

MICHAEL THOMPSON

# RUBBISH THEORY

The creation and destruction of value

With a Foreword by E. C. Zeeman

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# Foreword

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In 1971 I wrote an article in the *Times Literary Supplement* describing René Thom's new geometric method of modelling called catastrophe theory, and suggesting that it might be useful in the social sciences. Michael Thompson was one of the first social scientists to take advantage of this new method, and since he credits my article for first drawing his attention to it, I have a particular pleasure in welcoming the publication of this book. I also had the privilege of being one of the examiners of his doctoral thesis, out of which this book has grown. Being a mathematician, I had never examined a PhD in social anthropology before, and I confess I was somewhat hesitant, but I felt it was an academically important occasion because not only was Thompson bringing together two very different disciplines, but he was also making essential use of both of them.

As a general rule, whenever mathematics is applied to science the minimum possible mathematics should be used, and it should play a subservient role to the matter being modelled. For some writers the mathematics is not essential, because they can describe the heart of their matter in ordinary language; they use mathematics only in a cosmetic role for making their arguments look more elegant. However, for Thompson the mathematics is an essential ingredient, for it is part of the very language without which he cannot describe his main sociological conclusions.

The appearance of a geometric language, that can be used in conjunction with, but not replaced by, ordinary language, is a new phenomenon—indeed Thom claims that his theory is the first coherent attempt (since Aristotelian logic) to give a theory on analogy. However, there is a striking difference between symbolic logic and catastrophe theory: symbolic logic is a convenient tool for checking certain arguments, just as Venn diagrams (such as those used by Thompson in Chapter 5) are a convenient tool for displaying those arguments, but neither symbolic logic nor Venn diagrams are linguis-

tically essential, since both can be replaced by their verbal equivalents in ordinary language. This is because the mathematics behind symbolic logic and Venn diagrams is elementary; hence their verbal equivalents were well understood and incorporated into spoken language when language first evolved, long before the advent of mathematics. By contrast the mathematics behind catastrophe theory is non-elementary, and the proof of the significance of the geometry is sophisticated. The resulting geometric language was unknown until recently, and consequently no verbal equivalent exists.

The geometric language offers a new method of expressing relationships, and synthesizing into a comprehensible whole a variety of observations that would otherwise appear disconnected or paradoxical. This then is Thompson's long-term objective: to tackle some of the central problems and paradoxes of the social sciences, such as the relationships between values and behaviour, between world and action, and between culture and society.

He begins gently, disarming us with his wit and his anecdotes about the paradoxes of rubbish. But when he passes from things to ideas we begin to perceive the full scope of his enquiry. I like the way he jolts us out of habits of thought and reveals to us the underlying structure of other societies—indeed, opens our eyes to our own society. This must be partly due to the rich variety of his own experience, from Sandhurst and the regular army to lecturing at art colleges, from building jobs in London to climbing Everest and living amongst the Sherpas in Kathmandu. But his main strength is his depth of insight. Not that I can judge the importance of his general ideas, since I am not a social scientist. However, when he begins to make specific use of catastrophe theory, as in the model of curriculum change in Chapter 8, or in the model of the pig cycle in Chapter 9, then I am sure he is on the right track. He has grasped Thom's central idea and uses it with originality and imagination.

Let us digress for a moment, and compare physics with the social sciences. One of the features illuminated by catastrophe theory is when something can behave in two different ways under the same constraints: for example, if a flat spring is compressed then it may bend to the left or bend to the right. In physics it is usually quite easy to see the different configurations that a physical system may take up under the same physical constraints. Moreover, the physicist is lucky because the phenomena that he observes in his laboratory are

very similar to those that occur outside; thus he is justified in isolating his experiments in order to make accurate predictions and measurements. The social scientist on the other hand has no such luck: he can seldom isolate his phenomena from the rest of the world because of their very nature. He resigns himself to accepting paradoxes. One of Thompson's major insights is to observe that a paradox may in fact be none other than the existence of two different configurations of the same system under the same social constraints. The analogy with physics is made precise by using the same universal mathematical model for both, namely the cusp catastrophe. So, he argues, we should try to resolve the paradox by embedding it in a cusp catastrophe. This in turn suggests a variety of related phenomena, a synthesis of ideas that would not have been possible without the geometry. Nor is this synthesis expressible without the geometry. Of course, this type of modelling is still very much in its infancy, and has yet to be tested against the touchstone of prediction and experiment. So far Thompson is using his models as sociological hypotheses, frameworks within which, in support of which, and from which, he can argue by conventional methods. This procedure is already scientific because it reduces the arbitrariness of description. But the heart of science involves prediction; and the design of suitable experiments to test the models, and the collection and fitting of data, are yet to come.

## Preface

It is difficult for the author of a book on rubbish to thank adequately those who have helped him in his endeavour. Rubbish, when all is said and done, remains pretty repulsive stuff and has a tendency to adhere to people who come into contact with it. It is for this reason that not all those whom I wish to thank may thank me for doing so in too public a manner.

But I do owe a great deal to the many colleges of art (particularly Hull, Winchester, Falmouth and The Slade) which over the years have given me encouragement and financial support. The same is true of the School of Architecture at Portsmouth Polytechnic. I should also like to thank the following institutions for their financial support: the Nuffield Foundation (9 months' research assistantship at University College, London), the Massachusetts Institute of Technology (14 months' post-doctoral fellowship), the International Institute for Environment and Society, Berlin (4 months' visiting fellowship). The intellectual climate in schools of art and architecture is ideally suited to the germination and growth of tender plants but, sooner or later, they must be transferred from the art hothouse into the cold-frame of the academic—and the wider—world. That both I and my ideas have, I hope, survived this traumatic journey, and that thoughts about rubbish led to wider considerations and to involvement with catastrophe theory, is largely thanks to the stringent yet helpful criticism of my colleagues in the Anthropology Department at UCL and in the Mathematics Institute at the University of Warwick.

It is proper to record that some parts of the argument in the early chapters of the book appeared in a somewhat different form in *New Higher Education*, vol. 1, no 1 (1976).

# 1 The filth in the way

*Riddle:* What is it that the rich man puts in his pocket that the poor man throws away?

*Answer:* Snot.

Whilst children usually find this extremely amusing, the normal adult reaction is to regard it as unfunny, childish, disreputable, rather revolting and altogether unworthy of serious attention. Rubbish theory stands this response on its head, regarding this joke as particularly worthy of attention precisely because the normal adult response in Western culture is to disregard it. Thus right from the word go rubbish theory is faced with the near-impossibility of taking a detached, objective, scientific approach to its subject matter. The serious adult is a serious adult because he avoids childish rubbish and so adopting a stance as schizophrenic as that of a communist stockbroker (or, perhaps, a Young Conservative or an art-educationalist).

This childish riddle provides a convenient, if vulgar, outline of my main area of concern. First of all it sets out a relationship between status, the possession of objects, and the ability to discard objects. The impeccable and quite unentertaining paradigm which is set up in the riddle may be stated thus: there is a status difference between the condition of being rich and the condition of being poor, the former being higher than the latter. The condition of richness or poorness is determined by the quantity of objects one possesses: a poor person possesses few objects, a rich person many objects. But how can one tell whether a person is rich or poor? Apart from tramps, most people choose not to carry all their possessions around with them and really rich people would be physically incapable of doing so even if they wanted to and even assuming they could overcome the problems of security and insurance that such ostentatious behaviour would entail. Well, the answer is that one cannot always be sure of recognizing a rich or poor person, but one sure indication of status

which one may sometimes be fortunate enough to witness is how many objects people are able to discard. A poor man, since he has few possessions, can afford to discard very little; a rich man will be able to discard much more.

This paradigm is evidently correct since, at least in Western culture, people recognize this riddle as a riddle. That is, it claims that there is a situation which, on the face of it, would seem to deny the whole basis of our social order: namely that a person who is poor discards more than a person who is rich. We are puzzled by the riddle, rack our brains for an answer, cannot find one, and when we hear the answer 'snot' feel cheated since we assumed that the object discarded was valuable. Obviously a poor man who discards more valueless objects than a rich man, in no way threatens the social order. For the social order to be maintained there has to be some measure of agreement as to what is of value. People in different cultures may value different things, and they may value the same things differently, but all cultures insist upon some distinction between the valued and the valueless.

The riddle succeeds by playing upon that which is residual to our system of cultural categories. When, in the context of wealth and poverty, we talk of possessable objects we unquestioningly assume that we are talking about valuable objects. The category 'objects of no-value' is invisible and we only notice its existence when it is pointed out to us by the riddle. But the riddle contains much more than this. If the answer is simply 'an object of no-value' (say, pebbles or sweet papers) it is not very funny. What makes it funny is that the answer 'snot' is an object, as it were, of negative value; something that should be thrown away. Thus we can identify three categories of possessable object: valuable, valueless, and negatively valued. The rich man and the poor man according to the cultural paradigm should both discard their snot, yet the rich man does not, and in pointing this out the riddle is genuinely subversive and does threaten the social order. Hence the serious adult response which seeks to suppress this subversion by refusing to see it: a conspiracy of blindness.

Rather than join this conspiracy of blindness, let us poke our noses right into the rich man's smelly handkerchief. When one thinks of it, it really is quite extraordinary that a fastidious person, who regularly changes his socks and underwear, has a bath each day, keeps his hair neatly trimmed and brushed, cleans his fingernails, and stems any un-

desirable body smells by using a deodorant, should quite happily discharge a stream of opaque mucous fluid, liberally studded with darker more solid fragments, not to mention the millions of germs and bacteria which although invisible he knows to be present, into a porous handkerchief and then place the whole soggy parcel, none too carefully folded, in his trouser pocket on top of his small change and cigarette lighter which he will later use to pay for his gin-and-tonics and to light his and his companion's cigarettes. Yet this is exactly what he does, though one can only assume, in view of his otherwise extremely hygiene-conscious behaviour, that this is not how he sees his actions. One can only assume that in discharging his snot into his handkerchief and then folding it, he has in some way transferred that same snot from the category of negatively-valued object to the category of valueless object. That is, whilst he evidently feels he must get rid of it from his nose, he does not feel any such compulsion to get rid of it from his pocket. Nor, on the other hand, does he go home and put the handkerchief in his desk, or place it in the safe deposit at his bank: once in his handkerchief it is evidently neither positively nor negatively valued.

In contrast, the rude peasant cheerfully discharging his snot on to the ground, first through one nostril and then through the other (sometimes called a 'docker's hankie'), has no need of these conceptual acrobatics. Such category manipulations are hard to spot in our own culture, obscured as they are by the residues from our cultural categories and our conspiracies of blindness, but they often appear more prominent, and occasionally much more spectacular, when we look at other cultures. Consider this Trinidad Indian's view of his previously unvisited Motherland:

Indians defecate everywhere. They defecate, mostly, beside the railway tracks. But they also defecate on the beaches; they defecate on the hills; they defecate on the river banks; they defecate on the streets; they never look for cover.

Indians defecate everywhere, on floors, in urinals for men (as a result of yogic contortions that can only be conjectured). Fearing contamination they squat rather than sit, and every lavatory cubicle carries marks of their misses. No one notices.

These squatting figures—to the visitor, after a time, as eternal and emblematic as Rodin's *Thinker*—are never spoken of; they are never written about; they are not mentioned in novels or stories; they do not appear in

feature films or documentaries. This might be regarded as part of a permissible prettyfying intention. But the truth is that *Indians do not see these squatters* and might even, with complete sincerity, deny that they exist. A collective blindness arising out of the Indian fear of pollution and the resulting conviction that Indians are the cleanest people in the world. They are required by their religion to take a bath every day. This is crucial and they have devised minute rules to protect themselves from every conceivable contamination. There is only one pure way to defecate; in love-making only the left hand is to be used; food is to be taken only with the right. It has all been regulated and purified. To observe the squatters is therefore distorting; it is to fail to see through to the truth.<sup>1</sup>

Yet, total though it might appear, this conspiracy of blindness is not extended to the non-Indian. I was told by one of the most eminent Indians of Nehru's generation that there were no flies in the Kulu Valley in the Indian Himalayas until the Tibetan refugees came there. As it happens, I had been there thirteen years previously, just before the Tibetan refugees arrived, and can vouch that, so far as one can estimate these things, the fly population had remained unchanged throughout the period. Yet I was told that the Tibetans had brought them, that 'the whole forest is their latrine'. Only the Tibetan excrement was visible to the Indian. Only the outside observer can see that the Indians' conspiracy of blindness. It is all too easy as an outsider to spot a more difficult and uncomfortable feat. The particular version of this feat that I wish to perform is to make visible the conspiracy of blindness that is imposed by the social sciences.

Now sociology, our formalized area of enquiry concerned with the understanding and explanation both of our own society and of societies in general, is very much a serious and adult occupation and, consequently, very much predisposed to such conspiracies of blindness. The questions I will ask are: first, is this in fact the case? And second, if it is, does it matter? I will argue that the answer to each of those questions is yes: that serious adult thought in general, and sociology in particular, constitute a form of discourse that, of its very nature, is unable to make contact with certain regions of social life and, more important, that what goes on in those regions is crucial for any understanding of society.

This inevitable circumspection that so distressingly distances the

<sup>1</sup> V. S. Naipaul, *An Area of Darkness* (1964), ch. 3.

social scientist from the object of his study places him within the first of the Three Species of Mortal Men identified by the founder of Rubbish Theory: Jonathan Swift. According to Swift, a member of this Species proceeds 'with the Caution of a Man that walks thro' Edenborough Streets in a Morning, who is indeed as careful as he can, to watch diligently, and spy out the Filth in his Way, not that he is curious to observe the Colour and Complexion of the Ordure, or take its Dimensions, much less to be padding in, or tasting it: but only with a Design to come out as cleanly as he may.'<sup>2</sup>

If this were the end of the matter then rubbish theory would seem to be doomed from the start. For the social scientist who wishes to study rubbish must, at the very least, 'padle' in it. Yet if he does this what chance is there that he will 'come out as cleanly' as his fellows? How can he remain a member of the social scientific community if, in order to study rubbish, he has to abandon the form of discourse which is the defining criterion of that community? How can he wallow in the ordure in Edenborough streets throughout the morning and contribute to post-graduate seminars at Edinburgh University in the afternoon? Yet this seemingly impossible and revolting course of action is the defining characteristic of one type of social scientist: the anthropologist. It is called Participant Observation.

The simple fact is that most (I will not presume to speak for all) social scientists do not remain trapped for life inside their defining form of discourse—they can shout abuse at the referee, camp it up at the gay disco, or terrorize their children, as well as the next man or woman. It is just that when they are being social scientists these other forms of discourse are excluded. The student of rubbish cannot do this. The fundamental irreconcilability of a serious adult approach and rubbish subject-matter means that the rubbish theorist has to deal in different forms of discourse simultaneously. And since they cannot be mixed they must be juxtaposed. The joke, the paradox, the shock technique and the journalistic style, far from being unscholarly devices to be avoided at all costs, become rubbish theory's inseparable accompaniments.

Of course, the anthropologist doing his fieldwork on Skid Row remains different from those he studies, for he has access to his

<sup>2</sup> Jonathan Swift, 'A digression concerning critics' (1696) in *A Tale of a Tub*, reprinted 1949 (Nonesuch Press, London), p. 308.

university seminars whilst they do not. It is a nice irony that those who do the best fieldwork and actually merge with their subjects must at the same time sever totally their links with their discipline. In consequence, theory can only be built up from the second-rate—from sadly incomplete insights into other realities—and this gives rise to a formidable problem, which is: how do we make allowance for this incompleteness? Do we adopt a crude positivism and assume that what we have gained access to is all that there is—that, if we can't get at it, it doesn't exist? Or do we accept that our insights are incomplete, that we have no way of knowing how incomplete they are, and that, in consequence, we might as well abandon the whole enterprise? Though these pessimistic polar alternatives can each exert a powerful attraction, there does exist another course which lies not so much between, as in calculated opposition to, these twin counsels of despair. It seems to me that the real significance of the form of discourse associated with serious thought is that, suitably developed, it holds out the possibility of recognizing the existence of, and of making some allowances for, this incompleteness. In other words, what I propose to do is, by juxtaposing immiscible forms of discourse, to take a very serious adult approach to our disgracefully childish riddle.

An advertisement in *The Times* promoting *The Times'* classified advertisement columns, and the service provided by *The Times* staff who advise on the best wordings for the classified ads, shows a pair of identical vases of oriental style. One is labelled, in crude block capitals, 'Secondhand'; the other, in elegant copperplate within a black border, 'Antique'. The inscription above the vases reads: 'It's not what you say, it's the way that you say it.'

Our appreciation of the advertisement is adequate proof that objects may be seen in two very different ways, one aesthetically and economically superior to the other, and moreover that in certain circumstances we may be able, to our considerable advantage, to control the way in which we ourselves and others see an object. The pair of vases has been chosen to illustrate this flexibility. The label 'Secondhand' leads us to see the vase on the left as a worthless piece of tat; a grotesque present from a grotesque relative. The label 'Antique' leads us to see its mate as the real thing; a beautiful, delicate, valuable, old, Chinese ceramic *objet d'art*.

This flexibility does not extend to all objects. Most objects are only

visible in one or other of these two ways, and their identities are so certain that the labels 'Secondhand' and 'Antique' are superfluous. The used car in the back street car mart and the Queen Anne walnut tallboy advertised in *Country Life* are perhaps more typical, in their unequivocal natures, of objects in general, than *The Times'* borderline vases.

Let us start by identifying two very different ways in which objects can be seen. They form an element in our perception of the physical and social environment, our world view. The element can be described like this. In our culture objects are assigned to one or other of two overt categories which I label 'transient' and 'durable'. Objects in the transient category decrease in value over time and have finite life-spans. Objects in the durable category increase in value over time and have (ideally) infinite life-spans. The Queen Anne tallboy, for example, falls into the durable category, the used car into the transient category.

The way we act towards an object relates directly to its category membership. For instance, we treasure, display, insure, and perhaps even mortgage the antique vase, but we detest and probably destroy its secondhand mate. Obviously, when it comes to objects, there is a relationship between our view of the world and our action in that world, but what is the nature of this relationship? Does the category membership of an object determine the way we act towards it, or does the way we act towards an object determine its category membership? So far as the unequivocal Queen Anne tallboy and the used car are concerned simple observation of the market in these objects reveals that their category membership determines the way we act towards them: that is, world view is prior to action. They are located within a region of fixed assumptions. But when we look at the two vases we find that the way we act towards them, that is whether we treat them as antique or secondhand, determines their category membership: that is, action is prior to world view. They lie in a region of flexibility somewhere between the inflexible regions inhabited by Queen Anne tallboys and used cars (see Fig. 1 on page 8).

This is an obvious example of what I feel is a general phenomenon and as an anthropologist I should be able to provide a formal description—an adequate theory—to account for what is going on here. For categories are not free just to float about. They are closely tied to the social situation that they render meaningful. A common

response for the theorist is to treat the data as if the category framework determined the social action, and then to treat it again as if the social action determined the category framework—rather like physicists who can treat light as made up of waves or of particles and who choose whichever approach is best suited to their particular problem. The trouble is that neither approach is much help in understanding the conceptual equivalent of 'muddling through' that must go on when, despite the clear separation between them, equivocal objects become unequivocal and *vice versa*. I have to come at it from a different direction altogether.

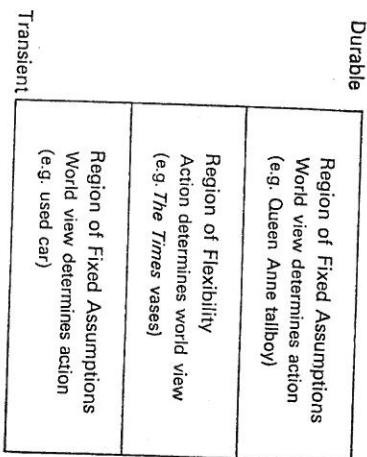


Fig.1

Innovation and creativity arise within the region of flexibility, but access to innovation and creativity is not freely available to all members of our society. Differential access is imposed through the social order. For those near the bottom there really is no region of flexibility; for those near the top there may be a wide range of manipulative freedom (and, of course, *The Times* is a paper for top people!).

By relating these differences in the breadth of the region of flexibility to the various social levels, we can uncover the control mechanism within the system: the manner in which durability and transience are imposed upon the world of objects. This is perhaps the first stumbling block in presenting rubbish theory, for we all tend to think that objects are the way they are as a result of their intrinsic physical properties. The belief that nature is what is there when you check in is

reassuring but false: the belief that it is made anew each afternoon is alarming but true. We have to recognize that the qualities objects have are conferred upon them by society itself and that nature (as opposed to our idea of nature) plays only the supporting and negative role of rejecting those qualities that happen to be physically impossible.

The operation of this control mechanism would seem inevitably to give rise to a self-perpetuating system. Briefly: it is decidedly advantageous to own durable objects (since they increase in value over time whilst transient objects decrease in value). Those people near the top have the power to make things durable and to make things transient, so they can ensure that their own objects are always durable and that those of others are always transient. They are like a football team whose centre-forward also happens to be the referee; they cannot lose.

A paradoxical question now arises. How can such a self-perpetuating system ever change itself? How, as it were, can the other side ever score a goal? In this case the equivalent of such a goal is the transfer of an object from the transient to the durable category: a transfer which defies the powerful control mechanism that results from combining the roles of centre-forward and referee yet nevertheless does happen. We are all familiar with the way despised Victorian objects have become sought-after antiques; with bakelite ashtrays that have become collectors' items; with old bangers transformed into vintage motor cars. So we know the changes take place, but how? The answer lies in the fact that the two overt categories which I have isolated, the durable and the transient, do not exhaust the universe of objects. There are some objects (those of zero and unchanging value) which do not fall into either of these two categories and these constitute a third *covert* category: *rubbish*.

My hypothesis is that this covert rubbish category is not subject to the control mechanism (which is concerned primarily with the overt part of the system, the valuable and socially significant objects) and so is able to provide the path for the seemingly impossible transfer of an object from transience to durability. What I believe happens is that a transient object gradually declining in value and in expected life-span may slide across into rubbish. In an ideal world, free of nature's negative attitude, an object would reach zero value and zero expected life-span at the same instant, and then, like Mark Twain's

'one hoos shay', disappear into dust. But, in reality, it usually does not do this; it just continues to exist in a timeless and valueless limbo where at some later date (if it has not by that time turned, or been made, into dust) it has the chance of being discovered. It may be discovered by a creative *Times* reader and successfully transferred to durability.

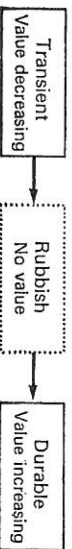


Fig.2

The delightful consequence of this hypothesis is that, in order to study the social control of value, we have to study rubbish.

Rubbish theory, with its bizarre subject-matter and engaging paradoxes, is often smiled upon by economists, sociologists, and physical scientists as if it were some Wodehousean corner of Academia: an amusing backwater, like *The Drones' Club* or Lord Emsworth's estate, far removed from the mainstream of social life. There is the assumption that, though it may hold for Victoriana and bakelite ashtrays, it does not, of course, hold for major components of the economy such as housing. There is also the assumption that, though the qualities of durability, transience, and rubbishness may be subject to a certain social malleability, this variation takes place within severe natural limits. Both these assumptions are mistaken.

This social malleability is apparent even when we examine the hard-core rubbish of body products. We can draw up a list of body products and then distinguish between those that are rubbish and those that are not. The rubbish items would include excrement, urine, finger and toe-nail clippings, pus, menstrual blood, scabs and so on. . . . The non-rubbish items would include milk, tears, babies (except in extreme ecological circles with the slogan: 'babies are pollution') and, sometimes, sperm. If rubbishness were self-evident and derived from the intrinsic physical properties of objects then this division of body products into rubbish and non-rubbish items would be fixed and unchangeable. Yet, in recent years, some body products have crossed from one side to the other. Phlegm is now clearly seen as rubbish but, until quite recently, it had a noble connotation. English phlegm was expectorated from splendidly stiff upper lips. The

loss of empire rendered the English upper lip flaccid and English phlegm ceased to be the magical substance that kept the little brown native in his place, and became instead a repulsive green lump in the mouth during the later stages of Asian 'flu.

It is the same with sweat. Once it was good, honest, and noble. In 1940 Churchill could rally the Dunkirk spirit with offers of 'blood, toil, tears and sweat'. Today sweat is firmly in the rubbish category helped on its way by the deodorant explosion—products like *Us* and *Femfresh*: 'Is vaginal odour your problem? Don't make it his too.'<sup>3</sup> Only if one remains within severe cultural and temporal confines can one sustain the commonsense belief that rubbish is defined by intrinsic physical properties. Step outside these limits and one sees that the boundary between rubbish and non-rubbish moves in response to social pressures.

There are profound consequences to this realization that rubbish is socially defined, and there are strong incentives for the anthropologist to uncover the social forces that determine these boundary dynamics. The politicized ecologist, for instance, may pronounce *ad nauseam* that there is no waste in nature or that there is no such thing as a free lunch, the implication being that there is something wrong, something unnatural, about our society because it creates waste and insists on believing that there really are such things as free lunches. With a little more work the anthropologist can do much better. He can show that waste is a necessary condition for society, that society can exist only if we insist that there are such things as free lunches. He can show these supposedly objective scientific statements for what they really are—puritanical moral judgements on our society;

<sup>3</sup> One advantage of being published by the world's largest purveyors of dictionaries is that you are soon made aware of the sort of criticism that runs: 'Just a minute; words aren't the same as things, you know', or 'There is a difference between literal and metaphorical usage'. I would reply that, whilst words and things are indeed different, there is still a connection between them. It is precisely because there is a connection that things, once assigned to cultural categories, can be transferred. The same is true of metaphors. Those that are apt gain acceptance; those that are not apt are rejected, or, in most cases, not even considered in the first place. Those metaphors that are becoming more apt and those that are becoming less apt reveal the direction of change in the qualities of the object to which, however obliquely, they refer. I have a genteel aunt who could never live in Papcastle, Maidenhead, Cockfosters, or Pratt's Bottom. Try telling her that there is no connection between words and things!

and he can predict the sort of social changes that will ensue if these judgements should gain wider currency.

The less strident economist uses the concept of scarcity to define his field. If something is scarce then it lies within his orbit; if it is not scarce it does not interest him. Thanks largely to this stern limitation of its field, economics has enjoyed a high level of credibility and some predictive success. But of course the fact that the boundary between rubbish and non-rubbish is not fixed but moves in response to social pressures means that new elements may suddenly appear within his field, whilst others may suddenly disappear in an equally distressing and inexplicable manner. All he can do is sit there and marvel, 'like some watcher of the skies when a new planet swims into his ken'. Again, with a little more work the anthropologist can do much better than this. For if he can unravel the social forces behind the boundary shifts, he can write the equations for these new planets and predict their appearances and disappearances within the economic sky.

There are at present many millions of pounds and many millions of votes in the Environment and in the Quality of Life. Whichever academic discipline can lay the most convincing claim to these fields will reap a rich harvest indeed.

## 2 Stevengraphs—yesterday's kitsch

The basic idea in rubbish theory—the initial hypothesis—is contained in the diagram of the three categories to which objects can be assigned and of the controlled transfers between them. What is needed now is a good worked example: a detailed description of the progression through this category system of some particular physical objects. Victorian woven silk pictures recommend themselves to me for three reasons. First, since they have only recently arrived in the durable category, the aesthetic and financial somersaults that people have had to perform, either in bringing the transformation about or in coming to terms with it once it had happened, are still quite fresh in their memories. Second, I have, quite fortuitously, some personal experience of the earlier stages of their transformation. Third, they have quite recently been the subject of a detailed study by Mr G. A. Godden. His excellent book<sup>1</sup> relieves me of the tedious task of having to collect most of the historical data before I analyse it.

At the York Exhibition in 1879 an enterprising Coventry manufacturer, Thomas Stevens, exhibited a Jacquard loom in full working order and on which were woven, before the very eyes of the assembled visitors, brightly coloured silk pictures depicting Dick Turpin's ride to York on his bonnie Black Bess and the London to York stage coach. Those anxious to carry away a souvenir of the exhibition were able to purchase these woven pictures, complete with card mount, for a shilling each.

There was nothing particularly novel at that time in either the Jacquard loom or the mechanical weaving of pictures. As early as 1840 elaborate woven pictures featuring both the Jacquard loom and its inventor were being produced in France. However, most of these early pictures were in black and white, and it was not until the success of Mr Stevens's gimmick at York encouraged him to start producing

<sup>1</sup> Geoffrey A. Godden, *Stevengraphs* (London, 1971).