

# TYPOLOGIES OF LANDSCAPE QUALITY RESEARCH

Dr Andrew Lothian, Scenic Solutions May, 2014

## INTRODUCTION

Typologies are classifications or types that have common characteristics. In relation to landscape aesthetics typologies relate to whether an objective or subjective approach applies, i.e. whether landscape quality is assessed by the landscape's physical characteristics or by human preferences for the landscape. The objective view is that aesthetics are determined by whether the physical entity meets certain criteria, whereas the subjective view is that aesthetics result from the emotional response to the physical landscape, our preferences and our likes and dislikes.

This paper examines this theme through three areas:

- Cultural influences
- Philosophy
- Landscape studies

The purpose of this paper is to define which of the two approaches, the objective or subjective, should be adopted.

## CULTURAL INFLUENCES

In the paper, *Western Culture and Landscape*, the two dominant influences of classicism and teleology on Western aesthetics were examined. These dominated Western thought until the recent centuries of post-Darwinian rationalism.

### Classicism

Classicism derived from Greek and Roman times and the esteem with which these were held in post-Renaissance Europe. In 17<sup>th</sup> and 18<sup>th</sup> century Europe, these ancient times were seen through rose-tinted glasses which extolled their positive attributes while overlooking the human frailties, corruption and persecution that existed then. So highly were they regarded that knowledge of Latin and Greek were *de rigueur* in education, a person without these was regarded as ignorant and uneducated. Classicism applied particularly to art, architecture, and literature.



**Glyptothek Museum (1816) in München designed in the classical Greek-Italian style, an example of classicism in architecture**

Classicism strongly influenced what was regarded as beautiful. Beauty was distinguished by symmetry, order, proportion, regularity and restraint. The attributes of classicism cover:

“an aesthetic tendency characterized by a sense of proportion, by a balanced and stable composition, by a search for formal harmony and by understatement; imitation of ancient writers; aversion to the exceptional; well-nigh exclusive interest in psychological and moral analysis; control of sensitivity and imagination ...” (Secretan, 1973)

Excess was regarded dimly, Burnett describing: “*Vastness* signifies an excessive Greatness.” Later vastness formed the basis of the sublime.

As classicism determined what was beautiful, one’s view of an object is subjective, it is influenced, nay determined by what is in one’s mind, not by what physically lies before one. William Gilpin (1724 – 1804) described the subjective position as “we don’t see with our eyes, we see with our imagination” and Horace Walpole (1717 – 1797) said of Italy “our memory sees more than our eyes in this country” speaking of the influence of his classical education. Thus classicism illustrates the subjective view.

### **Teleology**

Glacken (1967) summarised the influence of teleology thus:

“The Judeo-Christian conceptions of God and of the order of nature were often combined by the early Church Fathers with both the classical argument of design and the idea of an artisan-deity or demiurge, creating a conception of the habitable world of such force, persuasiveness, and resiliency that it could endure as an acceptable interpretation of life, nature, and the earth to the vast majority of peoples in the Western world until the sixth decade of the nineteenth century.” i.e. up to Darwin’s *Origin of the Species* published in 1859.

The classical ideas of beauty strongly influenced teleology. But it went beyond what God had created to man making it more habitable and perfect, and therefore beautiful. The example of St Bernard of Clairvaux (1091 – 1153) illustrates this perfectly. The development of the Clairvaux abbey changed the landscape from a wilderness to one which was more useful, more charming and more beautiful. The abbey was situated in a valley with grain and vines growing nearby - “each of them offers to the eye a beautiful sight, and supplies a needful support for the inmates.” Thus while God made creation perfect, man made it beautiful by making it useful and productive.



**Abbaye de Clairvaux**

John Ray's teleological work, *The Wisdom of God Manifested in the Works of Creation* (1691), expressed it thus:

"(God) delights in the Beauty of his Creation, and is well pleased with the Industry of Man, in adorning the Earth with beautiful Cities and Castles; with pleasant Villages and Country-Houses; with regular Gardens and Orchards, and Plantations of all Sorts of Shrubs and Herbs ... with Shady Woods and Groves, and walks set Rows of elegant Trees, with Pastures cloathed with Flocks, and Valleys cover'd with Corn, and Meadows burthened with Grass..."

When Western man discovered the mountains of Europe they could not reconcile them with their teleological view that God made all things perfect, and described them in the 17<sup>th</sup> century as "Warts, Wens, Blisters, Tumours, Imposthumes" on God's creation. Because of their abhorrent appearance, it was commonly believed that mountains came after creation and were "blemishes" on creation due to Adam's fall. They represented an aging earth and, using the analogy of an old man, blemishes, warts, blisters etc occurred to mar their beauty.

Adam of Usk who, in 1401, had himself blindfolded and carried across the Alps rather than take in the horrid view of mountains. John Evelyn in 1644 described the Alps from Italy as "if nature had here swept up the rubbish of the Earth in the Alps, to forme and cleare the Plaines of Lombardy."



**Scenes of the Dolomites, "swept up the rubbish (from) the Plaines of Lombardy"! John Evelyn, 1644**



Teleology, like classicism, exerted a strong subjective influence which determined their likes and dislikes as illustrated by their opinion of mountains. The mountains themselves do not contain anything physical which is inherently aesthetically pleasing but such qualitative assessment is solely of the mind. In most instances however, individuals appraising a particular scene will be unaware of the subjective context for their assessment and will believe that they are making objective assessments.

Cognitive processing is not involved in the subjective assessment. Individuals when viewing mountains did not analyse the view and say to themselves, "My classical and scriptural upbringing tells me I must dislike this scene of a mountain." Rather, their response was an immediate revulsion! The same applies when the cultural paradigm was reversed and mountains were seen as sublime. A person viewing one does not say "The sense of awe and terror that I experience in viewing this scene can be considered sublime which is a positive emotion." Rather, they simply say "I like it".

Similar instantaneous, subjective responses apply to whether a person is making an aesthetic judgement about a painting, a garden, a person's face, a house, a car or any other object.

Generally but not invariably, the judgement reflects the ruling cultural paradigm relating to that object, the judgement is not absolute but is relative to the particular cultural paradigm applying to that object at that point in time. In Victorian times it was fashionable (i.e. the cultural paradigm) for women to be plump, in some African countries for women have their necks extended by bands, in contemporary Western culture for women to participate in the workforce, and so on. The influence of cultural norms is thus no different with reference to aesthetic objects than to every other area of life, whether opinions on subjects, types of clothes to wear, correct behaviour in varying situations, etc. A wide range of tolerance of varying opinions or behaviour may apply, for example in clothing, while in other areas the variation of tolerance will be very narrow, for example in regard to violence.

Further evidence that the cultural paradigm on landscape is subjective rather than objective is found in the changeable nature of this paradigm over time. Although at any given time landscape attitudes may appear constant, the paradigm does change over time. If the paradigm is objective (i.e. is found in the landscape itself) and the landscape itself remains unchanged, then it would be expected that attitudes to it would remain constant over time. The fact that attitudes do change over time and are not absolute is evidence that they are subjective.

While it has been argued here that the cultural paradigm exerts a dominant role in determining aesthetic preferences, one must also be mindful of other sources that help shape individual preferences. Freud's psychoanalytical theory establishes that individual preferences are also influenced by repressed memories, sexual drives and unconscious fantasies and symbolisms. Gestalt and perception theory suggest preferences for certain shapes, groupings and patterns. Information processing theory proposes that certain qualities in a scene are favoured. These influences account for the variations in preferences that occur within the overall paradigm but do not serve as determinants of that paradigm.

## **PHILOSOPHY**

In the paper, Philosophy of Aesthetics, the philosophical view of beauty was traced and it was found that whereas the early philosophers regarded beauty as an inherent physical attribute of the object being viewed, later philosophers came to see that the aesthetic appreciation of an object is of the mind; that it derives from our preferences.

Table 1 summarises the major philosophical approaches to aesthetics. From the classical philosophers through to the British empiricists an objective approach is evident but then with Lock, Hume and Burke a split occurred and beauty and aesthetics came to be regarded as products of the mind, the subjective view. The change was firmly established by Kant. Subsequent modern philosophers have generally adopted the subjective approach to aesthetics.

**Table 1 Summary of Aesthetic Philosophers**

Era & philosopher	Concept of beauty
Classical philosophers Socrates, Plato, Aristotle	<p><u>Socrates</u>: Beauty had a moral influence, particularly over youth.</p> <p><u>Plato</u>: Beauty had eternal significance, progressing from the human body &amp; mind, through institutions, laws &amp; sciences to absolute beauty outside time and space. Beauty is present in the internal unity of the object – unity with variety. Objects were beautiful intrinsically. Beauty is absolute, unchanging.</p> <p><u>Aristotle</u>: idealised forms of beauty were immanent in tangible objects. Beautiful objects, had to be of a certain size, neither minute nor vast, in order that their unity and wholeness could be appreciated by the observer.</p>
Christian philosophers Plotinus, Augustine, Aquinas, Bonaventure	<p><u>Plotinus</u>: Beauty derives from total object, the “ideal form” its divinity.</p> <p><u>Augustine</u>: Beauty exists in mind of God &amp; revealed by revelation, thus divine. Classical principles apply.</p> <p><u>Aquinas</u>: Beauty is from goodness &amp; derives from perfection, proportion &amp; clarity which symbolises divine beauty.</p> <p><u>Bonaventure</u>: Nature the “mirror of God”, displaying divine perfection.</p>
Renaissance Ficini, Alberti, Descartes	<p>Academies applied classical rules of beauty.</p> <p><u>Ficini</u>: Beauty experienced outside the body.</p> <p><u>Alberti</u>: Beauty derived from an unchangeable order.</p> <p><u>Descartes</u>: Role of reason in establishing truth. Knowledge is advanced cumulatively. Truth derives from intuition &amp; deduction.</p>
British empiricists Locke, Shaftesbury, Hutcheson, Addison, Hogarth, Hume, Burke	<p>Sought underlying explanations of beauty through empirical evidence rather than through cognitive deduction.</p> <p><u>Locke</u>: Primary qualities, the former (e.g. solidity, motion) being “utterly inseparable from every particle of matter”, and secondary qualities (colours, smells, tastes &amp; sounds received by the senses). Beauty resides in an object insofar as beauty comprises the object’s primary qualities but, insofar as beauty is evident in the object’s secondary qualities, beauty is a subjective quality. Locke’s distinction between beauty residing in the object or in the eyes of the beholder became a key question for philosophers.</p> <p><u>Shaftesbury</u>: Linked aesthetics with a moral sense. “the most natural beauty in the world is honesty and moral truth. For all beauty is truth.” Identified the aesthetic attitude of disinterestedness, preceding Kant.</p> <p><u>Hutcheson</u>: Beauty a “compound ratio of uniformity and variety”.</p> <p><u>Addison</u>: Aesthetic taste derives from sublimity, novelty and beauty.</p> <p><u>Hogarth</u>: Beauty is produced by fitness, variety, uniformity, simplicity, intricacy, and quantity or size.</p> <p><u>Hume</u>: “Beauty is no quality in things themselves. It exists merely in the mind which contemplates them, and each mind perceives a different beauty.”</p> <p><u>Burke</u>: Beauty originates with our emotions, “love without desire” (disinterest principle). Beauty was not defined by the properties of harmony, proportion, utility etc, rather these properties resulted in the human experience of beauty.</p>
German philosophers Kant, Schiller Hegel	<p><u>Kant</u>: Aesthetic experience is our mind's representation of the object and, experienced with disinterest, is pure and is wholly subjective. The state of harmony between an object's imaginative representation and our understanding yields aesthetic pleasure. It does not involve conceptual judgement. Objects that 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 being free and without cognitive determination is common to all who experience it.</p> <p><u>Schiller</u>: “beauty is freedom in appearance”. Civilising role of art and beauty, “the medium through which humanity ...advances from a sensuous to a rational, and therefore fully human, stage of existence.”</p> <p><u>Hegel</u>: Natural beauty lower than “works that directly proceed from the human spirit.” Beauty is “the rational rendered sensible, the sensible appearance being the form in which the rational content is made manifest.”</p>
Romantic Poets: Byron, Wordsworth, Coleridge, Southey, Rousseau	<p>Replaced classicism with emotion, substituted aesthetic for utilitarian, delighting in fantasy, disorder and uncertainty, a striving for the infinite. As expressions of feeling, poetry best reflected Romanticism.</p> <p><u>Rousseau</u>: Golden age of humanity was the early communities, living in small groups, satisfying their basic needs from the products of the forest.</p>



## TYPOLOGIES OF PAST LANDSCAPE STUDIES

A characteristic of landscape research has been the number of attempts to make sense of the field of studies. Numerous classifications or typologies of the research have been proposed which are summarised below by chronology.

In an early proposal, Penning-Rowsell (1973) separated the studies into two types: those *independent* of landscape users, and those *dependent* on landscape users. Most of the studies were of the first type, and these generally involved the user defining their preferences rather than the researchers observing the users' exhibited preferences.

Brush (1976) separated observer-based assessments into *preferential judgement* (i.e. likes & dislikes), and *comparative judgement* (i.e. judgement based on a framework such as that of a larger group). Brush considered the latter more useful.

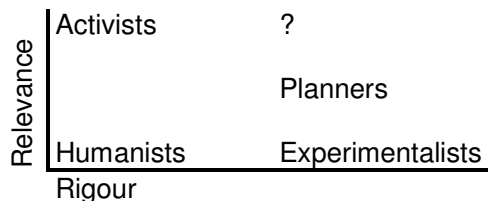
Dearden (1977) defined *measurement techniques* (i.e. physical characteristics) and *preference techniques* (i.e. preference judgements). He clearly differentiated the objective and the subjective approaches.

Arthur, Daniel and Boster (1977) grouped studies into three categories *Descriptive inventories* (i.e. physical characteristics), *public preference assessments* (i.e. preference judgements), and *economic assessments* (i.e. economic evaluations of environmental goods).

In 1980, Dearden revised his 1977 classification into three groups: *field-based methods* (i.e. physical characteristics), *surrogate methods* (i.e. preference judgements based on photos), and *measurement methods* (i.e. sophisticated statistical analysis of preference judgements)

Penning-Rowsell (1981) also revisited his 1973 classification and proposed three groups: *early 'intuitive' methods*: circa 1967 – 71 (mostly physical characteristics), *statistical 'sophistication'* circa 1971 – 76 (i.e. statistical analysis of preference judgements), and *landscape 'preference' approaches*: 1973 onwards (also preference judgements).

Porteous (1982) defined four major approaches to environmental aesthetics based on two criteria, rigour and relevance. He noted that while rigour was traditionally pursued with vigour regardless of relevance, the trend was towards relevance with as much rigour as possible. Relevance refers to the immediacy of the approach to current environmental problems, while rigour refers to scientific theory building and testing. Porteous proposed a model with four groups involved in landscape research (Figure1).



Source: Porteous, 1982

**Figure 1 Porteous' Groups Involved in Landscape Research**

The *humanists* (or purists) “seek universals intuitively and necessarily eschews immediate relevance and scientific positivism”. Examples are Tuan, Lowenthal and Appleton. The *environmental activists* seek to ‘act now’ and contrast with the *experimentalists* who say that ‘before we can change the world, we must first understand it’. “*Planners*” is a shorthand term for environmental designers and managers who have to grapple with immediate issues and who often have the training to take a fairly rigorous approach. Porteous considers that no group has reached the “?” position, denoting high levels of both relevance and rigour.

Porteous' approach tends to diminish the long-term contribution that his so-called humanists ('theorists' may be a better term) make. Nevertheless relevance and rigour should guide work in the field.

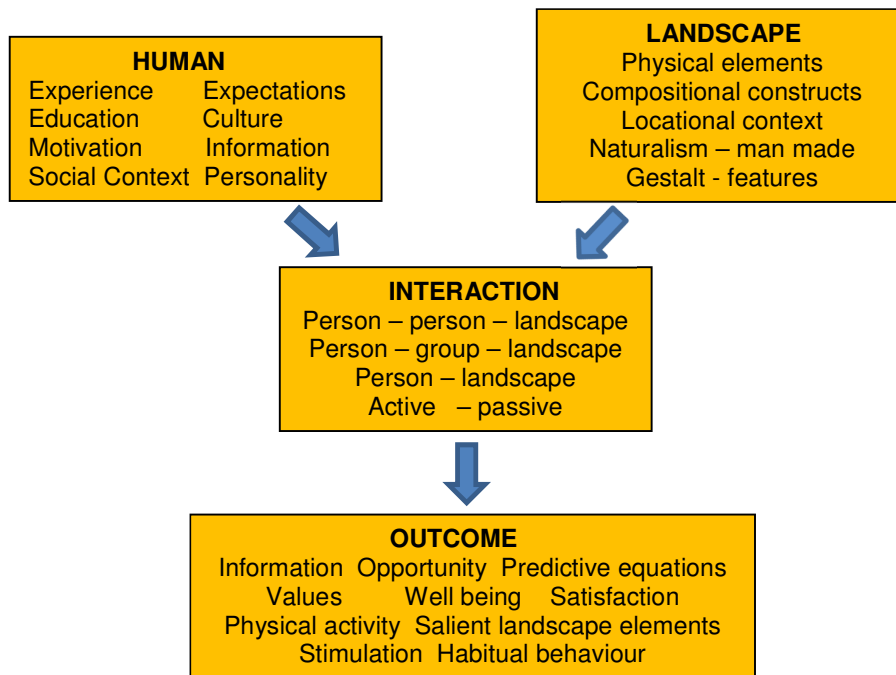
Punter (1982) proposed three paradigms, *landscape perception* (i.e. mechanics of perception), *landscape interpretation* (i.e. social and cultural meanings associated with landscape), and *landscape (visual) quality* (i.e. formalist qualities).

Two seminal evaluations of landscape studies were published, in 1982 by Zube, Sell and Taylor and in 1983 by Daniel and Vining. The similarities between them were greater than the differences. They were both based on extensive reviews of the literature. Table 2 summarises both typologies.

**Table 2 Typologies of landscape studies**

Zube, Sell and Taylor (1982)	Daniel and Vining (1983)
<i>Expert</i> - physical characteristics	<i>Ecological</i> – physical characteristics
<i>Psychophysical</i> – preference judgements	<i>Formal aesthetic</i> – formalist qualities
<i>Cognitive</i> – search for meaning	<i>Psychophysical</i> - preference judgements
<i>Experiential</i> – experience of viewing landscape	<i>Psychological</i> – nature of feelings and perceptions
	<i>Phenomenological</i> - subjective feelings

Daniel and Vining add an additional category to the Zube *et al* typology, that of the formal aesthetic, but otherwise the two are virtually identical, only with different titles. Zube *et al* presented Figure 2 as a first step towards a theory of landscape perception, focusing on the interactions between the viewer and the landscape and identifying various outcomes.



Source: Zube, Sell & Taylor, 1982

**Figure 2 Landscape Perception (interaction) Process**

Zube et al saw “the most pressing need is for a basic model to which landscape perception research and theory can be fitted and related into a whole” hence their attempt at a framework in Figure 2. The authors of both typologies recognised the inadequacy of some of the components. Daniel and Vining opined:

“At the present time, none of the models described completely meets all the goals of landscape - quality assessment. By the criteria outlined in this paper, it is unlikely that either the ecological or the formal aesthetic models can serve as a basis for an adequate landscape - assessment system. For very different reasons, the phenomenological model is inadequate. While neither the psychophysical nor the psychological models are sufficient alone, a careful merger of these two approaches might provide the basis for a reliable, valid, and useful system of landscape - quality assessment.”

Both the ecological and formal aesthetic models focus on the characteristics of the landscape – the objective approach, whereas the psychophysical, psychological and phenomenological models focus on the effects of the landscape on individuals, the subjective approach.

Since these two seminal works, further systems for classifying the growing landscape literature have been proposed.

Fenton and Reser (1988) classified the approaches into three categories:

1. Objective measurement of physical-setting variables
2. Use of judges’ ratings (normative judgements) to define landscape variables with a clear environmental referent
3. Description of landscape variables in phenomenological terms

Their first category combines aspects of psychophysical and expert paradigms, the second category covers the cognitive, psychophysical and expert paradigms and the third category covers the experiential paradigm.

Dearden and Sadler (1989) developed a theoretical framework based on whether the landscape judgement is a mixture of elements external to the observer (i.e. objects) or internal to the observer (i.e. the perceptual, affective and cognitive responses) (Figure 3)

High	<b>CONSENSUS</b>			Low
E > I Objectivist Subjectivist	Evaluation Philosophy			I > E
MODEL SUITABILITY (Daniel & Vining, 1983)				
Ecological	Formal Aesthetic	Psychophysical	Psychological	Phenomenological

Source: Dearden and Sadler, 1989

**Figure 3 Theoretical Framework Based on Consensus for Landscape Evaluation**

The ratio of external [E] and internal [I] elements varies with the characteristics of the observer, the landscape and the mode of interaction. Where E exceeds I (E > I), consensus will be high, but where I exceeds E (I > E), consensus will be low. E > I is termed *objectivist*, while I > E is termed *subjectivist*. The authors compared their framework with the five models defined by Daniel and Vining (1983). While they acknowledge that it is often difficult to assess the I:E ratio, they considered that “some techniques, firmly rooted in an objectivist philosophy, are purely landscape oriented and merely assume consensus”, whereas “other techniques pay little attention to landscape, assume that each observer is unique, [that] there is no consensus and focus their efforts on a subjective analysis of the individual.” On the basis of their analysis, the authors suggest that the various approaches to assess landscape quality “should not be seen as mutually exclusive, ...(but) rather they are complementary.”



Elsewhere, Dearden (1989) defined the objectivist stand of viewing beauty inherent in objects, whereas the subjectivist stand views beauty as being in the eye of the beholder.

Dearden and Sadler's identification of the objectivist and subjectivist elements in landscape assessments is welcome, although they appear to confuse objectivity with consensus. Their proposal regarding the relative dominance of external or internal elements appears naïve, as when they state, "in some circumstances beauty will reside more in landscape (i.e.  $E > I$ ) and in others the eye of the beholder will be more critical in influencing landscape judgements (i.e.  $I > E$ )." (Dearden, 1987). This suggests that the influences on an individual are changeable depending on circumstances. Yet it is difficult to see how this could be in practice, how does a person put aside the innate, cultural and personal influences on their preferences and see the landscape purely in terms of intrinsic beauty?

Gobster and Chenoweth (1989) defined three 'descriptor types': physical, artistic and psychological and analysed these types' capacity to predict aesthetic preferences for rural river, forest and agricultural landscapes.

From New Zealand came a different type of model. Janet Stephenson (2008) called it a Cultural Values Model which comprised landscape-related forms, practices and relationships:

- Forms being the physical, tangible and measureable aspects of landscape such as landforms, vegetation, archaeological and historic sites;
- Relationships being human relationships including people-people and people-landscape covering myths and stories, aesthetics, memories, meanings of places;
- Practices covering both human and natural processes including historical processes and ecological processes.

Each of these interacts with each other and also, importantly, is dynamic over time. She differentiated surface values such as those that a visitor might have for an area from embedded values which locals have who know the area intimately and also draw on historical knowledge about past events that occurred in it. The "time-thickness" of the landscape describes these stories and events from the past.

In a subsequent paper, Stephenson (2010) developed the previous model into a Dimensional Landscape Model (Table 3). These provide a typology of landscape studies although she emphasises that a method may cover several of the five groupings.

**Table 3 Dimensional Landscape Model**

	<b>Spatial portrayals of landscape qualities</b>	<b>Temporal portrayals of landscape qualities</b>
Static portrayals of landscape qualities	TYPE A (Static-Spatial) Emphasis on the physical landscape	TYPE C (Static – Temporal) Emphasis on historic associations of the landscape
Dynamic portrayals of landscape qualities	TYPE B (Dynamic – Spatial) Emphasis on interactions between forms, relationships & practices, at a point in time	TYPE D (Dynamic- Temporal) Emphasis on interactions between forms, relationships & practices, over time
<b>TYPE E</b> (Dynamic – Spatial – Temporal) Emphasis on interactions between forms, relationships and practices over time and space.		

Source: Stephenson, 2010

Stephenson classified landscape studies as follows:

- Type A (spatial-static): Western-originated disciplines identifying qualities of the physical landscape and to some extent around Type C (temporal-static) which includes standard holistic accounts and mapping of 'historic landscape character' and similar.
- Type B (dynamic-spatial) less common but include cultural mapping and ecological systems mapping.
- Type D (dynamic-temporal) apply to landscape histories and people-place interactions over time.
- Type E (dynamic-spatial--temporal) have not been applied in Western landscape studies.

Traditional cultures including Maori and Aboriginal weave time and place together in their narratives and are Type E. While Western studies cluster in the top left quadrant, indigenous approaches tend to cluster in the right hand quadrants which incorporate time, but also in Type E which combines the spatial-temporal.

### Typology of past landscape studies - Conclusions

The fourteen typologies reviewed here are classified in Table 4 by the categories identified by Zube *et al* (1982). In some cases it is difficult to assign the typologies, as the descriptions used differ greatly. However the Table indicates my best judgement as to their placement. The majority of studies apply either the Expert or Psychophysical methods while the Cognitive and Experiential are the least preferred methods. Most of the typologies define only two or three categories and in some instances several of these amounts to the same thing - namely the psychophysical paradigm.

**Table 4 Summary of Landscape Analysis Typologies**

Author	Expert	Psychophysical	Cognitive	Experiential
Penning-Rowse, 1973	Independent	Dependent on users		
Brush, 1976		Comparative appraisal	Preferential judgement	
Dearden, 1977		Measurement techniques	Preference techniques	
Dearden, 1980	Field based	Surrogate methods Measurement techniques		
Arthur, Daniel & Boster, 1977	Descriptive inventories	Public preference models		
Penning-Rowse, 1981	Intuitive methods	Statistical sophistication Preference approaches		
Porteous, 1982	Planners	Experimentalists		Humanists
Punter, 1982	Landscape quality	Landscape perception		Landscape perception
Zube, Sell and Taylor, 1982	Expert	Psychophysical	Cognitive	Experiential
Daniel & Vining, 1983	Ecological + Formal Aesthetic	Psychophysical	Psychological	Phenomenological
Fenton & Reser, 1988	Objective measurement	Normative judgements		Phenomenological
Gobster & Chenoweth, 1989	Physical Artistic		Psychological	
Dearden & Sadler, 1989		Objectivist (Expert) vs Subjectivist (Experiential)		
Stephenson, 2008, 2010		Combinations of Static - Spatial - Dynamic		

Note: Arthur *et al* (1977) also include economic analyses. The classification by Porteous (1982) is of the type of researcher rather than the product of their work. His activist category does not fit any of the above paradigms.

It is striking that since the late 1980s there have been virtually no further attempts to classify landscape studies which is surprising given that there have been many studies since then. Terkenli (2001) noted that an "all-encompassing theory may no longer be sought after in contemporary social sciences as in the past". The same conclusion appears to apply to typology development. Why this is so is not evident.

## **AN ALTERNATIVE TYPOLOGY**

The fundamental dichotomy in the way landscape is viewed is between believing that beauty is an intrinsic quality in the landscape versus believing that beauty lies in the eye of the beholder. The history of philosophy, summarised above, brings this distinction out clearly. We also saw that cultural influences of teleology and classicism illustrated the subjective approach. The distinction is also apparent in the typologies examined earlier in this paper.

Planners, geographers and others often treat landscape as a feature to be classified and mapped, similar to the treatment of soils, landforms or vegetation. The credibility of the method typically relies on the reputed expertise of the individual applying it. They establish certain assumptions (e.g. that mountains and rivers have high landscape quality) and evaluate the landscape accordingly. The landscapes may be classified on a numerical scale or classified of high, medium or low quality. 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.

As an example, Linton's (1968) survey of the Scottish landscape gave high scoring to the mountains thus reflecting his subjective view that they should be scored high. Similarly, Fines' (1968) scale of landscape quality 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 their own subjective view of landscapes.

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 objectively measures subjective 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, Australia 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.

Moreover, the results are defensible if used in courts where landscape quality is an issue. The error involved in the estimates of ratings can be determined statistically. The method can also be used to predict the effect of change on landscape quality (Daniel and Schroder, 1979; Hull and Buhyoff, 1986).

The subjective method may however be more expensive and require specialist skills to apply - skills covering the selection of participants, photography of scenes, management of

sessions to rate photographs and their content, and in particular, statistical analysis. It may take longer and be more difficult than the objective approach.

The objective 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 participants to carry out the assessment - these should be representative members of the community, not specialists such as landscape architects.
- Testing the expert appraisals with the community.

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

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 objective and subjective paradigms.

Surveys of the physical landscape that define its quality on the basis of the presence or absence of certain attributes are premised on the concept of beauty being immanent in the landscape. Conversely psychologically-based studies which evaluate the feelings that people derive from the landscape and which seek the dimensions in the landscape that account for its quality are premised on beauty being in the eye of the beholder.

These different approaches to the way landscape is viewed are absolutely fundamental, either the landscape quality is regarded as intrinsic or in the beholder [objective or subjective] - there is no recognised middle ground. The two approaches cannot be combined. Few of the typologies examined acknowledge this distinction and most treat the differences in the form of a continuum. Where the physical landscape is assessed, its assessment is in terms such as field based, descriptive inventories, expert, or objective measurement. Gobster & Chenoweth (1989) touched on the difference, stating:

“All physical descriptors relate to the external dimensions of the environment - what is ‘out there’ versus what is ‘in the head’ - and herein lies a critical distinction between physical and psychological descriptors.”

Similarly, Dearden and Sadler (1989) came close to the issue in stating:

“The major philosophical and methodological division has been between those favouring a more reductionist, quantitative-objective approach and those maintaining that it is not possible to apply standard positivist techniques to such a holistic concept as landscape aesthetics.”

They proposed the distinction between physical and psychological paradigms:

- Physical paradigm = elements external to observer = objectivist
- Psychological paradigm = elements internal to observer = subjectivist

I propose that this distinction should provide the basis for the major classification of landscape methods, between on the one hand, physically- based methods and, on the other hand, psychologically-based methods, the former being those based on viewing beauty as physically intrinsic in the landscape while the latter view it as a human construct.

Figure 4 contrasts the two methods for landscape assessment.

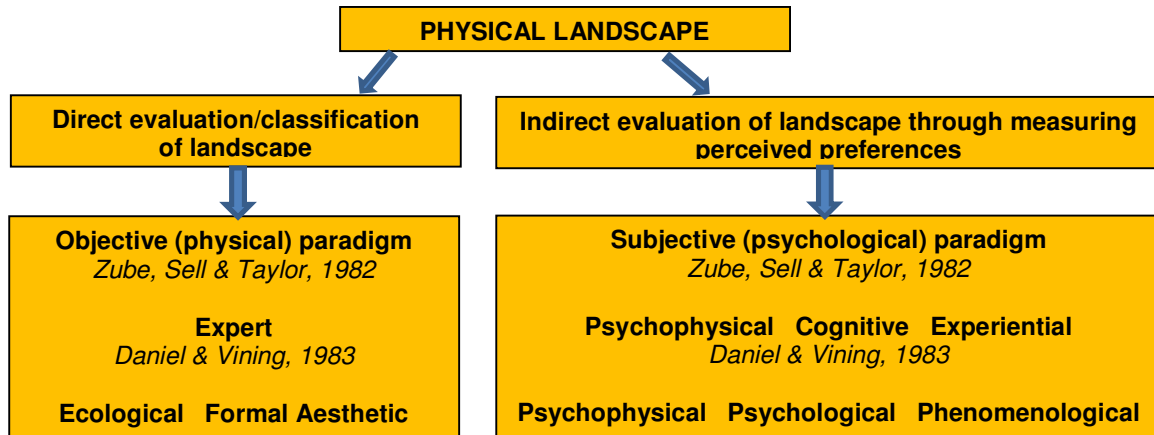


Figure 4 Contrasting Landscape Assessment Methods

Table 4 summarises the differences between these two paradigms.

Table 4 Objective (physical) and Subjective (psychological) Paradigms

Objective (physical) paradigm Beauty - an intrinsic quality of the landscape.	Subjective (psychological) paradigm Beauty - a quality in the eye of beholder.
What we see as landscape beauty is assumed to be part of the landscape.	What we see as landscape beauty is our perception of the landscape.
Subjective evaluation presented as objective.	Objective evaluation of subjectivity.
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.
Lack of standardisation - uses different and unique methods and techniques.	Standardised research instruments & statistical tools, although used in a variety of ways.
Site and area specific; results generally cannot be extended beyond area of study.	Not area or site specific; seeks results for wider application.
Does not seek explanation.	May be applied to understand preferences in different landscapes.
Assessments are often field based.	Mainly uses surrogates (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 objectively analysed 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.

## CONCLUSIONS

In this paper we have laid the basis for conducting landscape quality assessment. It is through the subjective approach, using psychophysical techniques of survey and analysis, that landscape quality may be objectively analysed. It showed why the objective or physical paradigm should not be used as it does not provide a true assessment of people's landscape preferences.