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Perceptions of Landscape in Wicklow –
An Application of the Cultural Values Model

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Abstract

Landscapes are socio-ecological systems that have both perceptual and material dimensions. Today, social structures and landscapes alike are changing at an accelerated rate due to increasing globalisation and societal urbanisation. This thesis investigates cultural values in the landscape, the aspects of the material landscape that they relate to, and the human practices through which they are experienced and reinforced. This is achieved through a case study in Wicklow, Ireland, where 81 interviews were conducted. The data was arranged using Cultural Domain Analysis, and subsequently categorised according to the Cultural Values Model by Stephenson, which aims at a holistic approach to the landscape concept. The findings indicate that there is a wide and rich range of landscape values, though primarily, people value natural features of the landscape over man-made, as well as valuing the landscape as a place that benefits them directly through their experiencing of it.

Zusammenfassung

Landschaften sind sozio-ökonomische Systeme, die eine physisch-materielle und eine wahrnehmungsbezogene Dimension beinhalten. Sowohl soziale Strukturen als auch Landschaften verändern sich mit immer größerer Geschwindigkeit aufgrund der steigenden Globalisierung und Urbanisierung. In der vorliegenden Arbeit werden daher die der Landschaft zugeschriebenen kulturellen Werte und deren Verbindung zu materiellen Aspekten dieser Landschaft untersucht. Außerdem werden die Praktiken, durch die diese Werte zum Ausdruck kommen und verstärkt werden, betrachtet. Hierfür wurden in einer Fallstudie in Wicklow, Irland, 81 Interviews durchgeführt. Die auf diese Weise gewonnenen Daten wurden mithilfe der *Cultural Domain Analysis* untersucht und anschließend anhand des *Cultural Values Model* von Stephenson, welches einen ganzheitlichen Ansatz in der Landschaftsforschung verfolgt, kategorisiert. Die Ergebnisse spiegeln eine große Vielfalt an Werten wider, die mit Landschaft verbunden werden; es zeigt sich aber, dass Menschen vor allem natürliche Aspekte der Landschaft wertschätzen und Landschaft als einen Raum achten, dessen direkte Erlebbarkeit sich positiv auf sie auswirkt.

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1. Introduction

On October 20th, 2000, the Council of Europe signed the European Landscape Convention (ELC), the first international convention to focus specifically on Landscapes. The Convention states *inter alia* that landscapes are

> '*…an important part of the quality of life for people everywhere… landscapes are a key element of individual and social well-being'* (Council of Europe 2000, 8)

The ways in which landscapes contribute to quality of life and social well-being are through their qualities, functions and services. These include those that are material, such as provisioning and regulating, and those that are immaterial, cultural functions such as aesthetics, identity, heritage, and social fulfilment (R. S. de Groot et al. 2010; Vallés-Planells, Galiana, and Van Eetvelde 2014).

This multifunctional nature of landscapes is reflected in their definition by the ELC as *'...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*'(Council of Europe 2000, 9). Landscapes are spatial. Landscapes are formed by the action and interaction of both nature and people. Landscapes are *as perceived by people*. The ELC definition is consistent with the current scientific discourse on landscapes, which considers them as consisting of both a physical dimension of material and facts, and a cognitive dimension of cultural and subjective meanings attached to these material facts (Jones 2003; Buijs, Pedroli, and Luginbühl 2006; Haber 2004; Stephenson 2003).

Societies are moving from a rural, productive existence to an urban service one, where industrial agricultural practices are intensifying, and at a rate of change which for most human-influenced landscapes is unpredictable (Naveh 2001)(Howley 2011)(Buijs, Pedroli, and Luginbühl 2006)(UNCTAD 2013). The ELC states that developments in agriculture, forestry, regional planning, and changes in the world economy, are accelerating the transformation of landscapes (Council of Europe 2000).

To contribute to the understanding of this change, and to the sustainable management of the transition, scientific knowledge of the cognitive dimension of the landscape is crucial; that is, to determine how the landscape is perceived and valued, and to establish what determines these values.

When considering landscape perceptions as intersubjective and value driven, the question of their nature must be addressed from the perspective of those whose relationships and perceptions define it (Tress and Tress 2001). This research is, therefore, an exploratory work on the landscape as perceived by people. The objective is to explore the relationship between a society and its landscape. Specifically to ask what are the values held by the society in the landscape, to what physical components and what processes of the landscape do these values relate, and to determine whether, in light of the societal and land-use trends, there are differing values sets within a society which may highlight future expected landscape values.

This is achieved through a case study in County Wicklow, Ireland, which has a physical landscape characterised by agriculture, forestry, and upland wilderness, and an increasingly urbanised coast due to its proximity to the capitol city to the north. The population in Wicklow has increased from 83,000 inhabitants in 1980 to 136,640 in 2011, 3% of which are involved in agriculture and forestry (Central Statistics Office 2011).

Landscape values were collected using 81 structured interviews with people in the landscape. Interview data was combined, and analysed using Cultural Domain Analysis, a tool common to anthropological research which arranges data in terms of salience, that is, which items, or values, feature most prominently to the group of interviewees. The data was subsequently categorised using the Cultural Values Model, a conceptual framework that integrates the material and immaterial aspects of landscapes, the dynamic and temporal dimensions, as well as the interplay between them.

The thesis is structured as follows:

Chapter 2 will outline the state of the art with regard to landscape research while Chapter 3 discusses the theoretical underpinnings of the study and

concludes with the research objectives. On this basis the next chapter will outline the methodology used to address the research objectives, including interview style, and data analysis. Chapter 5 contains the main results of the analysis, and is followed by the discussion (Chapter 6) and finally the conclusion (Chapter 7).

2. Landscapes and Human Well-Being

This section will outline the main discourses in landscape research, showing how landscapes are, amongst other things, the point of intersection between culture and the environment. This section will begin by describing the unfolding of various themes in the landscape sciences over time, focusing on the humanist perspective that emerged in the 1960s. Section 2.2 will describe the growing body of literature concerning landscape services, and their contribution to human well-being. Section 2.3 will feature the state of the art with regards to public participation in landscape service assessment, with particular focus on landscape values.

2.1 Discourses on Landscapes

The word *landscape* entered the English language via the Dutch word *landschap* in the sixteenth and seventeenth centuries, gradually coming to colloquially refer to the visual character of the countryside, as well as of artistic representations of it (Gregory et al. 2009).

The term *cultural landscape* or *Kulturlandschaft* has its origin in *Die Deutsche Landschaft (*Ratzel, 1895, from Jones 2003), where it was used as a definition of 'landscape modified by human activity', as opposed to a natural landscape in which there exists no human impact. This concept was first articulated in the English-speaking world by Sauer, who wrote that the landscape is the result of culture acting as a force on a medium that is the natural landscape (1925, from Jones 2003).

This Sauerian concept framed several decades of geography research (Gregory et al. 2009), until a humanist narrative in the discourse gained traction in the 1960s which used the term cultural landscape to describe the ties between culture and the environment (Rowntree 1996), particularly, the examination of cultural perceptions and landscape preferences, aimed at understanding people's cognition of, and response to, the environment (Jones 2003). Carl Troll's *Wirkungsgefüge* approached landscapes from a systems perspective.

Translated literally as 'an arrangement of effects', *Wirkungsgefüge* describes the mutually influencing factors of nature and humans (Tress and Tress 2001). The *Wirkungsgefüge* concept, along with Yu-Fi Tuan's work on the landscape as a place and an identity giver, not observed as an external scene but perceived from within the scene (Tuan 1974), were highly influential in opening up the landscape discourse to a transdisciplinary approach, where ecology, psychology, history, social and spatial sciences all have something to contribute to the articulation of the complexity and functioning of landscapes.

Stephenson (2010) identifies three interrelated dualities in theoretical depictions of landscape, outlining how they have both spatial and temporal dimensions; both place and space; both an observable reality and experiential reality. Landscapes are temporal in that time is crucial participant in all the cultural and natural processes that shape and define a landscape, and they are also temporal in the sense that the landscape carries forward the evidence of processes past, and is often in this context described as a palimpsest (Jones 2003; Palang et al. 2004; Gregory et al. 2009; Council of Europe 2000). As Ingold quoted Meini: 'life must be lived amidst that which was made before' (cited in Ingold 2000, 191).

As a space, landscapes are a 'physical, geographically describable phenomenon', a reality that can be observed and mapped 'from a detached position' (Stephenson 2010). Contrasting this space landscape is the place landscape, which is a cultural repository of personal and collective history and identity, with an ever evolving and dynamic perspective as a landscape that is continuously updated as it is experienced and defined subjectively (Tuan 1979). What makes a space a place is the experiencing of it, and the projection of meanings and values onto it, a socially constructed cognitive layer that exists between the human perceiver and the physical phenomenon. 'If we think of space as that which allows movement, then place is pause' (Tuan 1977).

Tuan (1979) posits that the landscape as a place resides only in the mind, a cognitive interpretation of a shared ontological reality he calls the environment. Therefore, the environment is what exists outside of our interpretation, and the landscape is the environment as seen through our eyes. Ingold (2000) contests this duality, noting that it reproduces the Sauerian separation of nature and society. He illustrates the difficulty of this by drawing the analogy between the observation of this shared reality and a musician in an orchestra objectively experiencing the music, which is of course impossible as the musician is playing the music. In the same way, people are participants in the formation and definition of the landscape and the environment, so there cannot be an observation from outside of this perspective. He calls this the 'Dwelling Perspective' (Ingold 2000, 208) and borrows from Goodwin (1988), saying that the components of this reality, both the physical and the cultural, are 'generated and sustained by the processual unfolding of a total field of relations that cuts across the emergent interface between organism and environment' (Ingold 2000).

The landscape can be approached from any or all of these theoretical depictions depending on the perspective and intensions of the researcher. From this understanding of a multiplicitous landscape comes the question of what value exists in framing landscape as this melee of disciplines and theories. By articulating the functioning and services of a landscape, we can come to better assess the value of it to us.

2.2 Landscape Services and Human Well-being

The ways in which landscapes contribute to human well-being are through provisioning services, regulating and maintenance services, and through cultural and social life fulfilment services (Vallés-Planells, Galiana, and Van Eetvelde 2014). These services mean landscapes have an '*important public interest role in the cultural, ecological, environmental and social fields… that they contribute to the formation of local cultures… and contribute to human well-being and consolidation of identity'* (Council of Europe 2000).

In categorising the services and functions of the environment to human well-being, the paradigm method is the ecosystems services (ES) framework. Adopting the ES framework, the Millennium Ecosystem Assessment was the first comprehensive attempt at outlining the vast array of contributions that nature or ecosystems make to human well-being (Daniel et al. 2012; MA 2005). These contributions range from those that relate to material flows of useable goods, to regulating services such as those associated with soils and climate, to the more intangible, immaterial cultural services. Problems arise in the assessment of cultural services as they contain, relative to other services, a greater degree of social constructs, and are difficult to incorporate within current ES valuation frameworks (Schaich, Bieling, and Plieninger 2010; Daniel et al. 2012; Termorshuizen and Opdam 2009).

Whereas ES assessments focus on the functioning of ecosystems and frame human actions as cause for alteration of those ecosystems, landscape concepts explicitly include human action as a coexisting system component in an integrated socio-ecological spatial system (Naveh 2001; Tress and Tress 2001). Building on the services concept, Termorshuizen and Opdam (2009) define landscapes as spatial human-ecological systems that deliver a wide range of functions that are or can be valued by humans because of economic, sociocultural, and ecological reasons. In this human-ecological view of landscapes, landscape services are defined as landscape functions that are valued by people. While functions exist regardless of people, services exist only because people use and value the landscape (Termorshuizen and Opdam 2009). This differentiation, contrary to the ES concept, puts people and their values central to the ways in which the environment contributes to human well-being.

2.3 Public Participation in Landscape Assessment

Many researchers advocate a participatory approach when assessing landscape services as crucial in sustainable landscape management and

development (Naveh 2001; Termorshuizen and Opdam 2009; Tress and Tress 2001; Stephenson 2010). This is explicitly stated in the ELC, which calls for '*the formulation of the aspirations of the public with regard to the landscape features and their surroundings*' (Council of Europe 2000, chap. I Article 1c) and again in Chapter II - National Measures: '*to assess the landscape, taking into account the particular values assigned to them by the interested parties and the population concerned*' (Council of Europe 2000, chap. II Article 6 Cb). Termorshuizen and Opdam call these public aspirations 'desired landscape values' (2009, 1038). They suggest that scientific knowledge should allow linking of the physical structure and functioning of the landscape to the economic, sociocultural, and ecological values demanded by its users.

Dakin (2003) suggests that assessment of public landscape perceptions, preferences, and values broadly follow two main methodological approaches: experimental and experiential. The experimental approach, alternatively called the perceptual approach, involves the correlation of physical landscape attributes with public ratings of those attributes. Zube and Pitt (1981) used a combination of colour photographs and field visits, and a set of 19 bipolar scales on which to rate them, for example 'common-unusual', 'like-dislike', 'hard-soft', and correlated these ratings with demographic data. Palang, Alumäe, and Mander (2000) developed four European policy based scenarios and sketched their effect on a hypothetical typical Estonian landscape, and tested locals' preferences.

A second experimental approach is to use in-depth interviews, often with qualitative analysis, to determine public perceptions of landscapes, often with target groups of stakeholders, for example farmers or tourists. Ní Dhubháin et al. (2009) used 31 open ended interviews and the grounded theory approach to determine the perceptions of land use change among farmers, forests, and the general public. Buijs, Pedroli, and Luginbühl (2006) used a combination of a national questionnaire survey of 5000 participants and 250 in-depth interviews to assess the perceptions and preferences of the French public in its landscape, using discourse analysis to interrogate the data.

Without excluding visual information, the experiential approach is a more holistic account of human-environment interactions, focusing less on the identification of key physical landscape features, and more on broad, intangible aspects of their interactions (Vouligny, Domon, and Ruiz 2009). Reflecting Ingold's (2000) Dwelling Perspective, the experiential approach views people as active participants in the landscape, deriving their values from experience (Bruns and Green 2012). A key feature of the experiential approach, differentiating it from the experimental approach is participant-directed assessment, aimed at reducing the researcher bias inherent in questionnaires and photograph rating exercises. Dakin (2003) combines self-directed photography, where participants take pictures in the landscape that reflect their values, combined with journaling, and in-depth interviews where the context of the photos along with their corresponding journal entries were discussed. Vouligny, Domon, and Ruiz (2009) used 23 directed interviews lasting 30 – 60 minutes, with open-ended questions that followed themes of perception, use, valued sites, and local and regional scales, and avoided using the word 'landscape' so as to not influence the answers.

Common to both experimental and experiential methods of assessing landscape values is that they often remain purely descriptive, not connecting to a particular theoretical framework. Furthermore, while experimental methods tend to carry researcher bias, experiential techniques are time demanding and require exhaustive qualitative data interrogation. This Masters Thesis will follow the experiential method by using participant-directed interviews to generate a dataset of cultural values. This will be achieved through short-listing exercises in the landscape with participants as they go about their lives, thereby avoiding the bias of experimental techniques, as well as the workload issues associated with experiential methods. Interview data will be framed with the Cultural Values Model, which will illustrate both the values held by the public in the landscape, and the interactions with the physical landscape through which these values are developed and lived.

3. Theoretical Framework

In this section I will outline the key concepts that underlie this research, namely, culture and values, in the context of their relation to landscapes. Following this, I will introduce the Cultural Values Model, used to frame landscape values and illustrate their linkages.

3.1 Culture

Definitions of culture abound. It is one of the most complex and influential concepts in the humanities and the social sciences (Gregory et al. 2009). Culture is the 'sum total of ways of living built up by a group of human beings and transmitted from one generation to another' (Random House, quoted in (Nassauer 1995, 230). Culture is inherently social, it is 'generated in human practices, situated in the relational context of people's mutual involvement in a social world' (Ingold 1997, 239). People attach and express meaning, through language and material artefacts, to 'endlessly spin metaphors… to weave labyrinthine and ever-expanding networks of symbolic equivalence' (Ingold 1997, 330).

How culture applies to landscapes is, considering the place landscape discussed in Section 2, quite clear. What makes a space a place is the *experiencing* of it, when we endow it with meaning and value (Tuan 1977). Culture, generated through practices, is the very fabric of our relationship with the landscape, and landscape is a spatial expression of culture. Landscapes inculcate culture, and culture structures landscapes (Nassauer 1995).

The way in which we shape landscapes, through the economic and political systems that we are embedded in, are cultural processes. Through our social conventions, our preferences, and our expectations, we have formed landscapes, and landscapes in turn have shaped our preferences and expectations (Nassauer 1995). How we perceive the environment, and the cognitive processes of information storage and recall, are cultural. Perception

and cognition are affected by 'values, enduring beliefs about what is socially or personally preferable' (Golledge and Stimson, quoted in Nassauer 1995, 230).

3.2 Values

If culture is generated through shared practices, values are the underlying motives for these practices. Values are defined in the *Dictionary of Human Geography* as 'the principles or standards informing individual or group ideas and beliefs' (Gregory et al. 2009, 797). People are 'infused with values that are the result of emotion-laden physiological functions and of intimate social experiences' (Tuan 1977, 89). Values are often contested, and are changeable over time as people have new experiences and interactions, and they are more deeply held than preferences (O'Brien 2003).

These socially constructed values influence and inform motives, attitudes, preferences, choices and behaviour; they are concepts of worth that affect experiences, interests, perceptions, feelings, and thoughts (O'Brien 2003). People hold values, but they also project or express value for objects or concepts (Brown, Reed, and Harris 2002). One could value a certain notion of nature, and express that held value by a preference for a particular landscape that manifests that value.

In this way, values are communicated through preferences and choices. The way in which people interact with the landscape is an expression of their underlying held values, while simultaneously, they express value for that landscape.

3.3 The Cultural Values Model

Stephenson's *Cultural Values Model* (CVM) is a holistic framework that aims for an integrated approach to the landscape concept, being consistent with contemporary landscape theories, as well as being capable of accounting for the multiple ways in which people value landscape (Stephenson 2008). Cultural Values refer not just to the valuing of immaterial, cultural functions of

the landscape, rather, to any aspect of the landscape that is valued culturally, that is, values that are held and expressed by a group or community, inclusive of both experts and lay people.

The model draws on various disciplinary approaches in landscape research, incorporating commonalities found in other landscape valuation frameworks, as well as on case studies in New Zealand, to arrive at a method of conceptualising landscape values in three categories.

3.3.1 Forms

Forms refer to all the physical, tangible aspects of the landscape. Forms are the material landscape, which can be experienced through the sensory functions; they can be touched and viewed. Forms are the positivist world of the empirically measurable landscape. Forms include natural features, and man-made structures, and can be contemporary or archaeological.

3.3.2 Relationships

If forms are the positivist world, relationships lean towards the interpretivist perspective. Relationships describe values and meanings that people ascribe to the immaterial and material world. They are the relationships between people, and between people and landscape features. Relationships also include those within a landscape where there is no human involvement, but can be valued nevertheless. Relationships include memories, symbols, a sense of belonging, spirituality, and aesthetics.

3.3.3 Practices/Processes

Practices/Processes describe both human practices and natural processes. Climate is an example of an abiotic process, vegetation growth is a biotic process, and society is a cultural practice. These are all grouped together under 'processes' to acknowledge that both human practices and natural processes are a 'continuum of dynamic action', which affect and shape both the material and the immaterial realms (Stephenson 2008, 134).

3.3.4 Dynamics and Temporality

A key theme in landscape research is the dynamic nature of landscapes, the interaction of components in the shaping of both the natural features and the cultural values. Forms, relationships and processes, while being useful to separate in the process of conceptualising, in fact 'continuously interact to create landscapes' (Figure 1), and are 'inseparably interwoven as the dynamic landscape' (Stephenson 2008, 135). The CVM frames the data in a way that illustrates the integration of the material and immaterial characteristics of the landscape, and the dynamic and interactive nature of these relationships – relationships determine processes within forms, these processes determine relationships with forms (Stephenson 2008). When considering the objectives of a landscape, that is, what are the values and functions *expected* of it, it might be the case that Stephenson's cross-generating values point to the key expected values of landscape users.

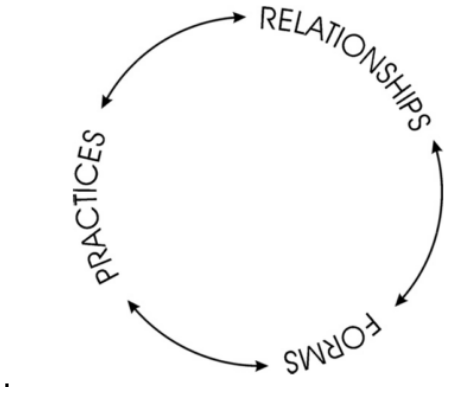

Figure 1 Landscape Dynamics (from Stephenson, 2008).

Stephenson suggests that values may be experienced most strongly where forms, processes and relationships 'dynamically interact so that values are cross-generative' (Stephenson 2008, 136).

As landscapes are dynamic, they are also temporal. The interaction of forms, relationships and processes occurs over time, continuously creating and modifying the landscape. The landscape also carries evidence of past

interactions, both in the cultural significance of a landscape because of past processes, and in the material remains of those processes.

In case studies, Stephenson found 'almost without exception' that people spoke of aspects of the past when discussing the landscape. She differentiates current 'surface' values from past 'embedded' values, and proposes landscape as 'carrying forward the threads of the past and weaving them into the future' (Figure 2) (Stephenson 2008, 135).

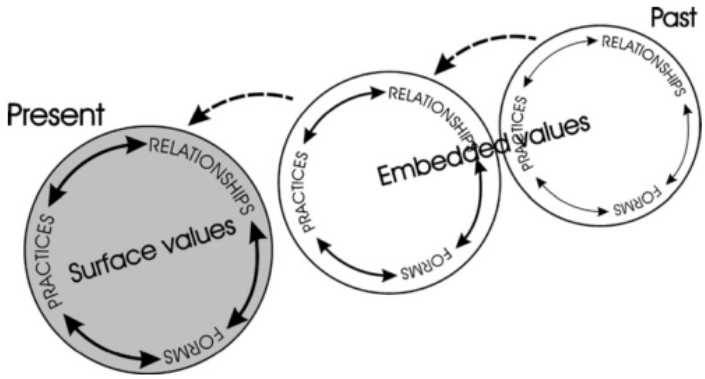

Figure 2 Surface and Embedded Values (from Stephenson, 2008).

Stephenson found that those with a shorter experience of a landscape tended to express surface values, ascribing significance to sensory responses and the physical landscape, while those with a longer experience spoke about values relating to the temporality of the landscape, such as historic events and traditions.

3.4 Research Objectives

The consensus in the literature is that landscapes are spatial human-ecological systems, which have a physical 'space' element and a perceptual 'place' element, a view that is echoed in the European Landscape Convention. The ELC states that transformation of landscapes is accelerating, and that it is imperative that landscape assessments include an account of the values assigned to landscapes by the concerned populations. As discussed, these values are cultural in nature, and that the space landscape becomes also a place landscape as it is endowed with meaning and values. Furthermore, both

landscape and society shape each other, through a processual unfolding of relations between organism and environment.

The objectives of this research are to investigate, through structured interviews and subsequent analysis, the components and functions of a landscape in which values are held, and through which practices and processes values are expressed. These values will be framed with the Cultural Values Model to illustrate the coexistence of the intersubjective and socially constructed perceptual realm and the positivist physical environment, in essence, to connect the place landscape with the space landscape. Cognitive salience will be calculated from which an index will be formed that will show the values that are most common to people, and those that are equally valid, but less prominent in their collective cognition.

Collecting demographic data along with landscape values will give an opportunity to compare groups of landscape actors, and to investigate whether there exist commonly shared values, or perhaps values conflicts between them. By considering Stephenson's surface/embedded values concept with demographic analysis, the temporal depth of landscape values can be investigated, which may show landscapes as the cultural repository of personal and collective history, and identity giver.

The specific aims of this research are

1. TO identify the range of values perceived by people in their landscape and determine:
    a. What are the primary cultural values
    b. What is the nature of their relationship with the physical landscape

2. TO identify relationships between values and demographic variables to address two questions:
    a. Do values differ between groups that share a landscape?
    b. What role do landscapes play in connecting people with their past?

4. Methodology

In this section I will describe initially the key concepts relevant to data collection, followed by a description of the case study area and interview locations. Following this, I will outline the specific interview methods used to collect the data and the subsequent analysis and framing.

4.1 Cultural Domains and Freelisting

As discussed, the perceptions held of landscapes are assumed to be a cultural and cognitive phenomenon (Buijs, Pedroli, and Luginbühl 2006). It stands therefore, that the pertinent methodological approach would be one that elicits and then examines an emic or cultural domain pertaining to landscape perceptions. A cultural domain is simply set of related items as revealed by a question.

It can be defined as

> *'...an organized set of words, concepts, or sentences, all on the same level of contrast, that jointly refer to a single conceptual sphere'* (Weller and Romney 1988, 9).

In the case of this study, the conceptual sphere is the landscape, and the domain is the list of items that are collectively perceived there. The lists are collected using a technique called Freelisting, which is a structured interview method where participants are asked to list all the things they know about a certain topic or area.

Freelisting is a simple but powerful tool. It has been used extensively in anthropological research to establish cultural domains, for example medicinal plants, colours, and countries (Sutrop 2001; Quinlan 2005; Thompson and Juan 2006). Freelisting allows for the accumulation of large amounts of data in a short space of time, while minimising the potential intrusion of bias at the point of data collection. Many alternative methods, such as, questionnaires, have predetermined responses built in to them, which can impose an etic bias on data (Bernard 2006).

A potential drawback of Freelisting is that relative to other methods, lists solicited may not be as elaborate and therefore domains may not be completely exhausted. When the objective is for participants to list as many items in a domain as comes to mind, which they are invited to do so with a single question, there may be the case that participants unintentionally or intentionally omit items. Some techniques exist to counteract this, in the form of probes, which are designed to aid the participant in further recall, whilst importantly, not prompting them.

Firstly, the researcher can ask the question 'is there anything else you would like to say', which gives the participant time to think and to add anything else that comes to their mind. Following this, the list in full can be repeated back to the participant, which can often unlock a further flow of items (Brewer 2002; Bernard 2006; Sutrop 2001).

Freelisting and probing combined are therefore especially suitable for questions of perception and cognition, as participants reveal only what they see, think and feel, and are not prompted or biased by the interviewer's questions and framing.

A crucial feature of Freelisting for this research is that the data yielded is quantifiable. Lists developed from a population can be analysed for frequency and modality of terms, allowing for a robust, quantitative interrogation of the data (Quinlan 2005).

The literature suggests that 20 – 30 participants are sufficient to establish a coherent domain (Weller and Romney 1988). As the aims of this research are to compile and compare perceptions, demographic delineations are defined across various axis (e.g. those that live in Wicklow, those that do not; those born in Wicklow, those that migrated to the county) and a representative sample of 20 – 30 participants from each sub-group was sought.

4.2 Case Study Area

County Wicklow is on the east coast of Ireland, immediately south of the capitol, Dublin (Figure 3). The population in Wicklow has increased from

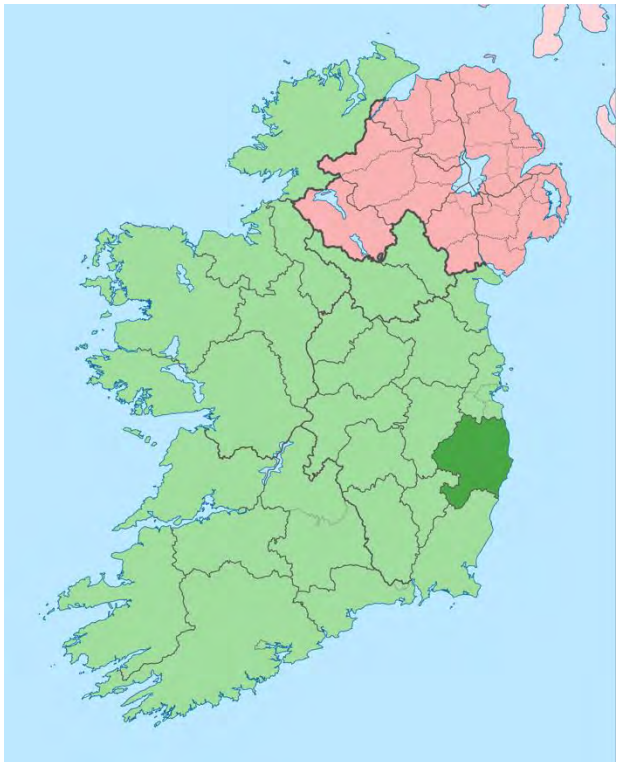

Figure 3: Showing Ireland with County Wicklow highlighted in dark green. (Source: Wikicommons)

83,000 inhabitants in 1980 to 136,640 in 2011, a rate three times higher than the rest of Ireland (excluding Dublin), due to internal migration towards the commuter region of the capitol city (Central Statistics Office 2011). Wicklow, as part of the Greater Dublin Area, has experienced increasing development and urbanisation to meet the growing demand for homes both for those migrating to access the jobs market in Dublin, and those from Dublin that are being pushed out by rising house prices due to increased demand (Williams and Shiels 2001).

There are, therefore, many people living in Wicklow who were not born in the county, and as such the area serves as an ideal case study area to contrast the values held by those with a longer association with the landscape than those who are more recently a part of it, in determining the function of the landscape as a cultural repository and identity giver.

The population density in Wicklow is highest at the coast, and decreasing towards the mountains, with a large number of residents commuting to Dublin daily for work and education.

The landscape of Wicklow is diverse. A coastal plain leads west from the Irish Sea, rising to an upland plateau, and rising again to the Wicklow Mountains, which are predominantly peatlands, with many glacial lakes and valleys. Agriculture takes place on the coastal plane, the upland plateau, and in the mountains, decreasing in intensity from dairy and tillage near the coast, to

low-production sheep farming in the mountains. Forests are present throughout, with commercial forestry mostly in the uplands and mountains. Wicklow has a well-developed amenity and tourism infrastructure, including signed paths, mountain bike trails, and coastal walks, due to its proximity to the population centre of Dublin. (County Wicklow Partnership 2009)

4.3 Interview Locations

As Wicklow is both topographically and demographically diverse, the interviews took place in a variety of locations in an effort to garner a representative sample of residents and visitors in the county. All interview location photographs are the author's own.

Glenview Hotel, Glen of the Downs

The Glenview hotel is a popular hotel in North Wicklow situated above a lush, wooded valley. It is frequented both by locals using the leisure facilities and by hill-walkers having a post-walk drink. Interviews conducted at the Glenview were conducted in the bar, by approaching customers and requesting an interview.

Figure 4: View of Glen o' the Downs from the Glenview Hotel.

The Sugarloaf

The Sugarloaf is an iconic mountain above the village of Kilmacanouge in North Wicklow. It is characterised by its conical shape, and its proximity to the coast and therefore the population centres of the county. Access is via a car park, and a short, brisk walk takes one to the top. Interviews on the Sugarloaf were conducted with people encountered on the path.

Figure 5: Sugarloaf Mountain viewed from the west.

Mount Usher Gardens and Arboretum

Mount Usher Gardens is a formal garden near the village of Ashford in coastal Wicklow. As well as the garden, there is a restaurant, café, and retail outlets. Interviews at Mount Usher were conducted both in the car park and around the retail area.

Figure 6: Tearooms in front of the formal gardens at Mt Usher.

Scarr Mountain and surrounds

Scarr is an exposed uplands mountain in the Wicklow Mountains National Park characterised by bogland and plantation forestry. It is popular with hill-walkers. Interviews on Scarr were conducted with a local walking group that was joined for a hike.

Figure 7: View over Lough Ouler north towards Scarr, with a mixture of Bogland and plantation forestry common to the Wicklow mountains.

Laragh

The village of Laragh is in the centre of County Wicklow, on the eastern flanks of the Wicklow Mountains. It is an important crossroads in the county, with connections to both the Sally and the Wicklow gaps, which are mountain passes to the north and the west respectively. Interviews in Laragh were conducted at a local craft fair in the village hall, with both artisans and customers.

Figure 8: The Sally Gap, above the village of Laragh, one of two mountain passes connecting east and west Wicklow.

Greystones

Greystones is a coastal town and seaside resort in north Wicklow. It is the second biggest population centre in the county, with 14,659 residents. It has experienced large influx of residents since the 1970s. Interviews in Greystones were conducted on the main street and around the harbour.

Figure 9:Approach to the seafront in Greystones, with fisherman's cottage to the right.

Powerscourt House and Gardens

Powerscourt House is an 18th Century country estate in North Wicklow, near the village of Enniskerry. It is a 19-hectare property, with formal gardens, a golf course, forest walks, restaurants, a garden centre and shops.

Figure 10: Formal lawns of Powerscourt, with rear facade of house in the background.

Clara Vale

Clara Vale is a deep, wooded valley in the foothills of the Wicklow Mountains, characterised by an ancient oak forest with signed trails, and a picturesque stone bridge and church over the river Avoca. Interviews in Clara Vale were conducted with people encountered on the trails.

Figure 11: Bridge over river Avoca in Clara Vale.

Figure 12: Clara Vale, woodland path.

4.4 Interview Procedure

Participants were approached, and after a short introduction, were asked: '*what is important about the Landscape of Wicklow to you*'. A series of alternative questions were trialled, including 'what do you value about the Wicklow landscape' and 'what do you see in the Wicklow landscape', but they proved either to discomfort or confuse participants, so in the end a question with language that was simple enough so as to not confuse, but worded to in such a way to give pause for thought was chosen. Following the initial answer, participants were asked if there was anything else that they would like to say. Following this, items were repeated back to participants, and a pause left for them to give further answers. Participants were then asked whether they were from Wicklow, whether they lived there, how long they lived there, their year

of birth, and their occupation. All interviews were either recorded using a microphone, or details noted down by hand.

4.5 Coding

Data was coded using Microsoft Excel, with items coded as listed in a matrix of participants and items. Each item listed was assigned a row, and each instance of the item was entered with its rank for each occurrence. Where a participant repeated items, the first item rank was used. Morphological derivatives (e.g. green/greenness) were coded as one term, but synonyms were assigned individual terms so as to allow the nuances of the landscape perceptions to feature. There was a certain element of contextual dependence in this process, and cultural awareness and local knowledge was employed extensively throughout.

4.6 Applying the Cultural Values Model

The initial task in applying Stephenson's Cultural Values Model to the data is to assign a predefined code of Relationships, Forms, or Processes to each item, according to Stephenson's guidelines (Stephenson 2008). After the coding of listed items by Relationships, Forms and Processes, items were tested pairwise for correlations between each group. All items were assigned either surface or embedded codes, and tested against demographic groups for a relationship between those with a longer association with Wicklow and embedded values.

Relationship values were further categorised using predefined codes to arrive at a more detailed understanding of this value category. Subcategories were based on the type of values expressed by the participant, whether they were aesthetic, cultural, instrumental or non-instrumental. Aesthetic values are all that express a positive or negative sensory response to the landscape, as well as those values that might relate to sensory responses. The cultural values category relates to both spiritual values, and expressions of heimat-type values for the landscape. Instrumental values are to capture the valuation of

direct use of the landscape, whether through sustenance or recreation. The non-instrumental category is to reflect expressions that relate to intrinsic value held in the landscape or its components.

Bivariate correlations analysis was carried out between all CVM categories and subcategories, to establish whether there are correlations to be found between any of the groups, for example, are people who tend to mention forms more likely to mention aesthetic values?

4.7 Quantitative Data Analysis

This section will describe the quantitative techniques used to analyse the data. Initially describing cognitive salience, and then chi-square analysis, which was used to establish relationships between items and demographic groups, and finally, a brief description of cluster analysis techniques used to mine the data for patterns.

4.7.1 Cognitive Salience

The cognitive salience of an item in a cultural domain is the measure of its prominence in the minds of the participants.

The cognitive salience of an item is a function of two characteristics of the data – the frequency and the mean rank. The frequency of an item describes the number of participants that mentioned the item, and the mean rank of an item is the average position in a list of that item across all the lists that contain it. There is often, but not always, a correlation between both. The most frequent item in the domain is likely to have been mentioned by the majority of participants, with a long tail end of the frequency scale containing many items that were listed by one or two participants (Weller and Romney 1988).

The cognitive salience index of an item can be calculated as follows:

$$S = \frac{F}{NmP}$$

Where *F* is the frequency, *N* the number of lists, and *mP* refers to the mean rank. This formula returns an index value between 1 and 0. A value of 1 indicates the ideally most salient item, with all other items declining towards 0 (Sutrop 2001).

Salience analysis helps to reveal the delineation between basic and non-basic terms in a domain, which could be useful when comparing what the important constituents are in the landscape perceptions of different demographic groups. It is therefore important to define a domain boundary. A rule of thumb given by Sutrop (2001) states that the boundary should be defined by the number of participants: if there are twenty or so participants, only items mentioned by one informant should be omitted, with the omission threshold rising to two or three mentions as the number of participants rises to between fifty and eighty. In this analysis, due to the low salience scores relative to those found in other studies, e.g. Sutrop (2001); Thompson and Juan (2006), and the diversity of responses, items listed by less than two participants were omitted.

A cognitive salience index was formed based on the relative salience of terms, omitting items that were mentioned by less than two participants. Salience indices were recalculated according to the following demographic sub-groups for comparison:

- Wicklow natives vs. non-natives
- Residents vs. visitors
- Resident for 20+ years vs. resident 0-20 years
- Women vs. men
- Ages 20-40 vs. 41-59 vs. 60+
- Interviews on trails vs. interviews in commercial areas

4.7.2 Chi-square Analysis

Demographic subgroups were tested against the top twenty salient terms for relationships using Cross Tabulation and Chi-square analysis on SPSS, as well as those items that were found to have the greatest difference of frequency in

the demographic subgroups, and the categories and subcategories of the CVM. These methods of analysis are used to determine whether there is a relationship between two or more categorical variables, for example, does the residency status of a person relate to whether they are likely to mention specific items that they perceive in the Wicklow landscape.

Chi-square is a function of the observed and the expected frequencies for the tabulated categorical variables (Field 2009; Pallant 2011). The expected frequencies must be first established as follows:

$$expected_{ij} = \frac{row\ total_i \text{ x } column\ total_j}{n}$$

Where n is the total number of observations. Expected frequencies are calculated for each of the cells in the table. With the expected frequencies established, the Chi square statistic, x^2, can be calculated:

$$x^2 = \sum \frac{(observed_{ij} - expected_{ij})^2}{expected_{ij}}$$

This calculation yields a statistic that can be then checked against the Chi square distribution of critical values. SPSS also provides a significance value for the Pearson Chi-square statistic. The standardized residual, which gives an indication of the nature of the relationship between the variables, is calculated as follows:

$$standardised\ residual = \frac{observed_{ij} - expected_{ij}}{\sqrt{model_{ij}}}$$

A prerequisite assumption for a Chi square analysis is that no less than 80% of cells have an expected count of less than five. SPSS accounts for this assumption and provides for *Fisher's Exact Statistic* in the eventuality that the data fails the assumptions. This statistic provides only a significance value but no standardised residuals, and was used in the case of failed assumptions.

5. Results

5.1 General Results

In this section I will detail the interview, item and demographic data, as well as the main findings from the analysis. More detailed tables of results can be found in the Appendix.

5.1.1 Demographics

In total, 81 lists were collected in the eight different locations around Wicklow. 58% of the interviews were carried out in what could be characterised as the built environment, and 42% in the open landscape. 52% of participants were born in Wicklow, and 69% were residents in the county. 56% of participants were women, and 44% men. The youngest participant was 24 years old, and the eldest 79, with the average age being 52.

5.1.2 Items

Of the 81 lists collected, the shortest contained two items, the longest had 38 and the average length was 13. In total, 481 unique ways in which the Wicklow landscape was important were listed, with 218 of these mentioned by more than one participant.

5.1.3 Cultural Values Model

Forms were the most-mentioned items, followed by relationships, and then processes (Figure 13). This trend was also found in the total number of items mentioned for each category (Figure 14). Correlation analysis showed significant positive correlations ($p \leq 0.01$) between each of the three categories. In the subcategories for relationships, 40% were instrumental values, 32% non-instrumental, 16% aesthetic values, and 12% related to sociocultural values. Correlation analysis between relationship subcategories, forms, and processes showed a significant correlation between forms and instrumental values ($p \leq 0.05$).

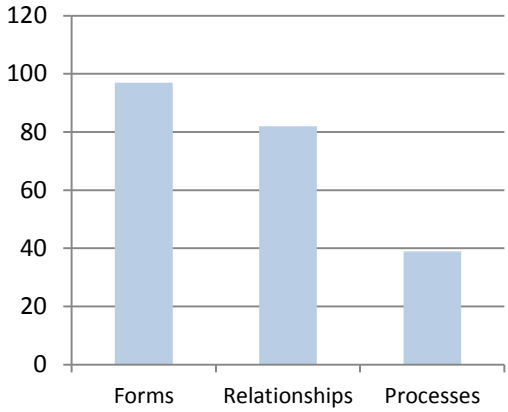

Figure 13: Number of individual forms, relationships and processes mentioned.

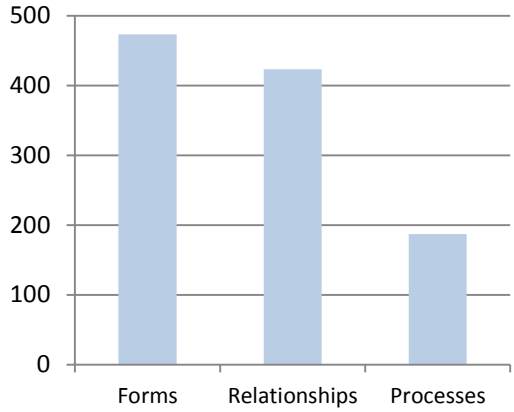

Figure 14: Total number of forms, relationships and processes mentioned by all participants.

5.2 Salience Indices

5.2.1 All Participants

A cognitive salience score was calculated for all items mentioned by more than one participant. Salience scores showed a marked drop in magnitude at the beginning of the rank, followed by a long tail (Figure 15). The levelling of the curve in Figure 15 around item 28 suggests the cut-off point between basic and non-basic terms in the cultural domain of landscape values. These basic terms can be said to be the common cultural values of the participants.

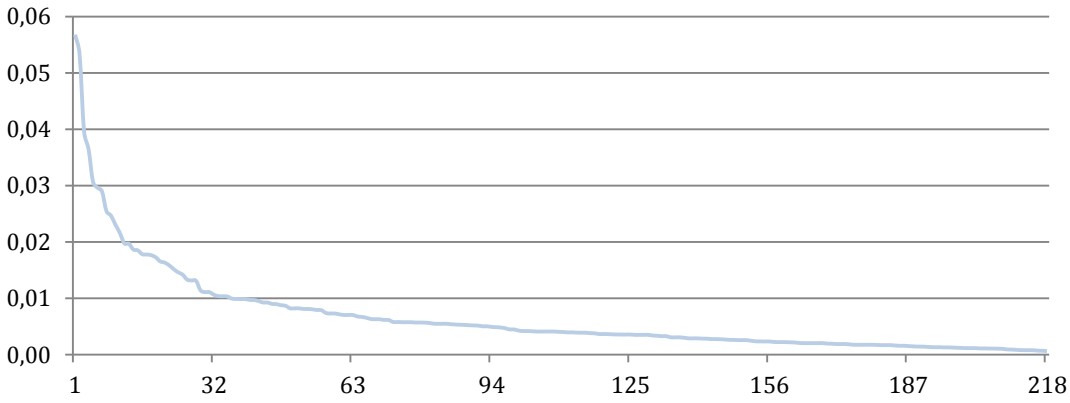

Figure 15: Salience score plotted on the y-axis against salience rank for all items on the x-axis.

Plotting the salience scores of the basic items illustrates their relative salience, in which three clusters of similarly ranked items can be seen to position eight, after which follows a steady decline in salience score to item 28 (Figure 16).

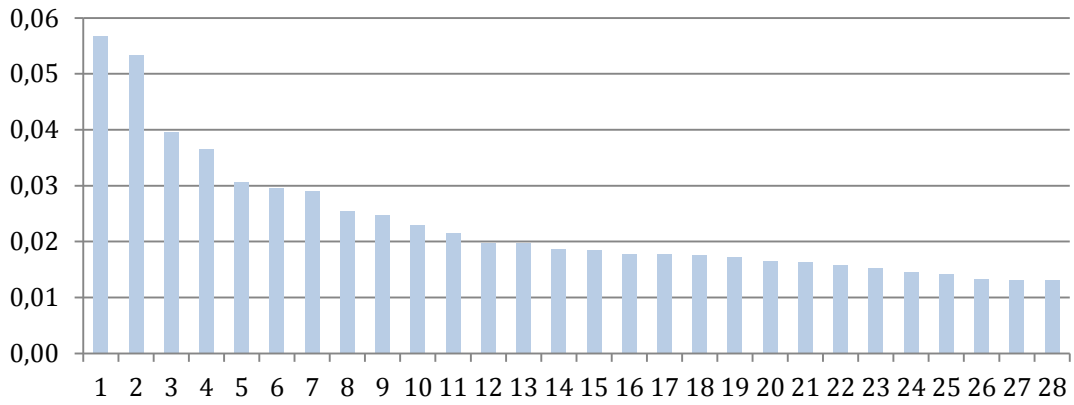

Figure 16: Salience score plotted on the y-axis against salience rank for basic items on the x-axis.

Within the list of basic items, there were more forms than relationships, and more relationships than processes (Figure 17). The most salient item listed was *Mountains*, followed by *Beauty*, *Variety, Sea, Hills, Walking, Trees, Scenery, Cleanliness*, and *Forests* (Table 1). The most frequently mentioned item, *Beautiful*, featured in 40% of the lists. Some items, with relatively low frequency, including *Cleanliness* and *Pylons* ranked highly in the salience index due to their high mean rank score.

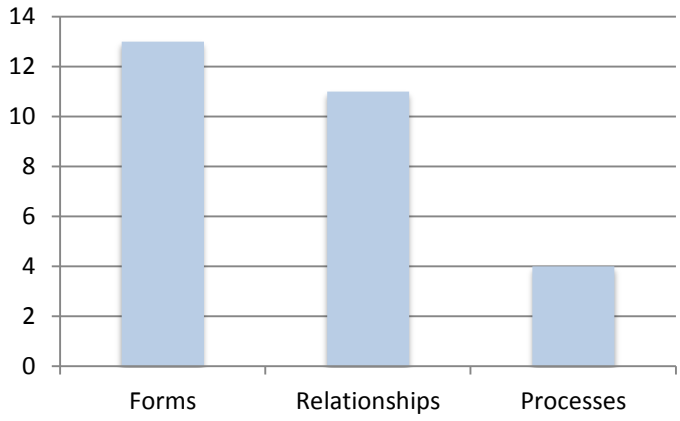

Figure 17: Distribution of forms, relationships and processes in basic items.

The most salient forms were *Mountains*, *Sea*, *Hills*, *Trees*, *Forests*, *Walks*, and *Glendalough*. The most salient relationships were *Beautiful, Variety, Scenery, Natural, Views* and *Close to Dublin*. The highest-ranking processes were *Walking, Cleanliness, Pylons*, *Freedom of Movement, Managed*, and *Slower Pace of Life*. Further down the salience index, in the non-basic terms, the social layer of the Wicklow landscape emerges in items such as *Community, Slower pace of life, Farmers,* and *Social aspects*.

In the highest-ranking twenty relationship items, there were six aesthetic values, seven were instrumental values, five were non-instrumental values, and two were cultural values. Of the five most salient relationship items, four were aesthetic values, the first two with considerably higher salience scores than those that follow (Figure 18). The highest-ranking cultural relationship values, *Childhood*, and *Spiritual*, ranked at 13 and 14 respectively in relationships, and at 34 and 36 in the index of all value types.

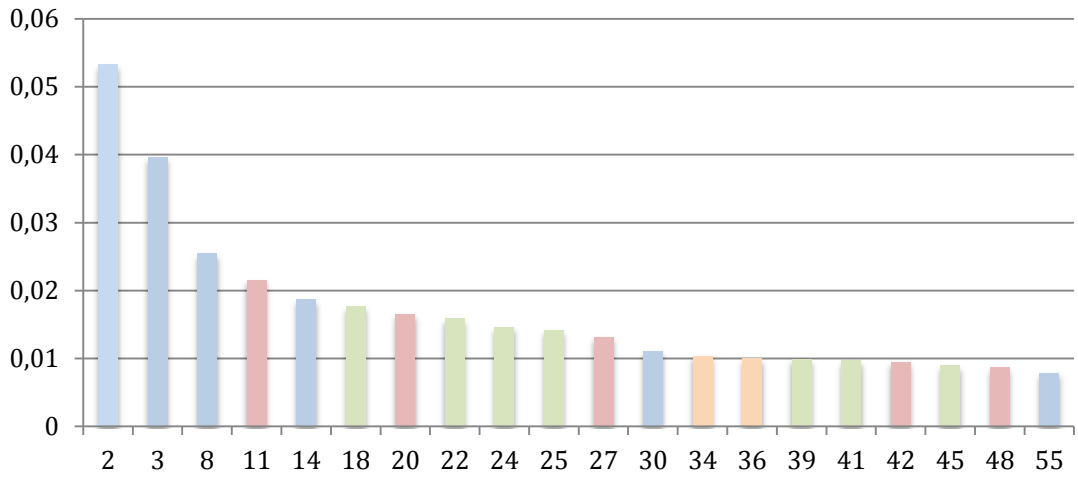

Figure 18: Showing Salience scores of top 20 salient Relationships. Salience scores are shown on the x-axis, and the salience rank position for the list of all items is shown on the y-axis. Aesthetic values are shown in blue, Non-instrumental values are shown in red, Instrumental values are shown in green and Cultural values are shown in orange.

Table 1: Basic items for all participants showing percent that mentioned item, CVM category, mean rank, salience score and salience rank.

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Mountains	32%	Form	5.65	0.056773	1
Beautiful	40%	Relationship	7.41	0.053342	2
Variety	21%	Relationship	5.29	0.039643	3
Sea	23%	Form	6.42	0.036531	4
Hills	15%	Form	4.83	0.030651	5
Walking	30%	Process	10.00	0.029630	6
Trees	22%	Form	7.67	0.028986	7
Scenery	21%	Relationship	8.24	0.025485	8
Cleanliness	2%	Process	1.00	0.024691	9
Forests	20%	Form	8.56	0.023069	10
Natural	17%	Relationship	8.00	0.021605	11
Pylons	5%	Process	2.50	0.019753	12
Walks	19%	Form	9.40	0.019701	13
Views	14%	Relationship	7.27	0.018673	14
Glendalough	19%	Form	10.00	0.018519	15
Lakes	16%	Form	9.00	0.017833	16
Green	7%	Form	4.17	0.017778	17
Close To Dublin	17%	Relationship	9.79	0.017662	18
Coast	9%	Form	5.00	0.017284	19
Wildness	16%	Relationship	9.69	0.016559	20
Rolling Hills	9%	Form	5.29	0.016350	21
Calm	7%	Relationship	4.67	0.015873	22
Colours	15%	Form	9.75	0.015195	23
Escape	20%	Relationship	13.50	0.014632	24
Connection With Nature	21%	Relationship	14.76	0.014215	25
Fresh Air	14%	Form	10.18	0.013338	26
Love The Landscape	5%	Relationship	3.75	0.013169	27
Freedom Of Movement	16%	Process	12.23	0.013122	28

5.2.2 Demographic Groups

The following section lays out a selection of the results from division of respondents by demographic variables, calculated salience indices, and testing for relationships between items and these groups. More detailed results for each group can be found in the Appendix.

5.2.2.1 Wicklow Natives and non-natives

Salience indices for those born in Wicklow and those born elsewhere showed differences in the relative salience scores of items in the groups (Table 2). Wicklow natives listed 127 items and non-natives 119 items. Notable differences include *Close to Dublin*, which ranked 8th for non-natives and 55th for natives, suggesting those that were not from Wicklow valued it's accessibility from the capitol city, while its proximity for those from Wicklow was less valued. In terms of relationship subcategories, Wicklow natives listed marginally more non-instrumental values and non-natives listed more aesthetic values by the same effect. Chi-square analysis showed no relationship between natives or non-natives with each of the subcategories of relationship values.

Table 2: Highest ranking ten items from saliences indices calculated for those born in Wicklow (n=41) and those not (n=39), showing percent mentioned, and salience score.

Natives				*Non-natives*		
Items	*%*	*Salience*	*Rank*	*Salience*	*%*	*Items*
Mountains	33%	0.0791	1	0.0529	38%	Beautiful
Variety	19%	0.0663	2	0.0420	31%	Mountains
Beautiful	40%	0.0538	3	0.0412	36%	Walking
Sea	24%	0.0476	4	0.0342	5%	Green
Cleanliness	5%	0.0476	5	0.0330	8%	Open Space
Forests	29%	0.0357	6	0.0314	18%	Hills
Trees	21%	0.0344	7	0.0310	23%	Variety
Hills	12%	0.0331	8	0.0297	23%	Close To Dublin
Pylons	5%	0.0317	9	0.0288	23%	Sea
Lakes	26%	0.0291	10	0.0273	23%	Scenery

Chi-square analysis shows that the only very significant ($p \leq 0.01$) item between Wicklow natives and non-natives is *Lakes*, with natives mentioning them more often than non-natives. There was a significant ($p \leq 0.05$)

relationship for natives with *Forests* and *Sugarloaf*, and for non-natives a relationship with *Relaxation* and *Good for the Soul* (Table 3).

Table 3: Differences in responses from Wicklow natives and non-natives. Items included are those that are significant. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where Chi-square assumptions were not met.

	Natives	*Non-natives*	X^2	*Fisher's Exact*
Forests	29% (+1.3)	10% (-1.3)	4.279*	-
Good for the soul	0%	10%	-	0.049*
Lakes	26% (+1.3)	5% (-1.7)	6.658**	-
Relaxation	0%	15%	-	0.01*
Sugarloaf	14%	0%	-	0.26*

5.2.2.2 Wicklow Residents and Visitors

Salience indices calculated for Wicklow residents and visitors show some difference in highly ranking terms, with items relating to amenities ranking higher for visitors than residents, for example, *Close to Dublin*, *Walks*, *Calm* (Table 4).

Table 4: Highest ranking ten items from saliences indices calculated for those living in Wicklow (n=56) and those not (n=25), showing percent mentioned, and salience score.

Residents				*Visitors*		
Items	*%*	*Salience*	*Rank*	*Salience*	*%*	*Items*
Beautiful	39%	0.0584	1	0.0853	36%	Mountains
Mountains	30%	0.0473	2	0.0554	24%	Close To Dublin
Variety	16%	0.0452	3	0.0503	28%	Sea
Cleanliness	4%	0.0357	4	0.0449	40%	Beautiful
Hills	14%	0.0327	5	0.0441	32%	Variety
Sea	21%	0.0310	6	0.0379	24%	Scenery
Forests	25%	0.0285	7	0.0372	36%	Walking
Trees	20%	0.0277	8	0.0337	16%	Walks
Walking	27%	0.0263	9	0.0327	12%	Calm
Glendalough	23%	0.0254	10	0.0327	28%	Trees

In terms of relationship subcategories, residents rated aesthetic and non-instrumental values higher than instrumental values, while visitors mentioned instrumental values more strongly, with many values associated with access, recreation, and health. Chi-square analysis showed no significant relationship

between any of the relationship subcategories and the groups, as well as no significant relationship in the frequency of any items between residents and non-residents in the data.

5.2.2.3 Residents for 20+ Years and Residents less than 20 Years (including non-residents)

In terms of most salient items, participants from both groups had similar responses, with the groups sharing five items in the top ten (Table 5). In the relationship subgroups, participants living 20 years or longer in Wicklow tended towards more cultural values, such as *Home, Childhood*, and *Spiritual*, while those that were living there less than 20 years or not at all mentioned items more related to amenities such as *Relaxation*, *Calm, Escape from Urban,* and *Close to Dublin.* Participants in the latter group also listed *Choose to live here* prominently.

Table 5: Highest ranking ten items from saliences indices calculated for those living in Wicklow longer than 20 years (n=40) and those less than 20 years or not at all (n=41), showing percent mentioned, and salience score.

20+ Years				*0-20 Years*		
Items	*%*	*Salience*	*Rank*	*Salience*	*%*	*Items*
Variety	15%	0.0643	1	0.0578	41%	Beautiful
Mountains	38%	0.0598	2	0.0557	27%	Mountains
Beautiful	38%	0.0489	3	0.0422	27%	Sea
Hills	18%	0.0471	4	0.0388	27%	Variety
Forests	28%	0.0360	5	0.0366	7%	Green
Pylons	5%	0.0333	6	0.0341	22%	Close To Dublin
Sea	20%	0.0308	7	0.0329	22%	Scenery
Glendalough	28%	0.0297	8	0.0325	5%	Walking
Trees	20%	0.0286	9	0.0325	5%	Countryside
Walking	30%	0.0273	10	0.0325	5%	Space

Chi-square analysis of the frequency of items showed a significant positive relationship ($p \leq 0.05$) between long-time residents and specific places in the county, as well as recognising agricultural production, while those from 0-20 years showed a positive relationship with *Relaxation* (Table 6).

Table 6: Differences in responses from those living in Wicklow longer than 20 years and those less than 20 years or not at all. Items included are those that are significant. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where Chi-square assumptions were not met.

	20+ Years	*0-20 Years*	X^2	*Fishers' Exact*
Glendalough	28% (+1.3)	10% (-1.3)	4.225*	
Beaches	18%	2%	-	0.029*
Childhood	20%	5%	-	0.048*
Cycling	13%	0%	-	0.026*
Farming/food production	18%	2%	-	0.029*
Relaxation	0%	15%	-	0.026*
Sally gap	18%	2%	-	0.029*

5.2.2.4 Gender

The gender categories revealed the highest number of differences in all the demographic groups. In the salience indices, there were similarities in items in the top of the table, with women listing more forms than men, and men listing more aesthetic values than women (Table 7). Women ranked highly more social values such as *Community*, *Slower Pace of Life*, *Walking with Friends*, while men highly ranked *Calm, Escape,* and *Clarity to the Mind*.

Table 7: Highest ranking ten items from saliences indices calculated for women (n=45) and men (n=36), showing percent mentioned, and salience score.

Women						*Men*
Items	*%*	*Salience*	*Rank*	*Salience*	*%*	*Items*
Beautiful	38%	0.0758	1	0.0640	31%	Variety
Hills	11%	0.0563	2	0.0638	47%	Mountains
Mountains	20%	0.0498	3	0.0455	11%	Ruggedness
Natural	11%	0.0375	4	0.0423	31%	Sea
Pylons	4%	0.0360	5	0.0382	42%	Beautiful
Space	4%	0.0360	6	0.0332	44%	Walking
Trees	22%	0.0356	7	0.0303	6%	Green
Glendalough	13%	0.0347	8	0.0299	31%	Scenery
Walks	18%	0.0320	9	0.0284	28%	Forests
Sea	18%	0.0303	10	0.0284	14%	Coast

In terms of trends, in the highest salient relationships, men listed three cultural values against none for women, while women had four more

instrumental values than men. Chi-square analysis revealed a highly significant (p≤0.001) positive relationship between men and *History/Heritage*, as well as a very significant (p≤0.01) relationship for men and *Mountains*, W*alking*, *Escape*, and *Freedom of Movement*. There were also significant positive relationships (p≤0.05) for men and *Devils Glen*, *Hiking*, *Clarity to the mind*, *Rivers*, *Lakes*, *Landscape*, *Military road*, *Rebels*, and *Open space* (Table 8). While not picked up in the Chi-square analysis, the men's salience index featured high scores for other values related to the time-depth of the landscape such as *Historic Buildings* and *Historic Villages*.

Table 8: Differences in responses from Men and Women. Items included are those that are significant. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where Chi-square assumptions were not met.

	Men	*Women*	X^2	*Fishers' Exact*
Clarity To The Mind	19%	2%	-	0.019*
Devils Glen	11%	0%	-	0.035*
Escape	33% (+1.8)	9% (-1.6)	7.539**	-
Freedom Of Movement	28% (+1.8)	7% (-1.6)	6.616**	-
Hiking	11%	0%	-	0.035*
History/Heritage	31% (+2.5)	2% (-2.2)	12.722***	-
Lakes	25% (+1.3)	9% (-1.2)	3.853*	-
Landscape	11%	0%	-	0.035*
Military Road	14%	0%	-	0.015*
Mountains	47% (+1.6)	20% (-1.4)	6.8**	-
Open Space	14%	0%	-	0.015*
Rebels	14%	0%	-	0.015*
Rivers	19%	2%	-	0.019*
Walking	44% (+1.6)	18% (-1.5)	6.821**	-

5.2.2.5 Age

Items were tested for relationships between three age groups, less than 41, between 41 and 59, and those 60 and over. In the salience indices, the youngest group mentioned items connected with childhood and memories of being with parents in the landscape. A notable statistic is that only 55% of them mentioned any processes. In the group 41-59 years old, they were notable for having four processes in the top 20 salient items, and for having *Mountains*, typically featuring highly in all lists, ranking at position 29. The

other item that almost always ranks highly, *Beautiful,* was mentioned by 49% of the middle age group (Table 9). The 60+ group ranked *Beautiful, Mountains*, and *Walking* all very highly, being mentioned by almost half of the group. *Changing Environment* which was not a highly ranked item for other groups, was the top ranked for the over sixties. Also notable is that 31% of the eldest group mentioned *History/Heritage*, and that they had eleven instrumental values in the top 20, but no cultural.

Table 9: Highest ranking ten items from saliences indices calculated for ages 0-40 (n=22), and 41-59 (n=33), and 60+ (n=26) showing items and percent mentioned.

0 - 40		*41 - 59*		*60+*	
Items	*%*	*Items*	*%*	*Items*	*%*
Mountains	46%	Beautiful	49%	Changing Environment	12%
Sea	32%	Calm	6%	Beautiful	48%
Variety	23%	Pylons	6%	Mountains	44%
Views	23%	Trees	27%	Open Space	12%
Beautiful	18%	Natural	15%	Variety	36%
Forests	27%	Hills	12%	Coast	12%
Lakes	27%	Rural – Esc.	18%	Hills	23%
Glen Of The Downs	9%	Running	6%	Walking	46%
Escape	32%	Walking	24%	Scenery	23%
Walks	32%	Sea	15%	Sea	27%

Chi-square analysis revealed a significant negative relationship with the youngest group and *Beautiful*, and the middle group with both *Mountains* and *Variety* (Table 10).

Table 10: Differences in responses from ages 0-40, 41-59, and 60+. Items included are those that are significant. Standardised residuals are given in parenthesis.

	0- 40	*41-59*	*60+*	X^2
Beautiful	18% (-1.6)	49% (+0.8)	48% (+0.6)	6.020 *
Mountains	46% (+1.1)	15% (-1.7)	44% (+1.0)	7.718 *
Variety	23% (+0.2)	9% (-1.5)	36% (+1.6)	6.194*

5.2.2.6 Interview Location

Interview locations were divided between participants that were met on mountains and forest trails (Clara Vale, Sugarloaf, Scarr, Glenview), and those that were met in more commercial environments (Greystones, Powerscourt, Mt Usher, Laragh). With regards to the locations of the interviews, those that were met on trails ranked *Nature* highly, as opposed to nature-related relationship values. The commercial group rated *Cleanliness* highly (Table 11), as well as *Managed*, and *Pylons*, and were found to have higher ranked non-instrumental values relative to those met on the trails, which had higher ranked instrumental and aesthetic values.

Table 11: Highest ranking ten items in salience indices calculated for those interviewed on trails and those interviewed in commercial environments.

Trails				*Commercial*		
Items	*%*	*Salience*	*Rank*	*Salience*	*%*	*Items*
Mountains	22%	0.0580	1	0.0753	41%	Beautiful
Open Space	11%	0.0476	2	0.0597	37%	Mountains
Calm	15%	0.0370	3	0.0487	19%	Variety
Coast	7%	0.0370	4	0.0473	28%	Sea
Nature	7%	0.0370	5	0.0370	4%	Cleanliness
Variety	26%	0.0349	6	0.0356	19%	Trees
Fresh Air	22%	0.0325	7	0.0329	24%	Walking
Scenery	19%	0.0319	8	0.0329	24%	Forests
Beautiful	37%	0.0314	9	0.0320	15%	Hills
Natural	30%	0.0312	10	0.0273	17%	Colours

Chi-square analysis of the frequencies show that participants met on the trails showed a positive relationship with values that relate both to social aspects, and to the positive health aspects of landscapes, while those interviewed in commercial environments showed positive relationships for the beaches of Wicklow, and the Sally Gap, which is a mountain road in north Wicklow known for its scenery (Table 12).

Table 12: Differences in responses by interview location. Items included are those that are significant. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where one of more Chi-square assumptions were not met.

	Trails	*Commercial*	X^2	*Fishers' Exact*
Water	19%	0	-	0.003**
Landscape	15%	0%	-	0.011*
Good for the soul	15%	0%	-	0.011*
Social	19%	2%	-	0.014*
Unique	0%	15%	-	0.047*
Sally gap	0%	15%	-	0.047*
Beaches	0%	15%	-	0.047*

5.3 Embedded Values

In total, 21 embedded values were identified, one of which featured in the list of 28 basic terms. The frequency of embedded items ranged between 19% and 2%, with only four of them being mentioned by more than 10% of participants (Table 13). Some embedded items referred to personal connections or history with the landscape, for example, *Childhood, Home, Family, Sense of Belonging*, while others were connected to more generalised historical forms and events.

Table 13: Showing the list of embedded items mentioned, with percent of participants mentioning, mean rank, cognitive salience score, and ranking in the salience index of all participants.

Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Glendalough	19%	10.00	0.018519	15
Childhood	12%	11.90	0.010375	34
Spiritual	12%	12.40	0.009956	36
History/Heritage	15%	15.25	0.009715	40
Sugarloaf	7%	12.83	0.005772	74
Choose To Live Here	6%	11.40	0.005415	85
Home	7%	14.33	0.005168	91
Estates	7%	14.67	0.005051	92
With Parents	2%	5.50	0.004489	98
Family	6%	14.80	0.004171	103
Military Road	6%	15.00	0.004115	105
Historic Villages	4%	9.67	0.003831	116
Rebels	6%	16.80	0.003674	119
Historic Buildings	4%	10.33	0.003584	125
Born Here	5%	17.75	0.002782	143
Villages	4%	20.67	0.002074	163

Legends	2%	12.00	0.002058	165
Sense Of Belonging	4%	21.33	0.001736	180
Identity	2%	17.00	0.001452	189
Mining Villages	2%	18.50	0.001335	193
People That Walked On The Land Before	2%	35.00	0.000705	217

Chi-square analysis was used to test the significance of the distribution of the total number of mentioned embedded values against participants born in Wicklow and those not, and those living there twenty years or longer and those less than twenty years or not at all. There was no significant relationship found between Wicklow natives and embedded values, but a significant relationship ($p \leq 0.001$) found between those living twenty years or longer in Wicklow and embedded values (Table 14).

Table 14: Distribution of embedded values according to demographic groups tested at ($p \leq 0.001$); standardised residuals shown in parenthesis.

Demographic Group	*Percent of Total Embedded Values Mentioned*	X^2
Natives	57%	
Non-natives	43%	1.849
Resident 20+ years	66% (+17)	
Resident 0-20 years	34% (-17)	10.906***

6. Discussion

The findings of this study show that there are multiple ways in which people value the landscape. There is a clear clustering of 28 basic cultural values that are the most salient to people, and these values relate as much to forms in the landscape as they do to relationships, and to a lesser extent, to the processes and practices that exist within the landscape. The most noticeable characteristics of these basic values are that there is a very strong value for natural forms and nature-based relationships, that aesthetic values are prominent, and that there is an intrinsic value in a natural landscape. In terms of practices and processes, values related to human interaction with the landscape ranked highly, especially *walking* which was the third most frequently mentioned item, behind only *mountains* and *beautiful,* and far above any other value that clearly relates to a physical relationship with the landscape. Related to this interaction theme is that of escape. Participants mentioned myriad ways in which, through being in the landscape, they experience relief from their everyday lives, that it affords them a sense of pleasure and well-being, that it is physically and mentally, and even spiritually, a healthy place to be.

Further down the salience index, items begin to emerge that refer to more human and social aspects of the landscape, referring to community, childhood, society, the pace of life in Wicklow, the farmers, the countryside, as well as towns, villages and other specific places.

With a few exceptions, analysis between demographic groups failed to reveal any clear patterns with regards to markedly different ways to value the landscape. Those not from Wicklow showed some relationship with amenity related values, as did those not living in Wicklow. There was a significant relationship between men and embedded items, but putting this in the context of the absolute numbers involved, of the 36 men interviewed, eleven mentioned the most frequent embedded value, and only four mentioned the second most frequent. The significance shown in Chi-square analysis relates to the fact that men mentioned them more than women, irrespective of the fact that far more men didn't mentioned them at all.

The following three sections will address the main findings of this study in more detail. The first will focus on the prominence of natural features and nature related values in the landscape, as well as aesthetic and non-instrumental values, and why they feature so highly. It will use the concept of images of nature, and discuss the historical significance of the two images of nature that emerged in this study, the wilderness image and the Arcadian image. The following section will discuss the landscape as an amenity provider, particularly the practice of walking, and the instrumental values people hold in the landscape. The third part will discuss the landscape as a cultural and historical repository, and the ways in which meaning and symbolism are communicated in the landscape by means of human practices and landscape artefacts.

The final section of the discussion is a critique of the methods used in this study. Strengths and weaknesses will be identified and methodological lessons learned through this research will be discussed.

6.1 The Landscape is Natural and Beautiful

In the context of how people perceive nature, the well-known concept of 'images of nature' proposes three categories: the wilderness image, the functional image, and the Arcadian image. The first two images represent an independence of nature from humans and nature dominated by humans respectively, and the third represents an intimate relationship between nature and humans (Van Den Born et al. 2002; W. T. de Groot and van den Born 2003).

These images emerged in the Romantic period as a counter trend to the long-standing fear of nature and the accompanying intent to control it. As societies increasingly rationalised their relationship with nature, and were becoming more urbanised, romanticised images that emphasised natural beauty and natural history emerged (Schama 1995, cited in Buijs, Pedroli, and Luginbühl 2006). In Western Europe and in America, these images have *inter alia* informed the aesthetics and values for landscapes ever since. The question of whether these aesthetic and intrinsic values are socially constructed and

derive from the Romantic period alone, or whether the Romantic period is itself an expression of an intrinsic, evolutionary relationship with nature and natural landscapes remains unanswered today, and is beyond the scope of this thesis (Buijs, Pedroli, and Luginbühl 2006; Gobster et al. 2007; Parsons and Daniel 2002).

The first theme, of wilderness, of nature without the steadying hand of man, autonomous and unregulated, is evident in a great many values expressed in this study, for example: *Wild, Wilderness, Natural, Connection with Nature, Nature, Escape, Mountains, Wildlife, Solitude, Uplands, Forests, Lakes, Rivers, Coast, Open space, Ruggedness, Open landscape, Space, Undeveloped, Unspoilt, Vastness, Close to its natural form, Isolation.*

This word wilderness was once only mentioned in conjunction with negative words like "savage", "barren", or "desolate". It is where Jesus was tempted by the Devil, and is what surrounded John Milton's paradise of Eden (Cronon, 1995). It was a place of fear and foreboding, of the insecure and the unknown. Following the industrial revolution, the relationship between society and its environment changed. The accelerated extraction of resources, the intensification of production, and the growth of cities meant that people finally had the advantage over nature, and it was no longer something to fear. Wilderness experienced a reinvention, in this Romantic Period, when through both literature and paintings, it was depicted as a place where, just as one might meet the Devil, one could also experience the majesty of God (Figure 19).

Figure 19: Caspar David Friedrich's *Der Wanderer über dem Nebelmeer,* painted 1818. (Source: Wikicommons, open licence).

God created both nature and Man, but while Man sinned and was fallen, nature remained pure, and where it was

untouched by man, it was at its most sacred. Wilderness became, and still is today, sacred. It is 'a place of freedom in which we can recover the true selves we have lost to the corrupting influences of our artificial lives' (Cronon 1995, 16).

So culturally embedded is the sentiment of the sacred landscape, of a place to be closer to God, that today self-regarding agnostics profess to a quasi-religious experience while participating in a wilderness landscape. This emerged in this study with more than one participant who expressed a spiritual connection when in the Wicklow landscape, while declaring in the same breath that the participant is not in any way religious, a paradox met on the wet slopes of Scarr that seemed to generate an existential confusion for one man in particular.

In what is known as the 'circle of representation', the themes promoted by the 'myth-makers' of tourism marketing are often reproduced in the personal photography of visitors to these destinations, each informing the other in the perception of the subject. In the same way, the representation of landscapes by Romantic painters, and the pregnancy of meaning they carry echo through to today in contemporary landscape photography (Figure 20).

The vantage point depicted in both the painting and the photograph is one that enables the subject a wide, expansive view. The landscape spreads out in front of them as a scene. From this word comes the concept of scenery, and the point from which the scenery is experienced is the view, both of which were expressed as landscape values in this study. This visual quality of the landscape, that it is beautiful, was valued by almost half of the participants in the study, with related aesthetic descriptions

Figure 20: Landscape photograph, taken in Ireland, April 2013. (Reproduced with permission of the owner, Boris Woynowski).

also scoring highly in the salience index.

On the topic of untouched nature and wilderness, participants never alluded to the natural history of the landscape of Wicklow. The uplands, which were consistently appreciated for their wild and natural character, are a socio-ecological system that has experienced a human-induced ecological regime shift in the ancient past through deforestation (Neeson 1991), and this ecological regime has been maintained ever since by overgrazing of sheep and deer, both populations of which are human-managed (Stevenson and Thompson 1993). The wild Wicklow uplands are as much an actively managed cultural landscape as the fields and pastures found at lower elevations, the difference being the absence of indicators of human activity to the untrained eye.

The second image of nature is the rural idyll, a peaceful, quiet co-existence of man and nature, harkening to times gone by, to a historic, sleepy peacefulness, a virtuous life and a harmonious community, known as the Arcadian image. This image strikes the balance between nature and raw urbanism that people have sought throughout history. This idyllic landscape, expressed in this study as values of *Rolling Hills, Community, Trees, Countryside, Farmers, Slower Pace of Life, Sheep, Cattle, and Hedgerows*, exposes participants in the landscape to a simpler life, reconnecting them to 'from whence they were digged', in an experience all the more intense by the sense of the connection being lost in their everyday lives (Benson 2008, 231). The Arcadian landscape is above all a cultural landscape, and connects the perceiver to their history, identity and culture (Buijs, Pedroli, and Luginbühl 2006).

The Arcadian image, though present in the study, was far less salient than the wilderness image, which is inconsistent with one study of landscape preferences and perceptions in Ireland. The study, by Howley *et al*. (2011) surveyed 430 individuals across all of Ireland with 47 landscape photos representing 5 categories, and found that a traditional low-intensity farming landscape was preferred over a wilderness landscape.

However, studies in the Netherlands, using either questionnaires (Buijs, Elands, and Langers 2009) or in-depth interviews (W. T. de Groot and van den Born 2003), (Van Den Born et al. 2002), showed an emerging preference among Dutch people for the wilderness image over the Arcadian. One of the studies, by Buijs, Elands, & Langers (2009) showed that immigrants had a preference for productive landscapes while the Dutch preferred the wilderness. These studies all associate their findings with the urbanisation of the Dutch society, as well as the globalisation of their food supply, which imposes a disconnect between the people and the landscape as a source of production, resulting in a diminishing appreciation for harmonious Arcadian relationships between people and nature, and a preference for experienceing nature without human influence. This food-landscape disconnect was evident in this study, with very few participants expressing a value for the productive capacity of the Wicklow landscape.

A study of landscape preferences in France, using a questionnaire of 5000 people, and 250 in-depth interviews appears to corrobrate the Dutch findings, showing that urban and younger participants preferred the wilderness while older people engaged in a rural existence related more to managed landscapes. It may be the case in this study that the proximity of the study area to an urban centre, part of which in inside County Wicklow, may explain the differences with Howley *et al*. (2011). The demographic analysis shows no clear support for this, both Wicklow natives and non-natives, and Wicklow residents and visitors expressed value patterns consistent with the overall findings. As Wicklow is partly urbanised itself, it could be that Wicklow residents are not necessarily rural residents.

6.2 Walking in the Landscape

In something of a paradox, while it is clear that participants in this study value very highly the image of a natural landscape without the interference of people, it is also clear that participants valued very highly the benefits that they derive from interacting with this landscape themselves. In terms of

salient human practices, walking ranked above all others. Where walking featured 6th in the salience index, the first items referring to the landscape as somewhere that harbours a community emerged 43rd in the index, and items referring to other recreational activities, swimming and cycling, were not in the top 100 salient items.

While it could be argued that walking is a far less impacting social practice than pylon building, for example, it is also the case that there are incremental and long-lasting effects of the behavioural choices of people to interact with the landscape this way. They might use cars to get to the countryside; they tread the soil, creating desire-lines across the landscape. Others follow these desire-lines, as they share in the experience of those before them. These choices culturally reinforce the appreciation for the landscape while at the same time threatening the very thing that is appreciated.

According to Curtis (2002), recreational walking considerably exceeds any other activity as the most popular form of physical activity in Ireland. These trends, as well as the health benefits of walking are recognised and supported by National and local development authorities, who have focused on the development of infrastructure to enable access for recreationalists and tourists alike (County Wicklow Partnership 2009).

The question of why people walk recreationally, and why it is more favoured in rural areas, is addressed by Edensor, who writes that rural walking offers people a great many benefits beyond the exercise, including a physical experience, an aesthetic journey, and an escape from the 'chains of urban living' (Edensor 2000, 81).

Cronin (1995) suggests that in a time when society is increasingly living in an urban environment, the anti-urban offers a relief from the pressures and constraints of modernity. The urban environment is one of highly regulated mechanised movement, where speed and volume throughput are what determine the flow. This dulls the participant to the point of withdrawal, they become anaesthetized and apathetic to their immediate environment (Edensor 2000). The urban life is moulded by 'over-civilised modes of

behaviour', the dweller 'feels the eyes of the world upon him, and always he is subconsciously occupied in conforming himself to the world' (Haultain 1915, in Edensor 2000, 87).

The rural walker on the other hand is free to roam, moving over the landscape as the eye does a painting, following whims of curiosity and aesthetic stimulation. The rural landscape empowers them to determine their own destiny. This sense of freedom was shown to be highly valued in this study: participants valued the *freedom of movement* that Wicklow offers them, the *escape from urban* life, how it allows them to *get away from it all*, that they like how there are *less people around*. The physical experience of walking connects the walker to the ground; there is no mechanical interference, no shock absorbers and no escape from the weather. The body is the means through which people experience and feel the world (Edensor 2000), and the walker has an intimate transactional interaction with the landscape, the physical exertion shaping their bodies as their bodies shape the landscape.

As well as being physically free, the walker is mentally released, 'as one enters the variety and movement of the outside world, the space for interior wandering also grows' (Robinson 1989, in Edensor 2000, 91). Participants in this study talked about how through experiencing the Wicklow landscape, they found that issues that had been troubling them were often resolved, and that participation in the landscape brings *clarity to the mind*.

As walkers move through the landscape, they are both following symbolic meaning and creating it, they make the space of the landscape the place of the journey, and in each walk, each step is a reinterpretation of the place, a redefinition of themselves, a reappraisal of the scene, every time a fresh aesthetic experience. This theme also emerged in the interviews, with participants describing how they might visit the same place many times, and each time notice something different, how the changing weather, different seasons, and even their moods can have a profound effect on their landscape experience, which in turn shapes their relationship with the landscape.

That walking featured so strongly in this study may be due to a bias derived from there being many interviews conducted on the paths and trails of Wicklow. However, salience ranks conducted for participants found on the trails and those in commercial spaces show that in fact *walking* had a comparably lower salience score and rank for those on the trails.

6.3 The Repository Landscape

While the first two sections of the discussion deal with landscape values and interactions that are inherently cultural in nature, and so carry their own time-depth and connection to past cultural practices, this section seeks to address landscape values found that directly relate to the cultural and historical repository function of the landscape as described by Tuan (1977), Ingold (2000)and Stephenson (2008).

Although items relating to culture and history were by no means highly salient to the participants, they did feature, and they show that the landscape in Wicklow does serve as an embodiment of the past for people. Participants talked about how the landscape reminds them of their childhood, and of times spent with their parents and families. This was especially a feature of the Sugarloaf, which for a lot of participants was a place they visited as children. This sort of landscape connection is developed from past personal experiences to which the landscape brings them back. There is no explicit communication of the symbolism in the landscape itself; the sugarloaf carries no mark through which a first-time visitor might understand its symbolic power to elicit memories in other people. Rather, the perpetuation of its meaning is reliant on the continuing expressing of that meaning by those that hold it in their interaction with the mountain, communicable through shared experiences. The landscape is in this way rather a personal repository than a cultural one; the accessing of the meaning is only via personal expressions of that meaning.

However, meaning and symbolism in the landscape is by no means restricted to the personal. Participants often mentioned old churches, historic buildings and villages as something they value in the Wicklow landscape. Glendalough in

particular, with its defensive round tower, its range of ruined churches and graveyards, was often mentioned as a place where one can connect easily to a time of ancient Christian pilgrimage and isolation.

Alongside the connection with the past through personal experience, and through historical artefacts in the physical landscape, this study revealed landscape components that carry a depth of meaning that is communicated primarily through language. The most prevalent of these, the *Military Road*, refers to the Wicklow that was a historic stronghold of opposition to the British occupation.

Tuan (1991), discussing the role of language in creating the place landscape, says that generic names are not as powerful evocators of place as are proper names. In the Wicklow landscape, names often carry descriptive information; the Sugarloaf is so called because it looks like a pile of sugar; Glendalough is an Anglicisation of *Gleann dá Loch*, which means in Irish 'the glen of the two lakes'. Both names communicate something, but are more or less neutral in meaning and not so symbolically loaded. The *Military Road* on the other hand, though ostensibly just a small road through the Wicklow Mountains, is in its name loaded with powerful symbolism. Built by the British forces to gain access to the rebel territory and thus pacify them, it is today a physical embodiment of a time of war in Wicklow, whose name perpetuates the associations for those that experience it. While there is little along the road to visually stir the observer toward this time, participants described the sense of connection they felt when in the mountains to those involved in the struggle, both to the oppressed and to the soldiers sent to pacify them.

Chi-squared analysis corroborated Stephenson's (2008) findings that those that have a longer connection to the place are more cognisant of embedded values in the landscape than those with a shorter connection. This may be because of the personal, experience-based meaning discussed above, as well as the simple fact of people being more familiar with the stories of a landscape they have been living in for some time. To keep embedded values in context, there is no evidence in this study that these people value them over surface

ones; on the contrary, it has been shown that surface values by far outweigh embedded values in terms of salience to all participants in this study, irrespective of their connection to the study area.

6.4 Methodology Critique

6.4.1 Data Collection

Using Freelisting interviews to collect the data proved very successful in this regard. A rich and wide range of values was collected from 81 people in a short amount of time. While longer, in-depth interviews may have yielded more complete representations of landscape values, freelisting was effective in establishing those values that are common to people. Furthermore, the data collected, because of the interview style, was unbiased by researcher framing, which would have been inherent in longer interviews. The representation of social groups was not ideal, as interviewing in Ireland in the weeks leading up to Christmas proved to be challenging in terms of actually finding people in the landscape. As such, the options were to interview those amenity searchers dedicated enough to be still out there and exposed to the inclement weather, or to seek participants in more commercial environments. The strategy proved successful, but some desired participants were not found, especially farmers and forest workers. Nevertheless, there was a good mix of residents and visitors, and Wicklow natives and non-natives.

6.4.2 Salience

Cultural Domain Analysis provided a salience index of items, which allowed a more realistic indication of their relative importance than using frequency alone, and revealed the cut-off point for the list of basic terms as described in Sutrop (2001). Salience scores calculated were far below what was found in other studies using similar analysis techniques (see Thompson and Juan 2006; Robbins and Nolan 2000; Sutrop 2001), which, when considering the complexity and subjectivity of listed landscape values, as opposed to lists of colours, countries, and terms for familial relations, is expected and acceptable. The purpose was to create an index, in which terms could be ranked and

compared to each other, and in that sense cultural domain analysis and cognitive salience were the appropriate methods.

6.4.3 Cultural Values Model and Researcher Bias

Framing the data with the Cultural Values Model greatly enhanced the understanding of the interview data in delineating between forms, relationships and practices/processes. The result of this analysis was interview data that revealed the wide range of landscape forms listed, and the rich tapestry of intersubjective relationships that extended to them, as well as the social practices embedded in the landscape. Further categorising of relationship values delved deeper into the mental landscape and revealed some of the underlying root values that guided people's perceptions and behaviour. This coding process was the first point at which researcher bias had the opportunity to distort the data. In the coding procedure, there were many instances where it was not absolutely clear into which group an item should fall. An example of this is the word *Green*. Stephenson (2008) and Bieling *et al* (2012) code *Green* as a relationship because it is a sensory response, while in this study, it was felt that a more positivist perspective could be employed, that the colour green is rather a product of a given surface's response to light waves. The question of whether it is green only in its observation, or that it is always green led the coding process into something of a philosophical relativist vs. interpretivist dwam, and in the end it was decided that the colour of an object exists in the same way water exists, irrespective of the name we give it. Similar difficulties were experienced with items such as *Community* (relationship or process?), *Shops* (form or process?), and many others. It was felt that the most important thing was consistency in coding, and that the subjectivity of the researcher be recognised as playing a part in the process.

6.4.4 Analysis

In the analysis of the data there were some weaknesses observed with regards to the use of the Chi-square method to determine relationships between categorical variables. The main weakness with Chi-square in this study is that it is a function of the frequency of an item, which is perhaps unsuited to use in

conjunction with salience scores as it does not factor the same variables and does not include the nuances in the data that salience reveals. A more pertinent method would have been to derive a statistical indication from the relative salience of items between groups, but the development of this was beyond the capacity of this study in terms of the time available, as this particular weakness was only realised during the observation of the results. Furthermore, the statistical power of Chi-square was reduced by the low frequency values for items, and would have benefitted from a larger respondent group.

The aim of this study was to identify the range of values perceived in the landscape, and to determine both the primary cultural values and investigate the ways in which they relate to the landscape. This proved a realistic and attainable goal within the study resources, and the mix of qualitative and quantitative methodological tools employed in terms of data collection and analysis yielded concrete insights into this relationship. The study revealed clear trends in landscape perceptions and values, as well as identifying areas for further research, which will be discussed in the next chapter.

7. Conclusion

Landscapes are complex socio-ecological systems, within which perceptual and material dimensions play crucial roles in connecting people to the environment around them. This perceptual dimension is the realm of intersubjective meaning and symbolism, which is socially constructed, culturally experienced and communicated, and value-driven. Social structures and landscapes alike are changing at an accelerated rate due to a complex interplay of increasing globalisation and societal urbanisation. This interplay affects both the landscapes themselves and the expectations of a society in their landscapes.

The European Landscape Convention recognises both the contribution of landscapes to human well-being, as well as their accelerating rate of change. It, and a growing body of scientific literature call for transdisciplinary landscape assessments that feature an inclusive, participatory approach.

This study focused on establishing the cultural values held by a society in a landscape, and to determine the ways in which these values are expressed, and to identify what features of the material landscape they are connected to and how. It looked at the landscape as a cultural repository, and at differences in value sets between demographic groups sharing the landscape.

The main findings of this study are that there is a clear dominance of what is perceived to be natural-looking features being valued over traditional cultural ones; people value much more mountains and wilderness areas than they do fields and hedges. The first point of this finding is that despite the humanist movement in landscape research, there is still a clear division in the public's mind between what is natural and what is man-made, and the former is shown to be more attractive. Furthermore, as discussed in Section 6.1, the trend is towards more separation of society and nature, as opposed to accepting society as part of nature. The second point of interest in this finding is the malleability of that perception of what is natural. The landscape most highly valued were those wild uplands, where people felt the furthest from the

interfering hand of society, are in fact what would be better referred to as a semi-natural, or even actively managed landscape.

This leads to two questions, both of which are would be valuable to pursue in further study. The first is the role of knowledge in the landscape experience, and the second is the degree to which landscape preferences are social constructions or inherent in our nature. The question of the role of knowledge as shaping the landscape experience leads to the potential of education as a conduit for enhancing landscape experiences. Tuan (1979) and Benson (2008) go some way in parsing this topic in a philosophical way, and it would be a contribution to the discourse should more empirical research address the question.

The question of social construction vs. inherent value in natural landscapes raises both opportunities for researchers and landscape planners alike. It could be interesting to identify perception thresholds of natural landscapes so as to know the point at which a landscape begins to lose the public perception of it being natural. In a socially constructed world, the cultural impacts of interventions in landscapes for whatever reason could be mitigated by contributions to the public discourse that guide social perceptions of such landscape change. There are obvious ethical questions in the whether the malleability of social perceptions is something that should be used as leverage to support the ambitions of landscape planners. The reality is that this is already on-going. As discussed in Section 6.3, language is a very important conduit for communicating symbolism and meaning, and this has been used to great effect in Germany, where the term 'semi-natural' is applied to forests that are actively and intensively managed for a species composition that is for the most part not representative of the potential natural vegetation.

The second finding of this study, that the landscape is highly valued for the recreational opportunities it provides, is not something new. Many local authorities in rural regions, including Wicklow, actively develop and maintain amenity infrastructure, both to derive public health benefits from an active population and to attract visitors who bring economic benefits to the region.

In light of the findings with regards to natural seeming landscapes, it would be prudent for landscape planners to maintain an appropriate balance between amenity infrastructure and maintaining a natural-looking landscape. Further research in this area could look at the social and ecological impacts of walking in the Wicklow landscape, as well as the specific perceptions of walkers as people who are at the forefront of landscape interaction in the way that farmers would have been in the past.

The third finding in this study, which is potentially the most interesting in the context of landscape protection policies such as the ELC, is that there was very little salience in the study participants for aspects of the landscape that contribute to their cultural heritage and identity. It is stated in the ELC that landscapes perform this function, and the idea is also well accepted in the literature, but this study has shown that the public themselves seem to not be so aware of this role of landscape. It is not at all necessary that the public are aware of something for it to function, and it is quite possible that the research methodology in this study was not the most pertinent for eliciting such underlying core values. In the context of the protection of cultural landscapes for the purposes of maintaining cultural diversity and heritage, it is an interesting question of whether an economically unsustainable landscape that is funded through grant-aid, is actually worth maintaining, and, if this sort of landscape is crucial to local identity, does the supporting of it beyond its economic usefulness have implications for those that derive their identity from it? It is one thing to relate to a landscape that is rich and productive, but what does it mean to derive your cultural identity from a landscape that is reliant on handouts to survive and functions more like an open-air museum than a sustainable landscape? Might this sort of relationship in fact be damaging for the people in the landscape?

Perhaps they would be better off being empowered participants in a socio-ecological spatial system that reflects their innovation and capacity to adapt to social and global change rather than being left behind as a state-supported artefact of better times.

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9. Appendix

9.1 Items

Table 15 – All cultural values listed

Item	CVM Category	Relationship Category	Surface/ Embedded
Accessibility (Easy To Get To)	Relationship	Instrumental	Surface
Amenities	Form	-	Surface
Appreciation	Relationship	Non-instrumental	Surface
Art	Form	-	Surface
Beaches	Form	-	Surface
Beautiful	Relationship	Aesthetic	Surface
Birds	Form	-	Surface
Birdsong	Form	-	Surface
Blessington Lakes	Form	-	Surface
Body	Relationship	Instrumental	Surface
Bog Cotton	Form	-	Surface
Bogs	Form	-	Surface
Born Here	Relationship	Cultural	Embedded
Bray Head	Form	-	Surface
Brittas Bay	Form	-	Surface
Calm	Relationship	Instrumental	Surface
Cattle	Form	-	Surface
Changing	Process	-	Surface
Changing Environment	Process	-	Surface
Childhood	Relationship	Cultural	Embedded
Choose To Live Here	Relationship	Cultural	Surface
Clarity To The Mind	Relationship	Instrumental	Surface
Cleanliness	Process	-	Surface
Close To Dublin	Relationship	Instrumental	Surface
Close To It's Natural Form	Relationship	Non-instrumental	Surface
Coast	Form	-	Surface
Colours	Form	-	Surface
Colours In Autumn	Form	-	Surface
Colours Of The Bogs	Form	-	Surface
Comforting Sight	Relationship	Instrumental	Surface
Community	Process	-	Surface

Item	CVM Category	Relationship Category	Surface/ Embedded
Conifers	Form	-	Surface
Connection With Nature	Relationship	Instrumental	Surface
Contrast	Relationship	Aesthetic	Surface
Countryside	Form	-	Surface
Crops	Form	-	Surface
Cycles	Process	-	Surface
Cycling	Process	-	Surface
Deciduous Trees	Form	-	Surface
Deer	Form	-	Surface
Devil's Glen	Form	-	Surface
Diversity	Relationship	Non-instrumental	Surface
Djouce	Form	-	Surface
Dog Walking	Process	-	Surface
Drives	Form	-	Surface
Dumping Is Heart breaking	Relationship	Non-instrumental	Surface
Environment	Form	-	Surface
Escape	Relationship	Instrumental	Surface
Estates	Form	-	Embedded
Exercise	Process	-	Surface
Extraordinary Place	Relationship	Non-instrumental	Surface
Family	Process	-	Embedded
Farmers	Process	-	Surface
Farming/Food Production	Process	-	Surface
Farmland	Form	-	Surface
Fauna	Form	-	Surface
Fear	Relationship	Instrumental	Surface
Feel Better	Relationship	Instrumental	Surface
Ferns	Form	-	Surface
Fewer People Around	Relationship	Instrumental	Surface
Flora	Form	-	Surface
Flowers	Form	-	Surface
Forestry	Process	-	Surface
Forests	Form	-	Surface
Free	Relationship	Instrumental	Surface
Freedom	Relationship	Instrumental	Surface
Freedom From People	Relationship	Instrumental	Surface
Freedom Of Movement	Process	-	Surface

Item	CVM Category	Relationship Category	Surface/ Embedded
Fresh Air	Form	-	Surface
Freshness	Relationship	Non-instrumental	Surface
Garden Of Ireland	Process	-	Surface
Gardens	Form	-	Surface
Get Away From It All	Relationship	Instrumental	Surface
Glen Of The Downs	Form	-	Surface
Glendalough	Form	-	Surface
Glenmalure	Form	-	Surface
Goats	Form	-	Surface
Good For The Soul	Relationship	Instrumental	Surface
Gorse	Form	-	Surface
Green	Form	-	Surface
Greystones	Form	-	Surface
Habitat For Animals	Form	-	Surface
Happy	Relationship	Instrumental	Surface
Healthy	Relationship	Instrumental	Surface
Heather	Form	-	Surface
Hedges	Form	-	Surface
Hiking	Process	-	Surface
Hills	Form	-	Surface
Historic Buildings	Form	-	Embedded
Historic Villages	Form	-	Embedded
History/Heritage	Process	-	Embedded
Home	Relationship	Cultural	Embedded
Horses	Form	-	Surface
Identity	Relationship	Cultural	Embedded
Important	Relationship	Non-instrumental	Surface
Independence	Relationship	Instrumental	Surface
Isolation	Relationship	Instrumental	Surface
Lakes	Form	-	Surface
Land	Form	-	Surface
Landscape	Form	-	Surface
Landscape - Human Connection	Relationship	Instrumental	Surface
Laragh	Form	-	Surface
Larch	Form	-	Surface
Larks	Form	-	Surface
Learning	Process	-	Surface
Legends	Relationship	Cultural	Embedded
Light	Form	-	Surface
Local Shops	Process	-	Surface

Item	CVM Category	Relationship Category	Surface/ Embedded
Love The Landscape	Relationship	Non-instrumental	Surface
Lovely	Relationship	Aesthetic	Surface
Luggala	Form	-	Surface
Magheramore	Form	-	Surface
Makes You Happy	Relationship	Instrumental	Surface
Managed	Process	-	Surface
Military Road	Form	-	Embedded
Mining Villages	Form	-	Embedded
Mixed Terrain	Relationship	Non-instrumental	Surface
Mountain Sports	Process	-	Surface
Mountains	Form	-	Surface
National Park	Process	-	Surface
Natural	Relationship	Non-instrumental	Surface
Nature	Form	-	Surface
Newcastle	Form	-	Surface
No Conflict With Land Owners	Relationship	Instrumental	Surface
Not Overdeveloped	Relationship	Non-instrumental	Surface
Observe The Landscape	Relationship	Aesthetic	Surface
Open Landscape	Form	-	Surface
Open Space	Form	-	Surface
Outdoors	Form	-	Surface
Outdoors Person	Relationship	Non-instrumental	Surface
Peaceful	Relationship	Instrumental	Surface
People	Process	-	Surface
People That Walked On The Land Before	Process	-	Embedded
Peregrine Falcons	Form	-	Surface
Physical Challenge	Relationship	Instrumental	Surface
Physical Experience	Relationship	Instrumental	Surface
Picturesque	Relationship	Aesthetic	Surface
Powerscourt	Form	-	Surface
Preservation	Relationship	Non-instrumental	Surface
Privileged To Experience	Relationship	Non-instrumental	Surface
Problem Solving	Relationship	Instrumental	Surface
Protection	Process	-	Surface
Pylons	Process	-	Surface
Quiet	Relationship	Non-instrumental	Surface
Ravens	Form	-	Surface

Item	CVM Category	Relationship Category	Surface/ Embedded
Rebels	Process	-	Embedded
Red Squirrel	Form	-	Surface
Relaxation	Relationship	Instrumental	Surface
Renewing	Relationship	Instrumental	Surface
Respect The Landscape	Relationship	Non-instrumental	Surface
Rivers	Form	-	Surface
Rocks	Form	-	Surface
Rolling Hills	Form	-	Surface
Roundwood	Form	-	Surface
Ruggedness	Relationship	Aesthetic	Surface
Running	Process	-	Surface
Rural - Escape From Urban	Relationship	Instrumental	Surface
Sally Gap	Form	-	Surface
Scenery	Relationship	Aesthetic	Surface
Sea	Form	-	Surface
Sense Of Belonging	Relationship	Cultural	Embedded
Shapes	Relationship	Aesthetic	Surface
Sharpness	Relationship	Aesthetic	Surface
Sheep	Form	-	Surface
Silence	Relationship	Non-instrumental	Surface
Skyline	Form	-	Surface
Slower Pace Of Life	Process	-	Surface
Smells	Form	-	Surface
Snow	Form	-	Surface
Social	Process	-	Surface
Solitude	Relationship	Instrumental	Surface
Sounds	Form	-	Surface
Space	Form	-	Surface
Specific Places	Form	-	Surface
Spink	Form	-	Surface
Spiritual	Relationship	Cultural	Embedded
Spring	Process	-	Surface
Streams	Form	-	Surface
Sugarloaf	Form	-	Embedded
Summer	Process	-	Surface
Swimming	Process	-	Surface
Texture	Relationship	Aesthetic	Surface
The Economy	Process	-	Surface
Therapy	Relationship	Instrumental	Surface

Item	CVM Category	Relationship Category	Surface/ Embedded
Timeless	Relationship	Non-instrumental	Surface
Tourism	Process	-	Surface
Trees	Form	-	Surface
Undeveloped	Relationship	Non-instrumental	Surface
Unique	Relationship	Non-instrumental	Surface
Unspoiled	Relationship	Non-instrumental	Surface
Untamed	Relationship	Non-instrumental	Surface
Untouched	Relationship	Non-instrumental	Surface
Uplands	Form	-	Surface
Uplifting	Relationship	Instrumental	Surface
Valleys	Form	-	Surface
Variety	Relationship	Non-instrumental	Surface
Vastness	Relationship	Aesthetic	Surface
Views	Relationship	Aesthetic	Surface
Villages	Form	-	Embedded
Visitors	Process	-	Surface
Visual	Relationship	Aesthetic	Surface
Walking	Process	-	Surface
Walking With Friends	Process	-	Surface
Walks	Form	-	Surface
Warm	Relationship	Cultural	Surface
Water	Form	-	Surface
Waterfalls	Form	-	Surface
Weather	Form	-	Surface
Wicklow Gap	Form	-	Surface
Wilderness	Relationship	Non-instrumental	Surface
Wildlife	Form	-	Surface
Wildness	Relationship	Non-instrumental	Surface
Wind	Form	-	Surface
Wind Farms	Form	-	Surface
Winter	Process	-	Surface
With Parents	Relationship	Cultural	Embedded
Woodpeckers	Form	-	Surface

9.2 All Participants

Table 16: Salience index for all items, showing percent mentioning, CVM category, mean rank, cognitive salience, and salience rank.

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Mountains	32%	Form	5.65	0.056773	1
Beautiful	40%	Relationship	7.41	0.053342	2
Variety	21%	Relationship	5.29	0.039643	3
Sea	23%	Form	6.42	0.036531	4
Hills	15%	Form	4.83	0.030651	5
Walking	30%	Process	10.00	0.029630	6
Trees	22%	Form	7.67	0.028986	7
Scenery	21%	Relationship	8.24	0.025485	8
Cleanliness	2%	Process	1.00	0.024691	9
Forests	20%	Form	8.56	0.023069	10
Natural	17%	Relationship	8.00	0.021605	11
Pylons	5%	Process	2.50	0.019753	12
Walks	19%	Form	9.40	0.019701	13
Views	14%	Relationship	7.27	0.018673	14
Glendalough	19%	Form	10.00	0.018519	15
Lakes	16%	Form	9.00	0.017833	16
Green	7%	Form	4.17	0.017778	17
Close To Dublin	17%	Relationship	9.79	0.017662	18
Coast	9%	Form	5.00	0.017284	19
Wildness	16%	Relationship	9.69	0.016559	20
Rolling Hills	9%	Form	5.29	0.016350	21
Calm	7%	Relationship	4.67	0.015873	22
Colours	15%	Form	9.75	0.015195	23
Escape	20%	Relationship	13.50	0.014632	24
Connection With Nature	21%	Relationship	14.76	0.014215	25
Fresh Air	14%	Form	10.18	0.013338	26
Love The Landscape	5%	Relationship	3.75	0.013169	27
Freedom Of Movement	16%	Process	12.23	0.013122	28
Open Space	6%	Form	5.40	0.011431	29
Outdoors	4%	Form	3.33	0.011111	30
Ruggedness	7%	Relationship	6.67	0.011111	31
Nature	6%	Form	5.80	0.010643	32
Managed	10%	Process	9.50	0.010396	33
Childhood	12%	Relationship	11.90	0.010375	34

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Weather	7%	Form	7.17	0.010336	35
Spiritual	12%	Relationship	12.40	0.009956	36
Wildlife	11%	Form	11.22	0.009901	37
Comforting Sight	2%	Relationship	2.50	0.009877	39
Skyline	2%	Form	2.50	0.009877	38
History/Heritage	15%	Process	15.25	0.009715	40
Rural - Escape From Urban	14%	Relationship	14.00	0.009700	41
Unique	10%	Relationship	10.38	0.009520	42
Slower Pace Of Life	4%	Process	4.00	0.009259	44
Uplands	4%	Form	4.00	0.009259	43
Healthy	12%	Relationship	13.70	0.009011	45
Countryside	5%	Form	5.50	0.008979	46
Community	10%	Process	11.25	0.008779	47
Preservation	10%	Relationship	11.38	0.008683	48
Flora	7%	Form	9.00	0.008230	49
Light	2%	Form	3.00	0.008230	51
National Park	2%	Process	3.00	0.008230	50
Gardens	6%	Form	7.60	0.008122	52
Open Landscape	6%	Form	7.60	0.008122	53
Sally Gap	10%	Form	12.25	0.008062	54
Contrast	4%	Relationship	4.67	0.007937	55
Beaches	10%	Form	12.50	0.007901	56
Space	4%	Form	5.00	0.007407	57
Peaceful	10%	Relationship	13.50	0.007316	58
Quiet	10%	Relationship	13.50	0.007316	59
Valleys	7%	Form	10.33	0.007168	60
Rivers	10%	Form	14.00	0.007055	62
Undeveloped	5%	Relationship	7.00	0.007055	61
Wind Farms	2%	Form	3.50	0.007055	63
Fauna	9%	Form	12.71	0.006797	64
Shapes	6%	Relationship	9.20	0.006710	65
Bogs	6%	Form	9.40	0.006567	66
Social	7%	Process	11.67	0.006349	67
Specific Places	9%	Form	13.71	0.006301	68
Protection	6%	Process	9.80	0.006299	69
Deciduous Trees	5%	Form	8.00	0.006173	71
Makes You Happy	2%	Relationship	4.00	0.006173	70
Heather	5%	Form	8.50	0.005810	73
Hiking	5%	Process	8.50	0.005810	72

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Sugarloaf	7%	Form	12.83	0.005772	74
Birds	10%	Form	17.13	0.005767	76
Clarity To The Mind	10%	Relationship	17.13	0.005767	75
Changing Environment	6%	Process	10.80	0.005716	78
Glen Of The Downs	6%	Form	10.80	0.005716	77
Relaxation	7%	Relationship	13.00	0.005698	79
Landscape	5%	Form	8.75	0.005644	80
Water	6%	Form	11.20	0.005511	81
Fewer People Around	2%	Relationship	4.50	0.005487	82
Mixed Terrain	2%	Relationship	4.50	0.005487	83
Picturesque	2%	Relationship	4.50	0.005487	84
Choose To Live Here	6%	Relationship	11.40	0.005415	85
Deer	9%	Form	16.14	0.005353	86
Diversity	6%	Relationship	11.60	0.005321	87
Lovely	4%	Relationship	7.00	0.005291	88
People	7%	Process	14.17	0.005229	89
Farming/Food Production	10%	Process	19.00	0.005198	90
Home	7%	Relationship	14.33	0.005168	91
Estates	7%	Form	14.67	0.005051	92
Running	4%	Process	7.33	0.005051	93
Larch	2%	Form	5.00	0.004938	94
Appreciation	7%	Relationship	15.17	0.004884	95
Waterfalls	4%	Form	7.67	0.004831	96
Unspoilt	5%	Relationship	10.50	0.004703	97
Local Shops	2%	Process	5.50	0.004489	99
With Parents	2%	Relationship	5.50	0.004489	98
Devil'S Glen	5%	Form	11.50	0.004294	100
Powerscourt	5%	Form	11.75	0.004203	102
Untouched	5%	Relationship	11.75	0.004203	101
Family	6%	Process	14.80	0.004171	103
Farmers	4%	Process	9.00	0.004115	107
Get Away From It All	2%	Relationship	6.00	0.004115	108
Military Road	6%	Form	15.00	0.004115	105
Not	2%	Relationship	6.00	0.004115	106

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Overdeveloped					
Swimming	6%	Process	15.00	0.004115	104
Drives	6%	Form	15.20	0.004061	109
Luggala	5%	Form	12.25	0.004031	110
Blessington Lakes	4%	Form	9.33	0.003968	112
Visitors	4%	Process	9.33	0.003968	111
Exercise	9%	Process	22.00	0.003928	113
Accessibility					
(Easy To Get To)	6%	Relationship	15.80	0.003907	115
Cycling	6%	Process	15.80	0.003907	114
Historic Villages	4%	Form	9.67	0.003831	116
Dumping Is Heart-					
breaking	2%	Relationship	6.50	0.003799	117
Rebels	6%	Process	16.80	0.003674	119
Sounds	6%	Form	16.80	0.003674	118
Wind	5%	Form	13.50	0.003658	120
Solitude	7%	Relationship	20.50	0.003613	121
Forestry	5%	Process	13.75	0.003591	122
Historic Buildings	4%	Form	10.33	0.003584	125
Streams	4%	Form	10.33	0.003584	124
Walking With					
Friends	4%	Process	10.33	0.003584	123
Colours Of The					
Bogs	2%	Form	7.00	0.003527	128
Outdoors Person	2%	Relationship	7.00	0.003527	129
Ravens	2%	Form	7.00	0.003527	126
Wilderness	2%	Relationship	7.00	0.003527	127
Greystones	5%	Form	14.50	0.003406	130
The Economy	4%	Process	11.00	0.003367	131
Privileged To					
Experience	5%	Relationship	15.00	0.003292	132
Spink	2%	Form	7.50	0.003292	133
Garden Of Ireland	2%	Process	8.00	0.003086	136
Rocks	2%	Form	8.00	0.003086	134
Tourism	2%	Process	8.00	0.003086	135
Renewing	2%	Relationship	9.50	0.003008	137
No Conflict With					
Land Owners	2%	Relationship	8.50	0.002905	139
Peregrine Falcons	2%	Form	8.50	0.002905	140
Sharpness	2%	Relationship	8.50	0.002905	138
Art	2%	Form	10.00	0.002857	141

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Physical Experience	4%	Relationship	13.00	0.002849	142
Born Here	5%	Relationship	17.75	0.002782	143
Roundwood	4%	Form	13.33	0.002778	144
Changing	5%	Process	20.75	0.002754	145
Uplifting	4%	Relationship	13.67	0.002710	146
Winter	4%	Process	14.00	0.002646	147
Feel Better	5%	Relationship	18.75	0.002634	148
Freedom	2%	Relationship	9.50	0.002599	149
Warm	2%	Relationship	11.00	0.002597	150
Visual	4%	Relationship	14.33	0.002584	151
Texture	2%	Relationship	10.00	0.002469	152
Birdsong	2%	Form	12.00	0.002381	153
Physical Challenge	4%	Relationship	15.67	0.002364	154
Fear	2%	Relationship	10.50	0.002352	156
Habitat For Animals	2%	Form	10.50	0.002352	155
Learning	5%	Process	21.75	0.002270	157
Colours In Autumn	2%	Form	11.00	0.002245	159
Freedom From People	2%	Relationship	11.00	0.002245	158
Wicklow Gap	4%	Form	16.67	0.002222	160
Free	2%	Relationship	13.00	0.002198	161
Dog Walking	2%	Process	11.50	0.002147	162
Villages	4%	Form	20.67	0.002074	163
Brittas Bay	4%	Form	18.00	0.002058	168
Land	4%	Form	18.00	0.002058	166
Laragh	2%	Form	12.00	0.002058	164
Legends	2%	Relationship	12.00	0.002058	165
Vastness	4%	Relationship	18.00	0.002058	167
Body	2%	Relationship	12.50	0.001975	169
Problem Solving	4%	Relationship	19.00	0.001949	170
Ferns	2%	Form	13.00	0.001899	171
Flowers	2%	Form	13.00	0.001899	172
Gorse	2%	Form	13.00	0.001899	173
Djouce	2%	Form	13.50	0.001829	174
Bog Cotton	2%	Form	14.00	0.001764	177
Close To Its Natural Form	2%	Relationship	14.00	0.001764	178

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Independence	2%	Relationship	14.00	0.001764	179
Isolation	2%	Relationship	14.00	0.001764	175
Smells	2%	Form	14.00	0.001764	176
Sense Of Belonging	4%	Relationship	21.33	0.001736	180
Glenmalure	2%	Form	14.50	0.001703	181
Good For The Soul	5%	Relationship	29.00	0.001703	183
Untamed	2%	Relationship	14.50	0.001703	182
Extraordinary Place	2%	Relationship	15.00	0.001646	184
Goats	2%	Form	15.50	0.001593	186
Summer	2%	Process	15.50	0.001593	185
Conifers	2%	Form	18.50	0.001544	187
Respect The Landscape	2%	Relationship	16.50	0.001496	188
Identity	2%	Relationship	17.00	0.001452	189
Environment	4%	Form	25.67	0.001443	190
Amenities	2%	Form	17.50	0.001411	191
Happy	4%	Relationship	27.33	0.001355	192
Mining Villages	2%	Form	18.50	0.001335	193
Sheep	2%	Form	18.50	0.001335	194
Snow	2%	Form	19.00	0.001300	195
Spring	2%	Process	19.00	0.001300	196
Hedges	2%	Form	19.50	0.001266	197
Observe The Landscape	2%	Relationship	20.00	0.001235	198
Horses	2%	Form	20.50	0.001204	199
Cattle	2%	Form	21.00	0.001176	200
Landscape - Human Connection	2%	Relationship	21.00	0.001176	201
Larks	2%	Form	21.00	0.001176	202
Freshness	2%	Relationship	22.00	0.001122	204
Silence	4%	Relationship	33.00	0.001122	203
Bray Head	2%	Form	22.50	0.001097	205
Farmland	2%	Form	22.50	0.001097	206
Therapy	2%	Relationship	23.00	0.001074	207
Magheramore	2%	Form	23.50	0.001051	208
Cycles	2%	Process	30.00	0.000952	209
Mountain Sports	2%	Process	31.00	0.000922	210
Newcastle	2%	Form	28.00	0.000882	211

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Cycles	2%	Process	30.00	0.000823	212
Important	2%	Relationship	30.50	0.000810	213
Timeless	2%	Relationship	30.50	0.000810	214
Red Squirrel	2%	Form	31.00	0.000796	215
Crops	2%	Form	34.00	0.000726	216
People That Walked On The Land Before	2%	Process	35.00	0.000705	217
Woodpeckers	2%	Form	39.00	0.000633	218

Table 17: Highest ten ranking forms, relationships and processes for all participants, showing percent that mentioned item, mean rank, salience score and salience rank.

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	32%	5.65	0.0568	1
	Sea	23%	6.42	0.0365	4
	Hills	15%	4.83	0.0306	5
	Trees	22%	7.67	0.0290	7
	Forests	20%	8.56	0.0231	10
	Walks	19%	9.40	0.0197	13
	Glendalough	19%	10.00	0.0185	15
	Lakes	16%	9.00	0.0178	16
	Green	7%	4.17	0.0178	17
	Coast	9%	5.00	0.0173	19
Relationships	Beautiful	40%	7.41	0.0533	2
	Variety	21%	5.29	0.0396	3
	Scenery	21%	8.24	0.0255	8
	Natural	17%	8.00	0.0216	11
	Views	14%	7.27	0.0187	14
	Close To Dublin	17%	9.79	0.0177	18
	Wildness	16%	9.69	0.0166	20
	Calm	7%	4.67	0.0159	22
	Escape	20%	13.50	0.0146	24
	Connection With Nature	21%	14.76	0.0142	25

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Processes & Practices	Walking	30%	10.00	0.0296	6
	Cleanliness	2%	1.00	0.0247	9
	Pylons	5%	2.50	0.0198	12
	Freedom Of Movement	16%	12.23	0.0131	28
	Managed	10%	9.50	0.0104	33
	History/Heritage	15%	15.25	0.0097	40
	Slower Pace Of Life	4%	4.00	0.0093	43
	Community	10%	11.25	0.0088	47
	National Park	2%	3.00	0.0082	50
	Social	7%	11.67	0.0064	67

Table 18: Showing relationships subcategories for the 20 most salient relationships, with percent of participants mentioning item, salience score of item, and salience rank from all items index.

Item	*Percent Mentioning*	*Relationship sub-category*	*Cognitive Salience*	*Salience Rank*
Beautiful	40%	Aesthetic	0.0533	2
Variety	21%	Aesthetic	0.0396	3
Scenery	21%	Aesthetic	0.0255	8
Natural	17%	Non-instrumental	0.0216	11
Views	14%	Aesthetic	0.0187	14
Close To Dublin	17%	Instrumental	0.0177	18
Wildness	16%	Non-instrumental	0.0166	20
Calm	7%	Instrumental	0.0159	22
Escape	20%	Instrumental	0.0146	24
Connection With Nature	21%	Instrumental	0.0142	25
Love The Landscape	5%	Non-instrumental	0.0132	27
Ruggedness	7%	Aesthetic	0.0111	30
Childhood	12%	Cultural	0.0104	34
Spiritual	12%	Cultural	0.0100	36
Comforting Sight	2%	Instrumental	0.0099	39
Rural - Escape From Urban	14%	Instrumental	0.0097	41
Unique	10%	Non-instrumental	0.0095	42
Healthy	12%	Instrumental	0.0090	45
Preservation	10%	Non-instrumental	0.0087	48
Contrast	4%	Aesthetic	0.0079	55

9.3 Wicklow Natives and Non-natives

Table 19: Showing top twenty salient items for Wicklow natives with percentage of participants mentioning, CVM subcategories, mean rank, and salience score(n=42).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Mountains	33%	Form	4.21	0.0791	1
Variety	19%	Relationship	2.88	0.0663	2
Beautiful	40%	Relationship	7.53	0.0538	3
Sea	24%	Form	5.00	0.0476	4
Cleanliness	5%	Process	1.00	0.0476	5
Forests	29%	Form	8.00	0.0357	6
Trees	21%	Form	6.22	0.0344	7
Hills	12%	Form	3.60	0.0331	8
Pylons	5%	Process	1.50	0.0317	9
Lakes	26%	Form	9.00	0.0291	10
Love The Landscape	7%	Relationship	2.67	0.0268	11
Glendalough	21%	Form	8.78	0.0244	12
Scenery	19%	Relationship	8.00	0.0238	13
Nature	12%	Form	5.80	0.0205	14
Walking	24%	Process	11.80	0.0202	15
Walks	19%	Form	9.88	0.0193	16
Views	12%	Relationship	6.20	0.0192	17
Skyline	5%	Form	2.50	0.0190	18
Rolling Hills	10%	Form	5.25	0.0181	19
Colours	12%	Form	6.60	0.0180	20

Table 20: Showing top twenty salient relationships for Wicklow natives with subcategories, percentage of participants mentioning, and salience rank (n=42).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Variety	19%	Aesthetic	2
Beautiful	40%	Aesthetic	3
Love The Landscape	7%	Non-instrumental	8
Scenery	19%	Aesthetic	11
Views	12%	Aesthetic	14
Natural	17%	Non-instrumental	18
Diversity	7%	Non-instrumental	20
Unique	17%	Non-instrumental	22
Escape	19%	Instrumental	24
Calm	7%	Instrumental	25
Connection With Nature	19%	Instrumental	27
Makes You Happy	5%	Instrumental	30
Rural - Escape From Urban	17%	Instrumental	34
Wildness	14%	Non-instrumental	36
Childhood	14%	Cultural	39
Close To Dublin	12%	Instrumental	41
Preservation	12%	Non-instrumental	42
Peaceful	10%	Instrumental	45
Spiritual	10%	Cultural	48
Vastness	5%	Aesthetic	55

Table 21: Highest ten ranking forms, relationships and processes for Wicklow natives, showing percent that mentioned item, mean rank, salience score and salience rank (n=42).

	Item	*Participants Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	33%	4.21	0.0791	1
	Sea	24%	5.00	0.0476	4
	Forests	29%	8.00	0.0357	6
	Trees	21%	6.22	0.0344	7
	Hills	12%	3.60	0.0331	8
	Lakes	26%	9.00	0.0291	10
	Glendalough	21%	8.78	0.0244	12
	Nature	12%	5.80	0.0205	14
	Walks	19%	9.88	0.0193	16
	Skyline	5%	2.50	0.0190	18
Relationships	Variety	19%	2.88	0.0663	2
	Beautiful	40%	7.53	0.0538	3
	Love The Landscape	7%	2.67	0.0268	11
	Scenery	19%	8.00	0.0238	13
	Views	12%	6.20	0.0192	17
	Natural	17%	9.29	0.0179	21
	Diversity	7%	4.33	0.0165	23
	Unique	17%	10.86	0.0154	25
	Escape	19%	14.50	0.0131	29
	Calm	7%	5.67	0.0126	30
Processes & Practices	Cleanliness	5%	1.00	0.0476	5
	Pylons	5%	1.50	0.0317	9
	Walking	24%	11.80	0.0202	15
	National Park	5%	3.00	0.0159	24
	Freedom Of Movement	19%	14.00	0.0136	28
	Community	12%	9.80	0.0121	32
	Slower Pace Of Life	5%	4.00	0.0119	35
	Hiking	10%	8.50	0.0112	41
	Protection	7%	7.33	0.0097	49
	Running	7%	7.33	0.0097	50

Table 22: Showing top twenty salient items for Wicklow non-natives with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=39)

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Beautiful	38%	Relationship	7.27	0.0529	1
Mountains	31%	Form	7.33	0.0420	2
Walking	36%	Process	8.71	0.0412	3
Green	5%	Form	1.50	0.0342	4
Open Space	8%	Form	2.33	0.0330	5
Hills	18%	Form	5.71	0.0314	6
Variety	23%	Relationship	7.44	0.0310	7
Close To Dublin	23%	Relationship	7.78	0.0297	8
Sea	23%	Form	8.00	0.0288	9
Scenery	23%	Relationship	8.44	0.0273	10
Natural	18%	Relationship	6.71	0.0267	11
Contrast	5%	Form	2.00	0.0256	12
Ruggedness	5%	Relationship	2.00	0.0256	13
Coast	8%	Relationship	3.00	0.0256	14
Trees	23%	Form	9.11	0.0253	15
Wildness	18%	Relationship	7.29	0.0246	16
Calm	8%	Relationship	3.67	0.0210	17
Walks	18%	Form	8.86	0.0203	18
Views	15%	Relationship	8.17	0.0188	19
Outdoors	13%	Form	7.20	0.0178	20

Table 23: Showing top twenty salient relationships for Wicklow non-natives with subcategories, percentage of participants mentioning, and salience rank (n=39).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	38%	Aesthetic	1
Variety	23%	Aesthetic	7
Close To Dublin	23%	Instrumental	8
Scenery	23%	Aesthetic	10
Natural	18%	Non-instrumental	11
Contrast	5%	Aesthetic	12
Ruggedness	5%	Aesthetic	13
Wildness	18%	Non-instrumental	16
Calm	8%	Instrumental	17
Views	15%	Aesthetic	19
Escape	21%	Instrumental	22
Connection With Nature	23%	Instrumental	23
Healthy	18%	Instrumental	27
Spiritual	15%	Cultural	37
Relaxation	15%	Instrumental	39
Mixed Terrain	5%	Non-instrumental	40
Childhood	10%	Cultural	42
Undeveloped	5%	Non-instrumental	43
Shapes	10%	Aesthetic	45
Preservation	8%	Non-instrumental	46

Table 24: Highest ten ranking forms, relationships and processes for all participants, showing percent that mentioned item, mean rank, salience score and salience rank (n=39)

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	31%	7.33	0.04196	2
	Green	5%	1.50	0.03419	4
	Open Space	8%	2.33	0.03297	5
	Hills	18%	5.71	0.03141	6
	Sea	23%	8.00	0.02885	9
	Coast	8%	3.00	0.02564	14
	Trees	23%	9.11	0.02533	15
	Walks	18%	8.86	0.02026	18
	Outdoors	13%	7.20	0.01781	20
	Fresh Air	15%	8.83	0.01742	21
Relationships	Beautiful	38%	7.27	0.0529	1
	Variety	23%	7.44	0.0310	7
	Close To Dublin	23%	7.78	0.0297	8
	Scenery	23%	8.44	0.0273	10
	Natural	18%	6.71	0.0267	11
	Contrast	5%	2.00	0.0256	12
	Ruggedness	5%	2.00	0.0256	13
	Wildness	18%	7.29	0.0246	16
	Calm	8%	3.67	0.0210	17
	Views	15%	8.17	0.0188	19
Processes & Practices	Walking	36%	8.71	0.04119	3
	Managed	13%	8.20	0.01563	25
	Changing Environment	8%	5.00	0.01538	26
	Pylons	5%	3.50	0.01465	30
	Freedom Of Movement	13%	9.40	0.01364	33
	History/Heritage	18%	13.71	0.01309	34
	Social	13%	10.20	0.01257	36
	Hiking	8%	8.67	0.00888	50
	Family	10%	12.75	0.00804	55
	Exercise	13%	16.40	0.00782	59

9.4 Wicklow Residents and Visitors

Table 25: Showing top twenty salient items for Wicklow residents with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=56).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Beautiful	39%	Relationship	6.73	0.0584	1
Mountains	30%	Form	6.41	0.0473	2
Variety	16%	Relationship	3.56	0.0452	3
Cleanliness	4%	Process	1.00	0.0357	4
Hills	14%	Form	4.38	0.0327	5
Sea	21%	Form	6.92	0.0310	6
Forests	25%	Form	8.79	0.0285	7
Trees	20%	Form	7.09	0.0277	8
Walking	27%	Process	10.20	0.0263	9
Glendalough	23%	Form	9.15	0.0254	10
Pylons	4%	Process	1.50	0.0238	11
Colours	14%	Form	6.38	0.0224	12
Scenery	20%	Relationship	9.27	0.0212	13
Love The Landscape	5%	Relationship	2.67	0.0201	14
Coast	11%	Form	5.50	0.0195	15
Lakes	18%	Form	9.30	0.0192	16
Natural	16%	Relationship	8.44	0.0190	17
Green	9%	Form	4.80	0.0186	18
Walks	20%	Form	11.09	0.0177	19
Childhood	16%	Relationship	9.89	0.0163	20

Table 26: Showing top twenty salient relationships for Wicklow residents with subcategories, percentage of participants mentioning, and salience rank (n=56).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	39%	Aesthetic	1
Variety	16%	Aesthetic	3
Scenery	20%	Aesthetic	15
Love The Landscape	5%	Non-instrumental	16
Natural	16%	Non-instrumental	20
Childhood	16%	Cultural	23
Wildness	16%	Non-instrumental	24
Escape	20%	Instrumental	27
Views	9%	Aesthetic	30
Comforting Sight	4%	Instrumental	31
Connection With Nature	21%	Instrumental	33
Contrast	5%	Aesthetic	40
Rural - Escape From Urban	16%	Instrumental	42
Close To Dublin	14%	Instrumental	43
Undeveloped	7%	Non-instrumental	44
Unique	11%	Non-instrumental	50
Calm	5%	Instrumental	51
Makes You Happy	4%	Instrumental	55
Preservation	11%	Non-instrumental	61
Ruggedness	5%	Aesthetic	70

Table 27: Highest ten ranking forms, relationships and processes for Wicklow residents, showing percent that mentioned item, mean rank, salience score and salience rank (n=56).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	30%	6.41	0.0473	2
	Hills	14%	4.38	0.0327	5
	Sea	21%	6.92	0.0310	6
	Forests	25%	8.79	0.0285	7
	Trees	20%	7.09	0.0277	8
	Glendalough	23%	9.15	0.0254	12
	Colours	14%	6.38	0.0224	14
	Coast	11%	5.50	0.0195	18
	Lakes	18%	9.30	0.0192	19
	Green	9%	4.80	0.0186	21
Relationships	Beautiful	39%	6.73	0.0584	1
	Variety	16%	3.56	0.0452	3
	Scenery	20%	9.27	0.0212	15
	Love The Landscape	5%	2.67	0.0201	16
	Natural	16%	8.44	0.0190	20
	Childhood	16%	9.89	0.0163	23
	Wildness	16%	9.89	0.0163	24
	Escape	20%	13.55	0.0145	27
	Views	9%	6.20	0.0144	30
	Comforting Sight	4%	2.50	0.0143	31
Processes & Practices	Cleanliness	4%	1.00	0.0357	4
	Walking	27%	10.20	0.0263	9
	Pylons	4%	1.50	0.0238	13
	Freedom of Movement	20%	13.09	0.0150	26
	Community	11%	9.00	0.0119	37
	National Park	4%	3.00	0.0119	38
	Protection	7%	7.75	0.0092	53
	Slower Pace of Life	4%	4.00	0.0089	57
	History/Heritage	14%	16.13	0.0089	59
	Managed	9%	10.60	0.0084	62

Table 28: Showing top twenty salient items for Wicklow Visitors with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=25).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Mountains	36%	Form	4.22	0.0853	1
Close To Dublin	24%	Relationship	4.33	0.0554	2
Sea	28%	Form	5.57	0.0503	3
Beautiful	40%	Relationship	8.90	0.0449	4
Variety	32%	Relationship	7.25	0.0441	5
Scenery	24%	Relationship	6.33	0.0379	6
Walking	36%	Process	9.67	0.0372	7
Walks	16%	Form	4.75	0.0337	8
Calm	12%	Relationship	3.67	0.0327	9
Trees	28%	Form	8.57	0.0327	10
Views	24%	Relationship	8.17	0.0294	11
Hills	16%	Form	5.75	0.0278	12
Natural	20%	Relationship	7.20	0.0278	13
Open Space	8%	Form	3.00	0.0267	14
Changing Environment	12%	Process	5.00	0.0240	15
Weather	16%	Form	7.00	0.0229	16
Pylons	8%	Process	3.50	0.0229	17
Landscape	12%	Form	6.33	0.0189	18
Quiet	20%	Relationship	10.60	0.0189	19
Ruggedness	12%	Relationship	6.67	0.0180	20

Table 29: Showing top twenty salient relationships for Wicklow visitors with subcategories, percentage of participants mentioning, and salience rank (n=25).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Close To Dublin	24%	Instrumental	2
Beautiful	40%	Aesthetic	4
Variety	32%	Aesthetic	5
Scenery	24%	Aesthetic	6
Calm	12%	Instrumental	9
Views	24%	Aesthetic	11
Natural	20%	Non-instrumental	13
Quiet	20%	Non-instrumental	19
Ruggedness	12%	Aesthetic	20
Healthy	20%	Instrumental	22
Wildness	16%	Non-instrumental	24
Spiritual	16%	Cultural	26
Escape	20%	Instrumental	28
Connection With Nature	20%	Instrumental	29
Get Away From It All	8%	Instrumental	31
Accessibility (Easy To Get To)	8%	Instrumental	32
Relaxation	16%	Instrumental	34
Unique	8%	Non-instrumental	38
Preservation	8%	Non-instrumental	41
Peaceful	12%	Instrumental	45

Table 30: Highest ten ranking forms, relationships and processes for visitors, showing percent that mentioned item, mean rank, salience score and salience rank. (n=25).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	36%	4.22	0.0853	1
	Sea	28%	5.57	0.0503	3
	Walks	16%	4.75	0.0337	8
	Trees	28%	8.57	0.0327	10
	Hills	16%	5.75	0.0278	12
	Open Space	8%	3.00	0.0267	14
	Weather	16%	7.00	0.0229	16
	Landscape	12%	6.33	0.0189	18
	Rolling Hills	8%	4.50	0.0178	21
	Lakes	12%	8.00	0.0150	27
Relationships	Close To Dublin	24%	4.33	0.0554	2
	Beautiful	40%	8.90	0.0449	4
	Variety	32%	7.25	0.0441	5
	Scenery	24%	6.33	0.0379	6
	Calm	12%	3.67	0.0327	9
	Views	24%	8.17	0.0294	11
	Natural	20%	7.20	0.0278	13
	Quiet	20%	10.60	0.0189	19
	Ruggedness	12%	6.67	0.0180	20
	Healthy	20%	11.40	0.0175	22
Processes & Practices	Walking	36%	9.67	0.0372	7
	Changing Environment	12%	5.00	0.0240	15
	Pylons	8%	3.50	0.0229	17
	Social	16%	9.25	0.0173	23
	Managed	12%	7.67	0.0157	25
	History/Heritage	16%	13.50	0.0119	33
	Exercise	12%	10.33	0.0116	35
	Freedom Of Movement	8%	7.50	0.0107	37
	Dog Walking	8%	11.50	0.0070	47
	Learning	12%	21.33	0.0056	56

9.5 Residents 20+ Years and Residents less than 20 Years & Non-residents

Table 31: Showing top twenty salient items for residents 20+ years with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=40).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Variety	15%	Relationship	2.33	0.0643	1
Mountains	38%	Form	6.27	0.0598	2
Beautiful	38%	Relationship	7.67	0.0489	3
Hills	18%	Form	3.71	0.0471	4
Forests	28%	Form	7.64	0.0360	5
Pylons	5%	Process	1.50	0.0333	6
Sea	20%	Form	6.50	0.0308	7
Glendalough	28%	Form	9.27	0.0297	8
Trees	20%	Form	7.00	0.0286	9
Walking	30%	Process	11.00	0.0273	10
Colours	15%	Form	6.00	0.0250	11
Natural	20%	Relationship	8.25	0.0242	12
Rolling Hills	13%	Form	5.60	0.0223	13
Views	13%	Relationship	6.20	0.0202	14
Scenery	20%	Relationship	10.00	0.0200	15
Comforting Sight	5%	Relationship	2.50	0.0200	16
Skyline	5%	Form	2.50	0.0200	17
Childhood	20%	Relationship	11.00	0.0182	18
Lakes	18%	Form	9.86	0.0178	19
Open Landscape	8%	Form	4.33	0.0173	20

Table 32: Showing top twenty salient relationships for residents 20+ Years with subcategories, percentage of participants mentioning, and salience rank (n=40).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Variety	15%	Aesthetic	1
Beautiful	38%	Aesthetic	3
Natural	20%	Non-instrumental	12
Views	13%	Aesthetic	14
Scenery	20%	Aesthetic	15
Comforting Sight	5%	Instrumental	16
Childhood	20%	Cultural	18
Love The Landscape	5%	Non-instrumental	21
Wildness	18%	Non-instrumental	24
Connection With Nature	23%	Instrumental	27
Escape	20%	Instrumental	29
Makes You Happy	5%	Instrumental	30
Preservation	15%	Non-instrumental	32
Ruggedness	8%	Aesthetic	37
Undeveloped	8%	Non-instrumental	38
Fewer People Around	5%	Instrumental	39
Shapes	8%	Aesthetic	42
Home	13%	Cultural	54
Spiritual	13%	Cultural	55
Vastness	5%	Aesthetic	59

Table 33: Highest ten ranking forms, relationships and processes for residents 20+ years, showing percent that mentioned item, mean rank, salience score and salience rank (n=40).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	38%	6.27	0.0598	2
	Hills	18%	3.71	0.0471	4
	Forests	28%	7.64	0.0360	5
	Sea	20%	6.50	0.0308	7
	Glendalough	28%	9.27	0.0297	8
	Trees	20%	7.00	0.0286	9
	Colours	15%	6.00	0.0250	11
	Rolling Hills	13%	5.60	0.0223	13
	Skyline	5%	2.50	0.0200	17
	Lakes	18%	9.86	0.0178	19
Relationships	Variety	15%	2.33	0.0643	1
	Beautiful	38%	7.67	0.0489	3
	Natural	20%	8.25	0.0242	12
	Views	13%	6.20	0.0202	14
	Scenery	20%	10.00	0.0200	15
	Comforting Sight	5%	2.50	0.0200	16
	Childhood	20%	11.00	0.0182	18
	Love The Landscape	5%	3.00	0.0167	21
	Wildness	18%	11.14	0.0157	24
	Connection With Nature	23%	15.89	0.0142	27
Processes & Practices	Pylons	5%	1.50	0.0333	6
	Walking	30%	11.00	0.0273	10
	National Park	5%	3.00	0.0167	22
	History/Heritage	20%	16.13	0.0124	31
	Hiking	10%	8.50	0.0118	34
	Managed	10%	9.50	0.0105	43
	Protection	5%	5.00	0.0100	47
	Freedom Of Movement	18%	18.29	0.0096	48
	People	13%	14.00	0.0089	53
	Farming/Food Production	18%	20.57	0.0085	56

Table 34: Highest ten ranking forms, relationships and processes for residents 0-20 years, showing percent that mentioned item, mean rank, salience score and salience rank (n=41).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Beautiful	41%	Relationship	7.18	0.0578	1
Mountains	27%	Form	4.82	0.0557	2
Sea	27%	Form	6.36	0.0422	3
Variety	27%	Relationship	6.91	0.0388	4
Green	7%	Form	2.00	0.0366	5
Close To Dublin	22%	Relationship	6.44	0.0341	6
Scenery	22%	Relationship	6.67	0.0329	7
Walking	29%	Process	9.00	0.0325	8
Countryside	5%	Form	1.50	0.0325	9
Space	5%	Form	1.50	0.0325	10
Trees	24%	Form	8.20	0.0297	11
Freedom Of Movement	15%	Process	5.17	0.0283	12
Calm	10%	Relationship	3.50	0.0279	13
Walks	20%	Form	7.13	0.0274	14
Coast	7%	Form	3.00	0.0244	15
Outdoors	5%	Form	2.00	0.0244	16
Weather	12%	Form	6.20	0.0197	17
Natural	15%	Relationship	7.67	0.0191	18
Hills	12%	Form	6.40	0.0191	19
Lakes	15%	Form	8.00	0.0183	20

Table 35: Showing top twenty salient relationships for residents 0-20 years with subcategories, percentage of participants mentioning, and salience rank (n=41)

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	41%	Aesthetic	1
Variety	27%	Aesthetic	4
Close To Dublin	22%	Instrumental	6
Scenery	22%	Aesthetic	7
Calm	10%	Instrumental	13
Natural	15%	Non-instrumental	18
Wildness	15%	Non-instrumental	21
Views	15%	Aesthetic	22
Escape	20%	Instrumental	24
Choose To Live Here	10%	Cultural	25
Unique	10%	Non-instrumental	27
Rural - Escape From Urban	12%	Instrumental	30
Quiet	12%	Non-instrumental	39
Spiritual	12%	Cultural	40
Healthy	15%	Instrumental	41
Relaxation	15%	Instrumental	42
Ruggedness	7%	Aesthetic	43
Love The Landscape	5%	Non-instrumental	45
Untouched	5%	Non-instrumental	52
Peaceful	12%	Instrumental	53

Table 36: Showing top twenty salient items for residents 0-20 years with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=41).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	27%	4.82	0.0557	2
	Sea	27%	6.36	0.0422	3
	Green	7%	2.00	0.0366	5
	Countryside	5%	1.50	0.0325	9
	Space	5%	1.50	0.0325	10
	Trees	24%	8.20	0.0297	11
	Walks	20%	7.13	0.0274	14
	Coast	7%	3.00	0.0244	15
	Outdoors	5%	2.00	0.0244	16
	Weather	12%	6.20	0.0197	17
Relationships	Beautiful	41%	7.18	0.0578	1
	Variety	27%	6.91	0.0388	4
	Close To Dublin	22%	6.44	0.0341	6
	Scenery	22%	6.67	0.0329	7
	Calm	10%	3.50	0.0279	13
	Natural	15%	7.67	0.0191	18
	Wildness	15%	8.00	0.0183	21
	Views	15%	8.17	0.0179	22
	Escape	20%	11.38	0.0172	24
	Choose To Live Here	10%	5.75	0.0170	25
Processes & Practices	Walking	29%	9.00	0.0325	8
	Freedom Of Movement	15%	5.17	0.0283	12
	Slower Pace Of Life	5%	3.00	0.0163	29
	Changing Environment	7%	5.00	0.0146	31
	Pylons	5%	3.50	0.0139	34
	Community	15%	11.33	0.0129	35
	Social	10%	9.25	0.0105	47
	Managed	10%	9.50	0.0103	48
	Local Shops	5%	5.50	0.0089	51
	History/Heritage	10%	13.50	0.0072	60

9.6 Gender

Table 37: Showing top twenty salient items for Women with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=45).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Beautiful	38%	Relationship	6.06	0.0758	1
Hills	11%	Form	2.40	0.0563	2
Mountains	20%	Form	4.89	0.0498	3
Natural	11%	Relationship	3.60	0.0375	4
Pylons	4%	Process	1.50	0.0360	5
Space	4%	Form	1.50	0.0360	6
Trees	22%	Form	7.60	0.0356	7
Glendalough	13%	Form	4.67	0.0347	8
Walks	18%	Form	6.75	0.0320	9
Sea	18%	Form	7.13	0.0303	10
Rural - Escape From Urban	13%	Relationship	5.67	0.0286	11
Colours	18%	Form	7.63	0.0284	12
Walking	18%	Process	8.13	0.0266	13
Wildness	11%	Relationship	6.40	0.0211	14
Variety	13%	Relationship	7.83	0.0207	15
Views	9%	Relationship	5.25	0.0206	16
Scenery	13%	Relationship	8.00	0.0203	17
Preservation	7%	Relationship	4.00	0.0203	18
Countryside	9%	Form	5.50	0.0197	19
Green	9%	Form	5.50	0.0197	20

Table 38: Showing top twenty salient relationships for Women with subcategories, percentage of participants mentioning, and salience rank (n=45)

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	38%	Aesthetic	1
Natural	11%	Non-instrumental	4
Rural - Escape From Urban	13%	Instrumental	11
Wildness	11%	Non-instrumental	14
Variety	13%	Aesthetic	15
Views	9%	Aesthetic	16
Scenery	13%	Aesthetic	17
Preservation	7%	Non-instrumental	18
Calm	7%	Instrumental	21
Close To Dublin	13%	Instrumental	27
Undeveloped	7%	Non-instrumental	29
Unique	7%	Non-instrumental	30
Escape	9%	Instrumental	31
Makes You Happy	4%	Instrumental	32
Connection With Nature	18%	Instrumental	34
Healthy	16%	Instrumental	35
Peaceful	11%	Instrumental	40
Shapes	9%	Aesthetic	41
Relaxation	7%	Instrumental	49
Not Overdeveloped	4%	Non-instrumental	50

Table 39: **Highest ten ranking forms, relationships and processes for Women, showing percent that mentioned item, mean rank, salience score and salience rank (n=45).**

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Hills	11%	5	2.40	2
	Mountains	20%	9	4.89	3
	Space	4%	2	1.50	6
	Trees	22%	10	7.60	7
	Glendalough	13%	6	4.67	8
	Walks	18%	8	6.75	9
	Sea	18%	8	7.13	10
	Colours	18%	8	7.63	12
	Countryside	9%	4	5.50	19
	Green	9%	4	5.50	20
Relationships	Beautiful	38%	17	6.06	1
	Natural	11%	5	3.60	4
	Rural - Escape From Urban	13%	6	5.67	11
	Wildness	11%	5	6.40	14
	Variety	13%	6	7.83	15
	Views	9%	4	5.25	16
	Scenery	13%	6	8.00	17
	Preservation	7%	3	4.00	18
	Calm	7%	3	4.33	21
	Close To Dublin	13%	6	10.50	27
Processes & Practices	Pylons	4%	2	1.50	5
	Walking	18%	8	8.13	13
	Visitors	4%	2	3.00	23
	Freedom Of Movement	7%	3	4.67	24
	Community	11%	5	8.20	26
	Slower Pace Of Life	4%	2	4.00	33
	People	7%	3	7.33	42
	Protection	4%	2	6.50	57
	Walking With Friends	7%	3	10.33	60
	Garden Of Ireland	4%	2	8.00	65

Table 40: Showing top twenty salient items for Men with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=36)

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Variety	31%	Relationship	3.91	0.0640	1
Mountains	47%	Form	6.06	0.0638	2
Ruggedness	11%	Relationship	2.00	0.0455	3
Sea	31%	Form	5.91	0.0423	4
Beautiful	42%	Relationship	8.93	0.0382	5
Walking	44%	Process	10.94	0.0332	6
Green	6%	Form	1.50	0.0303	7
Scenery	31%	Relationship	8.36	0.0299	8
Forests	28%	Form	8.00	0.0284	9
Coast	14%	Form	4.00	0.0284	10
Lakes	25%	Form	7.22	0.0283	11
Hills	19%	Form	6.57	0.0242	12
Trees	22%	Form	7.75	0.0235	13
Fresh Air	17%	Form	6.17	0.0221	14
Open Space	14%	Form	5.40	0.0210	15
Close To Dublin	22%	Relationship	9.25	0.0197	16
Natural	25%	Relationship	10.44	0.0196	17
Views	19%	Relationship	8.43	0.0189	18
Escape	33%	Relationship	15.33	0.0178	19
Rolling Hills	11%	Form	5.25	0.0173	20

Table 41: Showing top twenty salient relationships for Men with subcategories, percentage of participants mentioning, and salience rank (n=36).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Variety	31%	Aesthetic	1
Ruggedness	11%	Aesthetic	3
Beautiful	42%	Aesthetic	5
Scenery	31%	Aesthetic	8
Close To Dublin	22%	Instrumental	16
Natural	25%	Non-instrumental	17
Views	19%	Aesthetic	18
Escape	33%	Instrumental	19
Love The Landscape	8%	Non-instrumental	22
Connection With Nature	25%	Instrumental	25
Wildness	22%	Non-instrumental	26
Spiritual	22%	Cultural	29
Contrast	8%	Aesthetic	30
Childhood	17%	Cultural	31
Calm	8%	Instrumental	33
Clarity To The Mind	19%	Instrumental	46
Unique	14%	Non-instrumental	48
With Parents	6%	Cultural	53
Quiet	11%	Non-instrumental	56
Preservation	14%	Non-instrumental	59

Table 42: Highest ten ranking forms, relationships and processes for Men, showing percent that mentioned item, mean rank, salience score and salience rank (n=36).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	47%	6.06	0.0638	2
	Sea	31%	5.91	0.0423	4
	Green	6%	1.50	0.0303	7
	Forests	28%	8.00	0.0284	9
	Coast	14%	4.00	0.0284	10
	Lakes	25%	7.22	0.0283	11
	Hills	19%	6.57	0.0242	12
	Trees	22%	7.75	0.0235	13
	Fresh Air	17%	6.17	0.0221	14
	Open Space	14%	5.40	0.0210	15
Relationships	Variety	31%	3.91	0.0640	1
	Ruggedness	11%	2.00	0.0455	3
	Beautiful	42%	8.93	0.0382	5
	Scenery	31%	8.36	0.0299	8
	Close To Dublin	22%	9.25	0.0197	16
	Natural	25%	10.44	0.0196	17
	Views	19%	8.43	0.0189	18
	Escape	33%	15.33	0.0178	19
	Love The Landscape	8%	4.33	0.0157	22
	Connection With Nature	25%	13.11	0.0156	25
Processes & Practices	Walking	44%	10.94	0.0332	6
	History/Heritage	31%	15.91	0.0157	23
	Freedom Of Movement	28%	14.50	0.0157	24
	National Park	6%	3.00	0.0152	27
	Managed	17%	9.83	0.0139	32
	Pylons	6%	3.50	0.0130	34
	Hiking	11%	8.50	0.0107	40
	Social	14%	12.00	0.0095	45
	Family	11%	10.75	0.0085	51
	Changing Environment	11%	13.25	0.0069	62

9.7 Age

Table 43: Showing top twenty salient items for participants aged 0-40 with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=22).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Mountains	45%	Form	5.10	0.0891	1
Sea	32%	Form	4.43	0.0718	2
Variety	23%	Relationship	3.80	0.0598	3
Views	23%	Relationship	4.00	0.0568	4
Beautiful	18%	Relationship	4.25	0.0428	5
Forests	27%	Form	7.00	0.0390	6
Lakes	27%	Form	7.00	0.0390	7
Glen Of The					8
Downs	9%	Form	2.50	0.0364	
Escape	32%	Relationship	9.00	0.0354	9
Walks	32%	Form	9.00	0.0354	10
Fresh Air	14%	Form	4.00	0.0341	11
Green	14%	Form	4.00	0.0341	12
Natural	23%	Relationship	7.00	0.0325	13
Wildness	23%	Relationship	7.20	0.0316	14
Diversity	14%	Relationship	4.33	0.0315	15
Love The					16
Landscape	9%	Relationship	3.00	0.0303	
Colours	14%	Form	4.67	0.0292	17
Childhood	27%	Relationship	9.67	0.0282	18
Coast	14%	Form	5.00	0.0273	19
Glendalough	27%	Form	10.50	0.0260	20

Table 44: Showing top twenty salient relationships for participants aged 0-40 with subcategories, percentage of participants mentioning, and salience rank (n=22).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Variety	23%	Aesthetic	3
Views	23%	Aesthetic	4
Beautiful	18%	Aesthetic	5
Escape	32%	Instrumental	9
Natural	23%	Non-instrumental	13
Wildness	23%	Non-instrumental	14
Diversity	14%	Non-instrumental	15
Love The Landscape	9%	Non-instrumental	16
Childhood	27%	Cultural	18
Scenery	27%	Aesthetic	22
Quiet	14%	Non-instrumental	23
Choose To Live Here	14%	Cultural	24
With Parents	9%	Cultural	27
Unique	18%	Non-instrumental	33
Feel Better	14%	Instrumental	34
Home	14%	Cultural	35
Preservation	14%	Non-instrumental	36
Calm	9%	Instrumental	37
Peaceful	14%	Instrumental	38
Connection With Nature	18%	Instrumental	39

Table 45: Highest ten ranking forms, relationships and processes for participants aged 0-40 showing percent that mentioned item, mean rank, salience score and salience rank (n=22).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	45%	5.10	0.0891	1
	Sea	32%	4.43	0.0718	2
	Forests	27%	7.00	0.0390	6
	Lakes	27%	7.00	0.0390	7
	Glen Of The Downs	9%	2.50	0.0364	8
	Walks	32%	9.00	0.0354	10
	Fresh Air	14%	4.00	0.0341	11
	Green	14%	4.00	0.0341	12
	Colours	14%	4.67	0.0292	17
	Coast	14%	5.00	0.0273	19
Relationships	Variety	23%	3.80	0.0598	3
	Views	23%	4.00	0.0568	4
	Beautiful	18%	4.25	0.0428	5
	Escape	32%	9.00	0.0354	9
	Natural	23%	7.00	0.0325	13
	Wildness	23%	7.20	0.0316	14
	Diversity	14%	4.33	0.0315	15
	Love The Landscape	9%	3.00	0.0303	16
	Childhood	27%	9.67	0.0282	18
	Scenery	27%	12.50	0.0218	22
Processes & Practices	Freedom Of Movement	14%	8.67	0.0157	28
	Walking	18%	11.75	0.0155	29
	Hiking	9%	8.00	0.0114	42
	Swimming	14%	14.33	0.0095	50
	Cycling	14%	14.67	0.0093	51
	Family	9%	13.00	0.0070	60
	Changing Environment	9%	24.00	0.0038	66
	Farming/Food Production	9%	27.50	0.0033	67

Table 46: Showing top twenty salient items for participants 41-59 with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=33).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Beautiful	48%	Relationship	7.44	0.0652	1
Calm	6%	Relationship	1.50	0.0404	2
Pylons	6%	Process	1.50	0.0404	3
Trees	27%	Form	7.11	0.0384	4
Natural	15%	Relationship	4.60	0.0329	5
Hills	12%	Form	3.75	0.0323	6
Rural - Escape					7
From Urban	18%	Relationship	5.83	0.0312	
Running	6%	Process	2.00	0.0303	8
Walking	24%	Process	8.75	0.0277	9
Sea	15%	Form	5.60	0.0271	10
Scenery	15%	Relationship	5.80	0.0261	11
Rolling Hills	12%	Form	5.75	0.0211	12
Ruggedness	15%	Relationship	7.20	0.0210	13
Green	9%	Form	4.33	0.0210	14
Walks	9%	Form	4.33	0.0210	15
Light	6%	Form	3.00	0.0202	16
Slower Pace Of					17
Life	6%	Process	3.00	0.0202	
Freedom Of					18
Movement	21%	Process	11.00	0.0193	
Managed	15%	Process	8.00	0.0189	19
Wildness	15%	Relationship	8.60	0.0176	20

Table 47: Showing top twenty salient relationships for participants aged 41-59 with subcategories, percentage of participants mentioning, and salience rank (n=33).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	48%	Aesthetic	1
Calm	6%	Instrumental	2
Natural	15%	Non-instrumental	5
Rural - Escape From Urban	18%	Instrumental	7
Scenery	15%	Aesthetic	11
Ruggedness	15%	Aesthetic	13
Wildness	15%	Non-instrumental	20
Views	9%	Aesthetic	23
Undeveloped	6%	Non-instrumental	24
Connection With Nature	24%	Instrumental	26
Fewer People Around	6%	Instrumental	33
Unique	6%	Non-instrumental	34
Appreciation	9%	Non-instrumental	37
Spiritual	18%	Cultural	38
Escape	15%	Instrumental	41
Contrast	6%	Aesthetic	42
Healthy	15%	Instrumental	46
Not Overdeveloped	6%	Non-instrumental	47
Close To Dublin	12%	Instrumental	48
Variety	9%	Aesthetic	50

Table 48: Highest ten ranking forms, relationships and processes for participants aged 41-59, showing percent that mentioned item, mean rank, salience score and salience rank (n=33).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Trees	27%	7.11	0.0384	4
	Hills	12%	3.75	0.0323	6
	Sea	15%	5.60	0.0271	10
	Rolling Hills	12%	5.75	0.0211	12
	Green	9%	4.33	0.0210	14
	Walks	9%	4.33	0.0210	15
	Light	6%	3.00	0.0202	17
	Sounds	6%	3.50	0.0173	21
	Fresh Air	21%	13.29	0.0160	22
	Outdoors	6%	4.00	0.0152	25
Relationships	Beautiful	48%	7.44	0.0652	1
	Calm	6%	1.50	0.0404	2
	Natural	15%	4.60	0.0329	5
	Rural - Escape From Urban	18%	5.83	0.0312	7
	Scenery	15%	5.80	0.0261	11
	Ruggedness	15%	7.20	0.0210	13
	Wildness	15%	8.60	0.0176	20
	Views	9%	6.00	0.0152	23
	Undeveloped	6%	4.00	0.0152	24
	Connection With Nature	24%	16.13	0.0150	26
Processes & Practices	Pylons	6%	1.50	0.0404	3
	Running	6%	2.00	0.0303	8
	Walking	24%	8.75	0.0277	9
	Slower Pace Of Life	6%	3.00	0.0202	16
	Freedom Of Movement	21%	11.00	0.0193	18
	Managed	15%	8.00	0.0189	19
	Community	18%	12.67	0.0144	27
	Protection	12%	10.75	0.0113	40

Table 49: Showing top twenty salient items for participants aged 60+ with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=26).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Changing Environment	12%	Process	2.00	0.0600	1
Beautiful	46%	Relationship	8.42	0.0570	2
Mountains	42%	Form	7.73	0.0569	3
Open Space	12%	Form	2.33	0.0514	4
Variety	35%	Relationship	7.89	0.0456	5
Coast	12%	Form	2.67	0.0450	6
Hills	23%	Form	7.17	0.0335	7
Walking	46%	Process	15.17	0.0316	8
Scenery	23%	Relationship	9.50	0.0253	9
Sea	27%	Form	12.14	0.0231	10
Glendalough	27%	Form	12.43	0.0225	11
Close To Dublin	31%	Relationship	14.50	0.0221	12
Trees	31%	Form	15.63	0.0205	13
Forests	23%	Form	12.17	0.0197	14
Beaches	12%	Form	7.33	0.0164	15
Pylons	8%	Process	5.00	0.0160	16
Gardens	12%	Form	8.00	0.0150	17
Weather	15%	Form	10.75	0.0149	18
History/ Heritage	31%	Process	21.75	0.0147	19
Land	8%	Form	5.50	0.0145	20

Table 50: Showing top twenty salient relationships for participants aged 60+ with subcategories, percentage of participants mentioning, and salience rank (n=26).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	46%	Aesthetic	2
Variety	35%	Aesthetic	5
Scenery	23%	Aesthetic	9
Close To Dublin	31%	Instrumental	12
Shapes	15%	Aesthetic	21
Calm	8%	Instrumental	22
Solitude	19%	Instrumental	32
Physical Experience	8%	Instrumental	34
Visual	12%	Aesthetic	38
Natural	15%	Non-instrumental	39
Accessibility (Easy To Get To)	15%	Instrumental	40
Fear	8%	Instrumental	42
Relaxation	12%	Instrumental	47
Body	8%	Instrumental	49
Preservation	12%	Non-instrumental	50
Views	12%	Aesthetic	52
Good For The Soul	15%	Instrumental	56
Healthy	15%	Instrumental	57
Connection With Nature	19%	Instrumental	59
Unique	8%	Non-instrumental	60

Table 51: Highest ten ranking forms, relationships and processes for participants aged 60+, showing percent that mentioned item, mean rank, salience score and salience rank (n=26).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	42%	7.73	0.0569	3
	Open Space	12%	2.33	0.0514	4
	Coast	12%	2.67	0.0450	6
	Hills	23%	7.17	0.0335	7
	Sea	27%	12.14	0.0231	10
	Glendalough	27%	12.43	0.0225	11
	Trees	31%	15.63	0.0205	13
	Forests	23%	12.17	0.0197	14
	Beaches	12%	7.33	0.0164	15
	Gardens	12%	8.00	0.0150	17
Relationships	Beautiful	46%	8.42	0.0570	2
	Variety	35%	7.89	0.0456	5
	Scenery	23%	9.50	0.0253	9
	Close To Dublin	31%	14.50	0.0221	12
	Shapes	15%	11.50	0.0139	21
	Calm	8%	6.00	0.0133	22
	Solitude	19%	20.00	0.0100	32
	Physical Experience	8%	8.50	0.0094	34
	Visual	12%	14.33	0.0084	38
	Natural	15%	19.25	0.0083	39
Processes & Practices	Changing Environment	12%	2.00	0.0600	1
	Walking	46%	15.17	0.0316	8
	Pylons	8%	5.00	0.0160	16
	History/Heritage	31%	21.75	0.0147	19
	Social	15%	17.50	0.0091	36
	Winter	12%	14.00	0.0086	37
	Farming/Food Production	15%	19.75	0.0081	41
	Dog Walking	8%	11.50	0.0070	46

9.8 Interview Location

Table 52: Showing top twenty salient items for participants met on the trails with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=27).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Mountains	22%	Form	3.91	0.0580	1
Open Space	11%	Form	6.06	0.0476	2
Calm	15%	Relationship	2.00	0.0370	3
Coast	7%	Form	5.91	0.0370	4
Nature	7%	Form	8.93	0.0370	5
Variety	26%	Relationship	10.94	0.0349	6
Fresh Air	22%	Form	1.50	0.0325	7
Scenery	19%	Relationship	8.36	0.0319	8
Beautiful	37%	Relationship	8.00	0.0314	9
Natural	30%	Relationship	4.00	0.0312	10
Walking	41%	Process	7.22	0.0309	11
Hills	15%	Form	6.57	0.0282	12
Trees	30%	Form	7.75	0.0276	13
Views	22%	Relationship	6.17	0.0261	14
Light	7%	Form	5.40	0.0247	15
Close To Dublin	19%	Relationship	9.25	0.0237	16
Connection With Nature	33%	Relationship	10.44	0.0229	17
Changing Environment	11%	Process	8.43	0.0222	18
Pylons	7%	Process	15.33	0.0212	19
Weather	15%	Form	5.25	0.0191	20

Table 53: Showing top twenty salient relationships for participants met on the trails with subcategories, percentage of participants mentioning, and salience rank (n=27).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Calm	15%	Instrumental	3
Variety	26%	Aesthetic	6
Scenery	19%	Aesthetic	8
Beautiful	37%	Aesthetic	9
Natural	30%	Non-instrumental	10
Views	22%	Aesthetic	14
Close To Dublin	19%	Instrumental	16
Connection With Nature	33%	Instrumental	17
Healthy	22%	Instrumental	21
Spiritual	22%	Cultural	24
Fewer People Around	7%	Instrumental	29
Mixed Terrain	7%	Non-instrumental	30
Ruggedness	11%	Aesthetic	33
Escape	26%	Instrumental	35
Childhood	15%	Cultural	36
Get Away From It All	7%	Instrumental	37
Wildness	15%	Non-instrumental	43
Shapes	11%	Aesthetic	44
Rural - Escape From Urban	19%	Instrumental	47
Quiet	11%	Non-instrumental	48

Table 54: Highest ten ranking forms, relationships and processes for participants met on the trails, showing percent that mentioned item, mean rank, salience score and salience rank (n=27).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	22%	3.83	0.0580	1
	Open Space	11%	2.33	0.0476	2
	Coast	7%	2.00	0.0370	4
	Nature	7%	2.00	0.0370	5
	Fresh Air	22%	6.83	0.0325	7
	Hills	15%	5.25	0.0282	12
	Trees	30%	10.75	0.0276	13
	Light	7%	3.00	0.0247	15
	Weather	15%	7.75	0.0191	20
	Walks	22%	12.17	0.0183	22
Relationships	Calm	15%	4.00	0.0370	3
	Variety	26%	7.43	0.0349	6
	Scenery	19%	5.80	0.0319	8
	Beautiful	37%	11.80	0.0314	9
	Natural	30%	9.50	0.0312	10
	Views	22%	8.50	0.0261	14
	Close To Dublin	19%	7.80	0.0237	16
	Connection With Nature	33%	14.56	0.0229	17
	Healthy	22%	11.67	0.0190	21
	Spiritual	22%	12.33	0.0180	24
Processes & Practices	Walking	41%	13.18	0.0309	11
	Changing Environment	11%	5.00	0.0222	18
	Pylons	7%	3.50	0.0212	19
	Social	19%	10.20	0.0182	23
	History/Heritage	26%	15.43	0.0168	27
	Freedom Of Movement	15%	15.50	0.0096	42
	Exercise	19%	22.80	0.0081	55
	Farming/Food Production	15%	18.25	0.0081	57
	Farmers	7%	9.50	0.0078	61
	Dog Walking	7%	11.50	0.0064	70

Table 55: Showing top twenty salient items for participants met in commercial areas with percentage of participants mentioning, CVM subcategories, mean rank, and salience score (n=54).

Item	*Percent Mentioning*	*CVM Category*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Beautiful	41%	Relationship	5.41	0.0753	1
Mountains	37%	Form	6.20	0.0597	2
Variety	19%	Relationship	3.80	0.0487	3
Sea	28%	Form	5.87	0.0473	4
Cleanliness	4%	Process	1.00	0.0370	5
Trees	19%	Form	5.20	0.0356	6
Forests	24%	Form	7.31	0.0329	7
Walking	24%	Process	7.31	0.0329	8
Hills	15%	Form	4.63	0.0320	9
Colours	17%	Form	6.11	0.0273	10
Glendalough	24%	Form	9.15	0.0263	11
Pylons	4%	Process	1.50	0.0247	12
Wildness	17%	Relationship	6.89	0.0242	13
Scenery	22%	Relationship	9.25	0.0240	14
Green	7%	Form	3.25	0.0228	15
Lakes	20%	Form	9.00	0.0226	16
Rolling Hills	11%	Form	5.00	0.0222	17
Walks	17%	Form	7.56	0.0221	18
Love The Landscape	6%	Relationship	2.67	0.0208	19
Managed	11%	Process	5.67	0.0196	20

Table 56: Showing top twenty salient relationships for participants met in commercial areas with subcategories, percentage of participants mentioning, and salience rank (n=54).

Item	*Percent Mentioning*	*Relationship sub-Category*	*Salience Rank*
Beautiful	41%	Aesthetic	1
Variety	19%	Aesthetic	3
Wildness	17%	Non-instrumental	13
Scenery	22%	Aesthetic	14
Love The Landscape	6%	Non-instrumental	19
Escape	17%	Instrumental	21
Natural	11%	Non-instrumental	22
Views	9%	Aesthetic	23
Close To Dublin	17%	Instrumental	25
Unique	15%	Non-instrumental	29
Rural - Escape From Urban	11%	Instrumental	31
Contrast	6%	Aesthetic	34
Preservation	9%	Non-instrumental	35
Connection With Nature	15%	Instrumental	38
Ruggedness	6%	Aesthetic	39
Childhood	11%	Cultural	41
Makes You Happy	4%	Instrumental	42
Privileged To Experience	4%	Non-instrumental	44
Peaceful	7%	Instrumental	50
Picturesque	4%	Aesthetic	53

Table 57: Highest ten ranking forms, relationships and processes for participants met in commercial areas, showing percent that mentioned item, mean rank, salience score and salience rank (n=54).

	Item	*Percent Mentioning*	*Mean Rank*	*Cognitive Salience*	*Salience Rank*
Forms	Mountains	22%	3.83	0.0580	1
	Open Space	11%	2.33	0.0476	2
	Coast	7%	2.00	0.0370	4
	Nature	7%	2.00	0.0370	5
	Fresh Air	22%	6.83	0.0325	7
	Hills	15%	5.25	0.0282	12
	Trees	30%	10.75	0.0276	13
	Light	7%	3.00	0.0247	15
	Weather	15%	7.75	0.0191	20
	Walks	22%	12.17	0.0183	22
Relationships	Beautiful	41%	5.41	0.0753	1
	Variety	19%	3.80	0.0487	3
	Wildness	17%	6.89	0.0242	13
	Scenery	22%	9.25	0.0240	14
	Love The Landscape	6%	2.67	0.0208	19
	Escape	17%	8.56	0.0195	21
	Natural	11%	6.00	0.0185	22
	Views	9%	5.80	0.0160	23
	Close To Dublin	17%	10.89	0.0153	25
	Unique	15%	10.38	0.0143	29
Processes & Practices	Cleanliness	4%	1.00	0.0370	5
	Walking	24%	7.31	0.0329	8
	Pylons	4%	1.50	0.0247	12
	Managed	11%	5.67	0.0196	20
	Freedom Of Movement	17%	10.78	0.0155	24
	Community	13%	8.57	0.0151	26
	Slower Pace Of Life	6%	4.00	0.0139	30
	Protection	7%	7.75	0.0096	40
	Hiking	7%	8.50	0.0087	46
	Running	6%	7.33	0.0076	58

9.9 Chi-squared Analysis and Demographics

Table 58: Showing Chi-square analysis between all demographic subgroups and CVM categories. . Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where one of more Chi-square assumptions were not met.

		Relationships	*Forms*	*Practices*
Wicklow Native	*Yes*	98%	98%	74%
	No	95%	97%	74%
	X^2	-	-	0.003 (ns)
	Fischer's	0.606 (ns)	1.000 (ns)	
Interview Location	*Trails*	96%	96%	74%
	Commercial	96%	98%	74%
	X^2	-	-	0.000 (ns)
	Fischer's	1.000 (ns)	1.000 (ns)	
Wicklow Resident	*Yes*	96%	98%	73%
	No	96%	96%	76%
	X^2	-	-	0.070 (ns)
	Fischer's	1.000 (ns)	0.525 (ns)	
Gender	*Man*	97%	100%	86% (+0.8)
	Woman	96%	96%	64% (-0.8)
	X^2	-	-	4.889*
	Fischer's	1.000 (ns)	0.5 (ns)	-
Age	*<40*	96%	100%	55%
	41-59	88%	85%	70%
	60+	93%	94%	85%
	X^2	-	-	5.180 (ns)
Residency Time	*0-20*	95%	98%	70%
	20+	98%	98%	78%
	X^2	-	-	0.683 (ns)
	Fischer's	0.616 (ns)	1.000 (ns)	

Table 59: Showing Chi-square analysis between all demographic subgroups and relationship subcategories.

		Instrumental	*Aesthetic*	*Non-instrumental*	*Cultural*
Wicklow Native	*Yes*	76%	64%	76%	38%
	No	64%	74%	72%	31%
	X^2	1.417 (ns)	0.962 (ns)	0.203 (ns)	0.480 (ns)
Interview Location	*Trails*	74%	70%	74%	41%
	Commercial	69%	69%	74%	32%
	X^2	0.266 (ns)	0.029 (ns)	0.000 (ns)	0.682 (ns)
Wicklow Resident	*Yes*	71%	73%	77%	34%
	No	72%	60%	68%	36%
	X^2	0.046 (ns)	1.414 (ns)	0.695 (ns)	0.033 (ns)
Gender	*Man*	70%	64%	64%	31%
	Woman	71%	73%	82%	38%
	X^2	0.27 (ns)	0.836 (ns)	3.5 (ns)	0.461 (ns)
Age	*<40*	72%	55%	86%	50%
	41-59	61%	76%	64%	30%
	60+	81%	73%	77%	27%
	X^2	2.916 (ns)	3.062 (ns)	3.712 (ns)	3.254 (ns)
Residency Time	*0-20*	68%	68%	71%	37%
	20+	73%	70%	78%	33%
	X^2	0.172 (ns)	0.028 (ns)	0.483 (ns)	0.149 (ns)

Table 60: Showing Chi-squared analysis for all demographic groups for top twenty ranked items in salience index. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where one of more Chi-square assumptions were not met.

		Mountains	*Beautiful*	*Variety*	*Sea*	*Hills*	*Walking*	*Trees*	*Scenery*
Salience Rank		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Wicklow Native	*Yes*	33%	41%	19%	24%	11%	24%	21%	19%
	No	31%	39%	21%	23%	17%	36%	23%	23%
	X^2	0.061 (ns)	0.034 (ns)	0.198 (ns)	0.006 (ns)	0.585 (ns)	1.417 (ns)	0.032 (ns)	0.198 (ns)
	Fischer's	-	-	-	-	-	-	-	-
Interview Location	*Trails*	30%	39%	16%	21%	14%	27%	20%	20%
	Commercial	36%	40%	32%	28%	16%	36%	28%	24%
	X^2	0.253 (ns)	0.004(ns)	2.644 (ns)	0.416 (ns)	-	0.704 (ns)	0.69 (ns)	0.198(ns)
	Fischer's	-	-	-	-	1.000 (ns)	-	-	-
Wicklow	*Yes*	47% (+1.6)	42%	31%	31%	19%	44% (+1.6)	22%	31%
Resident	*No*	20% (-1.4)	38%	13%	18%	11%	19% (-1.5)	22%	13%
	X^2	6.800**	0.127 ns	3.577 (ns)	1.819 (ns)	1.101 (ns)	6.821**	0.00 (ns)	3.577 (ns)
	Fischer's	-	-	-	-	-	-	-	-
Gender	*Man*	22%	37%	26%	15%	15%	41%	30%	19%
	Woman	37%	41%	19%	28%	15%	24%	19%	22%
	X^2	1.813 (ns)	0.103(ns)	0.596 (ns)	1.685 (ns)	-	2.398 (ns)	1.28 (ns)	0.149 (ns)
	Fischer's	-	-	-	-	1.000 (ns)	-	-	-
Age	*<40*	46% (+1.1)	18% (-1.6)	23%	32%	9%	18%	5%	27%
	41-59	15% (-1.7)	49% (+0.8)	9%	15%	12%	24%	27%	15%
	60+	44% (+1.0)	48% (+0.6)	36%	28%	24%	48%	32%	24%
	X^2	7.718*	6.02*	-	2.387 (ns)	2.405(ns)	5.841 (ns)	-	-
Residency Time	*0-20*	27%	42%	27%	27%	12%	29%	24%	22%
	20+	38%	38%	15%	20%	18%	30%	20%	20%
	X^2	1.058 (ns)	0.133 (ns)	1.709 (ns)	0.526 (ns)	0.451 (ns)	0.005 (ns)	0.226 (ns)	0.046 (ns)
	Fischer's	-	-	-	-	-	-	-	-

Table 60 (cont.): Showing Chi-squared analysis for all demographic groups for top twenty ranked items in salience index. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where one of more Chi-square assumptions were not met.

		Cleanliness	**Forests**	**Natural**	**Pylons**	**Walks**	**Views**
	Salience Rank	9	10	11	12	13	14
Wicklow	*Yes*	5.00%	29% (+1.3)	17%	5%	19%	12%
Native	*No*	0	10% (-1.3)	17%	5%	18%	15%
	X^2	-	4.279*	0.023 (ns)	-	0.016 (ns)	0.209 (ns)
	Fischer's	0.494*	-	-	1.000 (ns)	-	-
Interview n	*Trails*	4%	25%	16%	4%	20%	9%
Location	*Commercial*	0%	8%	20%	8%	16%	24%
	X^2	-	-	-	-	-	-
	Fischer's	1.000 (ns)	0.129 (ns)	0.753 (ns)	0.583 (ns)	0.768 (ns)	0.085 (ns)
Wicklow	*Yes*	3%	28%	25%	6%	19%	19%
Resident	*No*	2%	13%	11%	4%	47%	9%
	X^2	-	2.633 (ns)	2.699 (ns)	-	0.037 (ns)	-
	Fischer's	1.000 (ns)	-	-	1.000 (ns)	-	0.203 (ns)
Gender	*Man*	0%	11%	30%	7%	22%	22%
	Woman	4%	24%	11%	4%	17%	9%
	X^2	-	1.908 (ns)	-	-	0.368 (ns)	-
	Fischer's	0.550 (ns)	-	0.059 (ns)	0.597 (ns)		0.167 (ns)
Age	*<40*	0%	27%	23%	0%	32%	23%
	41-59	3%	12%	15%	6%	9%	9%
	60+	4%	24%	16%	8%	20%	12%
	X^2	-	-	-	-	-	-
Residency Time	*0-20*	2%	12%	15%	5%	20%	15%
	20+	2%	28%	20%	5%	18%	13%
	X^2	-	2.992 (ns)	0.408 (ns)	-	0.054 (ns)	0.079 (ns)
	Fischer's	1.000 (ns)	-	-	1.000 (ns)	-	-

Table 60 (cont.): Showing Chi-squared analysis for all demographic groups for top twenty ranked items in salience index. Standardised residuals are given in parenthesis; Fisher's Exact probability statistic is given where one of more Chi-square assumptions were not met.

		Glendalough	*Lakes*	*Green*	*Close to Dublin*	*Coast*	*Wildness*
	Salience Rank	15	16	17	18	19	20
Wicklow Native	*Yes*	21%	26% (+1.6)	10%	12%	10%	14%
	No	15%	5% (-1.7)	5%	23%	8%	18%
	X^2	0.490 (ns)	6.658**	0.570 (ns)	1.766 (ns)	-	0.201 (ns)
	Fischer's	-	-	-	-	1.000 (ns)	-
Interview Location	*Trails*	23%	18%	10%	14%	11%	16%
	Commercial	8%	12%	4%	24%	4%	16%
	X^2	-	-	-	-	-	-
	Fischer's	0.130 (ns)	0.745 (ns)	0.660 (ns)	0.344 (ns)	0.427 (ns)	1.000 (ns)
Wicklow Resident	*Yes*	25%	25%	6%	22%	14%	22%
	No	13%	9%	9%	13%	4%	11%
	X^2	1.804 (ns)	3.853*	-	1.105 (ns)	-	1.833 (ns)
	Fischer's	-	-	0.688 (ns)	-	0.232 (ns)	-
Gender	*Man*	7%	7%	7%	19%	7%	15%
	Woman	24%	20%	7%	17%	9%	17%
	X^2	3.314 (ns)	-	-	-	-	-
	Fischer's	-	0.201 (ns)	1.000 (ns)	1.000 (ns)	1.000 (ns)	1.000 (ns)
Age	*<40*	27%	27%	14%	9%	14%	23%
	41-59	6%	12%	9%	12%	3%	15%
	60+	28%	12%	0%	32%	12%	12%
	X^2	-	-	-	-	-	-
Residency Time	*0-20*	10% (-1.3)	15%	7%	22%	7%	15%
	20+	28% (+1.3)	18%	7%	13%	10%	18%
	X^2	4.225*	0.123 (ns)	-	1.265 (ns)	-	0.123 (ns)
	Fischer's	-	-	1.000 (ns)	-	0.712 (ns)	-

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