Introduction

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Engaging Art

There is a flourishing economics of the *arts*, while studies also abound of art *objects*, especially the production, rewards to their makers, and investment value thereof. All that, however, has arisen in the past four or five decades; historically, economists have not had much to say about art. Or so we were told by some colleagues who were sure we were mistaken in wanting to hold a conference on "Economists and Art, Historically Considered."

The Supposed Exceptionalism of Art

The warning had some warrant. The single most consistent interest displayed by economists across the centuries has been in pricing, and the valuation of art has generally been considered problematic for economic analysis. Why should this be? A painting — we shall be mostly concerned with painting in this volume — is a durable good, and it yields services during its lifetime. The stream of yields, it is usually argued, can be compared with those from a riskless bond. It is true that the yield from owning and holding a painting is not registered in money terms. The benefits may reside in a painting's being regarded as valuable for aesthetic, instructional, or inspirational reasons; or it may be viewed as a means to distinction, or whatever else gives its owner pleasure (see Grampp 1989, 38). But for as long as it is held (neither sold nor discarded), the opportunity cost of its services has a lower bound set by the yield on the bond. As to the price it will fetch when it is again put on the market, in principle the same or a similar list of things that made its possession worthwhile are also relevant at resale. The weighted value put on all those factors by the market may differ from those that influenced its initial buyer and holder, and the "market's" view may have changed even if originally it coincided perfectly with the buyer's. Nonetheless, there will be a price at market, determined by the prevailing consensus among expert and interested parties (32). But if the prices of paintings are determinate, whence arises the widespread conviction that the pricing process itself is problematic?

We get some clues by looking at what economists and others have said over the years as to why art must be considered something out of the ordinary. At its clearest, the problem has been posed in this way: Even if the prices of paintings are determinate, do those prices obey the usual rules, or indeed any rule? First, then, what are the usual rules governing pricing? We may usefully begin with Ferdinando Galiani's views. All things, he insisted, are subject to order, and the general rule for valuation is that prices are due to scarcity and utility ([1751], 1923, 283). Even unique objects are no exception to this rule. Their prices, however, are determinate only to within a range. The lower bound is set by "the esteem of the seller" (in modern terminology, the seller's reserve price), and the upper bound by "the needs or desires of the buyers" (296). This rule holds, Galiani insisted, despite the fact that value will vary according to circumstances: "Values are varied, but not capricious" (294; see also 296).

Galiani nonetheless allowed one exception — fashion, which he judged "an affection of the brain," peculiar to Europeans (294). Although fashion does not affect objects universally agreed to be beautiful, such as gems and the precious metals, all others are subject to its influence. This set up a tension that Galiani himself did not resolve: for if fashion affects the esteem and desire for art objects, and fashion is understood in terms of disease, whimsicality, or irrationality, then the order in art prices may be difficult to discern, much less understand.

Adam Smith (1982, 358) made Galiani's account somewhat more precise. The expression of desire, he maintained, is conditional upon wealth, while the prices of unique objects are fixed by the selling method applied to such things, the auction. Consider a unique object that happens to take the fancy of two potential buyers equally. Its price will be determined by the relative power reflected in the buyers' respective means or "abilities." "The case is here the very same as at an auction": the highest bid will secure the object, and it will tend to go to the richest since "he is best able to bid high[e]st."

Michael White's chapter in this volume enables us to add nineteenth-century contributions to the discussion. He explains that Nassau Senior, like Marshall much later in the century, seems to have taken the grain market as the exemplar of a market where supply is temporarily fixed. Just as grain prices can be subject to speculative pressures because of the irregularity or uncertainty of supply, the prices of art objects, Senior suggested, "are subject to no definite rules"; they bear a "fancy price . . . a price depending principally on the caprice or fashion of the day."

Both Jevons and Marshall examined whether the two available theories of price — the cost of production theory, and the final degree of utility theory — can cope with unique objects. For the sake of brevity, I combine what are really two distinct lines of argument. If the prices of such objects are essentially "fancy prices," driven by desire, then the cost approach clearly fails. However, since unique objects (for which Marshall cites as example "old master paintings"), like labor, exhibit an all-or-nothing character on the supply side (supply is either one or zero), then there is no final degree of utility. No demand curve, therefore, can be drawn, and certainly not one undergirded by marginal utility thinking.

Jevons reluctantly acknowledged that art appeared to be an exception. Marshall also drew this inference, but he put the emphasis not on uniqueness but on the special character of art objects — that they "cannot be 'graded' at all" (cited by White, this volume). This caused fancy prices to be "a matter of accident," driven by the happenstance that a person of wealth attends an auction and is drawn to a particular object. Unique art objects certainly constitute an exception, Marshall concluded, but all art objects acquire their market values as a matter of accident; there is no theoretical rule that we can apply.

There is a single line to these observations. Galiani's strong hint of irrationality in art prices differs from both Senior's concern that speculation may control them and Marshall's ascription to them of a purely accidental character only in terms of where the emphasis is placed. Galiani was most impressed by the power of fashion to render things of no value simply because they happen not to be new, novel; Marshall was impressed by the fact that the price of the same object might differ in successive auctions. These views are still current. White refers to William J. Baumol's (1986, 10) well-known judgment that the prices of art objects are "inherently rudderless"; there are no "reliable forces pulling the actual prices" in the direction of an equilibrium determined, in the classical way, by responsiveness of supply. Investing in paintings therefore has the character of a "floating crap-game."

What is truly curious about this story up through the nineteenth century is that the pricing of unique art objects lost its status as a valid subject of scientific investigation *because of* clarifications in economic theory. It was against the background of the most refined understandings of cost of production and marginal utility theories of pricing that the case of the unique object had to be deemed exceptional. But even in the eighteenth century, when strangeness and unaccountability rather than a clear set of analytical options defined exceptionality, art seemed not to fit.

Suspicion of Auctions

In part, this might be ascribed to the bad name carried by art auctions in England at the time, when they were quite unregulated. Contemporaries complained that their effect was to bring "loss to the fair Trader," "to take in the Ignorant or Unwary"; their prices, it was also said, followed "irregular Motions" (Pears 1988, 65). Much of the complaining may be ascribed to a widespread conviction that auctions were rigged — in particular, that the auctioneers made a practice of "puffing," including falsely bidding up prices with the assistance of henchmen in the audience, but also of advertising copies as originals.

This may have continued to Marshall's day. But that would not have stopped him from investigating auctions under ideal circumstances. A great deal has changed in art auctions (and antique auctions generally) over the past few decades, bringing the practice closer to ideal conditions. Problems of lack of information and of asymmetric information (about quality, for example) have been addressed in practical ways. Auction houses now stand behind what they offer.[1] This, as well as dis-

1. This refers to property that may turn out to have been stolen and in general is meant to protect the buyer against fraud. Auction houses are careful to protect themselves against liability in matters of attribution.

closure (of the lower bound of reserve prices, and of experts' pre-sale price estimates) has tended to widen participation and in the process probably has reduced the prevalence of blatant "rings" to be formed by members of the "trade."[2] In some locations, prices of art on sale must now be posted, and many are now available on the Internet, reducing the potential for unwarranted disparities;[3] moreover, on-line auctions have started, reducing those accidents of attendance that so troubled Marshall.

Analyzing Taste

Baumol's problem differs from Marshall's, though it is a natural extension of it. Baumol was interested in whether art might be considered a sound investment in strictly financial terms, but he was drawn to the conclusion that other factors appear to play the major role. What might those other factors be? In the eighteenth century they would have been bundled under the rubric "wants of the mind" or of the imagination — "capricious" or "unreasonable" demands in Smith's terminology. Imaginary needs are not subject to the same rules as strictly bodily needs, and for that reason they have always been a bit suspect. To describe them as rudderless is just a new way of saying they are at the mercy of whatever it is that moves "tastes" or "fancy."

But if the cost of production theory no longer anchors "market" prices — though it still did "natural" price, for Smith — then one needs a theory of taste. As Horace Walpole in 1779 explained to a friend, there is indeed an "imaginary" component to the prices of old paintings (quoted in Pears 1988, 103). It was Walpole's opinion, moreover, that

2. Legislation has not proved effective against buyers' rings, and gentlemen's agreements among insiders still operate, but wider participation outside the trade may have lessened their power to affect outcomes. It is part of the commercial code in the United States that a sale will be with reserve unless explicitly announced otherwise, and Christie's, New York, actually advertises that the reserve will not be below the lower presale published estimate. Considerable research has been conducted into the "efficiency" of presale estimates. The evidence is mixed, but it seems fair to say that if predictions are not fully "rational," they often come close. Certainly there is not the total absence of order in pricing suspected by some of our nineteenth-century observers.

3. New York State law requires that dealers post the prices of art objects on sale, a requirement that encourages obfuscation as to what exactly is on sale. ArtNet, however, publicizes selling prices and enables potential buyers to inquire about differences that seem unwarranted. (Weisberg 1999 gives some casual evidence of price differences for the same print on offer being narrowed in this way, and one would expect the effect to become much stronger.)

the high prices he had observed in the mid-1770s were due to "opulence and rage for virtu" (103). This rage for virtue, meaning taste or excellence, combined several strands. These included revivals of Greek notions of propriety and beauty, of classical rules governing poetic composition, and of the mid-seventeenth-century French view that the highest aim of a painter should be to represent poetic conceits, preferably in an elevating manner. Auctioneers and dealers could not control such movements of thought; at most, they could play along with them. So in this instance the forces affecting the market prices of paintings were outside the control even of the direct players in the art market. Galiani's suggestion about the role of fashion made thirty years earlier was a generic form of that diagnosis; and Baumol's use of the descriptor "rudderless" is just another way of saying that economists feel at a loss if prices reflect influences for which economic theory supplies no explanation.

But eighteenth-century "economists" did not all feel that way. Indeed, many among them — particularly Scottish, but many English thinkers, too — thought it both important and possible to investigate taste as part of moral philosophical inquiry. For writers and thinkers such as Richard Steele, analyzing taste was a matter of finding categories in terms of which criticism might proceed. Taste was part of rational discourse and was shaped by communication. "It is a very good service one man renders another," he wrote," when he tells him the manner of his being pleased" (quoted by Bryce, editor's introduction to Smith 1985, 29). Hugh Blair, Adam Smith's student in Edinburgh in the late 1740s, and subsequently professor at the University of Edinburgh, added important nuances to this. Taste, Blair seemed to argue, in effect comprises the capability to criticize appropriately, while such just criticism depends on understanding the manner of manufacture of the object of one's criticism. In his own words: "Whatever enables genius to execute well, will enable taste to criticise justly" (quoted by Brice, 29).

Taste, criticism, and the knowledge of how things are made were all related in Adam Smith's theory of preference. The "ground of preference," he suggested, is to be found in the pleasure we derive from four characteristics of objects: their form, color, rarity, and ingenuity of design and manufacture (their "imitation") (Smith 1982, 337; LJ B, 488). Smith is here principally concerned with objects of "art," meaning goods contrived, rather than naturally available to us. Taste and criticism enter because the sensual and mental pleasures we enjoy from objects made are inevitably matters of degree, and this will vary with the nature and measure of form, ingenuity, and so on. We must try various forms and judge their effects. Thus, repeated simple forms, for example, quickly bore us; but forms so complex that they cannot be grasped at a glance merely confuse and decrease our pleasure. There is a range, then, from the simple and repetitious to highly elaborated figures, and in that range pleasure at first increases, then diminishes. Appropriate form, it follows, lies within the range and enables us to maximize our pleasure. Comparable stories can be told of two of the other characteristics of contrivances that yield us pleasure: color and ingenuity. Rarity, however, is prized for the distinction it brings an owner, and it is not clear that this pleasure has a maximum.

David Hartley (1749, quoted in Ashfield and de Bolla 1996, 103), Smith's contemporary, suggested that the problem of declining pleasure can sometimes be avoided altogether, or at least staved off for long periods. For example, a scene that gives us great pleasure can quickly become familiar, but if we allow intervals of time between viewings, we bring to each one a different state of mind, and we can attend to different elements of the scene at each viewing. Here our pleasure is renewed, the familiar is made novel again and again, and we are thereby enabled to sustain the maximum of pleasure.

Is this analysis really of importance? Smith (1982, 336–37) thought so, because it explains choice and division of labor. We desire novelty; moreover, we seem driven to make unceasing refinements upon things naturally available to us. These two drives, in turn, become the basis for our preferences among objects, turning them into "goods" for us. To gratify our preferences — our "frivolous distinctions and preference[s] in things otherwise equall"— almost all of the arts and sciences have been invented. It is preferences, then, which decide directions of specialization and invite division of labor, while division of labor is the main determinant of growth in income.

In short, taste for the eighteenth-century British man of letters was not obscure, unimportant to material concerns, or incapable of being analyzed. It was a natural focus for (a) characterizing objects, (b) understanding what it is about them that makes them goods to us, and (c) assessing how well they satisfy us in this or that configuration of their characteristics. In addition, and because of the links between preferences, choice, and specialization, it was a wholly natural preoccupation for economists.

Nonetheless, this interest in preferences and taste has been lost from economics, though it survived outside the economics discipline, in nineteenth- and some twentieth-century psychobiological research, in the work of Wilhelm Wundt and D. E. Berlyne (see De Marchi and Van Miegroet, this volume). In art criticism, however, a similar interest both preceded that shown in it by people like Smith and was refined in the late seventeenth century in ways that make it very accessible still. The initiator of this "modern" form was Roger de Piles (1635–1709), French art critic and adviser. De Piles saw clearly that taste or criticism involves two processes. First, we must develop categories that reveal the "art" of an object, or characterize it in terms that enable us to know it for the thing it is — a poem, a painting, a cloak. Second, we reveal our taste via just criticism: by evaluating in appropriate ways the measure in which any particular object displays the characteristics of its family sort. These evaluations may reflect our personal biases, or those of a whole group, but in either case to be just they may not be arbitrary.

De Piles (1708) constructed a famous table in which he evaluated the performance of fifty-six of the most prominent painters, on a scale of one through twenty, in each of four characteristics: design, composition, coloring, and expression. These characteristics summed up the "art" of painting, while the evaluations expressed a particular taste.

Figure 1 is an adaptation of this table to diagrammatic form, with the four characteristics listed along the vertical axis and the scale of values along the horizontal. Individual paintings, as well as artists, can be diagrammed for comparative purposes in this two-dimensional space, though the categories will not be fixed for all time or be appropriate to all paintings. My two-dimensional construct compares two seventeenth-century painters, by way of illustration. One, Nicolas Poussin, worked in the classicized Italianate mode popular in official Paris during the second half of the seventeenth century. The other, David II Teniers, a Flemish court painter to Archduke Leopold Wilhelm, regent of the southern Netherlands, made works of many sorts, including peasant scenes. His peasant scenes, in particular, disobeyed many of the precepts followed by Poussin. I have used de Piles's numerical valuations in each case.

Without going into more detail, it should be evident that this adapted de Piles construct does several useful things. Each line defines

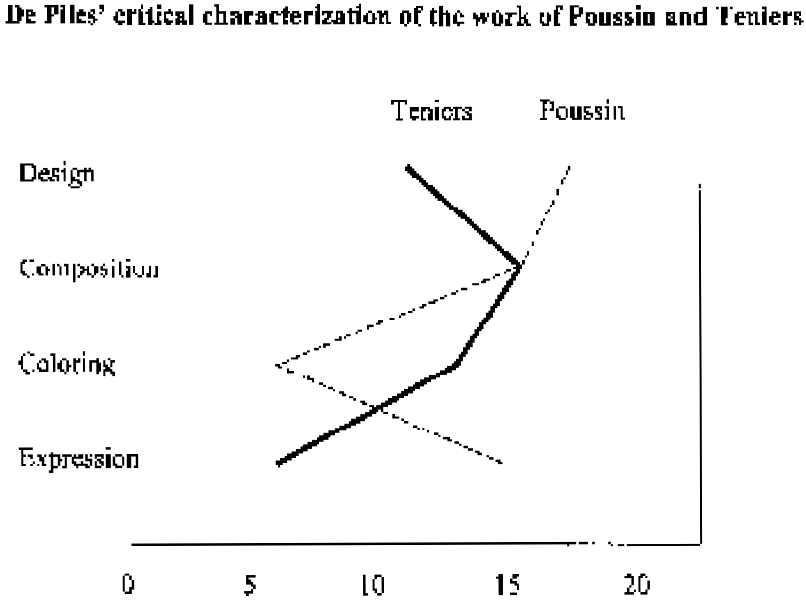

Figure 1 De Piles's critical characterization of the work of Poussin and Teniers

the critical reception of painting of a specific sort, according to a particular taste. This critical reception is defined in space relative to "perfection" (here shown by the right-hand vertical). First, then, we are able to depict both the familiar and the acceptable in terms of our two dimensions. The farther to the left the line describing performance in a particular painter or a specific work lies, the closer it is to being outside the range of the familiar, the recognizable, the acceptable. Second, it is because we possess analytical categories — the characteristics — that we can compare various individual versions of the art of painting. That is what a comparison of any two examples of painting involves, and such comparisons lie at the heart of criticism. Without the abstract categories, no criticism would be possible since no mechanism for comparing would exist. But such comparisons can also be stretched to include radically different versions of painting — the novel and truly innovative versus the conventional or the fashionable, for example. In other words, and third, the construct shows us just how much ground has to be covered, and in which directions, before the radically new can become the familiar and accepted. In these three ways the diagram becomes a flexible instrument embodying the notion of just criticism and expressing both familiarity and difference.[4]

Whether or not de Piles's prejudices were shared, his technique for comparison and criticism found immediate acceptance in Great Britain. Jeremy Bentham (1827, 81 n.) observed that "copies after copies" of it, adaptations galore, had appeared over the course of the eighteenth century, including "a tabular sketch exhibiting some of the most eminent characters amongst the judges and lawyers of the day." Smith took direct from de Piles the categories he used in his own discussions of painting (and paintings) in his lectures on rhetoric and belles lettres. Hester Thrale, friend of Reynolds and of Samuel Johnson, in a more playful exercise not meant to see the light of day, applied the joint notion of categories and assessment to the various members of the Johnson literary circle. She compared them on such characteristics as their knowledge, wit, religious conviction, manner, humor, and so on (Balderston 1942, 1:329). Bentham himself, in his *Rationale of Judicial Evidence* (1827, 81 n.), recommended de Piles's method for improving the way witness testimony can be weighed. He greatly admired it, as being "among the first" attempts at putting numbers to "psychological quantities."

The de Piles method has reentered economics in recent years, through the approach to choice of Kelvin Lancaster (1971, 1991). Lancaster has proposed that objects be analyzed into characteristics and that preferences be thought of as being formed over bundles of characteristics. In work based on his suggestions, characteristics are allowed to be present in varying degree. In turn, hedonic price indexes have rendered operational the idea of choice over characteristics, and hedonic regressions are now frequently used in attempts to account for variations in art prices. Nonetheless, this differs from the critical tradition in which price, far from being the variable to be explained, is just one characteristic of an object. Even if price is not considered to be an aspect of the "art" of painting, it may well be a defining characteristic

4. On all these things, see the work of Bianchi (1998, 1999), who has done the most to develop and apply to the economics of goods this way of thinking, which she calls, following Kress and Van Leeuwen (1996), a "markers of modality" approach.

for various specific types of painting. De Piles did not introduce price into his table, but in negotiations for securing paintings by Rubens for his client the duc de Richelieu, price certainly figured prominently in the assessment. Focusing on characteristics and on on price as *the* variable of interest, however, clearly contains the risk that we lose sight of the object as an entity, and of the question why some objects become goods to us.

This touches on a more general problem, allusions to which have been scattered throughout this account: we need to know how at least some of the objects available to us come to serve as *goods* in the sense that they meet our wishes and needs. Brian Loasby (1991, 28) reminds us that this was a concern of Carl Menger's, but he expresses it in his own words as the need to recognize that "goods are not basic; there are no goods without knowledge." Goods not only have to become goods but also can lose their goods status with us; to understand either process, we must possess knowledge of their characteristics and of the pleasures associated with each. The de Piles–Smith approach helps keep this in view.

In other words, there are still things of importance to be extracted from the critical approach. Not the least of these is the retrieval of the analysis of art preferences from the limbo into which economists are apt to cast them when intuitively reasonable explanatory variables fail to account for very much of the price variation of art objects.[5] Certainly, the eighteenth-century experience suggests that tastes can be coherently addressed and need not be relegated to the realm of the irrational, the whimsical, the accidental, or the wholly incomprehensible.

Art and Economic Theory

The contributors in this section did not go so far as to construct a framework for understanding taste. In fact, what most of them do is reinforce by example the impression that economists have long found art to be troublesome — not, in this case, that art prices know no rule; rather, that there is a gap between what the theory of price can *explain*

5. The results of hedonic regressions not infrequently show that not much of the variation in prices of art objects can be accounted for by "style" or "aesthetic" characteristics. However, this might reflect measurement problems rather than that buyers are not interested in these things or that choice is unaffected by them.

and the sense that value is created by art. This is the gap of knowledge that Menger was hoping might be filled by economic analysis. In fact, the modern positivist movement in early-twentieth-century economics altogether eschewed such exploration. The eighteenth-century practice of analyzing taste as a process of criticism and evaluation offers one way to narrow the divide, though it was not the solution chosen by any of the individuals studied in this section.

Zarinés Negrón's short note on Francesco Pacheco, teacher of Velasquez and artistic adviser to the Holy Inquisition in Seville, brings this out, though indirectly. She shows Pacheco probably borrowing from the School of Salamanca and formulating a sort of "just price" view of the pricing of necessaries. Painting, however, is not a necessary, and Pacheco finds it appropriate to stress that there are in paintings, and in the activity of painting, certain "intrinsic" qualities that require a modified formula for judging whether price is proper. What he looked for in addition to market factors, however, was not fashion, but "nobility" — that of the subject and of the artist's profession — and truth, which religion supplied as a complement to classical and humanistic ideals of beauty and human aspiration.

Bertil Fridén has Rousseau offering an account of the value of art, hence of paintings, that is similarly couched in terms remote from the language of the market. Rousseau's account is tempered by his awareness of ordinary human passions, but there are elements that bear directly on our inherited economic theory. For Rousseau, because paintings are non-necessaries, their *prices* turn out to be set quite arbitrarily. This is not because of fashion, but because fine paintings have envy value. Since quality (fineness) is judged by price, a high price invites envy and thus begets still higher prices. At the same time, art is at the core of the true riches of a nation. This is because to appreciate it requires the same imaginative (and projective) faculty as drives Smith's moral device, the impartial spectator. Art thus becomes an agent of morality and of what Rousseau calls the "social optimum."

Fridén concedes that Rousseau's economic views are more like flashes than worked-out theories, but a number of these flashes are tantalizing. One is Rousseau's notion that for art to become part of true riches it must be rendered exclusive. This is not a difficult requirement, since an ordering subject is required to personalize all possessions, paintings and other art objects included. Uniqueness, or active personalization, becomes Rousseau's paradigm for use. He therefore emphasizes what we might think of as the non-satiation condition rather than the diminishing marginal utility aspect of consumption. Fridén refers in this context to Marina Bianchi's (1998) elucidation of the potential for increasing utility in consumption as consumers re-order and so in a sense re-create their goods.

The next three essays are all in varying degrees concerned with Jevons. Jevons had trouble with art. We have referred already to Michael White's discussion, showing that Jevons could accept neither the cost of production account of the price of unique objects nor his own final degree of utility theory. Without marginal utility or, in Marshall's version, because art objects are not easily graded, there could also be no demand curve. Comparisons based on quality might be made, but then it is the ranking procedure used that accounts for the demand curve, not marginal utility theory. The upshot, Jevons ruefully concluded in his *Principles of Economics*, was that there could be "no approach to rule or congruity" in such cases. "No consideration of cost of production or utility can apply; the arbitrary fancy of some monarch or wealthy person is the only rule." We are back with arbitrariness.

Harro Maas extends White's analysis, suggesting that, had Jevons drawn a utility of labor diagram for the artist (or philosopher, or creative scientist), the result would have been equally disturbing to his utility theory, for these occupations can yield ever-increasing satisfaction. But then truly inventive capabilities, too, Jevons thought, are inexplicable, just like the prices of art. Perhaps as a way of salvaging something from inexplicability, he separated the creative few from the many and insisted that, for the latter, mental powers should be thought of as just as mechanical and routine as manual operations. Routine labor, moreover, was a necessary discipline, and therefore the factory system, despite its acknowledged social ills, was also valuable. The great social problem remaining was how to routinize in the same way the leisure time of workers — above all, to prevent the mental wastage caused by drinking and "riotous and vicious assemblages." Jevons's solution here was music — not the music of high art, but the music that conduces to absence of thought: literally, tranquilizing music. Maas sets Jevons's view alongside the view of routine labor held by John Ruskin. Ruskin deplored the crushing of the universal creative impulse that resulted whenever labor was required to perform like a machine: to be as accurate as tools, precise, and in every way perfect. He therefore wished to undo the factory system altogether. The contrast could not be greater.

Bert Mosselmans and Ernest Mathijs offer a rather different perspective on Jevons. Basing themselves on unpublished manuscript material by him, in particular fragments and a chapter on music from what they conclude was part of his project for a "science of man," they find evidence that Jevons considered music and some of the other arts to have an intellectual component. Although Jevons thought of much music as being just a temporary distraction from other preoccupations, a kind of tranquilizer, Mosselmans and Mathijs stress that he also insisted, even if in terms that remain somewhat obscure, that music pertains to the "essential" pleasures of humankind and that the higher sorts of music, like poetry and mental pictures of beauty, involve both "memory and understanding." The essential pleasures are those capable of elevating the human spirit. Jevons seems to have had in mind here the traditional hierarchy of genres of the connoisseur of painting. In this ranking, "history" paintings (biblical and mythological) — which represent some poetic conceit pertaining to the human condition, human aspirations, or achievements — stand highest; scenes of everyday life and still life are lowest, and portraits lie somewhere in between. Indeed, poetry stood very high in Jevons's estimation, as did music with words. Both convey emotion, and both approach, though they remain below, science and metaphysics, perhaps also religion, as supplying objects of contemplation.

Jevons appears to have been groping toward categories and distinctions that had been common in the eighteenth century. One of these is the distinction between surprise (or wonder) and admiration. He spoke of the pleasure and of "a sort of confident moral strength," which arises on encountering anything — music, poetry, scenery, perhaps an architectural or engineering work — that holds "a degree of fresh interest, beauty or grandeur." These feelings do not last, though Jevons also considered that a "sense" for music, once developed, becomes part of a person. Perhaps this was something like the "habitual" human capital of George J. Stigler and Gary S. Becker (1977, reprinted in Becker 1996). Jevons's notion of transience in pleasure may be compared with Adam Smith's suggestion that the pleasure of surprise we feel when we encounter objects of beauty or grandeur is probably at its maximum at the very first moment of encounter, after which it declines. But Smith also held, in language more focused than Jevons's vague suggestion about an appropriable "sense," that as mere wonder gives way to awe, respect, admiration — above all, understanding — so pleasure increases again. For Smith (1985, 69), however, this pleasure also reaches a maximum, after which it declines. David Hartley, as we have seen, offered an alternative to this last and at the same time a different possible challenge to Jevons's notion that our pleasures are transient. This sort of insight has recently been incorporated — in this case by Becker alone (see 1996, 119) — into an expanded notion of preferences, in which what are short-term substitutes become, with time lags, "complementarities" of consumption. The latter can involve increasing marginal utility (78). Rousseau's hint about increasing satisfaction in consumption through personalization of goods and the ways we connect goods in use seems to lead in the same direction.

Should we read Jevons as having wanted to make concessions to the power of fancy without quite knowing how to knit an eighteenth-century analytical approach to taste with late-nineteenth-century price analysis? Mosselmans and Mathijs give us one clue that this may have been the case, but leave its interpretation open. They draw our attention to an unpublished note by Jevons in which he observed that, while it may be useless from a utilitarian point of view to produce objects of agreeable and beautiful shape yet, as we have become more and more refined, so "more and more *value*" (my emphasis) has come to depend on such characteristics.

Craufurd Goodwin's contribution explores a set of fascinating attempts to come to grips with just that sort of observation. Roger Fry, art critic, friend of Keynes, essayist on art and civilization, and a figure of some importance in the art market and art world of the first half of the twentieth century, simply accepted that art increases "value" and ran with the idea. So also did two somewhat younger men whom Fry influenced greatly, Clive Bell and Kenneth Clark. But they understood value in a sense that transcended the market. All three held that art is the great carrier of human progress, though each defined advance in the human condition in somewhat different terms. If it is fair to combine their views into a single proposition, they stood for the notion that civilization lies with the imaginative life. That is where one finds science, contemplation, and art, each pursued for its own sake. Applications of social value may not be obvious or forthcoming in the short run, but both independence of spirit and true creativity reside in the imaginary life. And there alone genuine aesthetic emotion is communicated between artists and the consumers of art. The tension that seems to have tormented Jevons, Fry, Bell and Clark held, must be resolved in favor of what Walpole had called "imaginary," rather than utilitarian, value.

Though Fry might have disagreed, it seems plain that he (and the other two) stood in the same tradition with respect to the roots of civil izing progress as Mill, the tortured Jevons, their own friend Keynes, and Lionel Robbins (as Márcia Balisciano and Steven G. Medema show in their chapter in Part II of this volume). But Fry did not experience their struggles in reconciling this conviction with costs and efficiency—the concomitants of scarcity. Fry simply relegated economics to the realm of survival and the struggle for basic goods, a solution Keynes also adopted, though he viewed the downgrading of economics as a realistic possibility only for the world that would be inhabited by "our grandchildren," *after* the problem of scarcity had been solved.

Like Keynes, Fry was at various times a serious player in the art market and knew better than to think that art could simply ignore the market. He had a great deal to say about the constraints and assistance the market gave to art and artists, and he dwelt at length on those aspects of the market that public and private initiatives needed to understand better and exploit, to the advantage of the imaginative life. Goodwin suggests that Fry would like to have found in psychology an account of the creative moment and of the transformation of artistic insight into product—a sort of psychology of art supply. Since none was developed, he turned to the demand side and gave us a detailed typology of consumers of art, which Bell applied to public policy toward the arts and Clark applied to the evolution of art and civilization. Fry's key category of consumer was the middle-class aesthete, a group whom he believed could be nurtured to perceive and to want genuine art. The implications for public policy toward the arts are not entirely clear, and there seem to have been differences of emphasis between Fry, Bell, and Clark on this end of things. But Fry's free use of a supply-and-demand framework, unhindered by the strictures applying to "deeper" explanations of price, makes refreshing reading.

Art and Economic Policy

Policy is the focus of the next group of five essays. Two of these address British concerns, two detail American concerns, and one offers us a political economy perspective of part of the Hilton hotel empire.

Helen Rees notes the conflicting pressures experienced by British landed families in the final decades of the nineteenth century and shows deftly how these shaped a debate over private responsibility in respect of property — pictures — that the nation had begun to regard as part of its patrimony. After centuries during which aristocratic virtues of stability and disinterestedness had been reinforced by legal constraints on the settlement of property, a sustained agricultural depression had strained the resources of many families. The Settled Lands Act of 1882 allowed for the first time, and under certain conditions, the sale of land and "hierloom" property. This brought much-needed relief, but it also "signaled a decline in both the usefulness and the authority of land, and by implication, in the aristocratic virtues." Then, and as part of a wholesale revision of inheritance taxation, the Finance Act of 1894 imposed graduated death duties, but in the process made available a pretext — fiscal pressure — "to justify the disposal of property that had been facilitated by the . . . Act."

In the twenty-five years to 1915 hundreds of "important pictures" left Great Britain, many sold by landed families under the new dual conditions of enablement-plus-incentive. Two much publicized examples, Rembrandt's *Mill*, which was lost, and Holbein's *Christina of Denmark*, saved at the last minute after a successful public appeal, concentrated attention on the "Old Masters problem." A committee to inquire into this question was appointed by the National Gallery, under Lord Curzon. This committee addressed the problem as one of bringing together a new coalition between owners (the declining landed interest), experts (the art business), and the nation (represented by the state-appointed keepers of the patrimony, the National Gallery Trustees). The committee recommended that property rights be respected by allowing the trade in paintings to be unfettered. But as a concomitant of this, the state should provide the means to buy paintings at risk of being exported, funds being supplied with the help of a new tax on sales at auction, and the earmarking of death duties payable on works of art. Fry was among the witnesses who appeared before the committee.

Two chapters by William Barber follow. The first recounts the history of U.S. tariffs on imported art, to 1913. Unimportant in the larger picture of protection against industrial imports, the U.S. tariff on imported art nonetheless came to be regarded by the arts community as "a litmus test of the government's posture toward the nation's cultural life." The tariff dated from the founding of the Republic, but it was investigated anew as part of a general tariff review, in 1882, the same year as the Settled Lands Act in Great Britain. The coincidence is doubly striking since the outcome of the investigation also had implications for the "Old Master problem" in Britain. The tariff probably prevented some works from leaving for the United States. The committee to inquire into the tariff heard arguments of extraordinary variety, including a view to the effect that the then-prevailing duty, at 10 percent, was too low. The argument was that a low duty plays into the hands of those who think American art inferior. Dealers who, with a 10 percent duty, continue to flood the American market with cheap and inferior European imports, claiming these as significant works warranting a price that included the tariff, would be deterred by a 40 percent tariff, to the benefit of local artists.

The committee of experts recommended a general reduction in tariffs, but Congress saw fit to raise the tariff on imported art to 30 percent, and this position survived challenge until, in the mid-1890s, the duty was suddenly dropped to zero. This was reversed in 1896, and a duty was reinstated, at 20 percent, though with the traditional exemption for works by American artists abroad. The rate was reduced to 15 percent in 1909, but there was also an important new provision: works over twenty years old were added to the free list. This meant, however, that only contemporary art was penalized, and a further campaign, headed by canny and well-connected lawyer-collector of French avant-garde paintings, John Quinn, resulted in new law exempting all "original" works of whatever age.

There are several nice aspects to this history. For a long time, as Barber notes, artists were advocating free trade in paintings, but the politicians, perhaps unaccustomed to an industry asking *not* to be protected, did not hear. Equally curious were the arguments that were unconsciously resurrecting older debates. One, already discussed, in connection with the 1882 review, urged that a low duty merely encouraged unscrupulous dealers to import "bogus pictures" but pass them off on the ignorant as paintings worth paying the tariff to acquire. Here quality was ostensibly at issue, but the real point of the argument was that the low tariff was fostering the prejudice that modern American paintings were inferior to older European works. Local artists suffered unnecessarily from this prejudice, and the low tariff made their situation worse. Virtually the same scenario was played out in Amsterdam in

1608, when dealers from the southern Netherlands were said to be importing bogus paintings—"mostly copies," "poor student work," "mere trash"—and selling them (in this case illegally) "far above their worth" to those unable to judge quality (De Marchi 1995). In Amsterdam, prohibition rather than a higher tariff was the solution advocated. But this is a difference of degree only between the two situations; the circumstances, and the response, were the same. As in the American case, quality was ostensibly what bothered the Amsterdam artists; protecting their livelihoods was of greater importance.

Another twist is to be found in the argument that leaving a duty only on contemporary work was a mistake since competitiveness in products required that a country be open to all currents in design. A similar argument, though in reverse, was employed in England several times during the first half of the eighteenth century. If prints facilitate the dissemination of industrial design, a group of British designers argued in 1735, then designers who publish their own prints should be protected against pirate printers. Such protection would help ensure that only the best versions of a design would be made public and that British luxury products would remain preeminent (Clayton 1997). Circumstances here clearly differed, but there is also a common element: a real or supposed threat to national competitiveness. In the American case, this arose supposedly because the tariff on modern works needlessly hindered access to good, recent foreign design; in the British case, the threat allegedly emanated from a failure to protect the domestic inventor-publishers of original work.

Yet a third curious element in the American story is that, as Barber points out, when Congress agreed to eliminate the discrimination on recent works, not by making them free goods but by exempting all "original" art, it was in effect embarking on a form of quality control. Direct quality control was a medieval concern of guilds, but as the guilds declined in influence and as cost of materials became a less important component of price, quality came to be most conveniently measured simply by a work's having been made by an accredited master. Originality was reserved as the province of masters, an acknowledgment of the inventiveness they had acquired through long honing of taught skills. Claims on behalf of ingenuity became, in this way, part of an argument favoring "liberal" status for the art of painting and an implicit claim on behalf of preserving traditional master-journeyman payment differentials in a time of declining guild authority (De Marchi and Van Miegroet 1996). In modern America, the equivalent claim (even if only implicit) was for some sort of professional, or at least status, recognition. Congress's apparent intervention on behalf of quality, then, in fact amounted to acknowledging that there is a difference — all measurement difficulties aside — between the creative artist and the mere copyist, and that creativity should not be discouraged.

In all three instances singled out here, and allowing for differences of circumstance, there seems to have been something at work like spontaneous institutional regeneration. New rules for the market game are not tried once only, it seems, but reappear, perhaps in modified form, as conditions require. The regulations and institutions of the art market are no exception.

Barber's second contribution chronicles U.S. federal government patronage of the arts during the Great Depression. This account can also be used as a source for the spontaneous regeneration hypothesis, but Barber's own interpretation is that hidden in the history is a novel argument for state patronage. That case is usually made in terms of the "public good" character of art, an argument that many economists find not wholly convincing. But in the circumstances of the 1930s, Keynes urged the need for increased spending, even if this meant less saving in the short term. He also envisaged that redistributive taxation in favor of those who typically spent a larger share of their income would add permanently to the demand for goods and might help prevent the slump from acquiring a secular character. One downside to this, however, would be that the wealthy would be less able to act as patrons of the arts. Just as the state might be needed to centralize investment plans to avoid recurrent failures of nerve on the part of private investors, so, too, the state might reasonably be expected to pick up portions of this patronage function. Keynes used this rationale to support the Arts Council of Britain. The case for state support of the arts here is made in terms of trade-offs; it is not necessary to suppose that indirect social benefits flow from art. If sustained high employment is necessary for social stability, and this stability is incompatible with allowing the rich to keep the means to act as patrons, then state support of the arts may be part of the trade-off. This argument was not developed within the Roosevelt administration, which always saw public support for the arts as a temporary expedient; but whether it would have found broad support is doubtful.

An economist who at the time opposed Keynes on the nature of and responses appropriate to the Great Depression was Lionel Robbins. But Robbins also acquired a taste for the arts and urged that since the arts, like pure science, add quality and meaning to life, they are proper objects of state support. There are echoes of Fry and his followers here, though they opposed state funding as likely to be bad for quality. Moreover, Robbins imposed a double obligation on himself. First, he needed to find an economic basis for state funding, if one was to be discovered. Second, he needed to attend to the objections of those who, like Fry, feared that circumstances which are too cozy tend to be bad for the production of genuine art, and of those who asked why there should be any interference with the market. The theme of Balisciano and Medema's chapter is how Robbins found a point of balance for himself as economist and as citizen.

Robbins was not persuaded by the argument that attending to the aesthetic aspect of life will increase the national product. Indeed, though he appealed to Smith's third duty of the state — to erect and maintain certain public works and institutions not in the private interest — his defense of public support for the arts was made in terms of the need for "high excellence in culture." The case was equated with that for supporting basic research. Even if no claim can be made for immediate or material benefits, yet to insist that therefore basic research should be left to fend for itself simply made no social sense and suggested a poor grasp of the history of civilizations. Thus, although Robbins conceded that scientific economics might have little to say about whether art should or should not be financially encouraged, choices have to be made in society, and these cannot all be made using the insights of economics alone. Once having determined that state support is proper, however, Robbins urged that arts *policy* be conducted using all the insights that can be gleaned from economics.

In the final chapter of this section, Annabel Wharton invites us to consider particular aspects of the eastward expansion of the Hilton hotels chain in the Cold War 1950s. Certain politically and strategically sensitive countries were chosen: Greece, Egypt, and Turkey. As Conrad Hilton tells the story in his autobiography, the Hilton organization was encouraged by the U.S. State Department and the Department of Commerce to expand into "important world cities," as a contribution to the U.S. program of foreign aid. The exact intent, and the full extent of the encouragement, remain to be ascertained, though Marshall Plan funds heavily contributed to the Istanbul Hilton. In any case, powerful influences are suggested by the prime sites made available, the strikingly modernist Western designs used, and the extraordinary terms on which Hilton was able to build. He was able to select his own sites and architects and control specifications, materials and furnishings, while all costs were borne by the local owners, yet a third of the gross profits went to Hilton International with no capital investment. The Cairo, Istanbul, and Athens Hiltons were symbols of American culture and commercial prowess, beacons of these things to local observers, but also engines for meeting the needs of American business travelers and growing numbers of middle-class tourists. Thus Wharton refers to the hotels as architectural spectacles, which yet carried the message of a "modern aesthetics of quality" and of a "remarkably effective commoditization of space."

The Business of Art

The final group of contributors addresses how artists saw themselves and were regarded by others. Some also take up the matter of how the proper pricing of and spending on art has been considered historically, while several provide examples of making and consuming art, in both public and private ways, all with ties to economic thinking.

Toon Van Houdt asks why early humanists had relatively little to say about art and concludes that this had a lot to do with the way they viewed artists — as manual workers. This changed over the course of the sixteenth and seventeenth centuries, but a large gap remained. The distance meant that most men of letters were unable to discuss typical features of art or to capture at all adequately the multiple aspects of an artist such as Rubens, who was also businessman and diplomat, as well as something of a scholar in his own right. Nevertheless, Van Houdt focuses on a group of southern Netherlandish humanists from the late sixteenth and early seventeenth centuries, considering what they had to say about art under three heads: What was the social status and economic position of the artist? What did they say about the valuation of art objects? How was the consumption of art viewed, and along with it spending and virtuous princely conduct more generally?

In the early sixteenth century, artists were considered to occupy an intermediate position — between craftsmen on the lower side, and men of letters on the upper. This was because art involved manual labor, but also mind. Increasingly, however, the mental received more emphasis;

and the humanist Beyerlinck, even as early as 1656, acknowledged that painting depends primarily on the mind. There is good and bad painting, and the good reflects both divine inspiration (*genius*) and talent (*ingenium*). However, it was also acknowledged that artists make art in order to sell with gain; hence, their reward comprises profit as well as wages, and, accordingly, they were regarded as businessmen or *negotiatores*.

This raised questions about how art products should be valued. Cost of materials was no longer the main component in price, while profits typically were the result of fluctuations in the market that could not be wholly foreseen. Nor were art objects like victuals, whose just price was established by a common estimate — the informed judgment of participants in the market, taking all circumstances into consideration. Lessius recognized that public auctions, like the Friday Market in Antwerp, were an increasingly important avenue of selling, and prices there would depend on who happened to be present and what the mood of participants happened to be — just as Marshall judged was the case almost three centuries later. However, Lessius did not consider the pricing at auction of near-unique objects; for this we must turn to the late scholastic theologian Antoninus Diana, who treated unique items under the general category of luxury goods. He judged these to be priced appropriately when there is free bargaining because the buyer of a luxury item wants the purchase for his pleasure or to increase his or her splendor and cannot be considered easily exploited. If such a buyer pays more than the just price, the difference must be considered a sort of gift, as it often was when friends exchanged, or even when an artist or dealer sold to a regular client. Under these considerations, art objects could display sizable variations in price, but without these being viewed as improper.

Propriety, or morality, continued for years to condition thinking about art. Nobles were expected to display virtue through "magnificence," but humanists were expected to celebrate this virtue in their noble patrons; and they, as well as artists, were meant to contribute to the elevation of spirit that could come from contemplating their forebears' deeds, whether celebrated in word or images. There was thus an essentially moral function to the liberal arts, and the art of painting became in principle a sort of "moral *exemplum*." But this was also part of an exchange relationship, for artists "deserved to be protected and supported by wealthy, powerful, and educated patrons" (Van Houdt, this volume, XXX). The consumption of art too therefore fell under these considerations.

In concluding, Van Houdt shows how Rubens, as artist-businessman and man of letters, exemplified much of the teaching of the humanists in his personal approach to negotiations over the value of art objects.

Guido Guerzoni gives an in-depth history of both magnificence and liberality, the latter a more private virtue, and explores in detail how these two notions shaped models of noble behavior and thus directed spending to the ends of splendor and luxury in fifteenth-century Italy. How these ancient notions were redefined during the Renaissance is of great importance to understanding how a morally safe path of consumption could be chosen, one between avarice and profusion. But magnificence and liberality were also interpreted to establish correct social distances between noble and patrician classes and the ordinary citizen, and within the ranks of the aristocracy itself. Perfect matches were sought between the quality of men and the quality of the things on which they spent.

Since objects were meant to reflect the status of the buyer, while the quality of the buyer was measurable in terms of how much was spent and for what purposes, an elaborate system of accounting was required. Grades and amounts of goods, and what they cost, had to be meticulously recorded for every member of the household or court. But this system also took the place of a market. Art objects had to be graded for their appropriateness and the status that they confirmed in the buyer.

This became the basis for an aristocratic hierarchy of genres for paintings, in which historical subjects, along with portraits and family or individual allegories of apotheosis, took pride of place. The system also meant that artists could not be rewarded simply either for their labor time or for any purely artistic qualities in their work. Rather, these elements had to be combined in a complex process of valuation that reflected the importance of the patron and the degree to which an acquired work properly confirmed that person's status. The gift aspect in the pricing of luxury goods identified by Antoninus Diana was embedded in Renaissance Italian court acquisitions and exchanges and applied wherever that model was adopted. Thus Emperor Charles V paid Titian a substantial sum for two portraits of himself, one a copy of an existing portrait by a German court painter, but he also invested him with a knighthood (Humfrey 1995, 164). This last was a proper display of liberality by the emperor in exchange for confirmation of his own worth, and at the same time an appropriate recognition of the artist's stature, even if he employed Titian partly to reproduce another's work.

This system was so cumbersome, and so fraught with possibilities for receiving or giving offense, that it was vulnerable to being toppled by something simpler, more open. By early in the seventeenth century, dealers had begun to appear in Rome and Venice, and the beginnings of an art market were evident.

The chapter by De Marchi and Van Miegroet brings us back to the question of ingenuity, already mentioned briefly in connection with the payment differential between masters and journeymen artists. Here, however, the connection is with pricing. The price of a rare object may differ considerably from cost, including under cost materials, and labor measured at the conventional wage rate for the sort of work involved. Both Smith and his contemporary the artist Joshua Reynolds perceived this distinction. An artist of special abilities such as Reynolds could create one-of-a-kind pictures and drive a wedge between price and cost (again measuring wage or labor cost in terms of a conventional wage). The wedge actually captures the difference between the conventional reward to the artist and the reward extractable for special talent, so there is not, strictly speaking, any difference between price and cost, only a distinction between conventional and exceptional rewards to the artist. But there has to be a mechanism for extracting exceptional rewards. Reynolds can be viewed as having aimed at seducing the senses of his buyers to enable him to enhance the price of his paintings and thereby capture something like the reward due to exceptional talent. In these efforts, he exploited aspects of the making of pictures, since the seduction occurred with the help of special design qualities and the surface effects Reynolds created with paint and various mediums. For Smith, ingenuity in their contrivance was a distinctive characteristic of works of "art" from which we take pleasure. He even separated the pleasure of ingenious contrivance from any real convenience or use these objects may have. Smith and Reynolds not only shared this interest in ingenuity but also explained its appeal in similar ways — as the pleasure we feel at understanding unexpected cause-effect relations.

Smith's theory of pleasure in contrivance was intuitively grasped by Reynolds and put into practice by him. Sara Zablotney, in her contribution, draws on other evidence to show that Reynolds had a fine if intuitive understanding of the economics of the business of making and selling images. In negotiations with the print-publisher and entrepreneur John Boydell, Reynolds revealed that he understood clearly that the value of a painting made to serve as model for an engraving derives from the stream of income expected from sales of the prints taken from the block. Zablotney finds plenty of examples in Boydell's own practice to confirm the economic sophistication of participants in the eighteenth-century print trade.

The roles of ingenious artificer or "artist" and imaginative man of business were also combined in James Cox, jeweler and toymaker extraordinary. Marcia Pointon sees in Cox's museum of elaborate and decorative mechanical clocks, which was the talk of London for a few years during the 1770s, "a unique resource for examining art in relation to economics." She extracts from it a whole series of interesting observations.

First, Cox also proceeded from the insight that ingenuity indeed pleases and thereby creates value. Second, this value may be subjective, but Cox effectively claimed that it is nonetheless very real and also objectively measurable. He argued that by importing escapement mechanisms and using them in clocks made for export, and sold at greatly enhanced prices, to Eastern potentates, he was contributing positively to England's balance of trade. He was not only adding value to the escapements but also helping to reduce the flow of silver to the East to sustain imports from that quarter. Third, the value in contrivances or in art objects may be ephemeral. Cox's museum was short-lived; Reynolds's visual effects often were unstable and fleeting — his techniques resulted in cracking, sometimes in flaking of the paint itself, and frequently in loss of color. We are apt to deplore this, yet there is also something inevitable about the short-lived character of pleasure in contrivance. Smith (and others) acknowledged that we crave novelty. A consequence, however, is that value must be constantly re-created. That is part of the contribution of ingenuity. But Pointon notes that this line of thought also challenges the traditional ideal of the museum as a place where private capital is turned into "transcendent worth." Fourth, the same tradition also privileges painting over other visual media, whereas Cox's and other late-eighteenth-century museums displayed objects, not images, and had a greater impact on metropolitan audiences than exhibitions of paintings alone. Cox was aware of this and actually embellished portraits of the king and queen made especially for his display with mechanical niceties — a mechnical band, for example, that played "God Save the King" — as a way of suggesting the superiority of his "artists" to those of the Royal Academy of Arts. Finally, Cox's clocks showed that economic value may reside partly in visual illusion; he both excited and exploited to the full the "imaginary" wants of his visitors.

A critical rethinking of the role of art is also a theme of Robert Leonard's narrative of the use made of modern German graphic art by the Vienna Circle socialist thinker and activist Otto Neurath (1882–1945) in his efforts to create a new socialist sensibility among workers. Neurath considered imagery a way to convey pleasantly and effectively to those accustomed to the cinema and visual illustration key features of the economy. He viewed the economy itself not in terms of metaphysical and premodern entities — utility and money, respectively — but as a set of social engineering relations: "people, things, and their arrangement." He observed wartime planning and control in the Balkan states in 1912–13 and noted that (a) during war profit considerations took second place to production and efficiency and (b) barter could replace monetary exchange without apparent disruption being caused to allocative needs. The theme of the efficacy of central planning without prices informed Neurath's work as an organizer in southern Saxony after World War I, and at that time he also started using "statistical tables and models designed to show the mechanism of the economy in conditions of war."

Neurath's thinking also developed into a sharp critique of orthodox economics, along strict positivistic lines. He wished to avoid all nonempirical terms, such as utility or mind, and all pretense that we are able to supply deep explanations to surface phenomena. "Reality," therefore, was also a banished referent. So, too, was "optimum," though for the additional reason that it implied that there exists a single, determinate measure of well-being. Instead, Neurath insisted that economic means are plastic, possible futures many, and that the social engineer can capture in descriptive, visual statements people in circumstances of greater or less happiness, without our having to define this notion or pin it down in some abstract manner. His economic ideas brought him into conflict with the Von Mises circle and with Friedrich Hayek, whose *Road to Serfdom*, though ostensibly a corrective for well-meaning but misguided English socialists, was largely directed against Neurath.

The art Neurath adopted was meant to reflect his economic and epistemological convictions. It was to depict things, and people in relation to things, consistently with his new view of the economy, or what he liked to call "physicalist sociality." One symbol meant a given number, so that larger and smaller quantities could be seen at a glance, and the symbols should be chosen so as to fix an impression: rows of black coffins and red babies, for example, stand for deaths and live births, for example. No interpretation should be needed, the imagery being its own explanation. This art obeyed different laws than those of creative painting. As Neurath's chief graphic designer after 1928, the German Gerd Arntz, put it: "The proportions are given through the reality of the quantity of things, and a harmonization is not possible on the surface of [a] chart, if the content is to be shown with all its contrasts."

This was didactic art in the service of political and social ends, and intended to both inform and energize its viewers. Its motivating force therefore was quite distinct from Jevons's music as distraction for the mind or Fry's "genuine" art as nurturing, civilizing force. But its import was clear, in the same way as the early postwar Hiltons were unmistakably emblematic of American culture and commerce or as Cox's ingenious contrivances signaled the superior British blend of design and mechanical prowess in luxury goods. Of course, Neurath's hoped-for effects moved in quite a different direction from these symbolic displays, but he knit together economic thinking and imagery quite as completely as Reynolds, Cox, and Boydell.

Conclusion

We have seen in a variety of ways and contexts that writers on economics have consistently found themselves conflicted over art. On the one hand, art is acknowledged to possess and convey civilizing value. On the other, no place for it has been found in economic analysis. Economists are left with a choice. They can develop terminology such that the social, historical, aesthetic, symbolic, or other sorts of value added by art can be discussed and decisions affecting resources can be made in terms comparable to measured, market value. Or they must accept to exclude this whole realm, in the same way as an exclusive focus on known costs automatically limits any serious discussion of novelty.

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