

## The Technology of Enchantment and the Enchantment of Technology

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### *Introduction: Methodological Philistinism*

The complaint is commonly heard that art is a neglected topic in present-day social anthropology, especially in Britain. The marginalization of studies of primitive art, by contrast to the immense volume of studies of politics, ritual, exchange, and so forth, is too obvious a phenomenon to miss, especially if one draws a contrast with the situation prevailing before the advent of Malinowski and Radcliffe-Brown. But why should this be so? I believe that it is more than a matter of changing fashions in the matter of selecting topics for study; as if, by some collective whim, anthropologists had decided to devote more time to cross-cousin marriage and less to mats, pots, and carvings. On the contrary, the neglect of art in modern social anthropology is necessary and intentional, arising from the fact that social anthropology is essentially, constitutionally, anti-art. This must seem a shocking assertion: how can anthropology, by universal consent a Good Thing, be opposed to art, also universally considered an equally Good Thing, even a Better Thing? But I am afraid that this is really so, because these two Good Things are Good according to fundamentally different and conflicting criteria.

When I say that social anthropology is anti-art, I do not mean, of course, that anthropological wisdom favours knocking down the National Gallery and turning the site into a car park. What I mean is only that the attitude of the art-loving public towards the contents of the National Gallery, the Museum of Mankind, and so on (aesthetic awe bordering on the religious) is an unredeemably ethnocentric attitude, however laudable in all other respects.

Our value-system dictates that, unless we are philistines, we should attribute value to a culturally recognized category of art objects. This attitude of aestheticism is culture-bound even though the objects in question derive from many different cultures, as when we pass effortlessly from the contemplation of a Tahitian sculpture to one by Brancusi, and back again. But this willingness to place ourselves under the spell of all manner of works of

art, though it contributes very much to the richness of our cultural experience, is paradoxically the major stumbling-block in the path of the anthropology of art, the ultimate aim of which must be the dissolution of art, in the same way that the dissolution of religion, politics, economics, kinship, and all other forms under which human experience is presented to the socialized mind, must be the ultimate aim of anthropology in general.

Perhaps I can clarify to some degree the consequences of the attitude of universal aestheticism for the study of primitive<sup>1</sup> art by drawing a series of analogies between the anthropological study of art and the anthropological study of religion. With the rise of structural functionalism, art largely disappeared from the anthropological bill of fare in this country, but the same thing did not happen to the study of ritual and religious belief. Why did things happen this way? The answer appears to me to lie in an essential difference between the attitudes towards religion characteristic of the intelligentsia of the period, and their attitudes towards art.

It seems to me incontrovertible that the anthropological theory of religion depends on what has been called by Peter Berger 'methodological atheism' (Berger, 1967: 107). This is the methodological principle that, whatever the analyst's own religious convictions, or lack of them, theistic and mystical beliefs are subjected to sociological scrutiny on the assumption that they are not literally true. Only once this assumption is made do the intellectual manoeuvres characteristic of anthropological analyses of religious systems become possible, that is, the demonstration of linkages between religious ideas and the structure of corporate groups, social hierarchies, and so on. Religion becomes an emergent property of the relations between the various elements in the social system, derivable, not from the condition that genuine religious truths exist, but solely from the condition that societies exist.

The consequences of the possibility that there are genuine religious truths lie outside the frame of reference of the sociology of religion. These consequences—philosophical, moral, political, and so on—are the province of the much longer-established intellectual discipline of theology, whose relative decline in the modern era derives from exactly the same changes in the intellectual climate as have produced the current efflorescence of sociology generally and of the sociology of religion in particular.

It is widely agreed that ethics and aesthetics belong in the same category. I would suggest that the study of aesthetics is to the domain of art as the study of theology is to the domain of religion. That is to say, aesthetics is a branch of moral discourse which depends on the acceptance of the initial articles of faith: that in the aesthetically valued object there resides the principle of the True and the Good, and that the study of aesthetically valued objects constitutes a path toward transcendence. In so far as such modern souls possess a religion, that religion is the religion of art, the religion whose shrines consist of theatres, libraries, and art galleries, whose priests and bishops are painters

and poets, whose theologians are critics, and whose dogma is the dogma of universal aestheticism.

Unless I am very much mistaken, I am writing for a readership which is composed in the main of devotees of the art cult, and, moreover, for one which shares an assumption (by no means an incorrect one) that I too belong to the faith, just as, if we were a religious congregation and I were delivering a sermon, you would assume that I was no atheist.

If I were about to discuss some exotic religious belief-system, from the standpoint of methodological atheism, that would present no problem even to non-atheists, simply because nobody expects a sociologist of religion to adopt the premises of the religion he discusses; indeed, he is obliged not to do so. But the equivalent attitude to the one we take towards religious beliefs in sociological discourse is much harder to attain in the context of discussions of aesthetic values. The equivalent of methodological atheism in the religious domain would, in the domain of art, be *methodological philistinism*, and that is a bitter pill very few would be willing to swallow. Methodological philistinism consists of taking an attitude of resolute indifference towards the aesthetic value of works of art—the aesthetic value that they have, either indigenously, or from the standpoint of universal aestheticism. Because to admit this kind of value is equivalent to admitting, so to speak, that religion is true, and just as this admission makes the sociology of religion impossible, the introduction of aesthetics (the theology of art) into the sociology or anthropology of art immediately turns the enterprise into something else. But we are most unwilling to make a break with aestheticism—much more so than we are to make a break with theology—simply because, as I have been suggesting, we have sacralized art: art is really our religion.

We can not enter this domain, and make it fully our own, without experiencing a profound dissonance, which stems from the fact that our method, were it to be applied to art with the degree of rigour and objectivity which we are perfectly prepared to contemplate when it comes to religion and politics, obliges us to deal with the phenomena of art in a philistine spirit contrary to our most cherished sentiments. I continue to believe, none the less, that the first step which has to be taken in devising an anthropology of art is to make a complete break with aesthetics. Just as the anthropology of religion commences with the explicit or implicit denial of the claims religions make on believers, so the anthropology of art has to begin with a denial of the claims which objects of art make on the people who live under their spell, and also on ourselves, in so far as we are all self-confessed devotees of the Art Cult.

But because I favour a break with the aesthetic preoccupations of much of the existing anthropology of art, I do not think that methodological philistinism is adequately represented by the other possible approaches: for instance, the sociologism of Bourdieu (e.g. 1968), which never actually looks at the art object itself, as a concrete product of human ingenuity, but only at

its power to mark social distinctions, or the iconographic approach (e.g. Panofsky, 1962) which treats art as a species of writing, and which fails, equally, to take into consideration the presented object, rather than the represented symbolic meanings. I do not deny for an instant the discoveries of which these alternative approaches are capable; what I deny is only that they constitute the sought-for alternative to the aesthetic approach to the art object. We have, somehow, to retain the capacity of the aesthetic approach to illuminate the specific objective characteristics of the art object as an object, rather than as a vehicle for extraneous social and symbolic messages, without succumbing to the fascination which all well-made art objects exert on the mind attuned to their aesthetic properties.

### *Art as a Technical System*

In this essay, I propose that the anthropology of art can do this by considering art as a component of technology. We recognize works of art, as a category, because they are the outcome of technical process, the sorts of technical process in which artists are skilled. A major deficiency of the aesthetic approach is that art objects are not the only aesthetically valued objects around: there are beautiful horses, beautiful people, beautiful sunsets, and so on; but art objects are the only objects around which are *beautifully made*, or *made beautiful*. There seems every justification, therefore, for considering art objects initially as those objects which demonstrate a certain technically achieved level of excellence, 'excellence' being a function, not of their characteristics simply as objects, but of their characteristics as *made* objects, as products of techniques.

I consider the various arts—painting, sculpture, music, poetry, fiction, and so on—as components of a vast and often unrecognized technical system, essential to the reproduction of human societies, which I will be calling the technology of enchantment.

In speaking of 'enchantment' I am making use of a cover-term to express the general premiss that human societies depend on the acquiescence of duly socialized individuals in a network of intentionalities whereby, although each individual pursues (what each individual takes to be) his or her own self-interest, they all contrive in the final analysis to serve neccessities which cannot be comprehended at the level of the individual human being, but only at the level of collectivities and their dynamics. As a first approximation, we can suppose that the art-system contributes to securing the acquiescence of individuals in the network of intentionalities in which they are enmeshed. This view of art, that it is propaganda on behalf of the status quo, is the one taken by Maurice Bloch in his 'Symbols, Song, Dance, and Features of Articulation' (1974). In calling art the technology of enchantment I am first of

all singling out this point of view, which, however one refines it, remains an essential component of an anthropological theory of art from the standpoint of methodological philistinism. However, the theoretical insight that art provides one of the technical means whereby individuals are persuaded of the necessity and desirability of the social order which encompasses them brings us no closer to the art object as such. As a technical system, art is orientated towards the production of the social consequences which ensue from the production of these objects. The power of art objects stems from the technical processes they objectively embody: the *technology of enchantment* is founded on the *enchantment of technology*. The enchantment of technology is the power that technical processes have of casting a spell over us so that we see the real world in an enchanted form. Art, as a separate kind of technical activity, only carries further, through a kind of involution, the enchantment which is immanent in all kinds of technical activity. The aim of my essay is to elucidate this admittedly rather cryptic statement.

### *Psychological Warfare and Magical Efficacy*

Let me begin, however, by saying a little more about art as the technology of enchantment, rather than art as the enchantment of technology. There is an obvious *prima-facie* case for regarding a great deal of the art of the world as a means of thought-control. Sometimes art objects are explicitly intended to function as weapons in psychological warfare; as in the case of the canoe prow-board from the Trobriand Islands (Fig. 2.1)—surely a prototypical example of primitive art from the prototypical anthropological stamping-ground. The intention behind the placing of these prow-boards on Kula<sup>2</sup> canoes is to cause the overseas Kula partners of the Trobrianders, watching the arrival of the Kula flotilla from the shore, to take leave of their senses and offer more valuable shells or necklaces to the members of the expedition than they would otherwise be inclined to do. The boards are supposed to dazzle the beholder and weaken his grip on himself. And they really are very dazzling, especially if one considers them against the background of the visual surroundings to which the average Melanesian is accustomed, which are much more uniform and drab than our own. But if the demoralization of an opponent in a contest of will-power is really the intention behind the canoe-board, one is entitled to ask how the trick is supposed to work. Why should the sight of certain colours and shapes exercise a demoralizing effect on anybody?

The first place one might seek an answer to such a question is in the domain of ethology, that is, in innate, species-wide dispositions to respond to particular perceptual stimuli in predetermined ways. Moreover, were one to show such a board to an ethologist, they would, without a doubt, mutter 'eye-

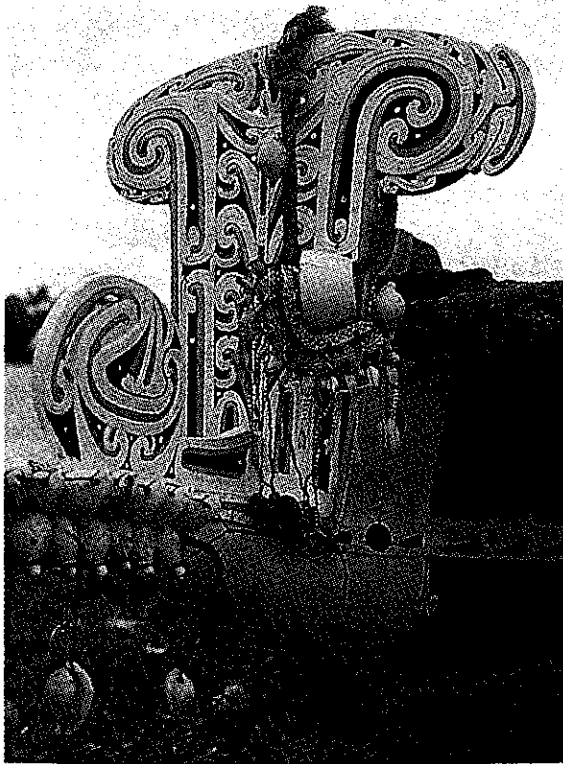


FIG. 2.1. Trobriand canoe-prow; Kitava Island, Milne Bay Province, Papua New Guinea; photographer: Shirley F. Campbell, May 1977. The prow assembly is adorned with Kula shell valuables (see Campbell 1984). See also Pl. I.

spots!' and immediately start pulling out photographs of butterflies' wings, likewise marked with bold, symmetrical circles, and designed to have much the same effect on predatory birds as the boards are supposed to have on the Trobrianders' Kula partners, that is, to put them off their stroke at a critical moment. I think there is every reason to believe that human beings are innately sensitive to eye-spot patterns, as they are to bold tonal contrasts and bright colours, especially red, all of them features of the canoe-board design. These sensitivities can be demonstrated experimentally in the infant, and in the behavioural repertoire of apes and other mammals.

But one does not have to accept the idea of deep-rooted phylogenetic sensitivity to eye-spot patterns and the like to find merit in the idea that the Trobriand canoe-board is a technically appropriate pattern for its intended purpose of dazzling and upsetting the spectator. The same conclusion can follow from an analysis of the *Gestalt* properties of the canoe-board design. If one makes the experiment of attempting to fixate the pattern for a few moments by staring at it, one begins to experience peculiar optical sensations

due to the intrinsic instability of the design with its opposed volutes, both of which tend to lead the eye off in opposite directions.

In the canons of primitive art there are innumerable instances of designs which can be interpreted as exploiting the characteristic biases of human visual perception so as to ensnare us into unwitting reactions, some of which might be behaviourally significant. Should we, therefore, take the view that the significance of art, as a component of the technology of enchantment, derives from the power of certain stimulus arrays to disturb normal cognitive functioning? I recall that Ripley's *Believe It Or Not* (at one time my favourite book) printed a design which was claimed to hypnotize sheep: should this be considered the archetypal work of art? Does art exercise its influence via a species of hypnosis? I think not. Not because these disturbances are not real psychological phenomena; they are, as I have said, easily demonstrable experimentally. But there is no empirical support for the idea that canoe-boards, or similar kinds of art objects, actually achieve their effects by producing visual or cognitive disturbances. The canoe-board does not interfere seriously, if at all, with the intended victim's perceptual processes, but achieves its purpose in a much more roundabout way.

The canoe-board is a potent psychological weapon, but not as a direct consequence of the visual effects it produces. Its efficacy is to be attributed to the fact that these disturbances, mild in themselves, are interpreted as evidence of the magical power emanating from the board. It is this magical power which may deprive the spectator of his reason. If, in fact, he behaves with unexpected generosity, it is interpreted as having done so. Without the associated magical ideas, the dazzlingness of the board is neither here nor there. It is the fact that an impressive canoe-board is a physical token of magical prowess on the part of the owner of the canoe which is important, as is the fact that he has access to the services of a carver whose artistic prowess is also the result of his access to superior carving magic.

### *The Halo-Effect of Technical 'Difficulty'*

And this leads on to the main point that I want to make. It seems to me that the efficacy of art objects as components of the technology of enchantment—a role which is particularly clearly displayed in the case of the Kula canoe—is itself the result of the enchantment of technology, the fact that technical processes, such as carving canoe-boards, are construed magically so that, by enchanting us, they make the products of these technical processes seem enchanted vessels of magical power. That is to say, the canoe-board is not dazzling as a physical object, but as a display of artistry explicable only in magical terms, something which has been produced by magical means. It is the way an art object is construed as having come into the world which is the source of the power such objects have over us—their becoming rather than their being.

Let me turn to another example of an art object which may make this point clearer. When I was about eleven, I was taken to visit Salisbury Cathedral. The building itself made no great impression on me, and I do not remember it at all. What I do remember, though, very vividly, is a display which the cathedral authorities had placed in some dingy side-chapel, which consisted of a remarkable model of Salisbury Cathedral, about two feet high and apparently complete in every detail, made entirely out of matchsticks glued together; certainly a virtuoso example of the matchstick modeller's art, if no great masterpiece according to the criteria of the salon, and calculated to strike a profound chord in the heart of any eleven-year-old. Matchsticks and glue are very important constituents of the world of every self-respecting boy of that age, and the idea of assembling these materials into such an impressive construction provoked feelings of the deepest awe. Most willingly I deposited my penny into the collecting-box which the authorities had, with a true appreciation of the real function of works of art, placed in front of the model, in aid of the Fabric Fund.

Wholly indifferent as I then was to the problems of cathedral upkeep, I could not but pay tribute to so much painstaking dexterity in objectified form. At one level, I had perfect insight into the technical problems faced by the genius who had made the model, having myself often handled matches and glue, separately and in various combinations, while remaining utterly at a loss to imagine the degree of manipulative skill and sheer patience needed to complete the final work. From a small boy's point of view this was the ultimate work of art, much more entrancing in fact than the cathedral itself, and so too, I suspect, for a significant proportion of the adult visitors as well.

Here the technology of enchantment and the enchantment of technology come together. The matchstick model, functioning essentially as an advertisement, is part of a technology of enchantment, but it achieves its effect via the enchantment cast by its technical means, the manner of its coming into being, or, rather, the idea which one forms of its coming into being, since making a matchstick model of Salisbury Cathedral may not be as difficult, or as easy, as one imagines.

Simmel, in his treatise on the *Philosophy of Money* (1979: 62 ff.), advances a concept of value which can help us to form a more general idea of the kind of hold which art objects have over us. Roughly, Simmel suggests that the value of an object is in proportion to the difficulty which we think we will encounter in obtaining that particular thing rather than something else. We do not want what we do not think we will ever get under any set of circumstances deemed realizable. Simmel (*ibid.* 66) goes on to say:

We desire objects only if they are not immediately given to us for our use and enjoyment, that is, to the extent to which they resist our desire. The content of our desire becomes an object as soon as it is opposed to us, not only in the sense of being impervious to us, but also in terms of its distance as something not yet enjoyed, the



subject aspect of this condition being desire. As Kant has said: the possibility of experience is the possibility of objects of experience—because to have experiences means that our consciousness creates objects from sense-impressions. In the same way, the possibility of desire is the possibility of objects of desire. The object thus formed, which is characterised by its separation from the subject, who at the same time establishes it and seeks to overcome it by his desire, is for us a value.

He goes on to argue that exchange is the primary means employed in order to overcome the resistance offered by desired objects, which makes them desirable, and that money is the pure form of the means of engaging in exchange and realizing desire.

I am not here concerned with Simmel's ideas about exchange value and money; what I want to focus on is the idea that valued objects present themselves to us surrounded by a kind of halo-effect of resistance, and that it is this resistance to us which is the source of their value. Simmel's theory, as it stands, implies that it is difficulty of access to an object which makes it valuable, an argument which obviously applies, for example, to Kula valuables. But if we suppose that the value which we attribute to works of art, the bewitching effect they have on us, is a function, at least to some extent, of their characteristics as objects, not just of the difficulties we may expect to encounter in obtaining them, then the argument cannot be accepted in unmodified form. For instance, if we take up once again the instance of the matchstick model of Salisbury Cathedral, we may observe that the spell cast over me by this object was independent of any wish on my part to gain possession of it as personal property. In that sense, I did not value or desire it, since the possibility of possessing could not arise: no more am I conscious today of any wish to remove from the walls and carry away the pictures in the National Gallery. Of course, we do desire works of art, the ones in our price bracket, as personal property, and works of art have enormous significance as items of exchange. But I think that the peculiar power of works of art does not reside in the objects *as such*, and it is the objects as such which are bought and sold. Their power resides in the *symbolic* processes they provoke in the beholder, and these have *sui generis* characteristics which are independent of the objects themselves and the fact that they are owned and exchanged. The value of a work of art, as Simmel suggests, is a function of the way in which it resists us, but this 'resistance' occurs on two planes. If I am looking at an old master painting, which, I happen to know, has a saleroom value of two million pounds, then that certainly colours my reaction to it, and makes it more impressive than would be the case if I knew that it was an inauthentic reproduction or forgery of much lesser value. But the sheer incommensurability between my purchasing power and the purchase price of an authentic old master means that I cannot regard such works as significant exchange items: they belong to a sphere of exchange from which I am excluded. But none the less such paintings are objects of desire—the desire to

possess them in a certain sense, but not actually to own them. The resistance which they offer, and which creates and sustains this desire, is to being possessed in an intellectual rather than a material sense, the difficulty I have in mentally encompassing their coming-into-being as objects in the world accessible to me by a technical process which, since it transcends my understanding, I am forced to construe as magical.

### *The Artist as Occult Technician*

Let us consider, as a step up from the matchstick model of Salisbury Cathedral, J. F. Peto's *Old Time Letter Rack* (Fig. 2.2), sometimes known as *Old Scraps*, the notoriously popular *trompe-l'œil* painting, complete with artfully rendered drawing-pins and faded criss-cross ribbons, letters with still-legible, addressed envelopes to which lifelike postage stamps adhere, newspaper cuttings, books, a quill, a piece of string, and so on. This picture is usually discussed in the context of denunciations of the excesses of illusionism in nineteenth-century painting; but of course it is as beloved now as it ever was, and has actually gained prestige, not lost it, with the advent of photography, for it is now possible to see just how photographically real it is, and all the more remarkable for that. If it was, in fact, a colour photograph of a letter rack, nobody would give tuppence for it. But just because it is a painting, one which looks as real as a photograph, it is a famous work, which, if popular votes counted in assigning value to paintings, would be worth a warehouse full of Picassos and Matisses.

The popular esteem in which this painting is held derives, not from its aesthetic merit, if any, since nobody would give what it represents (that is, a letter rack) a second glance. The painting's power to fascinate stems entirely from the fact that people have great difficulty in working out how coloured pigments (substances with which everybody is broadly familiar) can be applied to a surface so as to become an apparently different set of substances, namely, the ones which enter into the composition of letters, ribbons, drawing-pins, stamps, bits of string, and so on. The magic exerted over the beholder by this picture is a reflection of the magic which is exerted inside the picture, the technical miracle which achieves the transubstantiation of oily pigments into cloth, metal, paper, and feather. This technical miracle must be distinguished from a merely mysterious process: it is miraculous because it is achieved both by human agency but at the same time by an agency which transcends the normal sense of self-possession of the spectator.

Thus, the letter rack picture would not have the prestige it does have if it were a photograph, visually identical in colour and texture, could that be managed. Its prestige depends on the fact that it is a painting; and, in general, photography never achieves the popular prestige that painting has in societies

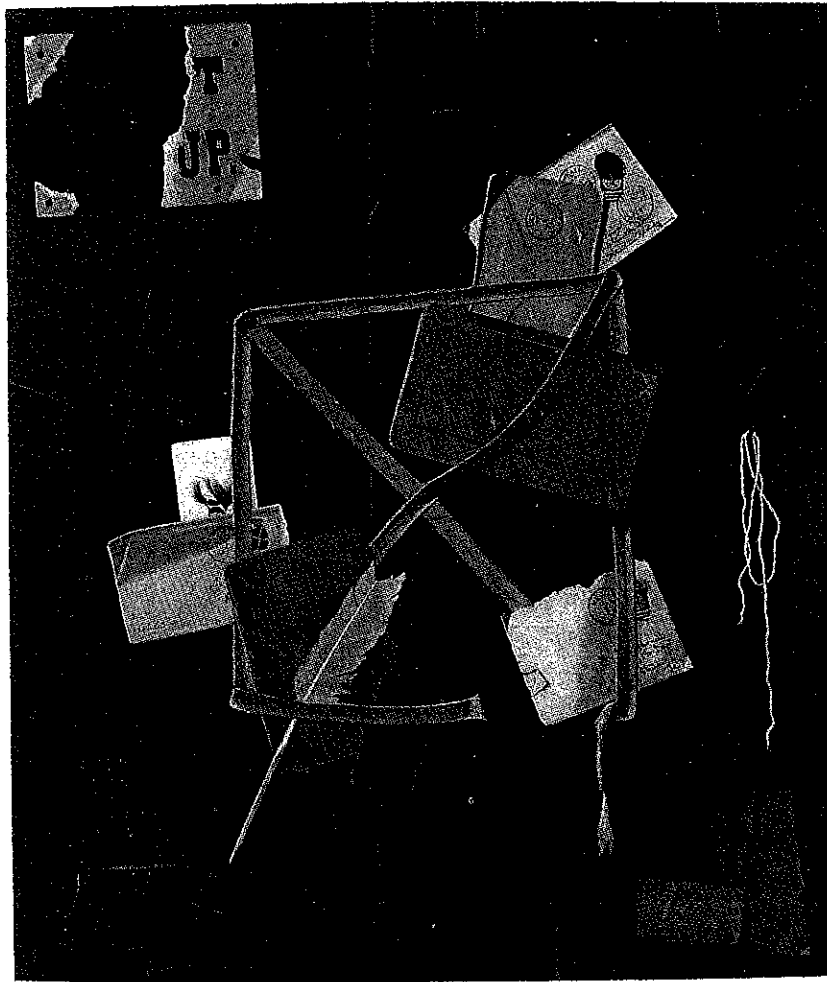


FIG. 2.2. John F. Peto, *Old Time Letter Rack*, 1894; oil on canvas; 30 × 25 in. (76.2 × 63.5 cm.); Manoogian Collection.

which have routinely adopted photography as a technique for producing images. This is because the technical processes involved in photography are articulated to our notion of human agency in a way which is quite distinct from that in which we conceptualize the technical processes of painting, carving, and so on. The alchemy involved in photography (in which packets of film are inserted into cameras, buttons are pressed, and pictures of Aunt Edna emerge in due course) are regarded as uncanny, but as uncanny processes of a natural rather than a human order, like the metamorphosis of caterpillars into butterflies. The photographer, a lowly button-presser, has no prestige, or not until the nature of his photographs is such as to make one start to have difficulties conceptualizing the processes which made them achievable with the familiar apparatus of photography.

In societies which are not over-familiar with the camera as a technical means, the situation is, of course, quite different. As many anthropologists

who have worked under such conditions will have occasion to know, the ability to take photographs is often taken to be a special, occult faculty of the photographer, which extends to having power over the souls of the photographed, via the resulting pictures. We think this a naïve attitude, when it comes to photography, but the same attitude is persistent, and acceptable, when it is expressed in the context of painting or drawing. The ability to capture someone's likeness is an occult power of the portraitist in paint or bronze, and when we wish to install an icon which will stand for a person—for example, a retiring director of the London School of Economics—we insist on a painted portrait, because only in this form will the captured essence of the no-longer-present Professor Dahrendorf continue to exercise a benign influence over the collectivity which wishes to eternalize him and, in so doing, derive continuing benefit from his *mana*.

Let me summarize my point about Peto's *Old Scraps* and its paradoxical prestige. The population at large both admire this picture and think that it emanates a kind of moral virtue, in the sense that it epitomizes what painters 'ought' to be able to do (that is, produce exact representations, or rather, occult transubstantiations of artists' materials into other things). It is thus a symbol of general moral significance, connoting, among other things, the fulfilment of the painter's calling in the Protestant-ethic sense, and inspiring people at large to fulfil their callings equally well. It stands for true artistry as a power both in the world and beyond it, and it promotes the true artist in a symbolic role as occult technician. Joined to this popular stereotype of the true artist is the negative stereotype of the false ('modern') artist of cartoon humour, who is supposed not to know how to draw, whose messy canvases are no better than the work of a child, and whose lax morality is proverbial.

Two objections can be made to the suggestion that the value and moral significance of works of art are functions of their technical excellence, or, more generally, to the importance of the fact that the spectator looks at them and thinks, 'For the life of me, I couldn't do that, not in a million years.' The first objection would be that *Old Scraps*, whatever its prestige among *hoi polloi*, cuts no ice with the critics, or with art-cultists generally. The second objection which might be raised is that, as an example of illusionism in art, the letter rack represents not only a particular artistic tradition (our own) but also only a brief interlude in that tradition, and hence can have little general significance. In particular, it cannot provide us with any insight into primitive art, since primitive art is strikingly devoid of illusionistic trickery.

The point I wish to establish is that the attitude of the spectator towards a work of art is fundamentally conditioned by his notion of the technical processes which gave rise to it, and the fact that it was created by the agency of another person, the artist. The moral significance of the work of art arises from the mismatch between the spectator's internal awareness of his own powers as an agent and the conception he forms of the powers possessed by

the artist. In reconstructing the processes which brought the work of art into existence, he is obliged to posit a creative agency which transcends his own and, hovering in the background, the power of the collectivity on whose behalf the artist exercised his technical mastery.

The work of art is inherently social in a way in which the merely beautiful or mysterious object is not: it is a physical entity which mediates between two beings, and therefore creates a social relation between them, which in turn provides a channel for further social relations and influences. This is so when, for instance, the court sculptor, by means of his magical power over marble, provides a physical analogue for the less easily realized power wielded by the king, and thereby enhances the king's authority. What Bernini can do to marble (and one does not know quite what or how) Louis XIV can do to you (by means which are equally outside your mental grasp). The man who controls such a power as is embodied in the technical mastery of Bernini's bust of Louis XIV is powerful indeed. Sometimes the actual artist or craftsman is quite effaced in the process, and the moral authority which works of art generate accrues entirely to the individual or institution responsible for commissioning the work, as with the anonymous sculptors and stained-glass artists who contributed to the glorification of the medieval church. Sometimes the artists are actually regarded with particular disdain by the power élite, and have to live separate and secluded lives, in order to provide ideological camouflage for the fact that theirs is the technical mastery which mediates the relation between the rulers and the ruled.

I maintain, therefore, that technical virtuosity is intrinsic to the efficacy of works of art in their social context, and tends always towards the creation of asymmetries in the relations between people by placing them in an essentially asymmetrical relation to things. But this technical virtuosity needs to be more carefully specified; it is by no means identical with the simple power to represent real objects illusionistically: this is a form of virtuosity which belongs, almost exclusively, to our art tradition (though its role in securing the prestige of old masters, such as Rembrandt, should not be underestimated). An example of virtuosity in non-illusionistic modern Western art is afforded by Picasso's well-known *Baboon and Young* (Fig. 2.3), in which an ape's face is created by taking a direct cast from the body-shell of a child's toy car. One would not be much impressed by the toy car itself, nor by the verisimilitude of Picasso's ape just as a model of an ape, unless one were able to recognize the technical procedure Picasso used to make it, that is, commandeering one of his children's toys. But the witty transubstantiation of toy car into ape's face is not a fundamentally different operation from the transubstantiation of artists' materials into the components of a letter rack, which is considered quite boring because that is what artists' materials are for, generically. No matter what avant-garde school of art one considers, it is always the case that materials, and the ideas associated with those materials, are taken up and



FIG. 2.3. Pablo Picasso, *Baboon and Young*; 1950, Vallauris; bronze (cast 1955);  $21\frac{1}{8} \times 14\frac{1}{8} \times 7\frac{3}{8}$  in. ( $53.6 \times 35.7 \times 18.8$  cm.); collection, The Museum of Modern Art, New York (Mrs Simon Guggenheim Fund).

transformed into something else, even if it is only, as in the case of Duchamp's notorious urinal, by putting them in an art exhibition and providing them with a title (*Fountain*) and an author ('R. Mutt', alias M. Duchamp, 1917). Amikam Toren, one of the most ingenious contemporary artists, takes objects like chairs and teapots, grinds them up, and uses the resulting substances to create images of chairs and teapots. This is a less radical procedure than Duchamp's, which can be used effectively only once, but it is an equally apt means of directing our attention to the essential alchemy of art, which is to make what is not out of what is, and to make what is out of what is not.

### *The Fundamental Scheme Transfer between Art Production and Social Process*

But let us focus our attention on art production in societies without traditions and institutions of 'fine art' of the kind which nurtured Picasso and Duchamp. In such societies art arises particularly in two domains. The first of these is

ritual, especially political ritual. Art objects are produced in order to be displayed on those occasions when political power is being legitimized by association with various supernatural forces. Secondly, art objects are produced in the context of ceremonial or commercial exchange. Artistry is lavished on objects which are to be transacted in the most prestigious spheres of exchange, or which are intended to realize high prices at market. The kind of technical sophistication involved is not the technology of illusionism but the technology of the radical transformation of materials, in the sense that the value of works of art is conditioned by the fact that it is difficult to get from the materials of which they are composed to the finished product. If we take up the example of the Trobriand canoe-board once more, it is clear that it is very difficult to acquire the art of transforming the root-buttress of an ironwood tree, using the rather limited tools which the Trobrianders have at their disposal, into such a smooth and refined finished product. If these boards could be simply cast in some plastic material, they would not have the same potency, even though they might be visually identical. But it is also clear that in the definition of technical virtuosity must be included considerations which might be thought to belong to aesthetics.

Let us consider the position of a Trobriand carver, commissioned to add one more to the existing corpus of canoe-boards. The carver does not only have the problem of physically shaping rather recalcitrant material with inadequate tools: the problem is also one of visualizing the design which he mentally follows in carving, a design which must reflect the aesthetic criteria appropriate to this art genre. He must exercise a faculty of aesthetic judgement, one might suppose, but this is not actually how it appears to the artist in the Trobriands who carves within a cultural context in which originality is not valued for its own sake, and who is supposed by his audience, and himself, to follow an ideal template for a canoe-board, the most magically efficacious one, the one belonging to his school of carving and its associated magical spells and rites. The Trobriand carver does not set out to create a new type of canoe-board, but a new token of an existing type; so he is not seeking to be original, but, on the other hand, he does not approach the task of carving as merely a challenge to his skill with the materials, seeing it, instead, primarily as a challenge to his mental powers. Perhaps the closest analogy would be with a musician in our culture getting technically prepared to give a perfect performance of an already existing composition, such as the 'Moonlight' Sonata.

Carvers undergo magical procedures which open up the channels of their minds so that the forms to be inscribed on the canoe-board will flow freely both in and out. Campbell, in an unpublished study of Trobriand (Vakuta) carving (1984), records that the final rite of carving initiation is the ingestion of the blood of a snake famed for its slipperiness. Throughout the initiation the emphasis is placed on ensuring free flow (of magical knowledge, forms, lines, and so on) by means of the metaphoric use of water and other liquids,

especially blood and bespelled betel-juice. It is, of course, true that the Melanesian curvilinear carving style is dominated by an aesthetic of sinuous lines, well-represented in the canoe-board itself; but what for us is an aesthetic principle, one which we appreciate in the finished work, is from the carver's point of view a series of technical difficulties (or blockages of the flow) which he must overcome in order to carve well. In fact, one of the carver's initiatory rites represents just this: the master carver makes a little dam, behind which sea-water is trapped. After some magical to-do, the dam is broken and the water races back to the sea. After this, the initiate's mind will become quick and clear, and carving ideas will flow in similarly unimpeded fashion into his head, down his arms, out through his fingers, and into the wood.

We see here that the ability to internalize the carving style, to think up the appropriate forms, is regarded as a matter of the acquisition of a kind of technical facility, inseparable from the kind of technical facility which has to be mastered in order for these imagined forms to be realized in wood. Trobriand carving magic is technical-facility magic. The imaginative aspect of the art and the tool-wielding aspect of the art are one and the same. But there is a more important point to be made here about the magical significance of the art and the close relationship between this magical significance and its technical characteristics.

It will be recalled that these boards are placed on Kula canoes, their purpose being to induce the Kula partners of the Trobrianders to disgorge their best valuables, without holding any back, in the most expeditious fashion. Moreover, these and the other carved components of the Kula canoe (the prow-board, and the wash-board along the side) have the additional purpose of causing the canoe to travel swiftly through the water, as far as possible like the original flying canoe of Kula mythology.

Campbell, in her iconographic analysis of the motifs found on the carved components of canoes, is able to show convincingly that slipperiness, swift movement, and a quality glossed as 'wisdom' are the characteristics of the real and imaginary animals represented, often by a single feature, in the canoe art. A 'wise' animal, for instance, is the osprey, an omnipresent motif: the osprey is wise because it knows when to strike for fish, and captures them with unerring precision. It is the smooth, precise efficiency of the osprey's fish-getting technique which qualifies it to be considered wise, not the fact that it is knowledgeable. The same smooth and efficacious quality is desired for the Kula expedition. Other animals, such as butterflies and horseshoe bats, evoke swift movement, lightness, and similar ideas. Also represented are waves, water, and so on.

The success of the Kula, like the success of the carving, depends on unimpeded flow. A complex series of homologies, of what Bourdieu (1977) has called 'scheme transfers', exists between the process of overcoming the technical obstacles which stand in the way of the achievement of a perfect



'performance' of the canoe-board carving and the overcoming of the technical obstacles, as much psychic as physical, which stand in the way of the achievement of a successful Kula expedition. Just as carving ideas must be made to flow smoothly into the carver's mind and out through his fingers, so the Kula valuables have to be made to flow smoothly through the channels of exchange, without encountering obstructions. And the metaphoric imagery of flowing water, slippery snakes, and fluttering butterflies applies in both domains, as we have seen.

We saw earlier that it would be incorrect to interpret the canoe-board ethologically as an eye-spot design or, from the standpoint of the psychology of visual perception, as a visually unstable figure, not because it is not either of these things (it is both) but because to do so would be to lose sight of its most essential characteristic, namely, that it is an object which has been made in a particular way. That is, it is not the eye-spots or the visual instabilities which fascinate, but the fact that it lies within the artist's power to make things which produce these striking effects. We can now see that the technical activity which goes into the production of a canoe-board is not only the source of its prestige as an object, but also the source of its efficacy in the domain of social relations; that is to say, there is a fundamental scheme transfer, applicable, I suggest, in all domains of art production, between technical processes involved in the creation of a work of art and the production of social relations via art. In other words, there exists a homology between the technical processes involved in art, and technical processes generally, each being seen in the light of the other, as, in this instance, the technical process of creating a canoe-board is homologous to the technical processes involved in successful Kula operations. We are inclined to deny this only because we are inclined to play down the significance of the technical domain in our culture, despite being utterly dependent on technology in every department of life. Technique is supposed to be dull and mechanical, actually opposed to true creativity and authentic values of the kind art is supposed to represent. But this distorted vision is a by-product of the quasi-religious status of art in our culture, and the fact that the art cult, like all other cults, is under a stringent requirement to conceal its real origins, as far as possible.

### *The Enchantment of Technology: Magic and Technical Efficacy*

But just pointing to the homology between the technical aspect of art production and the production of social relations is insufficient in itself, unless we can arrive at a better understanding of the relation between art and magic, which in the case of Trobriand canoe art is explicit and fundamental. It is on the nature of magical thought, and its relation to technical activity, including

the technical activity involved in the production of works of art, that I want to focus in the last part of this essay.

Art production and the production of social relations are linked by a fundamental homology: but what are social relations? Social relations are the relations which are generated by the technical processes of which society at large can be said to consist, that is, broadly, the technical processes of the production of subsistence and other goods, and the production (reproduction) of human beings by domesticating them and breeding them. Therefore, in identifying a homology between the technical processes of art production and the production of social relations, I am not trying to say that the technology of art is homologous to a domain which is not, itself, technological, for social relations are themselves emergent characteristics of the technical base on which society rests. But it would be misleading to suggest that, because societies rest on a technical base, technology is a cut-and-dried affair which everybody concerned understands perfectly.

Let us take the relatively uncontentious kind of technical activity involved in gardening—uncontentious in that everybody would admit this is technical activity, an admission they might not make if we were talking about the processes involved in setting up a marriage. Three things stand out when one considers the technical activity of gardening: firstly, that it involves knowledge and skill, secondly, that it involves work, and thirdly, that it is attended by an uncertain outcome, and moreover depends on ill-understood processes of nature. Conventional wisdom would suggest that what makes gardening count as a technical activity is the aspect of gardening which is demanding of knowledge, skill, and work, and that the aspect of gardening which causes it to be attended with magical rites, in pre-scientific societies, is the third one, that is, its uncertain outcome and ill-understood scientific basis.

But I do not think things are as simple as that. The idea of magic as an accompaniment to uncertainty does not mean that it is opposed to knowledge, i.e. that where there is knowledge there is no uncertainty, and hence no magic. On the contrary, what is uncertain is not the world but the knowledge we have about it. One way or another, the garden is going to turn out as it turns out; our problem is that we don't yet know how that will be. All we have are certain more-or-less hedged beliefs about a spectrum of possible outcomes, the more desirable of which we will try to bring about by following procedures in which we have a certain degree of belief, but which could equally well be wrong, or inappropriate in the circumstances. The problem of uncertainty is, therefore, not opposed to the notion of knowledge and the pursuit of rational technical solutions to technical problems, but is inherently a part of it. If we consider that the magical attitude is a by-product of uncertainty, we are thereby committed also to the proposition that the magical attitude is a by-product of the rational pursuit of technical objectives using technical means.

*Magic as the Ideal Technology*

But the relationship between technical processes and magic does not only come about because the outcome of technical endeavours is doubtful and results from the action of forces in nature of which we are partially or wholly ignorant. Work itself, mere labour, calls into being a magical attitude, because labour is the subjective cost incurred by us in the process of putting techniques into action. If we return to Simmel's ideas that 'value' is a function of the resistance which has to be overcome in order to gain access to an object, then we can see that this 'resistance' or difficulty of access can take two forms: (i) the object in question can be difficult to obtain, because it has a high price at market or because it belongs to an exalted sphere of exchange; or (ii) the object can be difficult to obtain because it is hard to produce, requiring a complex and chancy technical process, and/or a technical procedure which has high subjective opportunity costs, i.e. the producer is obliged to spend a great deal of time and energy producing that particular product, at the expense of other things he might produce or the employment of his time and resources in more subjectively agreeable leisure activities. The notion of 'work' is the standard we use to measure the opportunity cost of activities such as gardening, which are engaged in, not for their own sake, but to secure something else, such as an eventual harvest. In one sense, gardening for a Trobriander has no opportunity cost, because there is little else that a Trobriander could conceivably be doing. But gardening is still subjectively burdensome, and the harvest is still valuable because it is difficult to obtain. Gardening has an opportunity cost in the sense that gardening might be less laborious and more certain in its outcome than it actually is. The standard for computing the value of a harvest is the opportunity cost of obtaining the resulting harvest, not by the technical, work-demanding means that are actually employed, but effortlessly, by magic. All productive activities are measured against the magic-standard, the possibility that the same product might be produced effortlessly, and the relative efficacy of techniques is a function of the extent to which they converge towards the magic-standard of zero work for the same product, just as the value to us of objects in the market is a function of the relation between the desirability of obtaining those objects at zero opportunity cost (alternative purchases forgone) and the opportunity costs we will actually incur by purchasing at the market price.

If there is any truth in this idea, then we can see that the notion of magic, as a means of securing a product without the work-cost that it actually entails, using the prevailing technical means, is actually built into the standard evaluation which is applied to the efficacy of techniques, and to the computation of the value of the product. Magic is the baseline against which the concept of work as a cost takes shape. Actual Kula canoes (which have to be sailed, hazardously, laboriously, and slowly, between islands in the Kula ring) are

evaluated against the standard set by the mythical flying canoe, which achieves the same results instantly, effortlessly, and without any of the normal hazards. In the same way, Trobriand gardening takes place against the background provided by the litanies of the garden magician, in which all the normal obstacles to successful gardening are made absent by the magical power of words. Magic haunts technical activity like a shadow; or, rather, magic is the negative contour of work, just as, in Saussurean linguistics, the value of a concept (say, 'dog') is a function of the negative contour of the surrounding concepts ('cat', 'wolf', 'master').

Just as money is the ideal means of exchange, magic is the ideal means of technical production. And just as money values pervade the world of commodities, so that it is impossible to think of an object without thinking at the same time of its market price, so magic, as the ideal technology, pervades the technical domain in pre-scientific societies.<sup>3</sup>

It may not be very apparent what all this has got to do with the subject of primitive art. What I want to suggest is that magical technology is the reverse side of productive technology, and that this magical technology consists of representing the technical domain in enchanted form. If we return to the idea, expressed earlier, that what really characterizes art objects is the way in which they tend to transcend the technical schemas of the spectator, his normal sense of self-possession, then we can see that there is a convergence between the characteristics of objects produced through the enchanted technology of art and objects produced via the enchanted technology of magic, and that, in fact, these categories tend to coincide. It is often the case that art objects are regarded as transcending the technical schemas of their creators, as well as those of mere spectators, as when the art object is considered to arise, not from the activities of the individual physically responsible for it, but from the divine inspiration or ancestral spirit with which he is filled. We can see signs of this in the fact that artists are not paid for 'working' for us, in the sense in which we pay plumbers for doing so. The artists' remuneration is not remuneration for his sweat, any more than the coins placed in the offertory plate at church are payments to the vicar for his praying on behalf of our souls. If artists are paid at all, which is infrequently, it is as a tribute to their moral ascendancy over the lay public, and such payments mostly come from public bodies or individuals acting out the public role of patrons of the arts, not from selfishly motivated individual consumers. The artist's ambiguous position, half-technician and half-mystagogue, places him at a disadvantage in societies such as ours, which are dominated by impersonal market values. But these disadvantages do not arise in societies such as the Trobriands, where all activities are simultaneously technical procedures and bound up with magic, and there is an insensible transition between the mundane activity which is necessitated by the requirements of subsistence production and the most overtly magico-religious performances.

## *The Trobriand Garden as a Collective Work of Art*

The interpenetration of technical productive activity, magic, and art, is wonderfully documented in Malinowski's *Coral Gardens and Their Magic* (1935). Malinowski describes the extraordinary precision with which Trobriand gardens, having been cleared of scrub, and not only scrub, but the least blade of grass, are meticulously laid out in squares, with special structures called 'magical prisms' at each corner, according to a symmetrical pattern which has nothing to do with technical efficiency, and everything to do with achieving the transcendence of technical production and a convergence towards magical production. Only if the garden looks right will it grow well, and the garden is, in fact, an enormous collective work of art. Indeed, if we thought of the quadrangular Trobriand garden as an artist's canvas on which forms mysteriously grow, through an occult process which lies partly beyond our intuition, that would not be a bad analogy, because that is what happens as the yams proliferate and grow, their vines and tendrils carefully trained up poles according to principles which are no less 'aesthetic' than those of the topiarist in the formal gardens of Europe.<sup>4</sup>

The Trobriand garden is, therefore, both the outcome of a certain system of technical knowledge and at the same time a collective work of art, which produces yams by magic. The mundane responsibility for this collective work of art is shared by all the gardeners, but on the garden magician and his associates more onerous duties are imposed. We would not normally think of the garden magician as an artist, but from the point of view of the categories operated by the Trobrianders, his position is exactly the same, with regard to the production of the harvest, as the carver's position is with regard to the canoe-board, i.e. he is the person magically responsible, via his ancestrally inherited *sopi* or magical essence.

The garden magician's means are not physical ones, like the carver's skill with wood and tools, except that it is he who lays out the garden originally and constructs (with a good deal of effort, we are told) the magic prisms at the corners. His art is exercised through his speech. He is master of the verbal poetic art, just as the carver is master of the use of visual metaphoric forms (ospreys, butterflies, waves, and so on). It would take too long, and introduce too many fresh difficulties, to deal adequately with the tripartite relationship between language (the most fundamental of all technologies), art, and magic. But I think it is necessary, even so, to point out the elementary fact that Trobriand spells are poems, using all the usual devices of prosody and metaphor, about ideal gardens and ideally efficacious gardening techniques. Malinowski (1935: i. 169) gives the following ('Formula 27'):

### I

Dolphin here now, dolphin here ever!  
Dolphin here now, dolphin here ever!

Dolphin of the south-east, dolphin of the north-west.  
 Play on the south-east, play on the north-west, the dolphin plays!  
 The dolphin plays!

## II

The dolphin plays!  
 About my *kaysalu*, my branching support, the dolphin plays.  
 About my *kaybudi*, my training stick that leans, the dolphin plays.  
 About my *kamtuya*, my stem saved from the cutting, the dolphin plays.  
 About my *tala*, my partition stick, the dolphin plays.  
 About my *yeye'i*, my small slender support, the dolphin plays.  
 About my *tamkwalum*, my light yam pole, the dolphin plays.  
 About my *kavatam*, my strong yam pole, the dolphin plays.  
 About my *kayvalihuma*, my great yam pole, the dolphin plays.  
 About my *tukulumwala*, my boundary line, the dolphin plays.  
 About my *karivisi*, my boundary triangle, the dolphin plays.  
 About my *kamkokola*, my magical prism, the dolphin plays.  
 About my *kaynutatala*, my uncharmed prisms, the dolphin plays.

## III

The belly of my garden leavens,  
 The belly of my garden rises,  
 The belly of my garden reclines,  
 The belly of my garden grows to the size of a bush hen's nest,  
 The belly of my garden grows like an ant-hill,  
 The belly of my garden rises and is bowed down,  
 The belly of my garden rises like the iron-wood palm,  
 The belly of my garden lies down,  
 The belly of my garden swells,  
 The belly of my garden swells as with a child.

and comments (1935: ii. 310–11):

the invocation of the dolphin . . . transforms, by a daring simile, the Trobriand garden, with its foliage swaying and waving in the wind, into a seascape . . . Bagido'u [the magician] explained to me . . . that as among the waves the dolphin goes in and out, up and down, so throughout the garden the rich garlands at harvest will wind over and under, in and out, of the supports.

It is clear that not only is this hymn to superabundant foliage animated by the poetic devices of metaphor, antithesis, arcane words, and so on, all meticulously analysed by Malinowski, but that it is also tightly integrated with the catalogue of sticks and poles made use of in the garden, and the ritually important constructions, the magic prisms and boundary triangles which are also found there. The garden magician's technology of enchantment is the reflex of the enchantment of technology. Technology is enchanted because the ordinary technical means employed in the garden point inexorably towards

magic, and also towards art, in that art is the idealized form of production. Just as when, confronted with some masterpiece, we are fascinated because we are essentially at a loss to explain how such an object comes to exist in the world, the litanies of the garden magician express the fascination of the Trobrianders with the efficacy of their actual technology which, converging towards the magical ideal, adumbrates this ideal in the real world.

## Notes

- 1 'Non-Western' has been suggested to me as a preferable alternative to 'primitive' in this context. But this substitution can hardly be made, if only because the fine-art traditions of Oriental civilizations have precisely the characteristics which 'primitive' is here intended to exclude, but cannot possibly be called 'Western'. I hope the reader will accept the use of 'primitive' in a neutral, non-derogatory sense in the context of this essay. It is worth pointing out that the Trobriand carvers who produce the primitive art discussed in this essay are not themselves at all primitive; they are educated, literate in various languages, and familiar with much contemporary technology. They continue to fabricate primitive art because it is a feature of an ethnically exclusive prestige economy which they have rational motives for wishing to preserve.
- 2 The Kula is a system of ceremonial exchanges of valuables linking together the island communities of the Massim district, to the east of the mainland of Papua New Guinea (see Malinowski, 1922; Leach and Leach, 1983). Kula participants (all male) engage in Kula expeditions by canoe to neighbouring islands, for the purpose of exchanging two types of traditional valuable, necklaces and arm-shells, which may only be exchanged for one another. The Kula system assumes the form of a ring of linked island communities, around which necklaces circulate in a clockwise direction. Kula men compete with other men from their own community to secure profitable Kula partnerships with opposite numbers in overseas communities in either direction, the object being to maximize the volume of transactions passing through one's own hands. Kula valuables are not hoarded; it is sufficient that it should become public knowledge that a famous valuable has, at some stage, been in one's possession. A man who has succeeded in 'attracting' many coveted valuables becomes famous all around the Kula ring (see Munn, 1986).
- 3 In technologically advanced societies where different technical strategies exist, rather than societies like the Trobrianders where only one kind of technology is known or practicable, the situation is different, because different technical strategies are opposed to one another, rather than being opposed to the magic-standard. But the technological dilemmas of modern societies can, in fact, be traced to the pursuit of a chimera which is actually the equivalent of the magic-standard: ideal 'costless' production. This is actually not costless at all, but the minimization of costs to the corporation by the maximization of social costs which do not appear on the balance sheet, leading to technically generated unemployment, depletion of unrenewable resources, degradation of the environment, etc.

- 4 In the Sepik, likewise, the growing of long yams is an art-form, and not just metaphorically, because the long yam can be induced to grow in particular directions by careful manipulation of the surrounding soil: it is actually a form of vegetable sculpture (see Forge, 1966).

## References

- BERGER, PETER (1967). *The Social Reality of Religion*. Harmondsworth, Middx.: Penguin.
- BLOCH, MAURICE (1974). 'Symbols, Song, Dance, and Features of Articulation: Is Religion an Extreme Form of Traditional Authority?', *Archives Européennes de Sociologie*, 15/1: 55–81.
- BOURDIEU, PIERRE (1968). 'Outline of a Sociological Theory of Art Perception', *International Social Science Journal*, 20/4: 589–612.
- (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge Univ. Press.
- CAMPBELL, SHIRLEY (1984). 'The Art of the Kula'. Ph.D. thesis, Australian National Univ., Canberra.
- FORGE, ANTHONY (1966). 'Art and Environment in the Sepik', *Proceedings of the Royal Anthropological Institute for 1965*. London: Royal Anthropological Institute, 23–31.
- LEACH, JERRY W., and LEACH, EDMUND (1983). *The Kula: New Perspectives on Massim Exchange*. Cambridge: Cambridge Univ. Press.
- MALINOWSKI, BRONISLAW (1922). *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*. London: Routledge.
- (1935). *Coral Gardens and their Magic: A Study of the Methods of Tilling the Soil and of Agricultural Rites in the Trobriand Islands*. 2 vols. London: Allen & Unwin.
- MUNN, NANCY (1986). *The Fame of Gawa: A Symbolic Study of Value Transformation in a Massim (Papua New Guinea) Society*. Cambridge: Cambridge Univ. Press.
- PANOFSKY, ERWIN (1962). *Studies in Iconology: Humanistic Themes in the Art of the Renaissance*. New York: Harper & Row.
- SIMMEL, GEORG (1979). *The Philosophy of Money*. Boston: Routledge & Kegan Paul.