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Landscape and the philosophy of aesthetics: is landscape quality inherent in the landscape or in the eye of the beholder?

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Abstract

The paper proposes that landscape quality assessment may be approached on the basis of two contrasting paradigms, one which regards quality as inherent in the physical landscape, and the other which regards quality as a product of the mind – eye of the beholder. These are termed, respectively, the objectivist and subjectivist paradigms. These paradigms underlie the surveys of the physical landscape and studies of observer preferences.

Examination of these paradigms through the approaches taken by philosophers from Plato to modern times demonstrates the ubiquity of the paradigms in underlying human perception of landscape. Until recent centuries, the objectivist paradigm provided philosophers with the basis for understanding beauty, including landscape beauty. However, the philosophers Locke, Hume, Burke and particularly Immanuel Kant identified beauty as lying in the eyes of the beholder rather than in the object. The parallels between Kant's aesthetic philosophy and contemporary theories of landscape quality based on an evolutionary perspective are examined. Most philosophers over recent centuries have adopted the subjectivist view of aesthetics.

The paper concludes by proposing that only the subjectivist model should be used in research of landscape quality.

Keywords: Philosophy of aesthetics; Landscape perception paradigms; Kant; Landscape theory

1. Introduction

The objective of this paper is to examine the competing paradigms of landscape aesthetics, the objectivist and the subjectivist, and to trace the emergence of these paradigms through the contribution of philosophers. Philosophers have examined the issue of beauty and aesthetics for at least several thousand years. Their findings can inform contemporary landscape research.

2. Two paradigms of landscape aesthetics

Landscape quality assessment presents a paradox. On the one hand, planners, geographers and others treat landscape as a feature to be classified and mapped, similar to the treatment of soils, landforms or vegetation. They establish certain assumptions (e.g. that mountains and rivers have high landscape quality)

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and evaluate the landscape accordingly. The landscapes may be classified on a numerical scale or classified of high, medium or low quality. This approach pre-supposes the landscape has inherent landscape quality, that landscape quality is a physical characteristic that can be evaluated similar to physical features.

The resulting classifications are often described as being objective, but what is actually meant is that having defined certain assumptions the process of evaluating the landscape is conducted rigorously, in accordance with these criteria, and personal preferences do not intrude. However, the subjective basis of the criteria, derived from these preferences, is generally ignored. Mapping landscape quality in this way has been particularly prominent in Britain and to some extent in Australia but is more limited in Canada and the US.

This approach to landscape also underlies the extensive selection of illustrated books of the outstanding landscapes of the world and of the many calendars, postcards and videos of regional landscapes. It is also important to the crucial role played by scenery in attracting tourists in many regions. These provide evidence of the importance which landscapes have in our culture. In all of these examples, landscape is assumed to be a quality present in the scene, a quality which one visits to see, experience and enjoy.

The alternative approach in landscape quality assessment uses psychophysical methods to examine community preferences for landscapes and then through statistical analysis, derive the overall quality of the landscape. This approach is objective in that it measures community preferences without the influence of the researcher's personal preferences or biases, although biases may occur in framing the questionnaire and in the evaluation of the results. This approach, which has been applied particularly in the US, Canada and to a more limited extent in Britain, has produced results which identify for given landscapes, the key factors which contribute to their quality and their relative importance.

The paradox in these approaches derives from their contrasting underlying premises. They cannot both be correct. The first approach assumes that landscape quality is inherent in the landscape while the second assumes that landscape quality is in the eyes of the beholder. The paradox is that in common usage, the landscape is taken to be beautiful but in actuality this beauty is literally a figment of the imagination, a product of the viewer's own cultural, social and psychological constitution. These two views of landscape may be regarded as the objectivist and subjectivist paradigms. (See Fig. 1.)

The objectivist or physical paradigm is the conventional view that the quality of the landscape is an *intrinsic* attribute of the physical landscape, just as landform, water bodies and hue are physical qualities. By contrast the subjectivist or psychological paradigm considers landscape quality as solely a human construct, based on the interpretation of what is perceived through the memories, associations, imagination and any symbolism it evokes. The objectivist paradigm can be summarised as viewing beauty in the physical scene in front of one's eyes while the subjectivist paradigm judges beauty from the interpretation by the mind behind the eyes.

An implicit understanding of human preferences for landscapes is required in the objectivist paradigm as these preferences provide the basis for human evaluation of landscape. In the subjectivist paradigm, landscapes provide a means of understanding the cognition, perception and preferences of human observers.

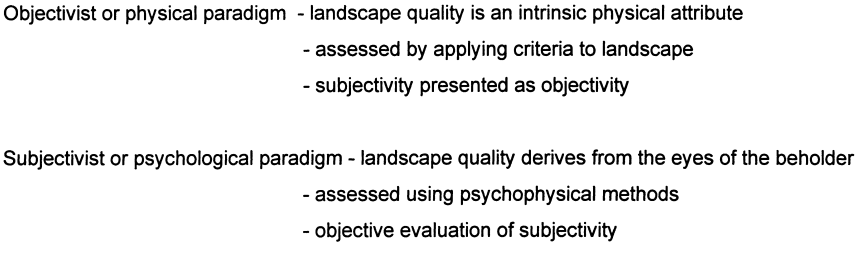

Fig. 1. Summary of objectivist and subjectivist paradigms.

The literature of landscape quality assessment reflects these two paradigms. The objectivist paradigm is illustrated by the many surveys of landscapes which classify and evaluate their quality based on assumptions which may or may not be made explicit. Examples include:

- Bureau of Land Management (1980) – visual resource management system
- Iverson (1975) – model of landscape assessment quantification
- Leopold (1969) – assessment of river valley landscapes
- Linton (1968) – assessment of Scottish scenery
- Litton (1968, 1972, 1982) – definition of landscape attributes
- Martin (1993) – British landscape assessment
- Nicholls and Sclater (1993) – landscape assessment methodology
- Ramos et al. (1976) – evaluation of northern Spanish coast
- UK Countryside Commission (1987) – British landscape assessment
- US Forest Service National Forest Landscape Management (US Department of Agriculture)

The subjectivist paradigm requires the assessment of respondent preferences of landscapes and, through the use of statistical methods (i.e. multiple regression and factor analysis), the contribution which the landscape's physical components make to its quality is identified. Leading researchers of this paradigm include:

- Bernaldez and Parra (1979), Abello and Bernaldez (1986a), Abello et al. (1986b), Bernaldez et al. (1987) and associates: research of the influence on preferences of personality and consensus and of children's preferences using Spanish subjects
- Buhyoff and Leuschner (1978a), Buhyoff et al. (1978b), Buhyoff and Riesenman (1979a), Buhyoff et al. (1979b), Buhyoff and Wellman (1980a), Buhyoff et al. (1980b, 1981, 1983, 1984, 1986) and associates: research of influences on preferences for forest landscapes
- Daniel et al. (1973), Daniel and Boster (1976), Daniel et al. (1978), Daniel and Schroeder (1979), Daniel and Vining (1983), Brown and Daniel, 1990a, Brown et al., 1990b and associates: development and evaluation of the scenic beauty estimation (SBE) method which yields interval scale metrics and uses this in planning and management – e.g. to assess the impact of management actions on scenic quality
- Herzog (1984, 1985, 1987), Herzog and Smith (1988), Herzog and Bosley (1992) and associates: research of preferences for various landscapes and evaluation of aspects of Kaplan's information processing theory
- Hull and Buhyoff (1983, 1984a), Hull et al. (1984b), Hull and Buhyoff (1986a), Hull (1986b), Hull et al. (1987b), Hull and McCarthy (1988), Hull and Revell (1989), Hull and Stewart (1992a), Hull et al. (1992b), Hull and Stewart (1995): evaluation of the SBE method and use of it for assessing various landscapes
- Kaplan et al. (1972), Kaplan (1977), Kaplan and Kaplan (1982), Kaplan (1987), Kaplan and Herbert (1987), Kaplan and Talbot (1988), Kaplan et al. (1989a), Kaplan and Kaplan (1989b): development and evaluation of the information processing model of landscape aesthetics, and influence of respondent characteristics (i.e. culture and ethnicity) on preferences
- Purcell and Lamb (1984), Purcell (1987, 1992), Purcell et al. (1994), Purcell and Lamb (1998) and associates: research of the influence of respondent characteristics (e.g. consensus, familiarity and expectations) on preferences
- Schroeder and Daniel (1980, 1981), Schroeder and Brown (1983), Schroeder (1984, 1991) and associates: research on statistical methods and assessment of landscape preferences
- Shafer et al. (1969a), Shafer and Mietz (1969b), Shafer and Tooby (1973), Shafer and Brush (1977) and associates: development and evaluation of a predictive model of landscape preferences
- Strumse (1994a, b, 1996): research of preferences for the Norwegian landscape
- Tips and Savasdisara (1986a, b, c, d), research of influence of respondent characteristics (e.g. socio-economic) on preferences using Asian subjects
- Urlich (1977, 1979, 1981); Urlich et al. (1991) and associates: development and evaluation of the affective theory of landscape aesthetics
- Zube (1973, 1974), Zube et al. (1974, 1975), Zube and Mills (1976), Zube and Pitt (1981), Zube et al.

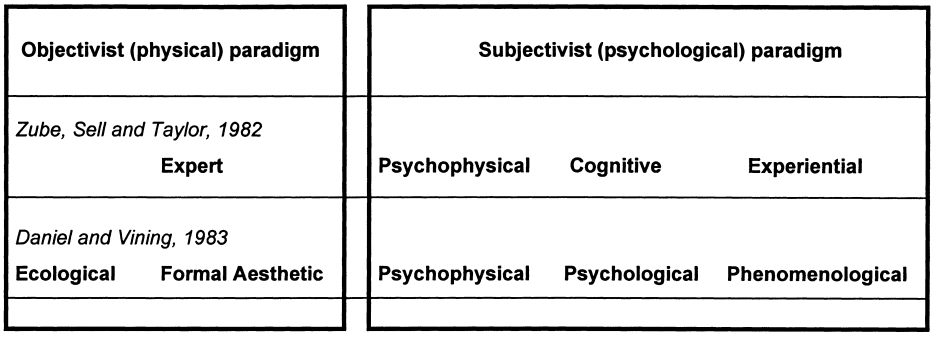

Fig. 2. Comparison of paradigms with landscape typologies.

(1982, 1983) and associates: research of landscape preferences and influence of respondent characteristics (e.g. cultural differences)

Over the past 30 or so years, community and researchers' interest in landscape quality has grown and has spawned many studies. There have been many papers which have sought to classify and make sense of these studies: Penning-Rowsell (1973, 1981); Brush (1976); Dearden (1977); Arthur et al. (1977); Dearden (1980); Porteous (1982); Punter (1982). The most widely regarded are those by Zube et al. (1982) and by Daniel and Vining (1983). These classified the studies into, respectively, four and five paradigms (see Fig. 2).

The objectivist and subjectivist paradigms may be considered in respect of the landscape typologies of Zube et al. (1982) and Daniel and Vining (1983) (Fig. 2). The objectivist covers the expert, ecological and formal aesthetic sets, while the subjectivist spans the psychophysical, cognitive/psychological and experiential/phenomenological sets.

Table 1 contrasts and compares the characteristics of the two paradigms. The objectivist is generally a

Table 1
Comparison of the objectivist and subjectivist paradigms

Objectivist (physical) paradigm Beauty – an intrinsic quality of the landscape	Subjectivist (psychological) paradigm Beauty – a quality in the eye of beholder
Essentially subjective	Essentially objective
Generally lacks any theoretical framework	Often derives from a theoretical framework
Seeks understanding the landscape's physical attributes, often for management purposes	Seeks understanding of human preferences to understand the physical components which contribute to landscape quality
Differentiates landscape quality on the basis of implicit assumptions	Differentiates landscape quality on the basis of human preferences explicitly derived
Silent on causal factors	Seeks explanation of causal factors
Empirical; application of an approach	Experimental; tests hypotheses and extends approach
Site and area specific; results generally cannot be extended beyond area of study. Does not seek explanation of preferences	Not area or site specific; seeks results for wider application. May be applied to understand preferences in different landscapes
Assessments are often field based	Mainly uses surrogates (e.g. photographs) for assessments
Relatively easy, inexpensive and rapid to undertake	Relatively difficult, expensive and slow to undertake
Does not use respondents to evaluate landscape quality so cannot account for differences in preferences	Quantifies influence on preferences of respondent characteristics – age, gender, education, socio-economic, culture
Non-replicable and unique: application of approach by different individuals likely to result in different assessments of landscapes	Replicable: providing the sample is adequate, the preferences identified should be consistent across a range of studies
Being subjective and non-replicable, the results may be of questionable value and of short-lived application	Being objective and replicable the results extend knowledge and are relatively permanent for a given community
Unable to be used in a predictive sense except generally	Capable of predicting effect of landscape change on landscape quality
Subjectivity presented as objectivity	Objective evaluation of subjectivity

pragmatic one-off assessment of the physical landscape often directed at its improved management, while the subjectivist aims at an improved understanding of human responses to landscapes as a means of identifying the key factors which contribute to their quality.

The usefulness of the objectivist assessment may suffer from the uniqueness of its derivation and the implicit nature of the assumptions on which it is based. The usefulness of the subjectivist assessment may be constrained by its resource demands and the expertise required to carry it out.

Viewed historically, these paradigms have provided the basis of how landscape quality has been viewed. The objectivist approach has until recent centuries been the prevailing paradigm. With the establishment of psychology, it is only in modern times that landscape quality has come to be considered to derive from the eyes of the beholder. Yet it is apparent that few researchers and practitioners of either the objectivist or subjectivist paradigms are aware of the historical antecedents of their methods.

The next section examines these paradigms through the work of philosophers and other writers and in particular identifies the emergence of the subjectivist paradigm. Thinkers and philosophers have addressed the issue of beauty for at least several thousand years and are perhaps the best placed, of all disciplines, to provide a comprehensive intellectual approach and framework for landscape aesthetics.

3. A brief history of the philosophical approach to aesthetics

Philosophy is a search for ultimate reality. It aims to identify and describe, it does not seek to explain – that is the purpose of science. Philosophy undertakes conceptual investigations (a priori), again, in contrast with science, it generally does this independent of experience. An a priori concept may be validated through experience. Philosophy has three main areas of enquiry:

- *methodology* which covers the theory of knowledge and logic
- *metaphysics* which is the theory of the nature and structure of reality
- the *theory of value* covering three ultimate values: truth, goodness and beauty

Beauty has thus been regarded by philosophers as one of the three ultimate values. Aesthetics has been a subject of philosophy since at least the time of Socrates (469–399 B.C.). Up to the 18th century the focus of inquiry was *beauty* but following the invention of the term *aesthetics* by the German philosopher, Alexander Baumgarten in about 1750, philosophy broadened its inquiry to encompass this more inclusive term.

Philosophers distinguish between the aesthetic *object*, the aesthetic *recipient* and the aesthetic *experience*. The aesthetic object is that which stimulates an experience in the recipient. Landscape is but one of many aesthetic objects which philosophy has considered. Regarding human interaction with aesthetic objects, whether music, art, sculpture, human faces, architecture, poetry, or landscapes, philosophers have sought to identify the common principles which operate and which determine the nature of the aesthetic experience.

Philosophers spend lifetimes thinking and writing about a subject. The summary of their contributions on aesthetics which is presented here can scarcely skate the vastness or the depth of analysis and discussion of the issues which they have addressed. It is akin to flying across a range of high mountains and viewing only the top few metres of each, ignoring the thousands of metres which provide their foundation and enable them to project thus far. This review cannot do justice to the work of these individuals but nor is it intended to provide any more than an overview of the points most salient to the aesthetics of landscape with particular emphasis on the objectivist and subjectivist paradigms.

4. Classical philosophy

The classical philosophers all regarded aesthetics as a physical attribute (i.e. objectivist). Socrates believed it desirable for youth to dwell amongst beauty and thereby be influenced for the better, thus linking beauty and morality. Plato (427–347 B.C.) viewed beauty as indicating eternal values. He postulated a progression of beauty – beauty of the human body, of the mind, of institutions and laws (his ideal state), of

the sciences (i.e. philosophy), culminating in absolute beauty itself which is outside of time and space – transcending the visible world. He regarded order and proportion as essential elements of beauty.

Plato considered that beauty is either contained by certain properties of an object (the definist theory) or it is indefinable but makes itself evident in the internal unity of the object (the nondefinist theory). Such internal unity produces beauty only if unity in variety is present together in an object. While aware of the likelihood of disputation over what is beautiful, Plato considered objects to be beautiful intrinsically because they are ''always beautiful in their very nature''. He held that objects cannot be ''fair in one point of view and foul in another, or at one time or in one relation or at one place fair and at another. . .foul''; in other words beauty is absolute, not relative.

Aristotle (384–322 B.C.) further developed Plato's theory of imitation in three senses: for moral education, for catharsis (i.e. purgation) and for character formation. He believed that Plato's idealised forms of beauty were immanent in tangible objects. Beautiful objects, according to Aristotle, had to be of a certain size, neither minute or vast, in order that their unity and sense of the whole could be appreciated by the observer.

4.1. Christian era

The Christian philosophers saw beauty as an expression of God and thus inherent in the object. Augustine (354–430 A.D.) regarded Plato's idea of idealised beauty as existing in the mind of God and given to the observer by Divine illumination, thus relating beauty to religion. On this basis, Augustine, like Plato, regarded beauty as not relative but a constant. The concepts of unity, number, equality, proportion and order were central to Augustine's aesthetics. He considered that the unity of an object derived from its order and proportion. Beauty derived from a ''proportion of parts, together with an agreeableness of colour''.

Thomas Aquinas (1224–1274) considered beauty to be a subset of goodness. Beauty derived from three factors: ''integrity or perfection'', ''due proportion or harmony'', and ''brightness or clarity'', the latter interpreted as symbolising through light, divine beauty. Bonaventure (c1217–1274) regarded nature as the ''mirror of God'' displaying His perfection to a varying extent.

During the Middle Ages, theologians believed that as God had created the world ex nihilo (i.e. out of nothing), that therefore the visible world displayed signs of its Maker: ''For since the creation of the world God's invisible qualities – his eternal power and divine nature – have been clearly seen. . .'' (Romans 1: 20). The teleological influence, being the study of final causes as related to the evidence of design or purpose in nature, exerted a powerful influence throughout the Middle Ages. The discoveries of Galileo, Kepler, Newton and Boyle during the 15th and 16th centuries of the physical universe were regarded as furnishing further proofs of the existence of God. (See Fig. 3.)

Early Christian era and Middle Ages	Beauty as evidence of God
	Beauty as God's adornment of the earth (Basil, 4th C; Ambrose, 4th C.)
	Classical principles of restraint, regularity, proportion, symmetry (Augustine, 4 - 5th C.)
	Man helping God beautify the earth - role of monasteries
	Utility of the earth and its beauty linked (Albert, 13th C; Aquinas, 13th C.)
	Beauty as evidence that the earth is Divinely created (Aquinas 13th C.)
Renaissance to Late 19th century	Scientific discoveries provided further evidence of God
	Man invested with power to preserve beauty of Earth and to render it more beautiful and useful (Hale, 1677; Ray, 1691; Derham, 1713; Voltaire, 1768)
	Beauty of Divine works (Leibniz, 17th C; Boyle, Woodward, 17th C; Ray, 1691) including irregular and asymmetrical features (Boyle)

Fig. 3. Summary of the teleological view of beauty.

Many writers during the 17th and 18th centuries wrote from a teleological standpoint, informed by the discoveries made of the natural order giving rise to physico-theology – a theology founded upon the evidence of design found in nature. The life sciences together with the development of the microscope and telescope revealed an order and purpose in nature not previously seen, lending further support to physico-theology. Beauty found in nature was regarded as a physical expression of the order, harmony and regularity which the Deity established in nature. Writers as diverse as Linnaeus, Maupertuis, Buffon and Voltaire all wrote accounts of nature in teleological terms. *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*, Glacken (1967) provides an insightful appreciation of the era.

Throughout the Christian era to the 17th and 18th centuries, teleology provided the dominant paradigm which provided an explanation of nature. The significance of this influence is summed up by Nicolson (1959): ''it is difficult today, in an age when social, economic, and international problems are paramount, to think ourselves back to a time when these were of far less importance than theological issues.''

The decline of teleology at the end of the 18th century resulting from the attacks of Hume and Kant and the different views of nature established by Rousseau, Goethe, Wordsworth and other writers set the scene for the impact of Darwin's *Origin of Species* in 1859. The demise of the teleological school enabled the emergence of the subjectivist paradigm because it was no longer considered necessary to regard beauty as intrinsic in the physical landscape as evidence of the Creator.

4.2. Renaissance

The Renaissance saw the re-emergence in Western society of the classical influence of ancient Greece and Rome. Many Academies aligned their ideas about beauty to ''rules'' based on the eminent authorities of antiquity. The classical influence was manifested through classicism which established the classical characteristics of regularity, restraint, symmetry, proportion and balance as being essential for beauty. The Greek schools of philosophy, its architecture, statuary, literature and poetry were regarded as the pinnacle of perfection and this classicism had a profound influence in Western culture from the Renaissance onwards.

Alberti the architect (1404–1472), considered beauty to derive from an order and arrangement such that nothing can be changed except for the worse, a relativist viewpoint.

The highly regarded Roman Emperor, Augustus gave his name to the Augustan ideal and Augustan Age of classicism in the 16–18th centuries. Throughout this period, extending to the beginning of the 20th century, a classical education was regarded as essential and Greek and Latin texts dominated the syllabus. The influence of classicism in Western architecture, literature and poetry, painting and sculpture and even in its forms of law and government has been profound.

For many centuries classicism reinforced the antipathy felt towards mountain landscapes which were regarded as an affront to the principles of symmetry, proportion, regularity and restraint.

5. Modern philosophy of aesthetics

Cartesian rationalism derived from the French philosopher, Rene Descartes (1596–1650). In his seminal book *Discourse on Method for Properly Guiding the Reason and Finding Truth in the Sciences* (1637), he argued for reason to be the basis of truth – ''clear and distinct ideas'' in establishing truth. Knowledge advanced through building on one truth to reach another. Intuition and deduction are sources of truth, intuition being ''the undoubting conception of an unclouded and attentive mind ... (that) springs from the light of reason alone'' (Beardsley, 1966, p. 141) and deduction being a logical chain of intuitions. Descartes' method had universal application, being highly influential in aesthetics.

The influence of Descartes was ''subtle and ubiquitous'' (Secretan, 1973, p. 31) and grew over the following centuries. The ''Cartesian shears'' which separated ''what is out there'' from ''what is in here'', i.e. separated nature from mind, contributed ultimately to the emergence of the subjectivist view of aesthetic quality. Instead of seeing aesthetic quality as an inherent quality of a physical object such as a landscape, the distinction of mind and nature paved the way for humans to appreciate the role of their own

subjective feelings in determining aesthetic preferences.

Modern aesthetics developed after the end of the 17th century from two centres, Britain and Germany, the British empirical approach to aesthetics contrasting with German aesthetic idealism. In the 18th century, aesthetics became established as a distinct area of philosophy. The 18th century was *the* century of aesthetics. The issue of taste in aesthetic judgement and the search for the underlying explanations of beauty were the focus of the British empiricists. It was the period known as the ''Enlightenment'' in which the Cartesian method of analysis was applied to philosophical issues.

5.1. British aestheticians

Under the influence of a number of gifted philosophers in Britain in the 18th century, the philosophy of aesthetics flourished. The leading practitioners were John Locke (1632–1704), Anthony Ashley Cooper (1671–1713) – the third Earl of Shaftesbury, Frances Hutcheson (1694–1746), Joseph Addison (1672–1719), David Hume (1711–1776) and Edmund Burke (1729–1797).

Locke considered that beauty can reside objectively in the object which comprises its primary qualities but insofar as it is evident in its secondary qualities then it is a subjective quality. The primary qualities are ''utterly inseparable from every particle of matter'' of the object while secondary qualities are colours, smells, tastes and sounds ''which in truth are nothing in the objects themselves but powers to produce various sensations in us by their primary qualities'' (Hamlyn, 1987, p. 172). Thus Locke made the leap of realisation that beauty is of the mind, a distinction taken up by later philosophers.

The third Earl of Shaftesbury believed that human taste favoured things which are both pleasing and for our good, thereby linking aesthetics with a moral sense. He regarded the association of ideas as critical in the aesthetic experience and also emphasised the immediacy of the human perception of beauty. By his identification of the aesthetic attitude of disinterestedness he laid the basis for Kant's later development of this key concept. And with his love of wild nature he preceded the eighteenth century's interest in the sublime as an aesthetic dimension distinct from beauty.

Hutcheson and Addison built on Shaftesbury's work and regarded beauty as residing in the object. Hutcheson's *Inquiry Concerning Beauty, Order, Harmony and Design* (1725) was the first modern treatise on aesthetics. Beauty results when certain qualities are present in objects, these qualities being ''a compound ratio of uniformity and variety: so that where the uniformity of bodys (sic) is equal, the beauty is as the variety; and where the variety is equal, the beauty is as the uniformity'' (Beardsley, 1966, 186), thus providing an absolute basis for aesthetics. Addison regarded aesthetic taste as a function of three qualities: sublimity, novelty and beauty.

The painter, William Hogarth, published *The Analysis of Beauty* in 1753, one of many such books of the time which attempted to provide a definitive system to define beauty on an objectivist basis. He believed that linear beauty is produced by six qualities: fitness, variety, uniformity, simplicity, intricacy, and quantity or size. He produced a wavy line that is ''the line of beauty'' and a three-dimensional serpentine equivalent ''line of grace'', by which grace is added to beauty (Beardsley, 1966, p. 192). Although his proposals were ridiculed, they had an influence on later philosophers. Hogarth introduced the term ''serpentine line'' which he believed explained beauty in objects.

Hume rejected the objectivist view of aesthetics of Shaftesbury, Hutcheson and Addison. For Hume, beauty resided not in the objects but in the mind. ''Beauty is no quality in things themselves. It exists merely in the mind which contemplates them, and each mind perceives a different beauty,'' (Beardsley, 1966, p. 190). Rather than look for beauty in the nature of the objects, Hume looked to ''the constitution of our nature, by custom, or by caprice''.

Burke was possibly the most important of the British philosophers. In 1757 he published *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, a work which influenced aesthetic thought well into the next century and beyond. Burke differentiated the aesthetic judgement concerning beauty and the sublime; beauty originates with the emotions, particularly in feelings towards the opposite sex whereas the sublime originates in nature and our feelings towards it. He defined beauty as ''love without desire'' which derives from objects which are small, smooth, gently varying, delicate – all attributes of female beauty, perhaps indicating Hogarth's

influence. Beauty was not defined by the properties of harmony, proportion, utility, etc. but rather these properties gave rise to the human experience of beauty.

Burke and Hume thus viewed beauty in subjectivist terms, the observer responding to certain properties in the object; however these do not define beauty, they only provide the conditions for its perception by an observer. It was demonstrated that many of the properties thought to engender beauty in an object, properties such as unity, proportion, uniformity and variety, utility or fitness – were in fact present in many objects, not all of them considered beautiful (Stolnitz, 1961, p. 197). Moreover it was shown that the ''unity in variety'' formula lacked content and applied to many objects. By the end of the 18th century it was concluded that it was altogether impossible to find properties which were common and peculiar to beauty.

5.2. German philosophers

The British aestheticians were essentially amateurs – ''gentlemen of leisure addressing amateurs'' but the German philosophers ''were university professors, addressing learned audiences'' (Russell, 1961, p. 677). The first was Immanuel Kant (1724–1804) a giant among philosophers, ''like all the very greatest figures in human culture, (Kant) sums up a past age and inaugurates a new one'' (Hofstadter and Kuhns, 1976, p. 277). Friedrich Schiller (1759–1805) and Georg Friedrich Wilhelm Hegel (1770–1831) were further significant German philosophers.

Kant derived his philosophy by logic and deduction in contrast to the empiricism of the British aestheticians. Central to his philosophy of aesthetics was his finding that an object's character lay in the judging mind rather than in the object judged – i.e. the subjectivist rather than objectivist approach (Monk, 1935, p. 4).

Between 1781 and 1790, Kant published his three great works: *Critique of Pure Reason*, *Critique of Practical Reason* and *Critique of Judgement*, the last of which contained his ideas on aesthetics. Kant regarded humans as having three modes of consciousness – knowledge, desire and feeling and each book dealt with these in turn.

Kant argued his case regarding aesthetics by a series of four theses (called ''moments''):

1. *Taste* is the faculty of judging of an object or a method of representing it by an *entirely disinterested* satisfaction or dissatisfaction. The object of such satisfaction is called *beautiful*.
2. The *beautiful* is that which pleases universally without requiring a concept (i.e. reason).
3. Beauty is the form of the *finality* (or *purposiveness*) of an object, so far as this is perceived in it *without any representation of a purpose*.
4. The *beautiful* is that which without any concept is cognized as the object of a *necessary* (i.e. universal) satisfaction (or delight).

The first moment contained two important ideas, firstly the mind's representation of the object, and secondly, the principle of disinterest. The aesthetic experience involves the reception by the mind (the noumenal world) of an imaginative representation of the phenomenal world. The mind is not concerned with the object per se but with the mind's representation of the object. ''It is the object *as experienced* which exhibits beauty'' (Zimmerman, 1968, p. 386), thus addressing the debate of the earlier aestheticians of whether beauty rests in the object or in our mind. ''Kant shows that beauty, which at first sight seems to be an objective property of a beautiful object, is in reality a human valuation of it'' (Goldman, 1967, p. 184).

Because judgement is of taste and not of cognition, i.e. aesthetical rather than logical, it is inherently subjective. Thus aesthetic objects exist only subjectively. It follows that the existence of the object is of no consequence – if it were mere illusion the aesthetic experience would remain the same. Its existence may of course be a practical and moral issue but these considerations are not aesthetical. With today's realistic computer graphics, computer games and digital images, the difference between a real scene and that which exists solely in cyberspace has become increasingly blurred and is largely irrelevant to the viewer, thus proving Kant's point. It also explains why surrogates of landscapes such as photographs can provide a satisfactory alternative to viewing the physical scene.

This leads to the principle of disinterest. Disinterest means an absence of desire for the representation of the real existence of the object and that it does not engender a want in relation to the object. This may seem peculiar but is evidenced by the delight that

people gain from viewing books and pictures of landscapes. Some travellers prefer to view a scene from a video screen rather than viewing it directly. Kant argued that only by disinterest is it possible to have a free, pure aesthetic experience, uncorrupted by existential concerns.

The role of the imagination in the mind's representation of an object is vital. Imagination is free, it is without interest. Aesthetic judgement is distinguished from other judgements by the "free interplay of the imagination and the understanding" (Hamlyn, 1987, p. 240). Aesthetic pleasure is the result of harmony between the imaginative representation and understanding.

The second moment derived from Kant's classification of pleasures – the beautiful derives from pleasures which are perceived but is unrelated to understanding. Such pleasure is disinterested (first moment), universally agreed, communicable and immediate – it does not require mediation of thought.

Kant's third moment asserted that as the aesthetic experience is based on disinterest, does not involve conceptual judgement, i.e. does not "involve or presuppose the concept-producing power of the understanding" (Zimmerman, 1968, 391), it is therefore pure and subjective. Kant summed it up in his famous phrase "purposiveness without purpose" which appears to be contradictory but served to differentiate the aesthetic experience from the practical and the moral. It denoted an object that is purposive in its form though it has no apparent purpose or function – e.g. the beauty of a rose. Similarly although the beauty of landscape derives from purposeful attributes (e.g. land form, land cover, land use, water) the beauty produced is without purpose.

Purposiveness without purpose, alternatively known as the "form of finality" (*forma finalis*), sumsup what Kant considered to be aesthetically pleasing – whereas a flower has a beauty which is free, a building has a functional purpose which is not free. Functionality implies what a building ought to be – i.e. comprising walls, floor, roof and so on, whereas beauty which is free contains "no concept of what the object ought to be" (Kant). Similarly the beauty of a landscape is without purpose and without functionality.

Being free, there are no rules for determining whether an object is beautiful – "no objective rules of taste can be given which would determine what is beautiful through concepts" and it would be a "fruitless endeavour to seek a principle of taste which would provide a universal criterion of the beautiful through determinate concepts." (Kant, in: Guyer (1979), p. 208).

It further follows that being free, purposiveness without purpose, there can be no ideal of beauty. "An ideal of beautiful flowers, of a beautiful suite of furniture, or of a beautiful view, is unthinkable" (Kant, in: Meredith (1952), p. 76). Kant also believed that where ends are defined, such a house or a garden, that the ideal may also be impossible to represent. This point is relevant to landscape preference surveys which commonly use a scale against which subjects rate landscapes (e.g. 1–10) where the upper figure represents the highest quality scene. On the basis of Kant's view, there probably should not be any upper limit since this suggests a finite limit to beauty. However, in practical terms, to confine the rating to a common scale which can serve as the basis for analysis, a limit is necessary.

Unfortunately, Kant sought to specify some rules including the design and composition of objects and the possible application of such rules to natural objects only rather than works of art which embody purpose. Some have criticised Kant for abandoning disinterest in defining such rules, suggesting the attempt is "seriously flawed" (e.g. Guyer, 1979, p. 209).

Kant's fourth moment built on the preceding moments: that aesthetic pleasure derived from the pure experience of an object without cognitive determination and that such pleasure is universal. If an object is judged beautiful by universal agreement (the second moment) then although we cannot guarantee it, all others ought to also agree to its beauty – "one is asserting that every human subject would experience an immediately felt aesthetic satisfaction if they experienced the object freely" (Zimmerman, 1968, p. 392). Because it is felt by everyone, it is not a private but a public pleasure. Thus fine landscapes enjoy wide appreciation as a public, not a private pleasure.

In summary, Kant developed a comprehensive philosophical framework for understanding aesthetics and beauty. He found that the aesthetic experience is the mind's representation of the object and, experienced with disinterest, is pure and is wholly subjec-

tive. The state of harmony between an object's imaginative representation and our understanding yields aesthetic pleasure. Such pleasure is neither sensual or intellectual. It does not involve conceptual judgement. Objects which we consider beautiful have a special kind of formal quality dependent on their perceptual properties, a purposiveness of form but not of function – purposiveness without purpose. Aesthetic pleasure which is free, without an ideal, and without cognitive determination is universal and common to all who experience it.

A model (Fig. 4) summarises Kant's theory as a ladder in which the legs are depicted as the principles of disinterest and universality, principles which influence the outcomes depicted on the rungs.

Kant's contribution to aesthetics has been both fundamental and profound. His work has endured and shaped our view of beauty to this day. The following quotes are the summaries by several authors of his approach.

- "Shorn of its many elaborations, Kant's analysis of our use of the expression "This is beautiful" is that it expresses disinterested pleasure which we believe we are entitled to demand of any and everyone because the object judged is discerned to have a certain kind of perceptual form which is called by Kant the Form of Finality", (McCloskey, 1987, 24)
- "...aesthetic experience, i.e. the experience of natural beauty, is experience of the noumenal (i.e. of the mind) world as it filters through the phenomenal (i.e. the physical) world, and, that in order to secure the experience of natural beauty, the human mind must act passively in receiving its contents and not actively in organizing them", (Zimmerman, 1968, 385)
- "the aesthetic object is something utterly different from all utilitarian objects, for its purposiveness is without purpose; the motive that leads to its creation is distinct, and independent of all others...; and the enjoyment of beauty... brings to man a value that nothing else can provide, since it has nothing to do with cognition or with morality", (Beardsley, 1966, 286)

Kant viewed beauty as subjectivist, in the eyes of the beholder, indeed it is as *experienced* by the observer. His analysis demolishes the objectivist paradigm.

The later German philosophers, Schiller and Hegel, rejected Kant's subjectivity as a basis of beauty,

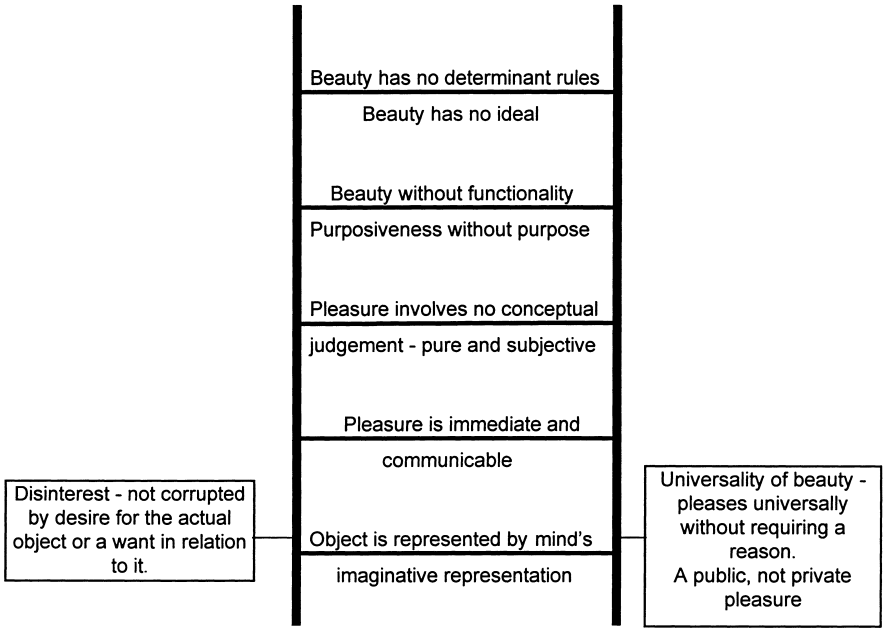

Fig. 4. Kant's aesthetic theory – a framework.

arguing, in Schiller's case, for the civilising influence of art and beauty with beauty being essentially ''freedom in appearance''. In contrast to Kant who held nature as the pinnacle of beauty, Hegel argued that art represented the highest embodiment of the ''Idea''; ''natural beauties bear an imprint of the Idea, but a dimmer and lower one that is borne by the works that directly proceed from the human spirit'', (Beardsley, 1966, p. 238). Hegel regarded beauty as ''the rational rendered sensible (i.e. perceptible by the senses), the sensible appearance being the form in which the rational content is made manifest'', (Acton, in: Edwards (1967), p. 447). He graded nature's beauties – animals and plants being more beautiful than inanimate objects such as landscapes but ranked natural beauty much lower than human art.

5.3. Romanticism

During the 19th century, thinking on aesthetics was advanced, not by philosophy but by poetry. It was the century of Romanticism which emphasised emotion above classical order, and substituted aesthetic for utilitarian standards (Russell, 1961, 653), the typical Romantic being ''sensitive, emotional, preferring colour to form, the exotic to the familiar, eager for novelty, ... revelling in disorder and uncertainty, insistent on the uniqueness of the individual to the point of making a virtue of eccentricity..'' (Brinton, in: Edwards (1967), p. 206). Romanticism was both a reaction from the rationalism and classicism of previous centuries and a bridge to the expressionism of the 20th century. Romanticism viewed landscape in purely objectivist terms – the landscape contained intrinsic qualities. Romanticism was expressed by poetry which had a significant influence on its time, an influence which has persisted to the present.

Jean-Jacques Rousseau (1712–1778), a Swiss Romantic philosopher, developed an almost pantheistic love of nature. A writer ''of incomparable prose'' (Clark, 1969, p. 190) Rousseau has had a profound effect on Western attitudes to nature. It has been suggested that his influence was so revolutionary and original that in a sense, the world's history began again with him (Biese, 1905, p. 260).

Born in Switzerland, Rousseau grew up on Lake Geneva and loved to roam the countryside. On such a ramble in 1728, he wrote of how the ''high mountains unfolded themselves majestically before my eyes'' (Biese, 1905, p. 267). In 1765 he lived for two months on Peter Island on the Lake of Bienne, a relatively insignificant Swiss lake, north-west of Berne. According to Clark, on the island, Rousseau ''had an experience so intense that one can almost say it caused a revolution in human feeling'', (Clark, 1969, 190):

> ''I often sat down to dream at leisure in sunny, lonely nooks ... to gaze at the superb ravishing panorama of the lake and its shores ... When evening fell, I came down from the higher parts of the mountains and sat by the shore in some hidden spot, and there the sound of the waves and the movements of the water, making me oblivious of all other distraction, would plunge me into delicious reverie. The ebb and flow of the water, and the sound of it ... came to the aid of those inner movements of the mind which reverie destroys and sufficed me pleasantly conscious of existence without the trouble of thinking...'', (Biese, 1905, pp. 269–270)

Filled with the reverie of the flopping waves, he ''became completely one with nature, lost all consciousness of an independent self, all painful memories of the past or anxieties about the future'', (Clark, 1969, p. 190). In 1761 he published *La Nouvelle Héloise* which ''overflow(ed) with Rousseau's raptures about the Lake of Geneva'' (Biese, 1905, p. 274). The book made three points: firstly, that the purpose of one's inner consciousness was to allow feelings in the heart, secondly, the worth of solitude – ''all noble passions are formed in solitude'', and thirdly, the love of romantic landscapes, described for the first time in glowing terms.

Rousseau's feeling for nature had a profound effect on European thought, expressed tangibly by the upsurge in tourism to places such as Chamounix, by climbers ascending Mont Blanc and other peaks, by a delight in Robinson Crusoe type solitude, by the more sensitive descriptions of other cultures in both scientific and artistic terms, and in the appreciation of foreign landscapes found during world explorations. The love for nature was, however, imbued with a maudlin sentimentality which cast a melancholy shadow over it. It was the genius of Goethe (1749–1832) who freed and purified the love for nature from this mawkishness.

''Goethe focussed all the rays of feeling for Nature which had found lyrical expression before him, and purged taste, beginning with his own, of its unnatural and sickly elements'', (Biese, 1905, p. 296). While other poets wrote of nature almost in the third person, as one remote and hence insincere in their expression, Goethe wrote from an inner sensibility. It was said of him that ''Nature wished to know what she looked like, and so she created Goethe'', (Biese, 1905, p. 296). Unlike Rousseau who saw nature as a painter, Goethe saw her as a poet. While Rousseau remained a deist, Goethe ultimately became a pantheist.

An example of the quality of his writing is from *Werther*, a book of his youth:

> ''When the lovely valley teems with vapour around me, and the meridian sun strikes the upper surface of the impenetrable foliage of my trees, but a few stray gleams steal into the inner sanctuary, then I throw myself down in the tall grass by the trickling stream; and as I lie close to the earth, a thousand unknown plants discover themselves in me. When I hear the buzz of the little world among the stalks, and grow familiar with the countless indescribable forms of the insects and flies, then I feel the presence of the Almighty who formed us in His own image,...'' (Biese, 1905, 304)

Later in life, Goethe's scientific objectivity took over, ''the student of Nature supplanted the lover'' (Biese, 1905, p. 324). As expressed by Biese:

> ''...Goethe not only transformed the unreal feeling of his day into real, described scenery, and inspired it with human feeling, and deciphered the beauty of the Alps, as no one else had done, Rousseau not excepted; but he also brought knowledge of Nature into harmony with feeling for her, and with his wonderfully receptive and constructive mind so studied the earlier centuries, that he gathered out all that was valuable in their feeling'', (Biese, 1905, 325)

Poetry was the art form which best reflected Romanticism, used as an expression of feeling. The three Lakeland poets, Wordsworth, Coleridge and Southey, were Romantics but Byron was the poet who best epitomised the Romantic ideal – the Romantic hero, hypersensitive and alienated from his society.

William Wordsworth (1770–1850) initiated a new form of lyric poetry in which the visible landscape symbolised human attributes – the blending of the natural object and human feeling into ''a single symbolic unity, in which the heart dances with the daffodils, the impetuous West Wind trumpets a prophecy, and the nightingale sings of magic casements opening on the foam of perilous seas'', (Beardsley, 1966, p. 264). Who can view wild daffodils or the scenes of England's Lake District without being moved by Wordsworth's imagery?

> I wandered lonely as a cloud
> That floats on high o'er vales and hills,
> When all at once I saw a crowd,
> A host, of golden daffodils;
> Beside the lake, beneath the trees,
> Fluttering and dancing in the breeze.

To a man, the Romantics were objectivist in their attitude to landscape. They delighted in wild scenery, ''wild torrents, fearful precipices, pathless forests, thunderstorms, tempests at sea, and generally what is useless, destructive, and violent.'' (Russell, 1961, p. 654). Bertrand Russell comments that this continues to have influence today – ''almost everybody, nowadays, prefers Niagara and the Grand Canyon to lush meadows and fields of waving corn. Tourist hotels afford statistical evidence of taste in scenery'', a somewhat trite comment.

Through the imagery created by their poetry and writings however, the Romantics created a subjectivist mindset in the 19th century which strongly influenced the impressions gained from viewing landscapes. Though objectivist themselves in that they viewed the landscape as comprising intrinsic quality, their writings created an image which shaped the mindset of their readers, a mindset which established a subjectivist viewpoint in their followers. Thus paradoxically through their influence, the Romantics transformed their objectivist view of seeing qualities imbued in the landscape to a subjectivist view for society, seeing the landscape through eyes conditioned by Romanticism.

6. Contemporary philosophy of aesthetics

Since the 18th century, aesthetics and the issue of beauty and natural beauty in particular have fallen somewhat out of favour as an issue of philosophical

enquiry. However, it is evident that the subjectivist approach pioneered by Burke and Kant has firmly taken root.

Notable philosophers of aesthetics of the modern period have included:

- George Santayana (1863–1952), an American and German educated Spaniard
- Benedetto Croce (1866–1952), an Italian philosopher
- John Dewey (1859–1952), American philosopher
- Ernst Cassirer (1874–1945), a German neo-Kantian philosopher
- Susanne Langer (1895–1985), American philosopher

Santayana in *The Sense of Beauty* (1896) rejected Kant's disinterested aesthetics, arguing that the central quality of aesthetics is pleasure. He defined beauty as ''pleasure regarded as the quality of a thing'' or ''pleasure objectified''. Santayana denied that beauty is an objective property of objects, but rather is the pleasure which is experienced through the perception of an object – it is a value which can only exist in perception. The pleasure derived is objectified in (i.e. projected into) the perceived object and this is beauty. Santayana's concept appears similar to the pyschoanalytical concept of introjection but his use of it predated Freud's development of it around 1920. The pleasure is ''objectified'' in the sense ''of being experienced as a quality of a thing and not as an affection of the organ which apprehends it'', (Olafson, in: Edwards (1967), p. 284). Thus Santayana argued that aesthetic pleasure involves a fusion between the response to an object and the object itself. Reflecting the Darwinian influence, Santayana regarded aesthetic judgements as ''phenomena of mind and products of mental evolution''.

Croce in *Aesthetic as Science of Expression and General Linguistics* (1902) provided a philosophical basis for the expressionism in 19th century art, particularly Impressionism, by regarding art firstly as expression and secondly as intuition. His central formula was ''intuition=expression''. Croce regarded aesthetic experience as a primitive form of knowledge. Croce's concept may unknowingly have been an early expression of the application of evolutionary theory to landscape aesthetics. Aesthetics is intuitive knowledge, as distinct from logical knowledge as in science. He considered that something does not exist unless it is known, i.e. ''that it is not separable from the knowing spirit.'' Natural beauty is thus not an issue of perception ''but of an intuition that knows objects as, themselves, states of mind'', (Dewey, 1934, p. 294). Beauty is ''successful expression'' (Beardsley, 1966, p. 324). There are no degrees of beauty but through inadequate expression there are degrees of ugliness (see Kates (1966) for a discussion of ugly landscapes).

Dewey's philosophy focussed on experience, ''a single, dynamic, unified whole in which everything is ultimately interrelated.'' (Bernstein, in: Edwards (1967), p. 381). An aesthetic experience to Dewey is a consummatory, enjoyable and complete experience, part of the experiences of everyday life. In contrast to Kant, whose aesthetics require detachment (disinterest), Dewey's required involvement, engagement, entering into an experience – ''the distinguishing feature of esthetic experience is exactly that no ... distinction of self and object exists in it, since it is esthetic in the degree in which organism and environment cooperate to institute an experience in which the two are so fully integrated that each disappears'', (Dewey, 1934, p. 249).

Cassirer developed a general theory of human culture and the role played by symbols – myth, language, art, religion and science, symbols by which humans represented the world to themselves; ''Man is a symbolizing animal.'' (Korner, in: Edwards (1967), p. 45). Langer was influenced by Cassirer and developed the concept of art as ''presentational symbol'' or ''semblance''. She used the term ''semblance'' to represent the way a thing *appears* to a person. A painting is mere semblance, ''if we stretched out our hand to it we would touch a surface smeared with paint'', (Langer, 1953, p. 49). An object's aesthetic quality is its semblance. Langer regarded works of art as ''single, indivisible symbols, language as a system of symbols. We find art beautiful when we grasp its expressiveness – beauty is expressive form'', (Langer, 1953, p. 396). On the basis that natural objects cannot be symbolic, others have held that Cassirer and Langer's symbolic language applied only to art (Saw and Osborne, 1960, p. 16).

Langer described the exhilaration of a direct aesthetic experience of art thus:

''What it does to us is to formulate our conceptions of feeling and our conceptions of visual, factual, and

audible reality together. It gives us *forms of imagination* and *forms of feeling*, inseparably; that is to say, it clarifies and organizes intuition itself. That is why it has the force of a revelation, and inspires a feeling of deep intellectual satisfaction, though it elicits no conscious intellectual work (reasoning).'' (Saw and Osborne (1960), p. 397, her emphasis).

Though applied to art, this statement could apply equally to landscape. Though Kantian in many respects, it conveys a greater sense of the subjective, of feeling and emotion in the aesthetic experience, than the rather dry sterility of Kant.

7. Philosophy of aesthetics – a summary

Aesthetics have been a subject of philosophical enquiry probably since the beginning of human thought. Philosophers, as individuals with strong analytical and conceptual skills, are perhaps among the best placed to develop a framework for understanding aesthetics, a framework which would be widely comprehended and applied. Aesthetics as a subject of inquiry has been considered by some of the best minds in history. To what extent however have the philosophers developed a comprehensive framework of aesthetics?

Table 2 summarises the approaches of philosophers to aesthetics and their concepts of beauty. It also highlights the emergence of the subjectivist paradigm. By varying degrees, philosophers have built on that which has preceded them, either overtly or unconsciously. Dealing with subjective, intangible issues, it has been extremely difficult to establish firm bases from which to develop.

The simple question, ''What is beauty?'', has gained as many answers as there are philosophers. The major change which has occurred, however is the shift from regarding beauty as inherent in the object (objectivist) to considering it as ''in the eyes of the beholder'' (subjectivist). From the Greeks through the early Christian era and the Renaissance, beauty was considered to be an objective physical characteristic. The 17th century British empiricist, John Locke was the first to regard beauty as having both objective and subjective qualities. In the next century, Hume and Burke established beauty as the observer's subjective response to an object. Kant established the philosophical rationale for understanding aesthetics as a wholly subjective phenomenon. Kant marked the break between the old and new schools of thought, the former believing beauty to be an inherent, non-relational quality of an object while the latter regarded beauty as a quality able to evoke an aesthetic response or experience in the observer.

The philosophers therefore have developed, not one view of aesthetics but many views. They have sought to find answers to the aesthetic question, and the answers have been as diverse as the philosophers themselves. Stripped however of their variations the two central themes emerge of viewing aesthetics as intrinsic in the object versus viewing it as a product of the mind. In addition, however, Kant's aesthetic philosophy has close parallels with contemporary theories of landscape aesthetics based on an evolutionary perspective.

8. Integration of Kant's aesthetics with landscape theory

Kant's approach to aesthetics is very relevant to landscape quality. Landscape quality fulfils all of Kant's prerequisites of beauty – landscape quality is without function and there is no ideal or limit; no conceptual judgement is made – the response is immediate and the pleasure is often shared, the pleasure from landscapes is gained without desire or want for it, and the pleasure is universal and a common response, and landscapes provide a public, not private, pleasure.

Kant's approach to aesthetics parallels contemporary evolutionary perspectives of aesthetics, as described by the habitat theory of Orians (1980); Balling and Falk (1982); Orians (1986); Orians and Heerwagen (1992), the prospect-refuge theory of Appleton (1975, 1988), affective theory of Urlich (1983, 1986), Urlich et al. (1991) and the Kaplans' information processing theory (Kaplan and Kaplan, 1982; Kaplan and Herbert, 1987; Kaplan et al., 1989a; Kaplan and Kaplan, 1989b).

The fundamental tenet of these theories is that human perception of scenic quality is rooted in survival, to put it simply, that the landscapes humans prefer are survival enhancing. The Kaplans defines it thus: ''The central assumption of an evolutionary perspec-

Table 2
Summary of philosphers of aesthetics

Philosopher	Era	Philosophy of aesthetics	Concept of beauty	O/S
Classical				
Socrates	5th C BC		Moral influence	O
Plato	4th–3rd C BC	Imitation of reality	Progression of beauty	O
Aristotle	4th C BC	Catharsis, character, morality		O
Early Christian era				
Plotinus	3rd C AD	Ideal form	Irradiates symmetry	O
Augustine	4–5th C		Divine source – idealised	O
Aquinas	13th C		Expression of goodness	O
Bonaventure	13th C		Mirror of God	O
Renaissance				
Ficini	15th C		Classical rules	O
Alberti	15th C		Order and arrangement	O
British aestheticians				
Locke	17th C	Primary (objectivist) and secondary (subjective) qualities		O/S
Shaftesbury	17th C	Moral influence/disinterestedness	Truths	O
Hutcheson	18th C		Uniformity and variety	O
Hogarth	18th C	Serpentine line	Six qualities	O
Hume	18th C	Our nature, by custom or caprice		S
Burke	18th C	Emotional basis	Love without desire	S
German philosophers				
Kant	18th C	Subjective disinterested pleasure	Purposiveness without purpose	S
Schiller	18th C	Civilising role	Freedom in appearance	O
Hegel	18–19th C	Art is highest embodiment	Rational rendered sensible	O
Romantics	19th C	Emotional aesthetics	Wildness	O
Contemporary				
Santayana	19–20th C	Pleasure	Pleasure objectified (quality of thing)	S
Croce	19–20th C	Intuition=expression	Intuition that knows objects as states of mind	S
Dewey	19–20th C	Experience	Responding to a complete object	S
Cassirer	19–20th C	Symbols		S
Langer	20th C	Presentational symbols/semblance	Expressive form	S

Note: O=objectivist, S=subjectivist.

tive on preference is that preference plays an adaptive role; i.e., it is an aid to the survival of the individual.'' (Kaplan and Kaplan, 1982, p. 186).

Although when viewed through contemporary eyes it is sometimes difficult to see what is survival enhancing about, say, Orians' savannah landscape or Kaplans' mystery component, the utility of these needs to be examined over the timescale of human development to understand their role.

Kant's principle of disinterest can be interpreted as similar to the non-cognitive response to landscape beauty, not a response derived from evaluation and thought. In a widely quoted paper, Zajonc (1980) argued against the prevailing doctrine that affect is postcognitive and instead suggested that discriminations [i.e. like–dislike] can be made in the complete absence of recognition memory. Disinterest can be defined as ''unbiased by personal interests'' (Shorter Oxford English Dictionary) and the non-cognitive response to aesthetic objects carries no such opportunity for bias – at least in the immediate sense, although in evolutionary terms it can be argued that it is survival enhancing and hence biased.

Kant's second principle, the universality of beauty, can be seen to closely parallel the evolutionary perspective – after all if beauty is indeed survival enhan-

cing, then all surviving humans must respond to it. Nor does it appear to be a learned or acquired skill, rather appreciation of beauty is innate in all humans, although what is appreciated may be influenced by culture.

The rungs in the model (Fig. 4) summarise Kant's moments or theses and each of these can be explained through an evolutionary perspective. His recognition that it is the mind's representation of the environment rather than the environment per se places him squarely in the province of the psychology of perception. In evolutionary terms, it is the human ability to accurately perceive their surroundings and to understand and to interpret any threats and opportunities, that has been fundamental to human survival.

The immediacy of the aesthetic response is supported by Zajonc's thesis and has been commented on by many writers. Urlich et al. (1991), pp. 207–208) proposed that ''immediate, unconsciously triggered and initiated emotional responses–not 'controlled' cognitive responses – play a central role in the initial level of responding to nature, and have major influences on attention, subsequent conscious processing, physiological responding and behaviour.'' Herzog (1984, 1985) compared the responses of viewers of scenes given 15 s, 200 ms (i.e. 1/5 s) and 20 ms (i.e. 1/50 s). Though not identical, the responses were surprisingly similar supporting Kant's thesis that the pleasure is immediate, although it is unlikely that he envisaged periods as short as 20 ms.

Kant's thesis that pleasure involves no conceptual judgement can be viewed in the light of Zajonc's assertion that ''preferences need no inferences'', supported by Urlich (1986), Ruddell et al. (1989) and Urlich et al. (1991). Kant's thesis that beauty is without functionality, ''purposiveness without purpose'', reflects the non-cognitive perception of aesthetics, the functionality of which is rooted in our evolutionary past. Its function is survival-enhancing but this does not enter our conscious awareness and is only now being illuminated through the theories of the Kaplans, Orians, Appleton and Urlich.

Finally, the lack of determinant rules for beauty can also be seen as survival-enhancing as rules reduce flexibility of response when faced with new circumstances and therefore do not enhance survival.

Thus Kant's philosophy of aesthetics has close parallels with contemporary theories of aesthetics which are based on an evolutionary perspective. On all counts, the principles and theses of his theory are reflected by this perspective. Kant was unwittingly identifying, nearly a century before Darwin, principles which can make sense through their survival enhancing qualities. The universality of Kant's aesthetics is reinforced by its parallels with contemporary theories of landscape aesthetics.

It is worth noting en passant that the survival enhancing aspects of landscape quality are a perceived quality of the landscape, not an inherent quality of the landscape. It is the interpretation which humans place upon what is viewed in the landscape which ensures their survival, if they perceive wrongly, then their survival may be threatened. Thus these theories require the subjectivist paradigm in which to operate.

9. Objectivist vs. subjectivist paradigms

9.1. Relevance to research of landscape quality

Why is it important whether the objectivist or subjectivist paradigm applies to landscape? It is a critical difference – if it is an objective quality then it can be measured and evaluated from surveys of the physical landscape, but if it is subjective, no amount of such surveys will suffice – rather it must be based on an assessment of the community's landscape preferences.

As landscape researchers it is important to understand and appreciate the advantages and disadvantages of the two approaches. The subjectivist approach is replicable, its findings can be taken to reflect the community and hence can be defended politically and its findings applied with confidence. The results are likely to provide a reasonably permanent assessment of the landscape quality. Moreover the results are defensible in a court of appeal if used in cases where landscape quality is an issue. The results have a capability of being used to predict the effect on landscape quality of changes in land use, land form and land cover (e.g. Daniel and Schroeder (1979); Hull and Buhyoff (1986a)).

However, the method may be more expensive and it does require more specialist skills to apply – skills covering the selection of participants, photography of scenes, management of sessions to rate photographs,

analysis of the content of the photographs, and statistical analysis of the content with preferences. It takes longer and is more difficult than the objectivist approach.

Moreover the psychophysical methods used in the subjectivist approach enable the error in the estimates of the landscape quality measures to be estimated whereas the objectivist approach is scarcely even aware of the concept of measurement error, let alone include the means for its estimation[2].

The fundamental failing of the objectivist approach lies, paradoxically in its inherent subjectivity – the assumption it makes that quality is an inherent characteristic of the landscape means that this is assessed using a subjective approach. This means that the results lack replicability, are unlikely to be defensible in a judicial appeal, and will not necessarily reflect the preferences of the general community. The criteria used are often devised by an individual and applied by that same person and perhaps a few others, scarcely a statistically or scientifically valid method. Typically the credibility of the method relies on the reputed expertise of the individual who carried it out. However, the eminence of the author is of no benefit if the method is fundamentally flawed.

The objectivist approach could be made somewhat more rigorous and statistically valid by:

- Ensuring the criteria used to measure landscape quality reflect community preferences as determined through surveys. However, the authors of expert methods may regard the inclusion of community views as reducing aesthetic assessments to the lowest common denominator.
- Utilising a larger number (minimum 30) of subjects to carry out the assessment – these should be representative members of the community, not specialists such as landscape architects

However, the adoption of these measures will take away the sole advantage of this method over the subjectivist method, namely the ease and low cost it involves. These measures would in fact transform it into the subjectivist method.

[2] I acknowledge with appreciation the suggestion of this point by an anonymous reviewer.

9.2. Combining the two paradigms

The two paradigms can be combined into a model of landscape perception which provides a means for reconciling the two and providing a role for each.

Earlier it was noted that although the Romantic poets saw landscape qualities as contained in the landscape (i.e. objectivist), their writings influenced the wider society to view landscapes through eyes imbued with Romanticism, a subjectivist mindset. Fig. 5 illustrates this, the circle representing, in the terms of Dearden (1989), the pyramid of influences – innate (i.e. evolutionary), culture, familiarity and socio-economic and demographic variables – on the individual. This creates the subjectivist context which determines how they view a landscape. Within this context, the individual will almost inevitably view the landscape in objectivist terms, but in actuality, their preferences are determined by their subjectivist context. To the individual, the beauty is perceived to be in the landscape but viewing this generates pleasure in the viewer, a pleasure determined by the above variables.

At the outset of this paper the contrasting surveys of landscape were described, those which surveyed the physical attributes of the landscape in an attempt to define quality, and those which surveyed observer's preferences for the landscape. The assumptions which underlie the surveys of a landscape in fact reflect the prevailing subjectivist paradigm. Thus in the survey of Linton (1968) of the Scottish landscape, his high scoring of mountains reflected the subjectivist paradigm which applied. Similarly the scale of landscape

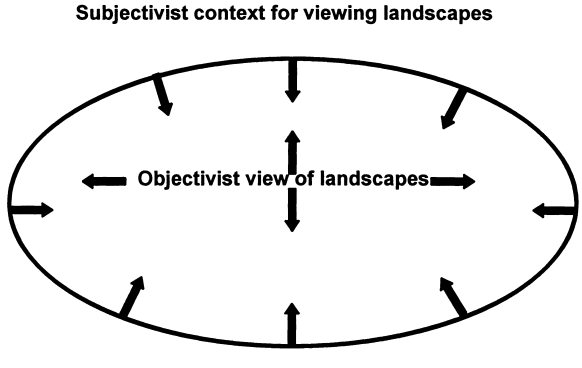

Fig. 5. Relationship of the objectivist and subjectivist paradigms.

quality of Fines (1968) placed the mountains at the highest level and flat land towards the bottom of the scale. The point is that although these surveys assume the landscape quality to be intrinsic in the landscape, the assumptions they made in rating this quality derive from the subjectivist view of landscapes.

10. Conclusion

Typologies of landscape studies have identified a variety of ways in which they can be classified (e.g. Fig. 2) and the objectivist and subjectivist paradigms presented in this paper are a further construct which may be used to classify the studies at a fundamental level. Basically these paradigms contrast viewing landscape quality as an inherent physical attribute (objectivist) versus seeing it as the perception of the physical landscape by the human brain (subjectivist).

Both of these paradigms have long histories, having their roots in the contribution of philosophers over many centuries. Until around the 18th century, philosophers viewed beauty in objectivist terms. Philosophers lead by Locke, Hume, Burke and particularly Kant then asserted that beauty is a construct of the mind viewing the object, the subjectivist paradigm.

The Cartesian revolution which separated ''what is out there'' from ''what is in here'', i.e. nature and mind, undoubtedly had a major influence in this shift. Kant's comprehensive theory of aesthetics has close parallels with and provides support for the contemporary theories of landscape quality based on Darwin's evolutionary perspective which Kant pre-dated by nearly a century. The influence of the psychological perspective in the latter half of the 19th century further consolidated the subjectivist paradigm as the dominant philosophical paradigm of aesthetics today.

What is the future of these paradigms? The future lies in the use of the subjectivist paradigm. Now is the time to abandon the use of the objectivist paradigm. The method lacks scientific rigour, is non-replicable, lacks statistical validity, is largely subjective in its construction and is often based on an assessment by a sole assessor. By contrast, the subjectivist paradigm offers a method which is scientifically and statistically rigorous, is replicable and objective, reflects the preferences of the community and can indicate the degree of accuracy of its results. Moreover this method offers predictive capability and can be used to assess the effect on landscape quality of land management actions such as clearance of trees, routing of major power lines or construction of a water body.

Further development of the subjectivist paradigm and its application to assess the landscape quality of regions and even nations will serve to establish landscape quality as an environmental attribute that can be measured, managed, and predicted.

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