is actually the opposite of technicity, of creation from matter which man has not created, but adapts and transforms (text 12). Thus ‘the invention of the movement or the implement, and the tradition of its use, indeed the use itself’ are essentially social things: what needs to be shown, Mauss went on, is ‘the degree to which all social life depends on techniques’ (text 5).

Without being functionalist about it, Mauss recognised in techniques social functions, precisely because they also functioned in a literal, tangible sense, as efficient actions. To substantiate this fundamental interdependence by which techniques created and mediated social relations, Mauss invoked the notion of tradition. Instead of being some sort of organic tendency, as Bergson would have it, a form of species memory to be revealed beneath the superficial veneer of civilisation, techniques are traditional because they are taught, acquired, transmitted. Learning and doing techniques takes place in a collective context, a context which forms and informs the social constitution of its practitioners: ‘any traditional practice, endowed with a form and transmitted through that

form, can in some measure be regarded as symbolic. When one generation hands down to the next the technical knowledge of its manual and bodily actions, as much authority and social tradition is involved as when transmission occurs through language' (text 8).

To further argue that traditional technical actions are both symbolically and physically efficient, Mauss went to the heart of the matter: the body itself. Our most 'natural' daily actions – walking, sleeping, eating – are acts that are constructed by the collective, that form part of the social make-up of the individual, that are open to approval, recognition and evaluation. Mauss was not oblivious to the biological foundation of the human being. However, what attracted his attention to the organic body is not the vitalist and teleological thrust Bergson had invested in it, but rather, more prosaically, its physiology: the coordination of articulated motions by which it functions and by which it embodies and conveys meaning. Indeed, in so far as they vary with individuals and societies, with education, fashion and prestige, these efficient bodily acts confirm the social nature of the *habitus* (text 9) – a philosophical concept revived by Mauss, and subsequently further developed by the sociologist Pierre Bourdieu to refer to the tacit and structuring social dispositions embodied in human action.

Just as Mauss undertook to socialise the organic endowment of the living body, so he attempted to restore the reasonable nature of its thinking activities. In view of Bergson's anti-intellectual conception of *homo faber*, we can better understand the links forged by Mauss between techniques and reason – and we can also appreciate how, in the process, he overcame some of the strictures inherited from Durkheim. It is now fashionable, Mauss noted, to interrogate sociology on the origins of reason, a fashion launched some twenty five years earlier with the essay on 'Primitive Classification'. But now Mauss readily took on board these 'technological classifications' which initially (see Durkheim and Mauss 1903:82) had been so summarily cast aside as unsystematic and merely practical. The categories of thought are not only religious or institutional in origin (as Durkheim had expounded in *The Elementary Forms*), but also technical – as in the case of *number* or *space*. There was therefore much more to know about the role of weaving, basketry or the potter's wheel in the origins of geometry, arithmetic and mechanical sciences. Moreover, it was evident to Mauss that these activities are social in both their material and psychological dimensions. Their understanding necessitated therefore appropriate ethnographic and contextual sensitivity, as Mauss explained through some perceptive criticisms of the rather artificial procedures and eurocentric bias of the Swiss developmental psychologist Jean Piaget:

The Moroccan child has a technical sense and works much earlier than the European child. On some points, he thus thinks earlier and faster and differently – manually – than the children of our own good bourgeois families ... we can see then that rigorous and extensive ethnographic observations will have to be carried out, for example throughout

North Africa, before any conclusions of some generality can be reached. (Mauss 1933b:119)

With techniques evidently implicating both shared practices and collective representations, Mauss stressed the part of knowledge and of consciousness deployed and acquired by those engaged in technical activities. To weave a fabric, to navigate a canoe, to construct a spear, to set a trap – all are actions which suppose and at the same time generate knowledge, knowledge which is practical rather than discursive in its nature, without being for that any less social (texts 5 and 10). The technical actor ‘creates and at the same time he creates himself; he creates at once his means of living, things purely human, and his thought inscribed in these things. Here is true practical reason being elaborated’ (text 5). Echoing Marx’s conception of praxis, this statement represents an implicit criticism of Durkheim’s idealist fixation, a rejoinder to Bergson’s irrationalism, and, to both thinkers, an argument regarding the co-occurrence of creativity and routine in social life. Indeed for Mauss techniques are not the expression of some individual will to power, or an instrument of mastery over nature. If they are ‘a tactic for living’, as Spengler melodramatically put it in *Der Mensch und die Technik* (1931), then they are a tactic for living, thinking and striving in common; they are, above all, means and mediums for the production and reproduction of social life.

Techniques redeemed

Likewise the practitioners of techniques, just as they are social beings, are also as much *homo sapiens* as they are *homo faber*; they are above all ‘total men’. Mauss’s ‘discovery’ of the *homme total* as a physical, psychological and social nexus seems to have occurred alongside that of techniques, and upon similar formative experiences. Though not expressed or necessarily conceived of in these terms, his *homme total* constituted to a large extent a counterpoint to, if not a disavowal of, Durkheim’s *homo duplex*. As we have gathered, it made perfect sense now for Mauss to stress the inherent difficulties of distinguishing traditional efficient acts of techniques, of magic, or of religion (see Mauss 1924a, (text 9) and Karsenti 1997). As he warned at the onset of his lectures on the topic,

It will sometimes be difficult to distinguish techniques from: (1) the arts and fine arts, since aesthetic activity and technical activity are on a par as regards creativity. In the plastic arts, no differentiation can be established other than the one that exists in the belief system of the artist; (2) religious efficacy. The difference lies entirely in how the native conceives of the efficacy. It is therefore necessary to estimate the respective proportions of technique and magical efficacy in the native’s mind (e.g. poisoned arrows). (Text 10)

Far removed from these clearly demarcated antithetical realms into which Durkheim had cast subsistence and symbolism, this entanglement provides another reason why, as Mauss repeatedly instructed, all technical activities should be observed, recorded, photographed, sampled, collected, and understood in their totality: who does what, when, with whom, how are tools used, in what sequence, how is food prepared and consumed, how is the tie worn, how does the wearing of shoes affect walking, how is the gait that ensues subject to evaluation and approbation, indeed how techniques, objects and activities function together in a manner that is both efficient and meaningful.

This all-embracing *ethnographie intensive* undoubtedly entailed much unbridled empiricism – and indeed it took more disciplined and narrowly focused efforts to make of these insights the cornerstone of contemporary cultural technology (see Balfet 1975; Cresswell 1976; Lemonnier 1980, 1992; Schlanger 2004, 2005). At the same time, as Mauss noted a propos historical materialism (in a comment that could equally apply to Durkheim with his religious insistence), such an approach certainly helped us, in methodological terms, to

guard against the sophistry of according primacy to one or other series of social phenomena. Neither political matters nor moral matters are in any sense dominant in any society, still less the arts applied to them. In the end all these things are no more than the concepts and categories of our social sciences, which are still in their infancy Politics, morals, economics are simply elements of the social art, the art of living together. Once you see this, all those contradictions between ideas and dissertations about words become pointless. Social practice, that is the only material provided for the convergent action of the moralist, the economist and the legislator. (Mauss 1924b:122)

Overall, this totalising approach had thus the merit of recasting, by principle, technical objects and practices as multifaceted documents that inform at many different and at times unexpected levels. To say that ‘the tool is nothing when it is not handled’ is to stress that nothing can be understood if it is not put in relation to its whole, and recognised to be changing and dynamic. To follow this trajectory of transformations involved in all technical actions and gestures is thus to gain entry into a process of ongoing construction, mediation and recombination involving material, social and symbolic elements. No longer simply markers of some developmental state, or indicators of the identity of the civilisation which produced them, as they had been for Durkheim, they are now nothing less than ‘the proof of the social fact’ (Mauss 1947:3). Indeed, if for Durkheim ‘things’ were what social facts are meant to *look like* to the sociological observer, then for Mauss things were what social facts are actually *made of* for the social actor. Whereas Durkheim saw objects acquiring their symbolic significance only at the outcome of some extraordinary rituals, Mauss on the contrary appreciated that it took perfectly

ordinary practical undertakings for objects and practices to be infused with social efficiency and meaning.

This distinctive outlook can indeed serve to relate Mauss's anthropology – and specifically his technology – with some avant-garde and surrealist conceptions of the 1920s and 1930s. By drawing attention to the intricate interpenetration of the technical, the symbolic, the efficient, indeed the reasonable and the arbitrary, Mauss rejected prevailing fixations with the deliberate, the aesthetic and the representational. By giving prominence to functional, representative and ordinary aspects of human existence, Mauss sought, however implicitly, to transcend the prevailing dichotomy between low and high culture. Indeed, he could well be said to have promoted, if not actually inspired, a version of what Georges Bataille has called, in his well-known review *Documents*, a 'bas matérialisme'. Nevertheless, beyond the juxtaposition of themes and authors in *Documents* (Mauss himself published there a brief appreciation of Picasso) there remain considerable differences between the author of *Les techniques du corps* and that of *Le gros orteil*, between the Institut d'Ethnologie and the Collège de Sociologie (see Bataille 1929, 1930; Clifford 1988; Pearce 2003). Much as he willingly paid extraordinary attention to the ordinary and magnified the mundane, much as he recognised the inseparability of the symbolic and the efficient, Mauss did not for all that set out to subvert rationality or to destabilise established orders and patterns of meaning.

In fact, we have already gathered that Mauss's primary intentions were rather redemptive, almost therapeutic. Durkheim had previously valued 'primitives' for their primeval properties, representing essential and universal traits of humankind. Mauss now focused on what he himself called 'so-called' primitives also for their decentring, relativising properties. Just as they can 'teach us to think otherwise than as *homo sorbonnensis* or *oxoniensis*' (text 11), so can their technical activities, the range of objects they produce and use – and which, as Mauss demonstrated in his famous essay on the Gift, they know so well to give, to receive, and to return – help us 'civilised' occidentals to expose and repel sentiments of alienation, decadence and loss of bearing enforced on us by the enormity of historical events, indeed to transcend the chimera of disintegration with an ideal of wholeness and of plenitude. In contrast, then, to the apocalyptic responses generated by the First World War, the message articulated and expressed by Mauss through his technology is resolutely positive, as if techniques – with, and not against, the instrumental rationality they embody – were a means of recovery, almost of re-enchantment. Far from being overrun by our uncontrollable techniques, far from crying out for a mystical *supplément d'âme* to alleviate our existential angst, far from glorifying in our instinctive pre-civilised will to create power, it is in our reasoned and collective *actes traditionnels efficaces* that we will find practical help and moral solace:

It is technique which, through the development of societies, has brought about the development of reason, sensibility and will. It is technique that makes modern humans the most perfect of animals ... It is technique that makes humans equals and that worries the gods; it is undoubtedly technique that will save humanity from the moral and material crisis in which it is struggling'. (Text 4)

IV Civilisation and nation – purity and synthesis

It may appear somewhat naïve for Mauss to place such faith in the salutary potential of techniques, but we cannot dismiss such pronouncements as the inconsequential daydreams of an unreformed worshipper of progress. To do so would keep us from appreciating that Mauss promoted the humanity of techniques to redeem the war-shaken *homme total*. It would also blind us to the fact that his technology was also engaged in another 'intellectually passionate' debate, it too exacerbated manifold by the First World War and its geopolitical aftermath. In effect, the relations between techniques and civilisation were given renewed urgency by the problem of the nation, its making and its identity, its composition and its extension. In this respect, technology was important for Mauss precisely because it enabled him to convey in theoretical and empirical terms his preferred conception of the nation, as a 'civilised' synthesis of common values and shared civic duties.

Conservative views

During the interwar years, this broadly republican model of the 'participatory' nation was coming under sustained criticism from various political, intellectual and indeed anthropological quarters. Whereas the national ideal had acquired throughout the nineteenth century primarily liberal connotations, aimed to instil sentiments of liberty, equality and allegiance among the post-revolution citizens of the state, the successive upheavals of the early Third Republic (the Boulanger crisis, the Dreyfus affair) brought about a gradual redefinition of nationalism in right-wing and conservative terms, as an emotive concept involving group identity and territorial affiliation, kinship, communes, customs and ways of life. This perspective gained increasing support among several social scientists, notably those associated with the Société d'Anthropologie de Paris. Under the leadership of anthropologist and parliamentarian Louis Marin, the ethnographic and folkloristic study of the 'traditional customs' of various *ethnies* and *civilisations* took on many of the nationalist and essentialist connotations valued by reactionary thinkers. Marin published his *Questionnaire d'ethnographie* in 1925, the very year Mauss, L. Lévy-Bruhl* and P. Rivet* established the Institut d'Ethnologie: indeed, the professional rivalry between these institutions corresponded to deep-rooted ideological and political divergences over the concept of the nation and its foundations: civic and

participatory, or on the contrary territorial, genealogical and indeed racial (see Lindenberg 1990; Tombs 1991; Lebovics 1992).

These differences were notably played out in the field of technology, and specifically through one of Marin's most active protégés, Georges Montandon*. This Swiss-born doctor acquired his ill-fame during the Vichy regime, when he eagerly put his expertise in physical anthropology at the service of the infamous Commissariat aux Affaires Juives and of Nazi racist policies in general (see Schneider 1990; Birnbaum 1993). But this should not detract attention from his anthropological contributions, which were actually well known and influential during the early 1930s (see text 10, and Haudricourt, personal communication, February 1996).

In the first part of this manual, entitled *Ethnographie cyclo-culturelle*, Montandon reviewed current anthropological theories, rejected Durkheimian sociology and endorsed, with some idiosyncratic modifications, the claims and achievements of the German *Kulturkreise* school. The second part, entitled *Traité d'ergologie systématique*, contained the most comprehensive survey of ethnographic techniques then available in French. Organised along the general lines of Marin's *Questionnaire*, this mostly descriptive corpus also raised occasional theoretical points. For our purpose, the most telling is undoubtedly this:

It will be an error, in the technological domain as in any other, to believe that the customs of primitives and savages are a threshold which we have occupied and then moved on. Their ways are often different and diverging from those followed by the occidental civilisation. The indigenous procedures of fabrication, construction ... etc., are *sui generis*. When the lineage of the constructors who had the secret [of these techniques] becomes extinct, the procedures they used are definitively lost. (Montandon 1934:215)

It was probably not the eventual disappearance of 'primitive' crafts and peoples that perturbed Montandon, who took this to be biologically inevitable. His message was rather different. To begin with – and precisely because of their alleged *sui generis* nature – technical practices and products can serve as faithful markers of the extension and limits of different ethnic groups (for example linking the Ainu of Japan with Europe, see Montandon 1937). Next, it follows that the late-coming 'occidentaloid civilisation' is not only absolutely superior in technical, social and moral terms, it also owes nothing to those 'primitives' and 'savages' who preceded it or who still survive in its colonies. Montandon's extremism notwithstanding, his work appears to have expressed a prevailing world view among conservative anthropologists of the time. The processes of social evolution, of civilisation and of nation-formation were for them primarily processes of distillation, concentration and purification – in the realms of technical activities and objects, of customs and institutions, and indeed of biology and race.

Diffusionist circles

Mauss's technological engagements were of an altogether different sort, as we can imagine, and yet it must be noted at the outset that they were broadly set within the same culture-historical diffusionist paradigm as that endorsed by his conservative protagonists. To be sure, Mauss's training and scholarship rendered him sceptical of many diffusionist claims and results, as advanced by members of the German *Kulturkreise* school, F. Graebner*, L. Frobenius* and W. Schmidt*, or indeed by the 'intransigent heliocentrists' G.E. Smith, W.J. Perry and also, to Mauss's regret, W.H. Rivers*. To summarise, Mauss's main objections were that these scholars failed to combine the study of elements and of forms, that their views on the topic of imitation were far too naïve, that they overlooked the problem of refusals of innovations, and also effectively obscured the systemic and holistic character of civilisations. He also considered that these scholars enforced an unwarranted distinction between primitive and modern, and more generally that they deprived ethnology of any sociological content by reducing it to the study of areas and layers (texts 4, 7, 12, and see Mauss 1913, 1925b, c, d).

And yet, for all that, Mauss was not averse to culture-historical diffusionism as such. Besides carefully monitoring the writings of its advocates, he also dedicated considerable constructive attention to the topic in several of his own essays, as well as in his well-attended lecture courses at the Institut d'Ethnologie and the Collège de France. While expressing his misgivings, Mauss also retained many outlooks and expressions associated with diffusionism, both in theoretical terms and at a methodological level, such as the collection of series of objects and the drawing of distribution maps. He also actively encouraged his students and colleagues to engage in such studies, as for example Haudricourt on the harness and its diffusion across Asia and Europe, Rivet on the multiple origins of Native Americans, or André Leroi-Gourhan on the Reindeer civilisation around the Arctic. Indeed, writing in the late 1930s, Leroi-Gourhan felt able to compare (with admittedly his own axe to grind) the methods of Mauss, Rivet, Granet, Schmidt and Montandon – unlike the latter two who proceeded by creating concentric circles expanding from Asia outwards, Leroi-Gourhan granted that Mauss was 'playing quite honestly, beginning with the Haïda potlatch, drawing nearer and nearer until, thirty years later, one finds oneself in Brittany, all entangled in Australian, Aïnu, Patagonian or Swiss undergrowth' (Leroi-Gourhan 2004:99).

Mauss's overall endorsement may have to do with the generalised decline of the evolutionist paradigm, but it can also be related to the importance acquired by diffusionist studies in anthropology in France and abroad. Quite simply, he recognised that it was there – in the study of traits, contacts, layers and spatial distributions – that the scientific stakes of nationalist ideologies were being played out. Far from avoiding the challenge, and precisely in order to assess and contest in their own terms the various claims advanced, Mauss accepted

diffusionism as the ideological battleground for the promotion and justification of national conceptions – in much the same way as the archaeologist V. Gordon Childe (1933) acknowledged the political pertinence of Gustaf Kossina's 'pots and people' cultural paradigm. The thrust of Mauss's position and the role played by technology in its elaboration clearly transpire in the following comment, castigating those who turn to 'civilisation' in order to ground their territorial claims: 'It is almost comic to see some ill-known, ill-studied folkloric elements being invoked in front of the Peace Conference as evidence that such and such nation should extend here or there, on the grounds that we can still find there such or such shape of house or some bizarre custom' (text 4).

Mauss's awareness of the political stakes surrounding anthropological studies of civilisation could not be clearer, but his negative characterisation of these folkloric facts should not mislead us as to his intentions. His argument was that once these various traits and usages are well known and studied (by adequate ethnographic and technological means), they can serve to *defuse* rather than strengthen would-be territorial claims – of the kind stirred by the War and the ill-conceived Treaty of Versailles. These studies can confirm, as he had already argued with Durkheim (text 3), that 'this thing called civilisation' is by its nature an *international* phenomenon, and that nations are not the purified products of some essential or immemorial destiny. Indeed – Mauss argued in his essay on the nation (text 4) – it is not tradition that makes the nation but rather the nation that makes tradition, an 'invention' (vide Hobsbawm and Ranger 1983) spurred by contacts and admixtures. It is simply erroneous to consider these traits and customs as 'the products of national genius by virtue of some sort of sociological vitalism'. The belief of modern nations in *their own* civilisation, inevitably considered the first and the best, is exaggerated and illusory. The same goes for the veritable 'fetishism' they have of their own literature, arts and institutions, and indeed their techniques, which they fervently believe to have invented single-handedly.

In fact, distinctive as they may be, all these traits and customs emerge from the milieu of other societies, since all societies are somehow submerged in a *bain de civilisation*. The 1929 colloquium on La Civilisation organised by Lucien Febvre* gave Mauss an opportunity to outline some implications of this conception (text 7). Well aware that L. Marin and his colleagues had made of *civilisations* the specific objects of their nationalist studies, Mauss worked against a 'simplistic history [that was] naïvely political and unconsciously abstract and nationalist' and argued that facts and phenomena of civilisations are intrinsically international, and indeed that civilisations themselves are increasingly becoming a 'hyper-social system of societies'. This 'globalisation' was not without risks of imbalance and overdependence, and Mauss indeed recorded how upon the revolution Russian peasants proved 'unable to repair or maintain even the coarsest ploughing tools, all of which were produced abroad, [and had] as a result to revert progressively to the most primitive form of agriculture' (text 4). Overall, however, his aim remained to demonstrate in

concrete ways that nations and civilisations were increasingly tributary to ever-expanding transfers and interactions. As Mauss readily granted to the hyperdiffusionists Smith and Perry – but certainly with more profound implications – ‘we have no systematic opposition to such studies of mixtures of civilisations, of mixtures of institutions, of this chemistry which makes of their social substrate a new society, with its new language, its new institutions, its different equipment’ (Mauss 1925d:342).

This conviction is further conveyed in Mauss’s admiring exclamation, a propos the diversity of styles at the temples of Angkor: ‘*Déjà un métissage, aussi magnifique que singulier*’. Both the borrowing of the racial term ‘métissage’ and its evident valorisation could not be more significant. They confirm that Mauss foresaw a free-flowing and generative *mélange* of an increasingly voluminous and important stock of traits and forms. This interactive *fonds commun*, now resolutely cross-cultural and all-embracing, formed a veritable *nouvelle civilisation* in which hitherto marginal or severed populations have the scope to contribute, to give as well as to receive: ‘the success of the primitive arts, including music’, Mauss predicted, fully attentive to the cultural movements of his times, ‘demonstrates that the history of all this will follow many unknown paths’ (text 7).

Unpredictable as the roads of this cultural, artistic and indeed artefactual *métissage* may be, circulation is essential, and must be maintained. What is anathema to the conservative anthropologists, who seek distinctive traits and techniques with which to establish their version of ‘True France’ as the inalterable essence of the *terroir*, the destiny and the blood, is for Mauss a constituent condition of the moral and material progress of the Republic – a France in which there is as much room for Josephine Baker as there is for Joan of Arc. To be sure, the internationalist conception which Mauss promoted throughout these writings fully recognised the importance of the material and ideal attachment to the nation and its symbols. Gone were the pre war days of Bolshevik-inspired ‘cosmopolitanism’, in which the human actor, deemed everywhere identical, transcended the realities of social life, and where class membership was supposed to brush aside national allegiances with uncompromising pacifism (see Mauss 1920, text 4). Nevertheless, sober and accommodating as it may have become, Mauss’s understanding of the nation was still far removed from the ‘closed’ and exclusive society yearned for in conservative circles. Much as he remained suspicious of nationalisms, he maintained his trust in the practical and moral value of the nation precisely because it constituted an avenue towards an ‘open’, inclusive society, one that invited opportunities for dialogue and cross-fertilisation, one that valued possibilities of contacts and of exchanges.

Conclusions – humanity and humility

Techniques and their study were in this respect both a model and a confirmation of this ideal. In contradistinction to conservative conceptions, technical products and practices are not the markers of *sui generis* identity or essence, nor indeed are they objective milestones in a scale of progress; rather, ‘each art must be studied in itself, without considering whether or not it is primitive’ (text 10). Likewise, technical products and practices must be understood as the outcome of multiple convergences and interactions: seen in this light, diffusionist studies need not be confined to charting the victorious march of national genius from their original cradles. They can also be used to show that material and moral changes in societies across time and space are best understood in relation to the interactive milieu of other societies, in contact with each other and with their respective surroundings. Further studies can show that societies, like techniques and like the *homme total* who practises them, are made out of synthesis rather than distillation, that their lack of ‘purity’ is their source of strength, that *métissage* or *créolisation* is not their worst nightmare but their salutary fate. After all, ‘By their nature, techniques tend to be generalised and to multiply everywhere throughout humanity. They are the most important factor in the causes, means, and the ends of what is called civilisation, and also of progress, not only social but also human’ (text 5).

As we recall from his frank discussion of ‘applied or political sociology’ during the renewed launching of the *Année sociologique* (1927), Mauss considered it his duty as a member of society and as an intellectual to engage with modernity. Moreover, he also saw it essential to convey this engagement to all members of his contemporary society, and to explain it throughout all its groups and movements. Mauss was well aware that the conclusions of his science could appear at times arcane and immaterial. He therefore knew that his message stood its best chances of getting across as a tangible, readily perceptible demonstration. The one forum where his inspired vision could most visibly come to the fore was of course at the Musée de l’Homme – an institution revitalised in the 1930s through the cultural politics of the socialist *Front populaire*, directed by the militant anti-fascist Paul Rivet, and subsequently the base of the first *résistance* network in Nazi-occupied France. Displaying humanity’s technical achievements in its newly built corridors – including series of objects, distribution maps, evidence of borrowing, interactions and the like – provided for the visiting masses a concrete moral lesson to absorb and, hopefully, to live by.

And in between visits to the museum, like-minded messages were also available to the masses in the popular press – to which, we recall, Mauss had been a committed contributor for most of his life. ‘Where are the times ...’, so begun his 1921 review of Marcellin Boule’s influential manual *Les hommes fossiles* in the leftist daily *Le populaire*,

Where are the times when Marx and Engels acclaimed Carl Vogt's Lessons on man, and when they were fascinated by Lewis Morgan's discoveries, keeping abreast of the latest publications on the Origins of the Family? Where are the times when socialism was scientific not only by name; but in seeking to integrate science and politics remained informed of all movements of ideas or discoveries? The dictatorship of the one and the insults of the others have changed all that.

After presenting some salient moments in human physical and technical evolution (according to Boule), Mauss then drew conclusions for both the political classes and the working masses:

How everything becomes relative before such evidence! What teachings for those who believe that modern humans and contemporary societies are the perfect pinnacle of evolution! What a lesson as well for those who, in their haste, imagine that their violence will engender a perfect society, and a race which will need to progress no more. (Mauss 1997 (1921):397, 401)

Whether set in simplified form for a broader popular audience, or expressed in more learned language across his scientific writings, this combined lesson in humanity and humility was undoubtedly salutary for its time and place. By confirming that both techniques and their study are fraught with challenges and implications, this lesson gives us one more reason for reading and appreciating Marcel Mauss today.

Notes

1. This introductory essay is partly based on some of my previous publications, especially Schlanger (1998) for parts III and IV here. There have actually been very few sustained assessments of Mauss's technological ideas, besides frequent and at times obligatory mentions of his classic 'Techniques of the Body'. More developed appraisals are due to 'cultural technologists', members of the *Techniques & Culture* research group in Paris, and to historians and anthropologists of techniques (see, for example, Haudricourt 1987, Lemonnier 1992, Sigaut 1994, as well as Warnier 1999). A recent publication on the topic, by Vatin (2004), came too late to my attention to be taken on board here. Given the aims and scope of this present book, other opportunities will have to be found for assessing the posterity of Mauss's technological principles and insights in the French research tradition, and indeed for appraising the impact and resonance of his work across contemporary social sciences, anthropology, archaeology and material culture studies—for example through the notions of totality, of *habitus* and of traditional efficient acts, or through his incipient sociology of practical knowledge.
2. A further relevant term is of course 'material culture'. Without undertaking here a critical history of this concept and its uses, suffice to note that it was rarely ever used in France until well after the Second World War, in part because of substantive and ideological tensions between the notions of 'culture' and of 'civilisation'. This is obviously not to say that things which count nowadays as 'material culture' were ignored in the French social sciences – on the contrary, we need only mention now (and appreciate below) Durkheim's influential totemic conception, or Mauss's own integrated outlook on processes of production ('technology' in a narrow sense) and of consumption, and more generally his insightful appreciation of the social and symbolic dimensions of everyday objects and practices.