PEOPLE
MARIE CURIE ACTIONS
POLARIS

WORKSHOP: Methodology of valorisation: territories, identities and local heritage

Socioeconomic valuation of cultural landscapes

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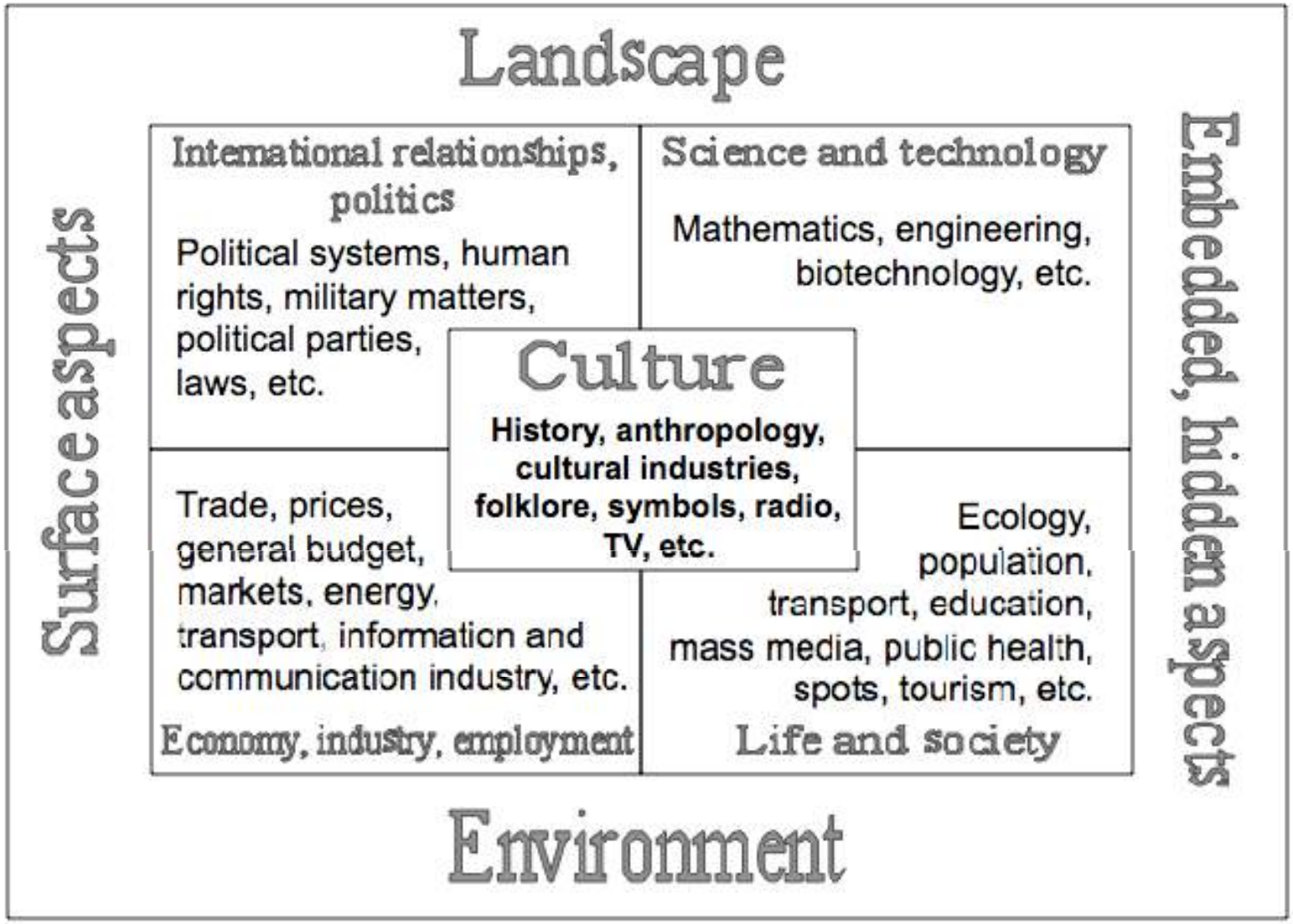
PATRIMONIO MUNDIAL
WORLD HERITAGE
PATRIMOINE MONDIAL



Systems of culture and their links with environment and landscape with reference to N. Endo (1996) and J. Stephenson (2008)

Different approaches towards integration of data on landscapes distinguished by J. Stephenson (2010)

<table>
<tr><td colspan="2">Spatial models</td><td>Temporal models</td></tr>
<tr><td>Static models</td><td>Static-spatial model:
Emphasis on a physical landscape</td><td>Static-temporal model:
Emphasis on historic associations of landscape</td></tr>
<tr><td>Dynamic models</td><td>Dynamic-spatial model:
Emphasis on interactions between forms, relationships, and practices at a point of time</td><td>Dynamic-temporal model:
Emphasis on interactions between forms, relationships, and practices over time</td></tr>
<tr><td colspan="3">Dynamic-spatial-temporal model:
Emphasis on interactions between forms, relationships, and practices over space and time</td></tr>
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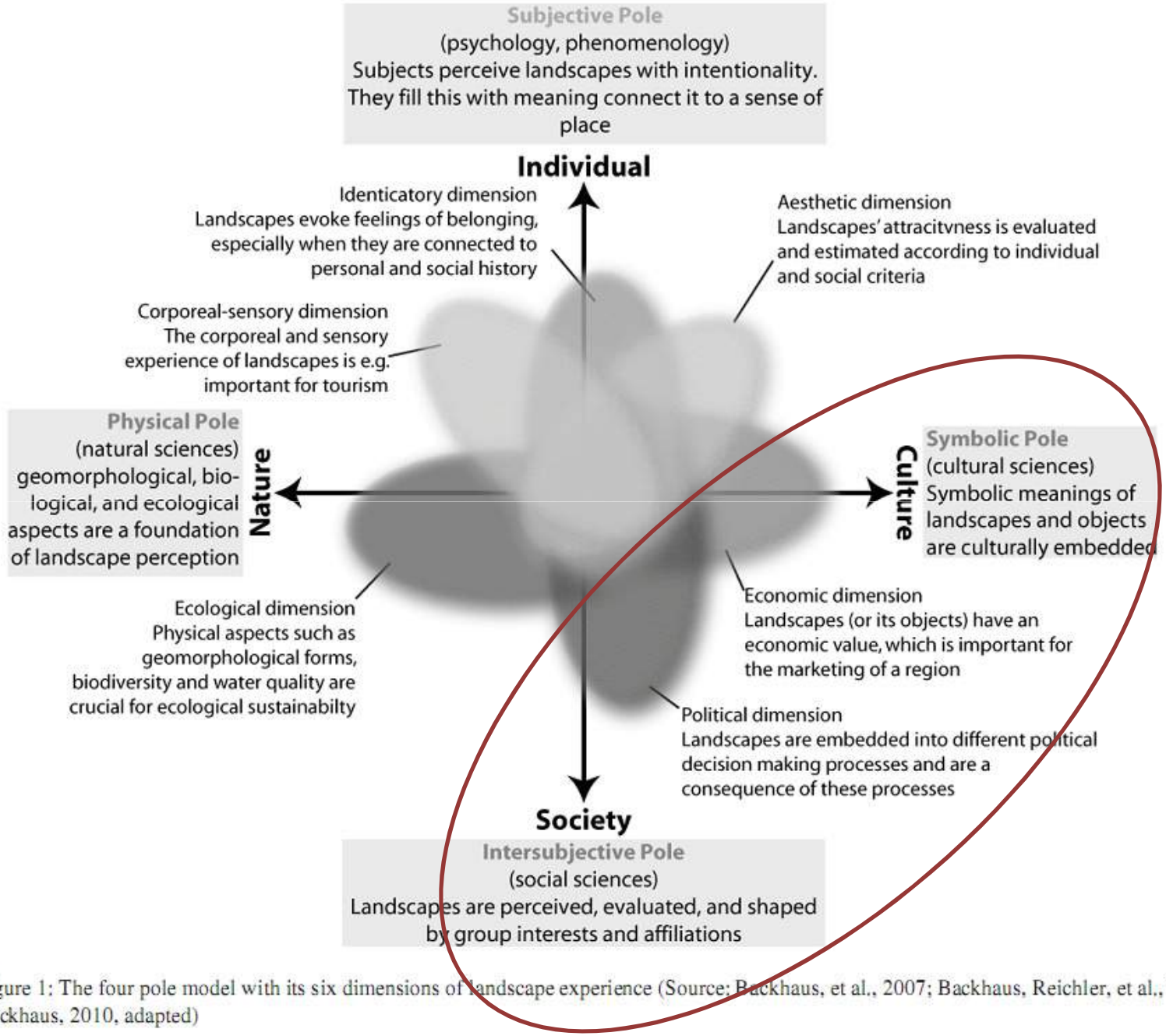
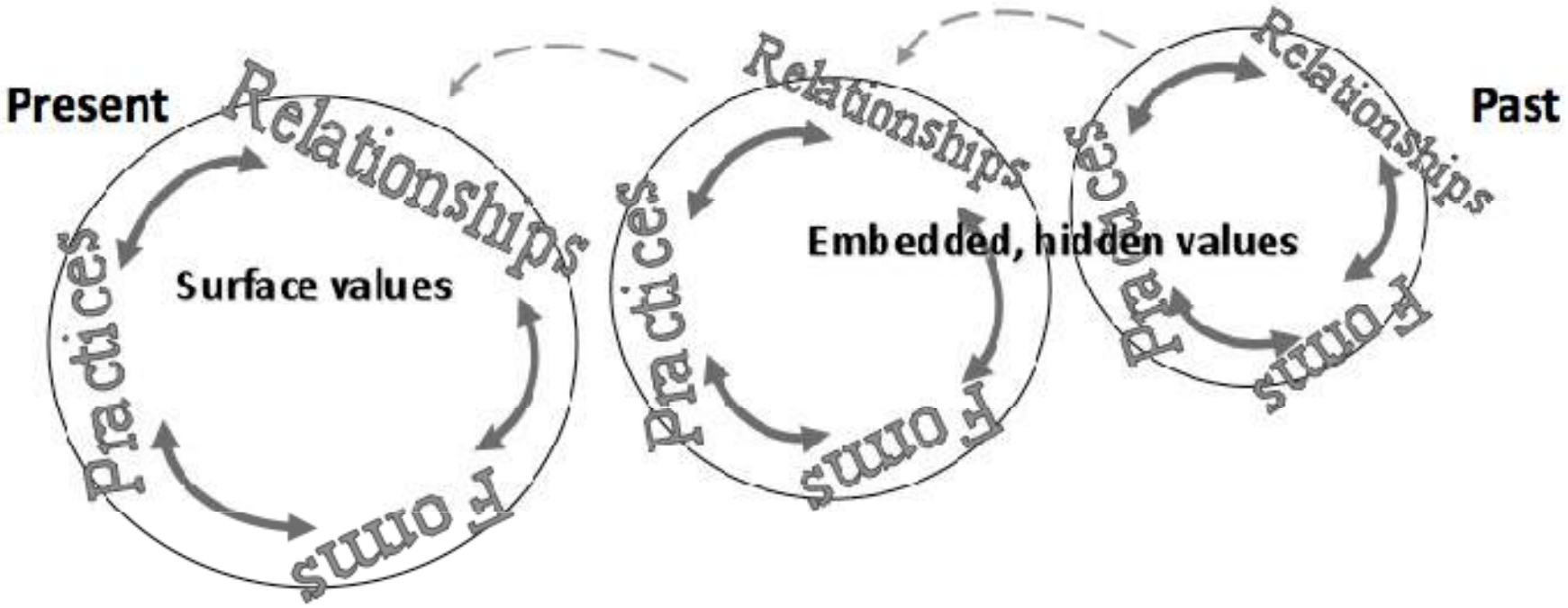


Figure 1: The four pole model with its six dimensions of landscape experience (Source: Backhaus, et al., 2007; Backhaus, Reichler, et al., 2008; Backhaus, 2010, adapted)



Cultural Values Model by J. Stephenson (2008) for analyzing cultural landscapes showing the dynamic interaction of forms, practices (processes) and relationships over time and surface and embedded values in landscape

Stephenson, J. (2008), The Cultural Values Model: an integrated approach to values in landscapes, Landscape and Urban Planning, Vol. 84, pp. 127-139

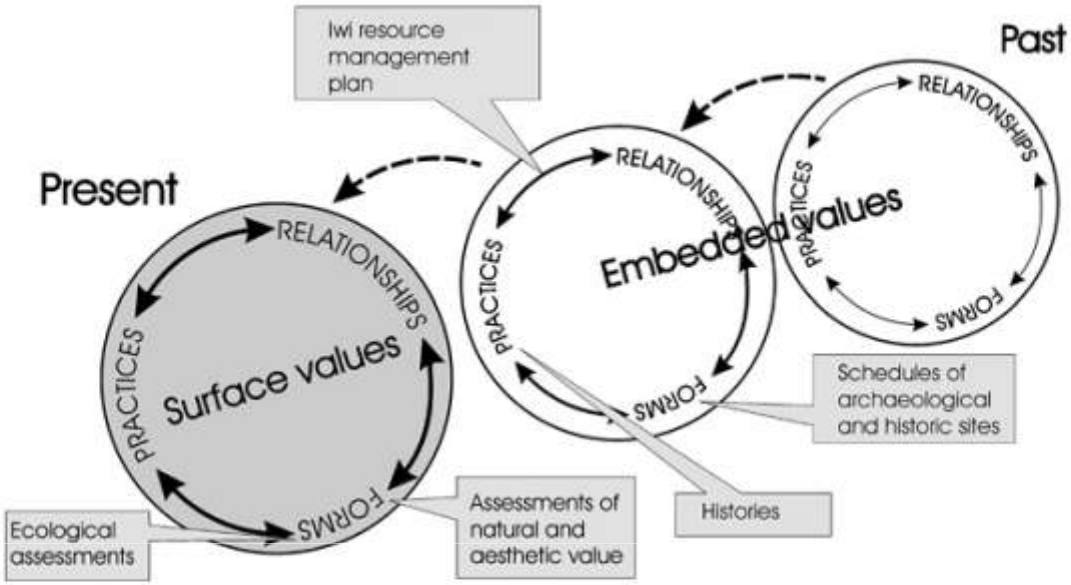


Fig. 6. Using the Cultural Values Model to indicate the relative contribution of landscape assessments to understanding the Akaroa landscape values-as-a-whole.

Stephenson, J. (2008), The Cultural Values Model: an integrated approach to values in landscapes, Landscape and Urban Planning, Vol. 84, pp. 127-139

Visual characterization of landscapes	Landscape description based on predefined criteria, application of concept of preferred landscape
Time-depth analysis	Historic Landscape Characterization methodology or similar approaches
Structural analysis of landscape	Distinguishing structural landscape components, such as nodes, networks, spaces, etc., elements, analyzing the links between them
Analysis of natural values in landscape	Environmental valuation techniques
Analysis of cultural significance	Analysis of aspects of cultural significance, such as aesthetic, historic, scientific, social or spiritual values
Analysis of socioeconomic significance	Application of market and non-market valuation techniques
Application of special scientific methods	Fractal analysis, video-ecological method, N. Salingaros method
Analysis of landscape sustainability	Analyzing landscape sustainability in different dimensions: social, cultural, economic, environmental. Sustainability indicators can be applied, SWOT analysis

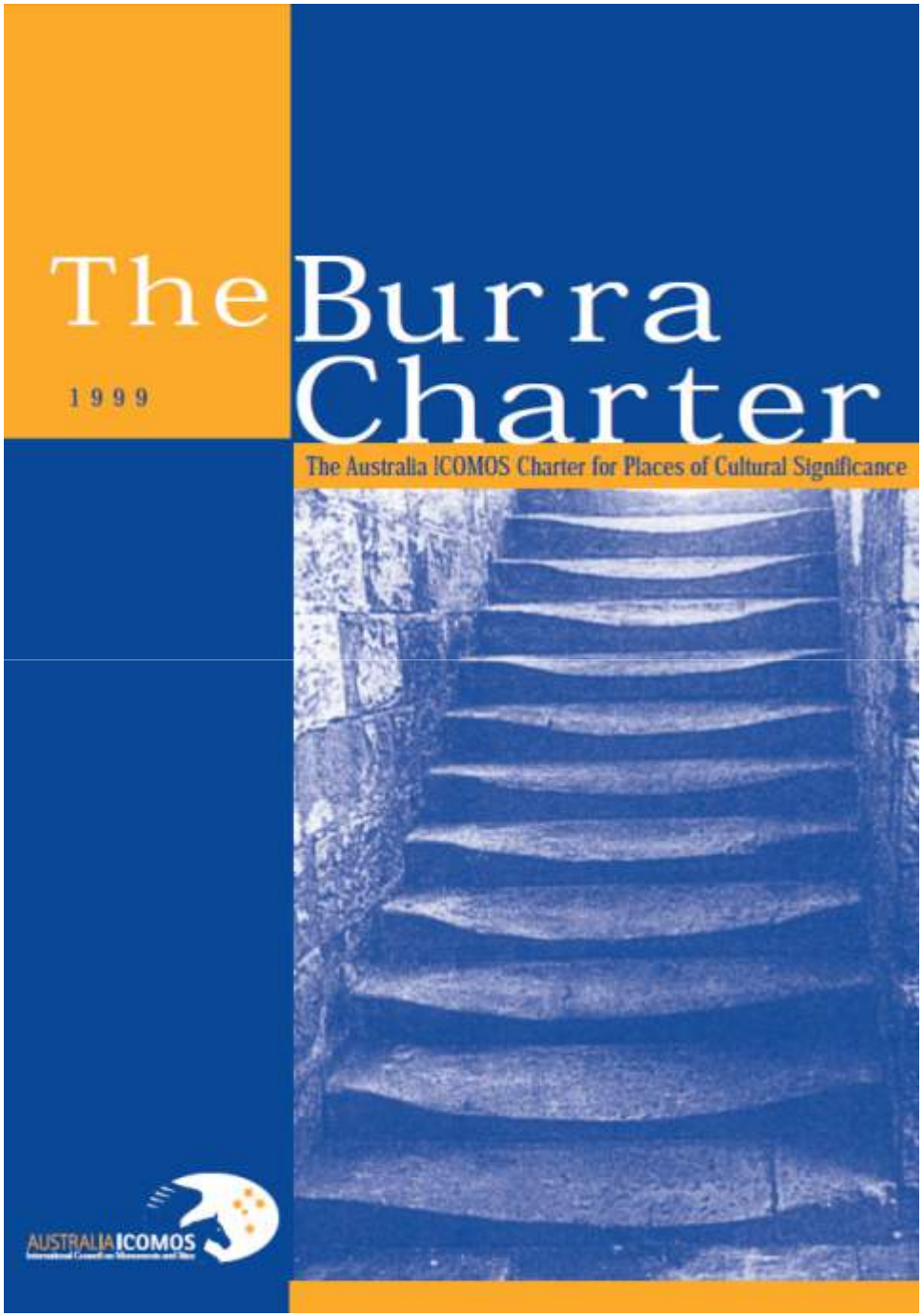
Analysis of cultural significance

Summary of Suggested Criteria for Assessing Historic Heritage Values	
Category	**Heritage Value**
Physical	Archaeological
	Architecture
	Technology
	Scientific
	Rarity
	Representativeness
	Integrity
	Vulnerability
	Context or group
Historic	People
	Events
	Patterns
Cultural	Identity
	Public esteem
	Commemorative
	Education
	Tangata whenua
	Statutory recognition

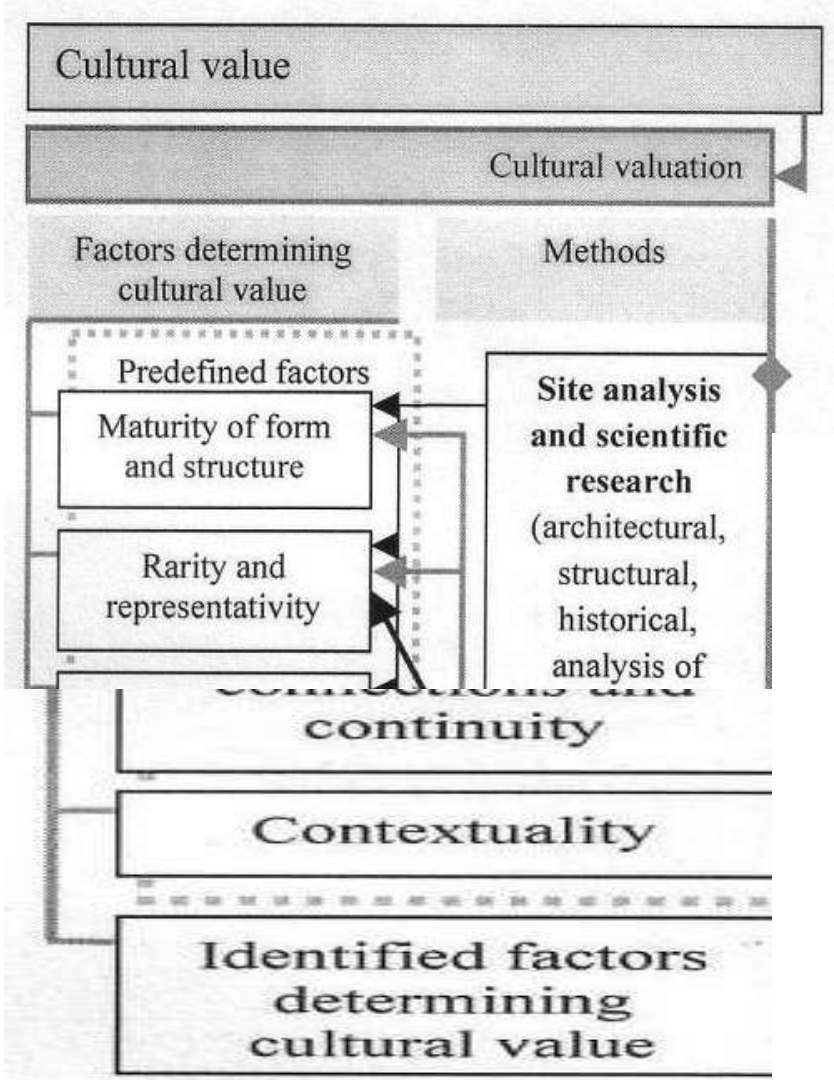
Sustainable Management of Historic Heritage. Heritage Landscape Values. 2007. Discussion paper No. 3. New Zealand Historic Places Trust

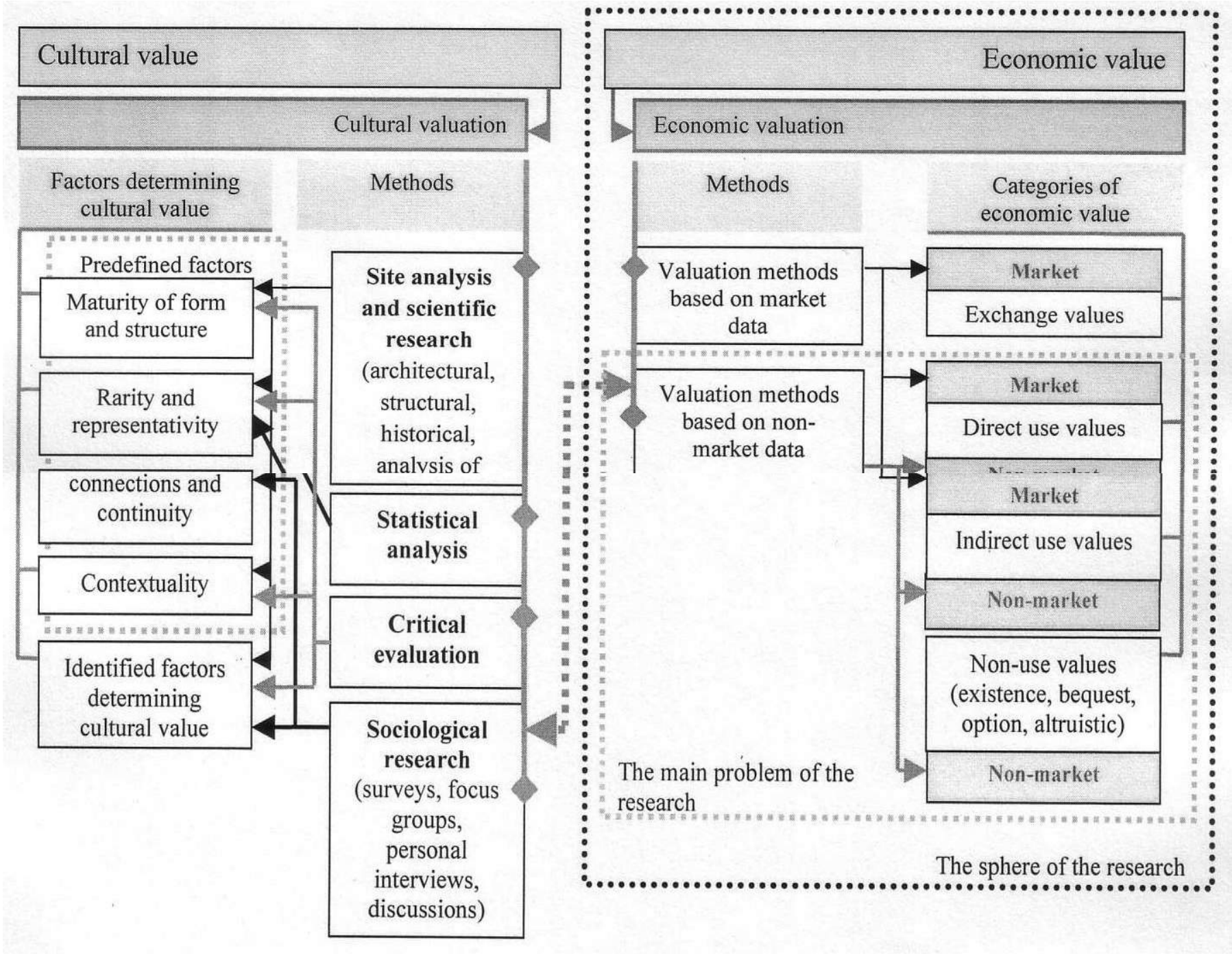
Summary of Suggested Criteria for Assessing Historic Heritage Values		
Category	**Heritage Value**	Relevant characteristics of gardens (examples from Ramsey, 1991)
Physical	Archaeological	
	Architecture	The garden has significant buildings such as conservatories, gazebos, ferneries, and pergolas
	Technology	Ability to demonstrate particular horticultural or arboricultural skills
	Scientific	A well documented scientific collection of plants in good condition
	Rarity	Features of a garden which demonstrate an uncommon or rare historic design style such as the 'bungalow style'
	Representativeness	Distinctive features of a gardening technique or a range of gardening techniques
	Integrity	
	Vulnerability	
	Context or group	The garden is part of a group of gardens which collectively demonstrate a style but with individual variations
Historic	People	The garden is associated with an individual of note in terms of designer, botanist or explorer.
	Events	The garden is associated with an important event of regional or national significance
	Patterns	
Cultural	Identity	Established aesthetic value to an individual, group or community
	Public esteem	The place is a local landmark and valued by the community
	Commemorative	Associations with an event such as a place of a special exhibition or ceremony
	Education	
	Tangata whenua	
	Statutory recognition	

Sustainable Management of Historic Heritage. Heritage Landscape Values. 2007. Discussion paper No. 3. New Zealand Historic Places Trust

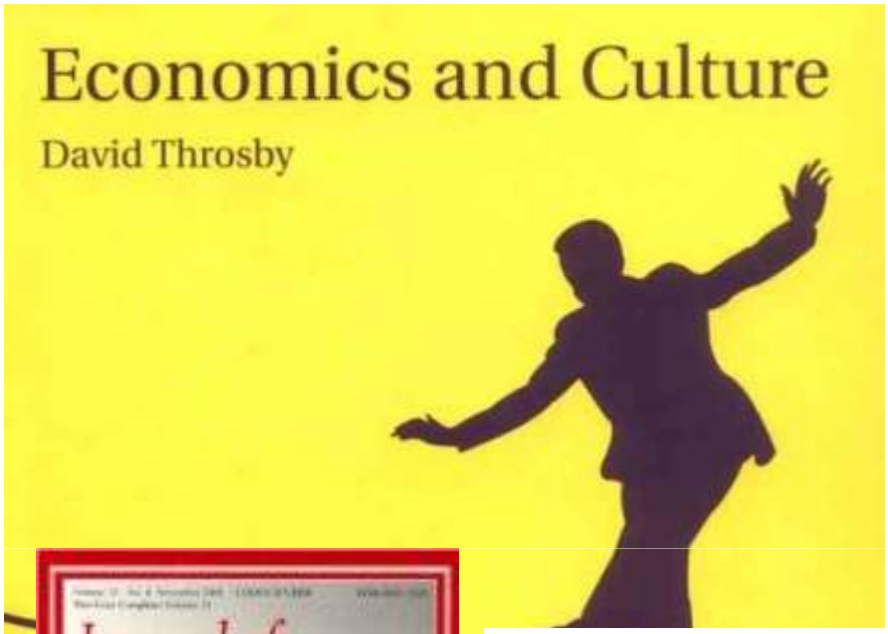


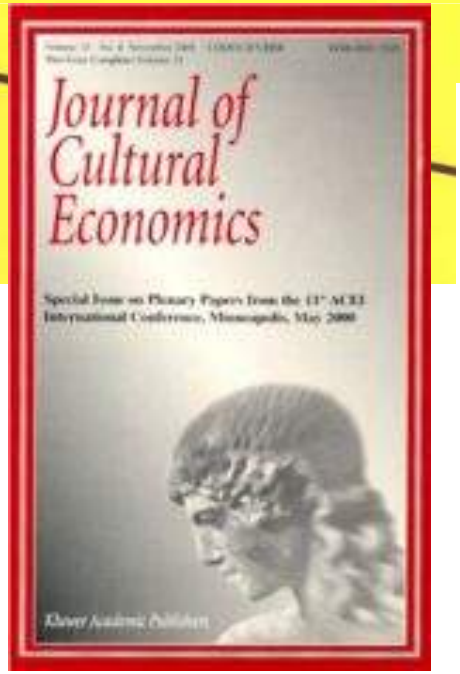
Cultural significance means *aesthetic, historic, scientific, social or spiritual* value for past, present or future generations

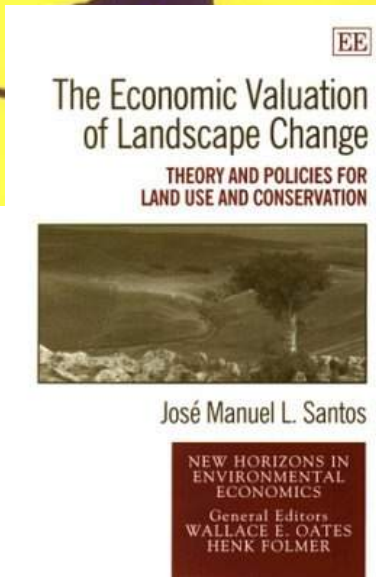

Cultural value
Cultural valuation
Factors determining cultural value
Methods
Predefined factors
Maturity of form and structure
Rarity and representativity
Site analysis and scientific research (architectural, structural, historical, analysis of
continuity
Contextuality
Identified factors determining cultural value

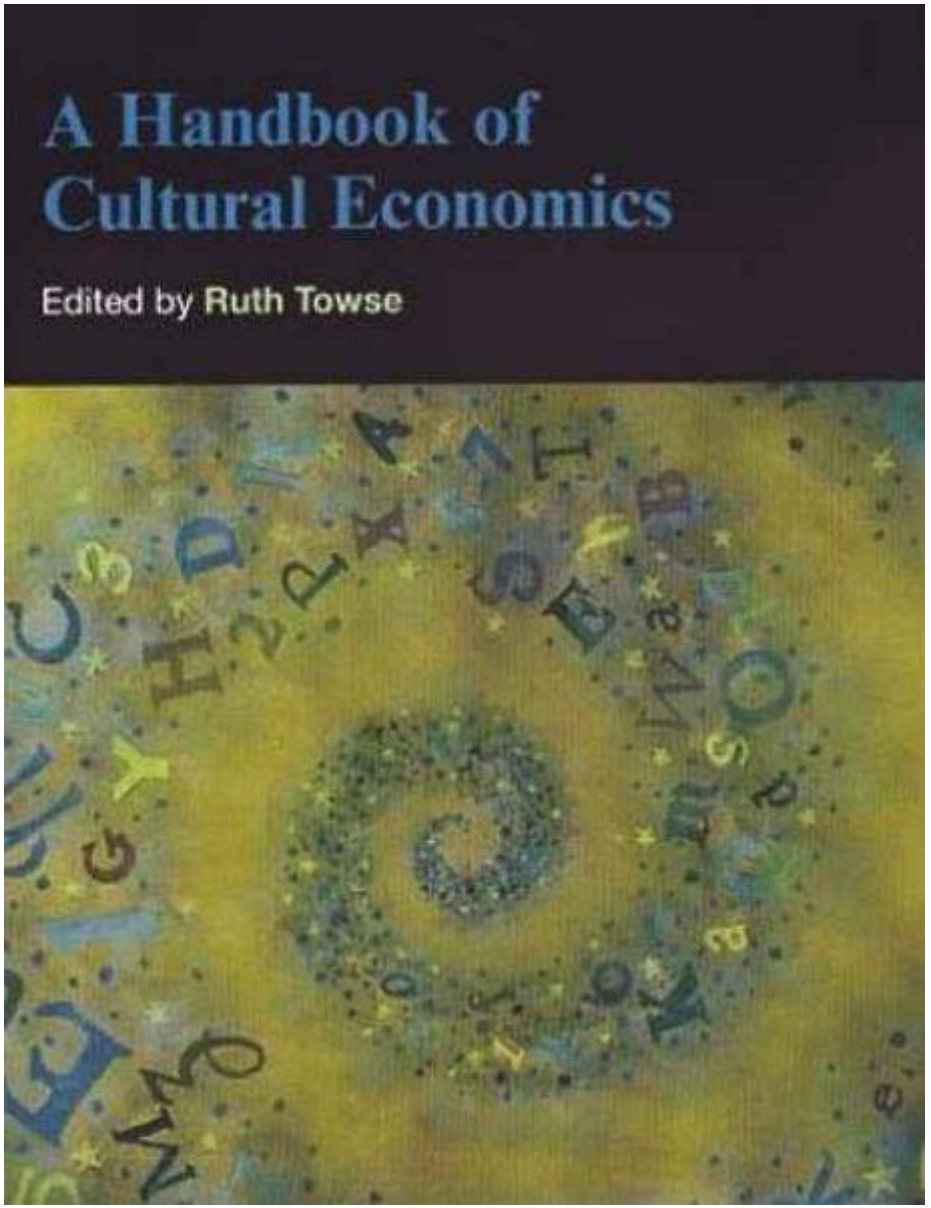

Cultural value
Cultural valuation
Factors determining cultural value
Methods
Predefined factors
Maturity of form and structure
Rarity and representativity
connections and continuity
Contextuality
Identified factors determining cultural value
Site analysis and scientific research (architectural, structural, historical, analysis of
Statistical analysis
Critical evaluation
Sociological research (surveys, focus groups, personal interviews, discussions)
Economic value
Economic valuation
Methods
Categories of economic value
Valuation methods based on market data
Valuation methods based on non-market data
Market
Exchange values
Market
Direct use values
Market
Indirect use values
Non-market
Non-use values (existence, bequest, option, altruistic)
Non-market
The main problem of the research
The sphere of the research

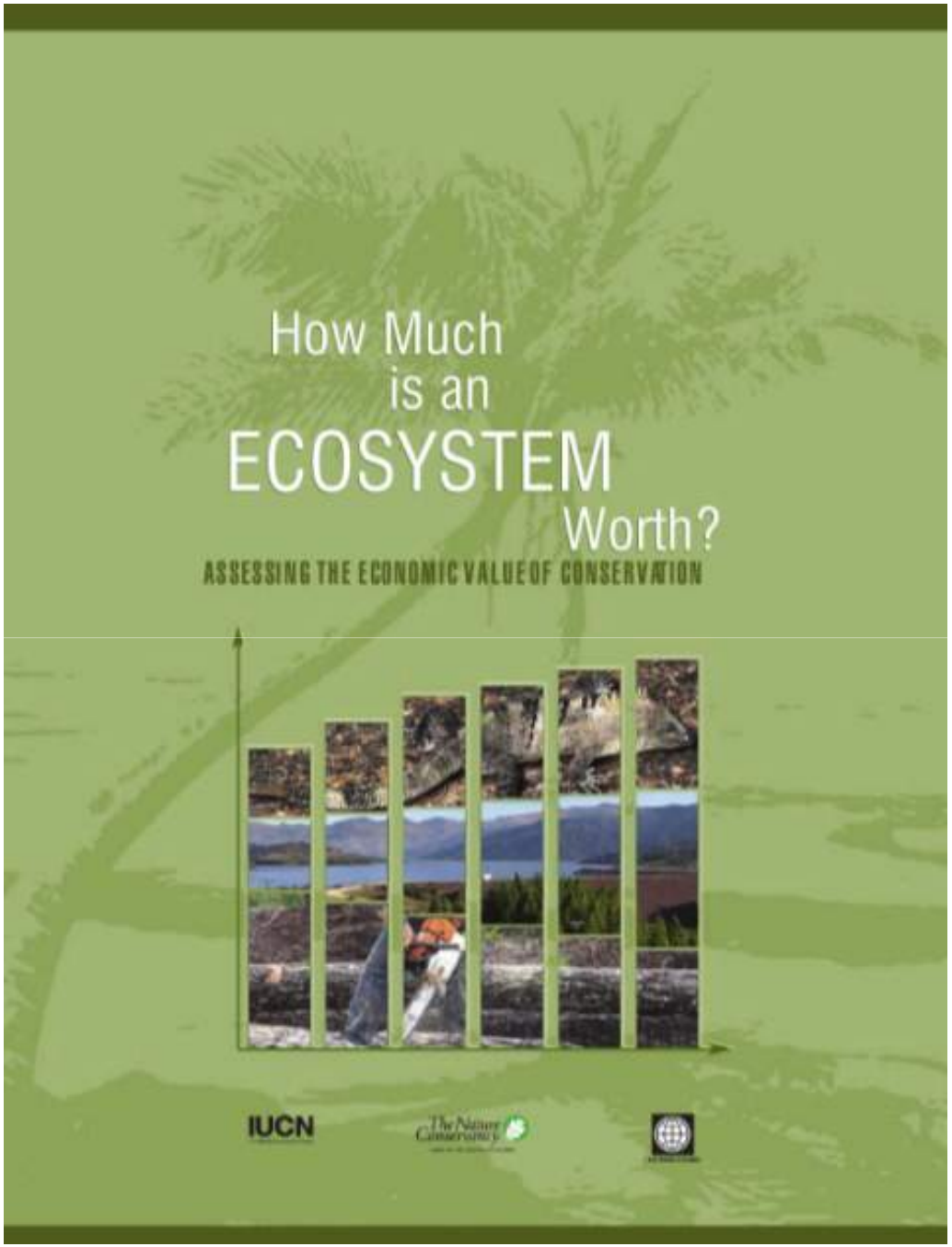
Analysis of socioeconomic significance











Environmental economics

Cultural economics

Description of landscapes under analysis as economic cultural good

The cultural economists often use the term “cultural good” to describe the material and non-material cultural heritage including cultural landscapes

The goods generate not only the economic, but also the cultural value

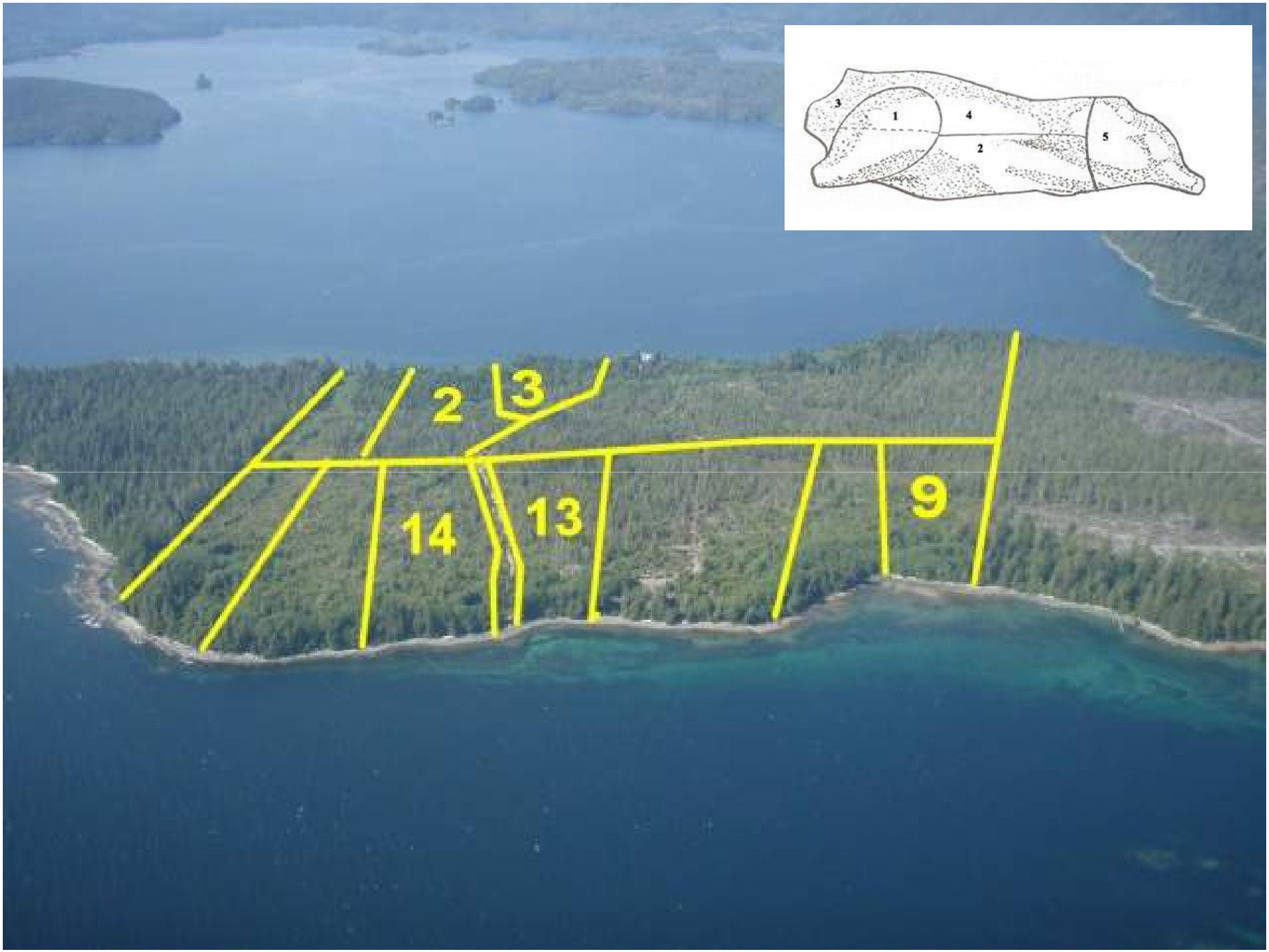
The notion of cultural good reflects the difference between the traditional economic goods, and the goods generating not only the economic, but also the cultural value

Cultural dimension of the cultural goods influence their economic dimension and justify the distinguishing of this category of goods

The description of landscape as economic cultural good distinguishing its dimensions – public cultural good, private cultural good and merit cultural good

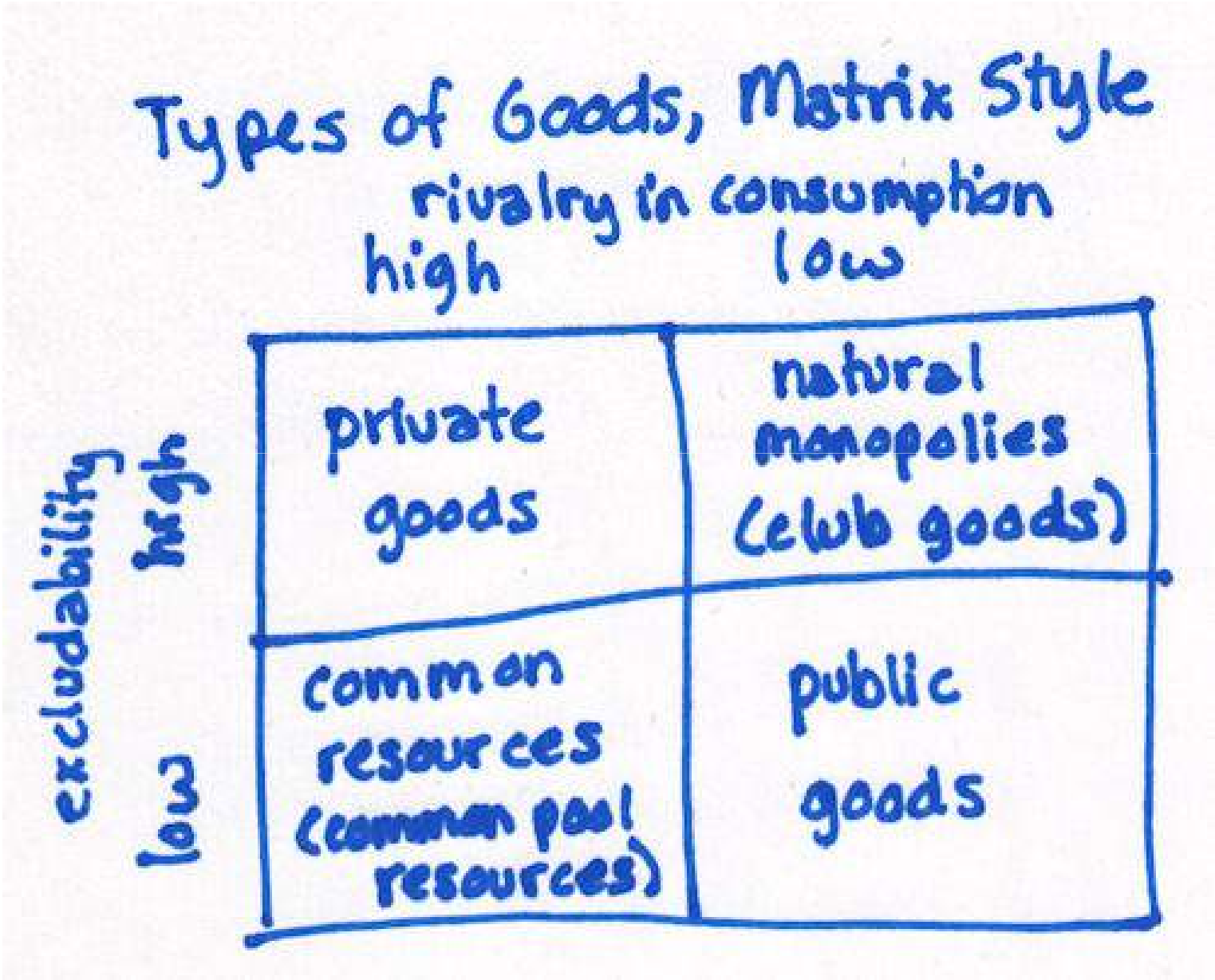
The private economic goods are the privately owned goods, which can be traded in markets. The private goods are rival and excludible: their use can be restricted and the good used by one individual will not be accessible to others

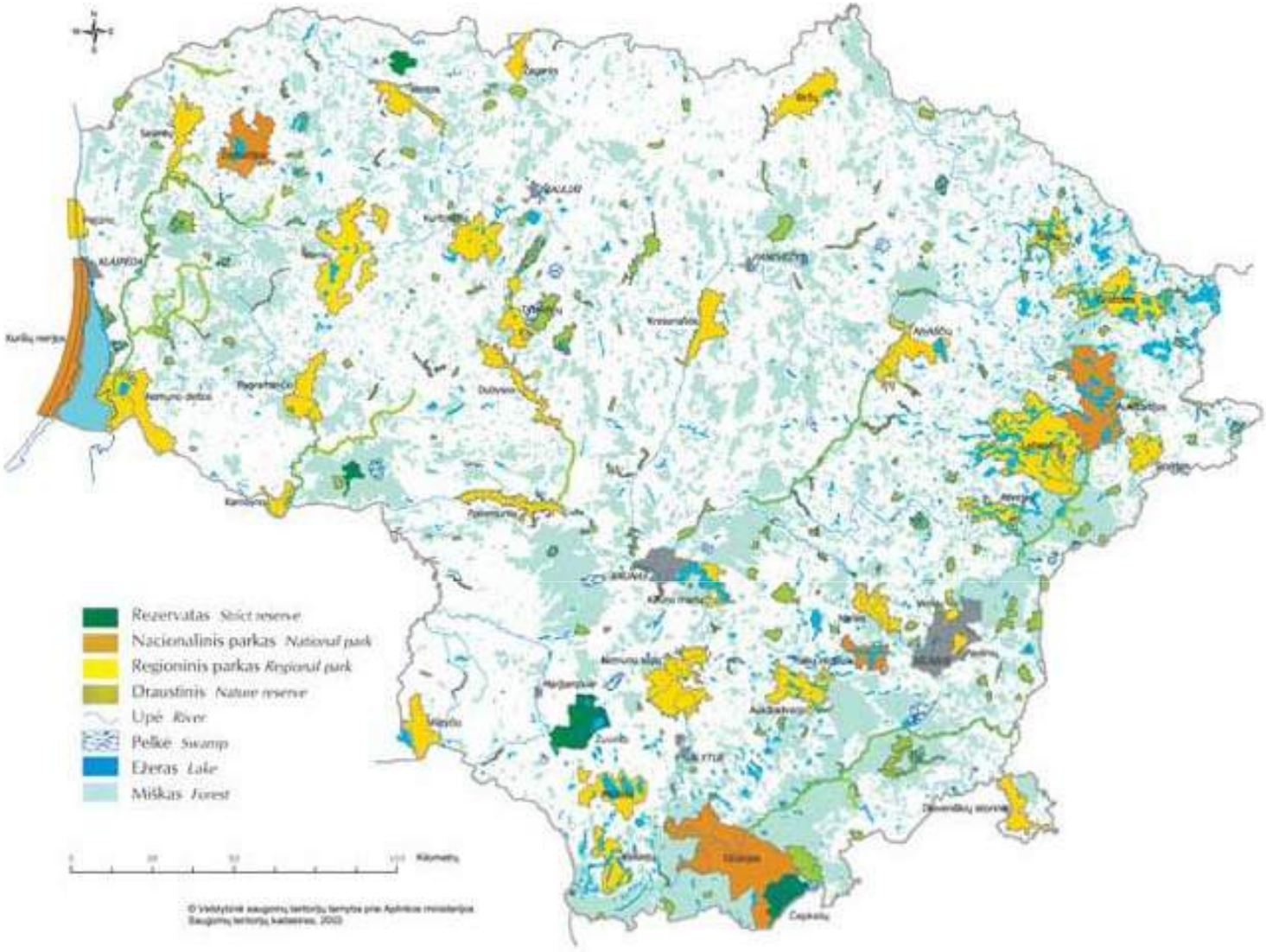

For Sale
By Owner


3
1
4
2
5
2
3
14
13
9

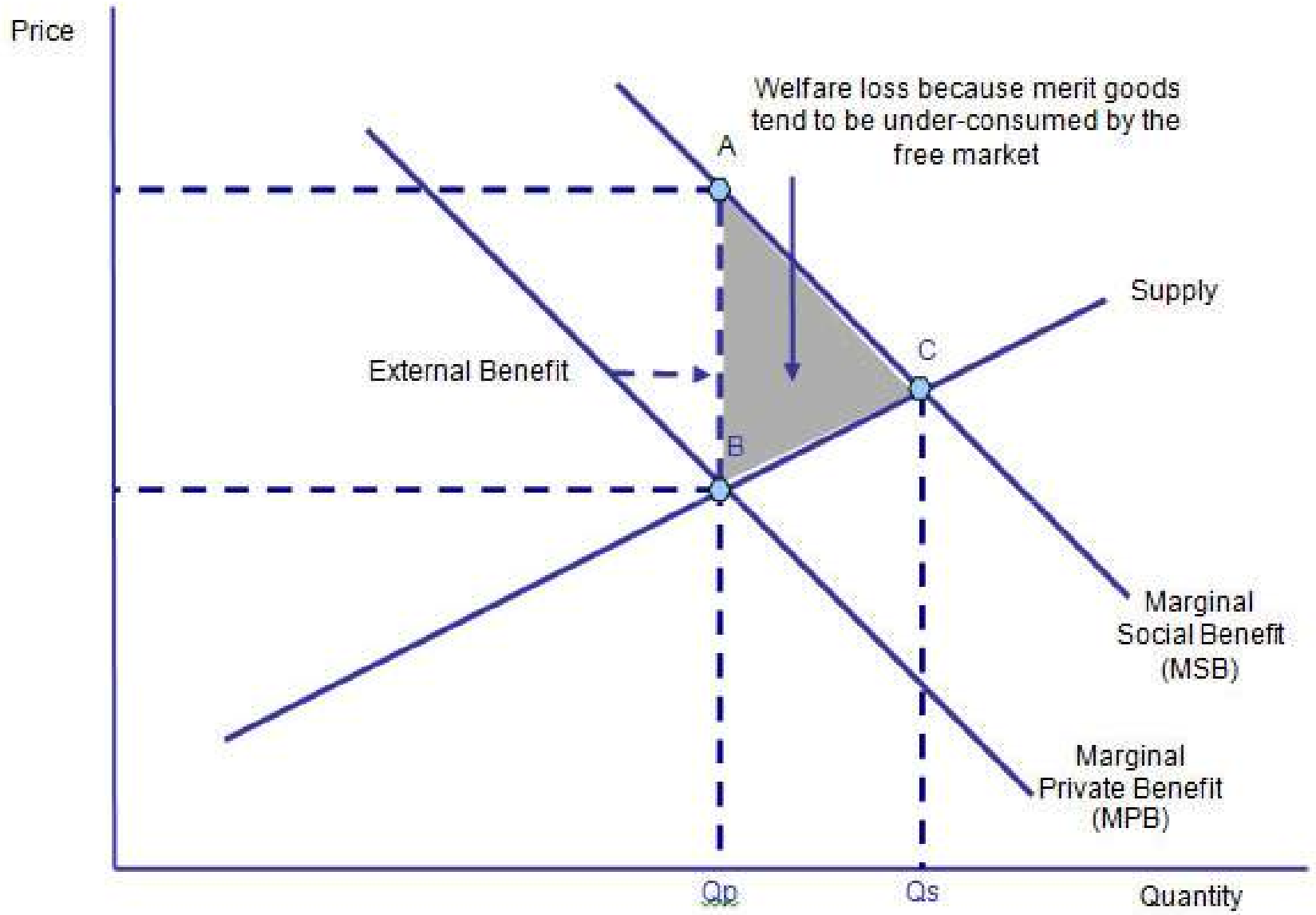
The public economic good is defined as the good that can be simultaneously used by many users, which do not diminish the quantity of this good and the benefits it provides

The main features of the public good are the non-rivality and non-excludibility





The merit good is defined as the good the provision of which to the society is based not on the preferences of its users, but on the social, cultural, ethical or other norms or the belief that this good is necessary or useful. The merit goods can be provided by the governmental institutions or by the subsidized private sector


Price
Welfare loss because merit goods tend to be under-consumed by the free market
A
Supply
C
External Benefit
B
Marginal Social Benefit (MSB)
Marginal Private Benefit (MPB)
Qp
Qs
Quantity

Historic environment as merit good

Five senses of sustainable communities

Sense of place: the particularity of a specific place

Sense of identity of community: determined by its attributes differentiating it from anywhere else

Sense of evolution: created by

bric of

t reflects its

rship: a feeli

ake arising fr

e and fellow

D. Rypkema (1999, 2003, 2005)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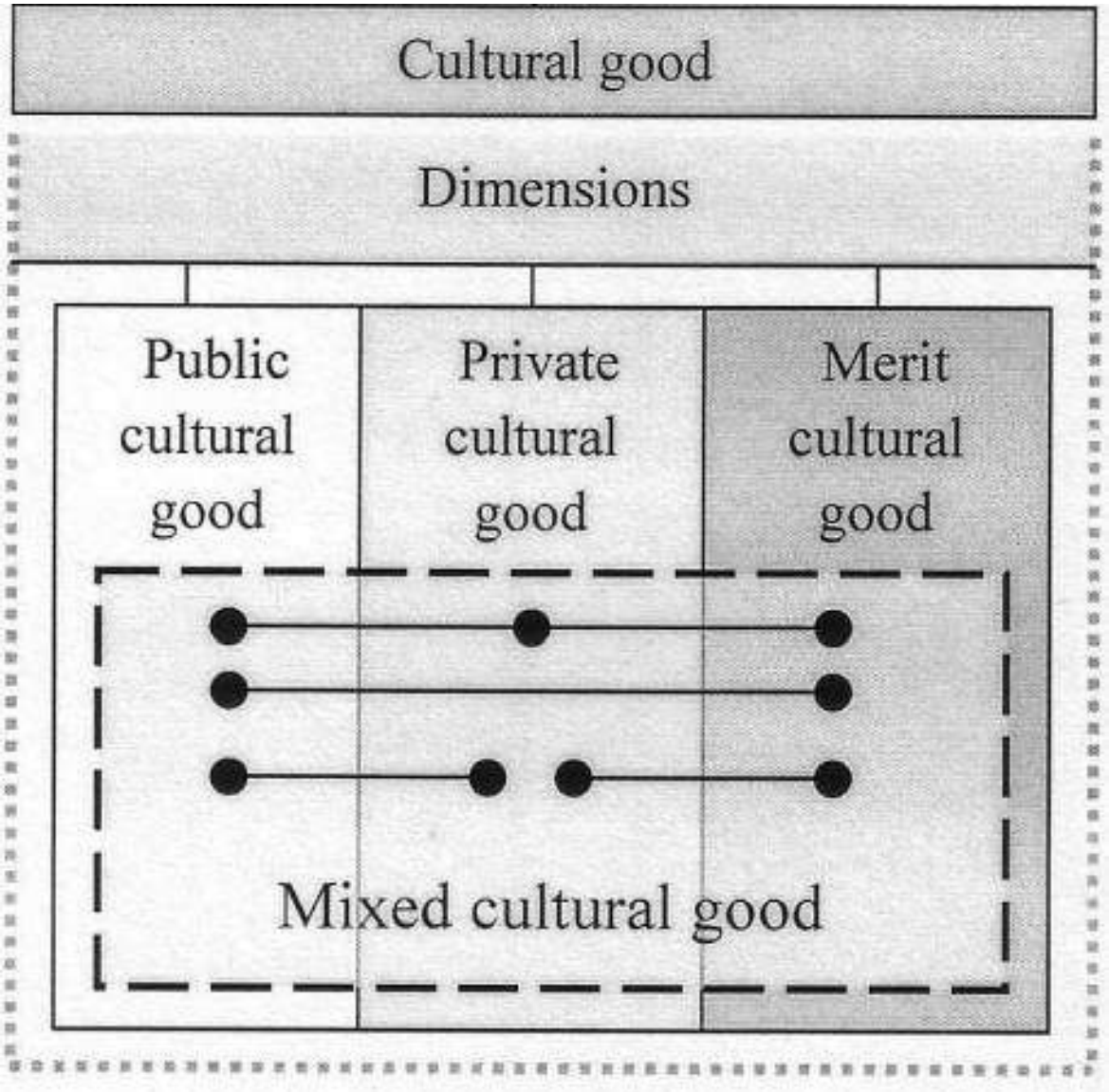
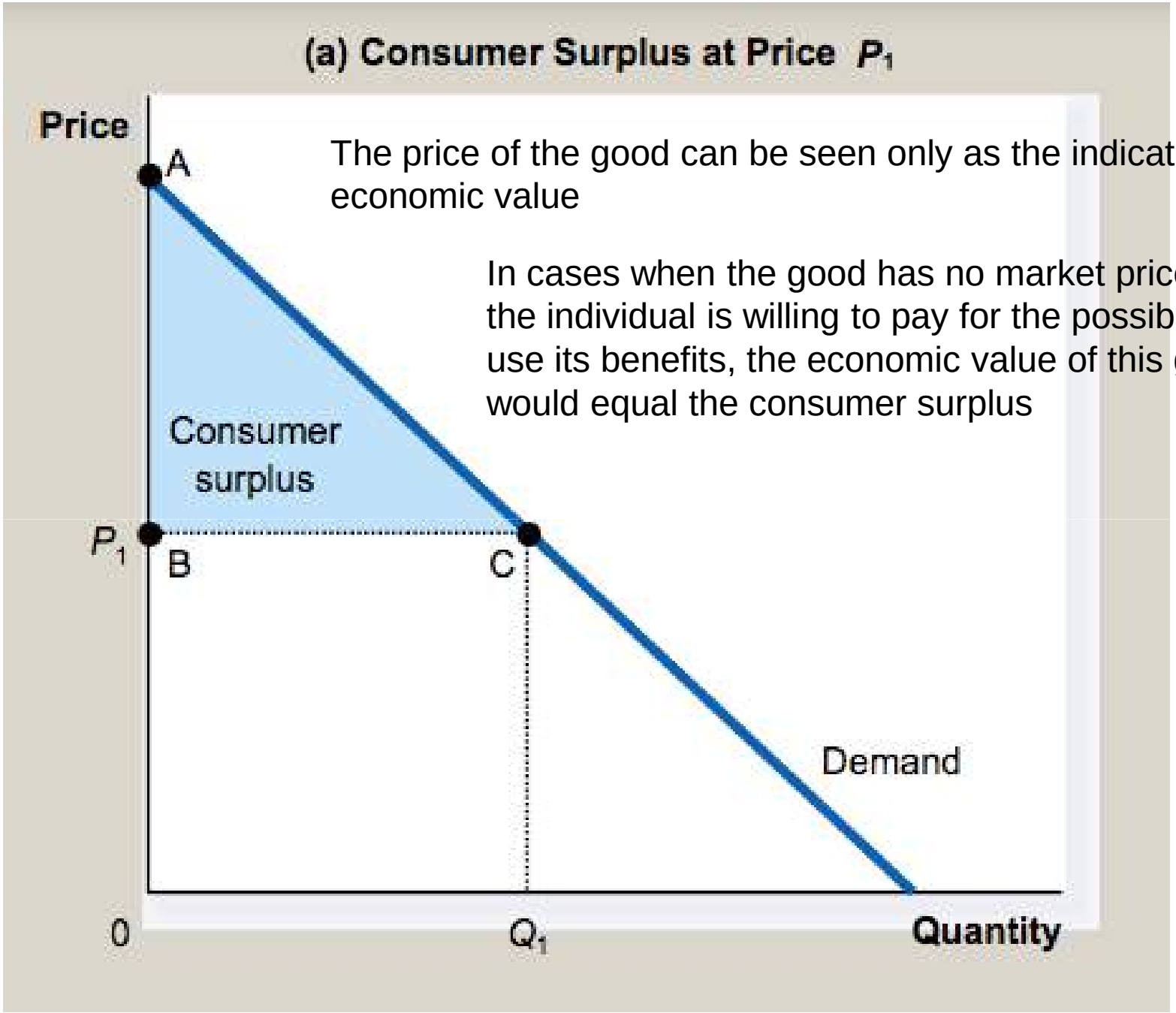


Often landscapes cannot be defined as unambiguously public or private good. The term “mixed good” is used to define the objects simultaneously having the features of the private and the public or merit good

Identification and description of different categories of market and non-market economic values of landscapes under analysis

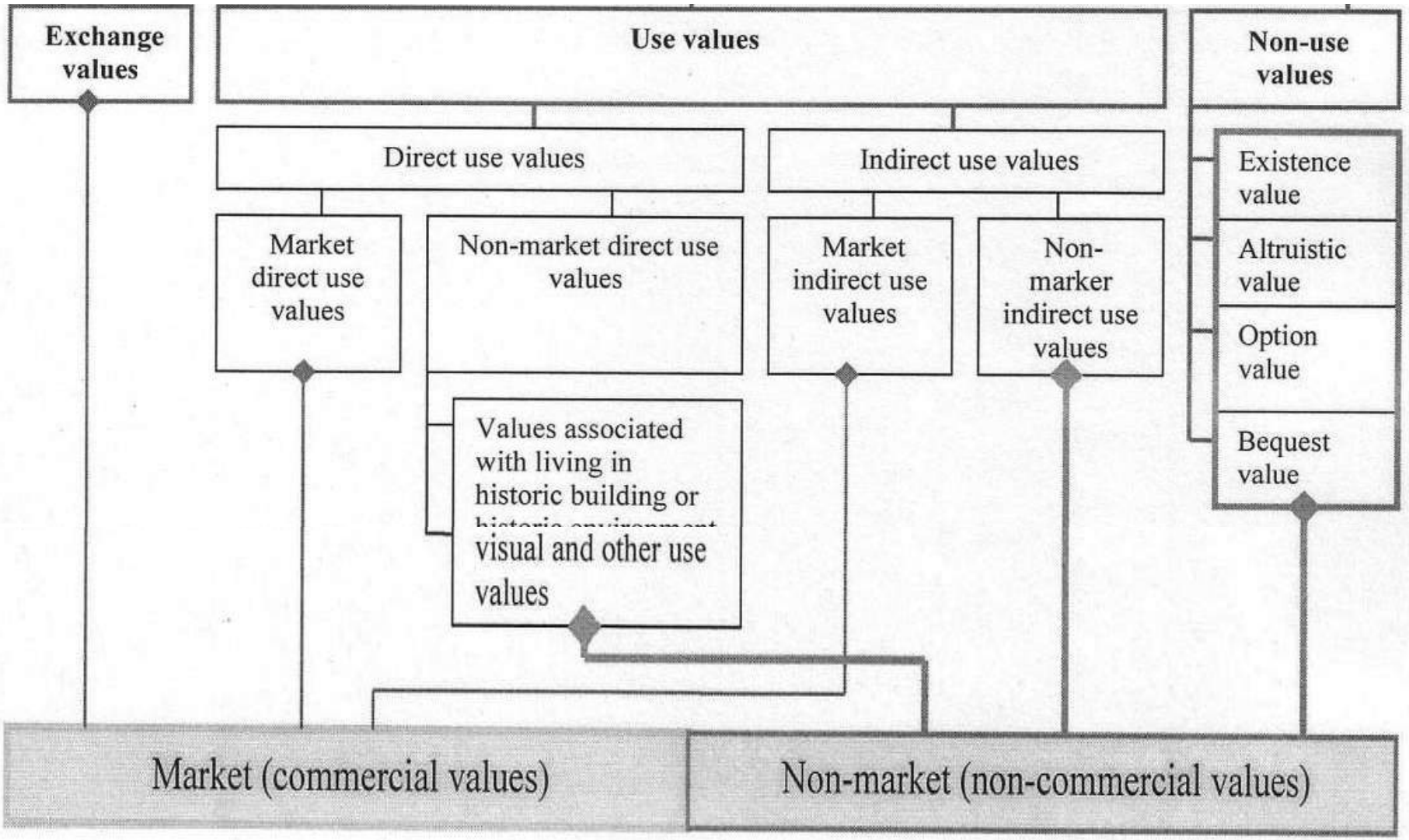
The theory of the subjective value considers that the individual prefers one good to another, when he or she gives the priority to the certain quantity of this good in respect of the same quantity of the goods of the different kind (Throsby, 2000)

In the case of cultural goods, it becomes evident that the market price and the economic value of the good cannot be seen as the equivalents. In many cases cultural good are not traded in markets and have no actual market prices; however it cannot be state that their economic value also equals to zero



The price of the good can be seen only as the indicator of its economic value

In cases when the good has no market prices, but the individual is willing to pay for the possibility to use its benefits, the economic value of this good would equal the consumer surplus



Total economic value of landscape can be defined as the maximum sum that the individual is willing to pay for the benefits of the landscape under valuation related or unrelated to its direct or indirect use, or the minimum sum that the individual is willing to accept and to forego these benefits

The economic profits can be obtained not only from the direct use of historic sites, such as the entrance fees, but also from the purchase sales transactions

Extractive use value demonstrates the economic value of the environmental resources extracted from the certain area

Values generated by the indirect use of landscapes through publications, photographs, and recordings can be referred to as the indirect use values

Recreational perception value related with the recreation possibilities provided by the landscape

Housing comfort value, related with the benefits of living in the historic environment

Existence value

Moral satisfaction of the individual caused by the mere existence of heritage site or landscape, even if he or she never plans to visit it


COUSINS
TTMGBK
10-6-94
LITTLE
NATURE
BOY
2-15-92

Altruistic value

The willingness of the individual to provide the possibility to visit the heritage object for the other individuals from the present generation unrelated with him or her

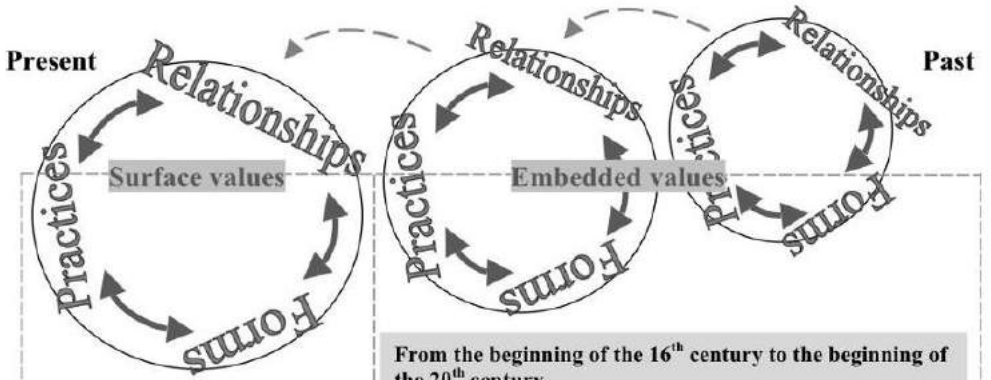
Option value

The willingness of the individual to retain the opportunity to visit the heritage object in the future for him or her or of his or her family members

Bequest value

Willingness to preserve the heritage object for the future generations

Analysis of changes different categories of market and non-market economic values of landscapes over time



Natural features

Watercourse of the rivulet
Expressive slopes with abundant vegetation
Extensive biodiversity

Historic buildings and artificial structures

Artificial dikes and pond
Historic network of roads and streets
Historic man-made green structures
Sculptures and remains of sculptures
Historic buildings and remains of historic buildings
Well preserved historic spatial structure of the residence
Historic homesteads in the vicinity of the residence

Relationships and links

Ecological and compositional links between natural greenery of the slopes of the rivulet and historical man-made green structures
Recreational, cognitive relationships between the residence and the inhabitants of surrounding areas
Physical and functional links between the residence and its surroundings due to the network of streets

Visual links between the residence and its surroundings resulting in dramatic perspectives

Visual links between the road and the ensemble

From the beginning of the 16th century to the beginning of the 20th century

Historical land management by noble families
Traditional farming and residential functions
Activities of Jesuit monks and religious function
Construction of wooden and masonry buildings
Interventions into natural landscape
Water management activities, creation of artificial pond
Socioeconomic and sociocultural links with nearby rural settlement
Development of the network of roads and paths – functional and physical links with surrounding territories

From the beginning of the 20th century to the middle of the 20th century

Activities of relevant figure of historical significance – archbishop J. Skvireckas
Construction and reconstruction of buildings
Interventions in natural landscape
Water management
Innovative agriculture, gardening
Decorative gardening
Creative, artistic activities
Residential, recreational, religious functions

From the middle of the 20th century to 1991

Experimental agriculture
Educational function

Figure 5: The 'Crofts' in 1945 with 1736 croft enclosures overlay
(Source: Ordnance Survey County Map Series 1:2500 (1945)
Landmark Historic Map Data, University of Edinburgh)

Dobson S. 2008 Exploring Ontologies of Historic Landscape Characterisation: Towards an approach for recognising the impact of incremental change to historic legibility in urban areas. 2nd Workshop COST Action C21 – Towntology. Ontologies for urban development: conceptual models for practitioners, pp. 114 – 124.

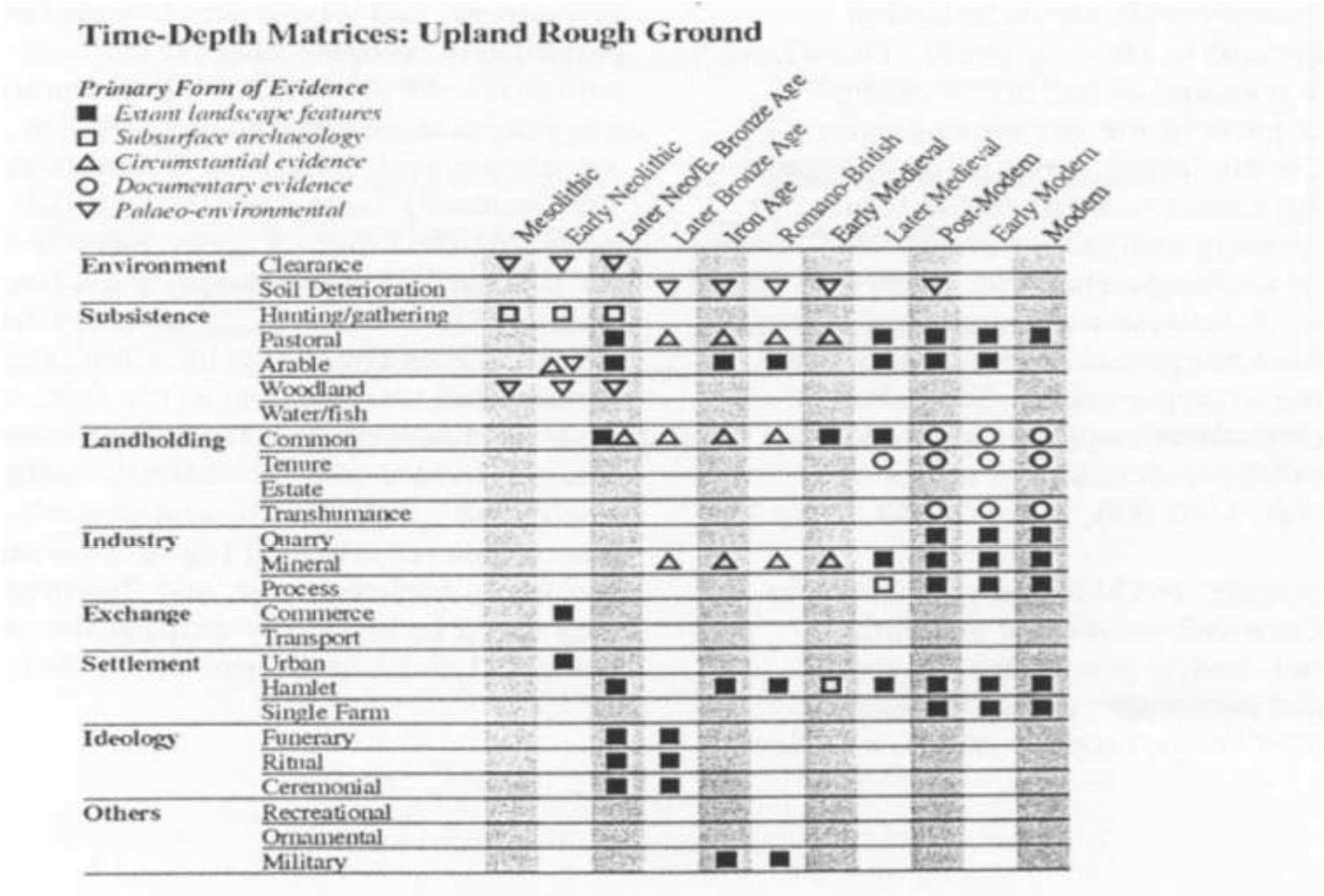
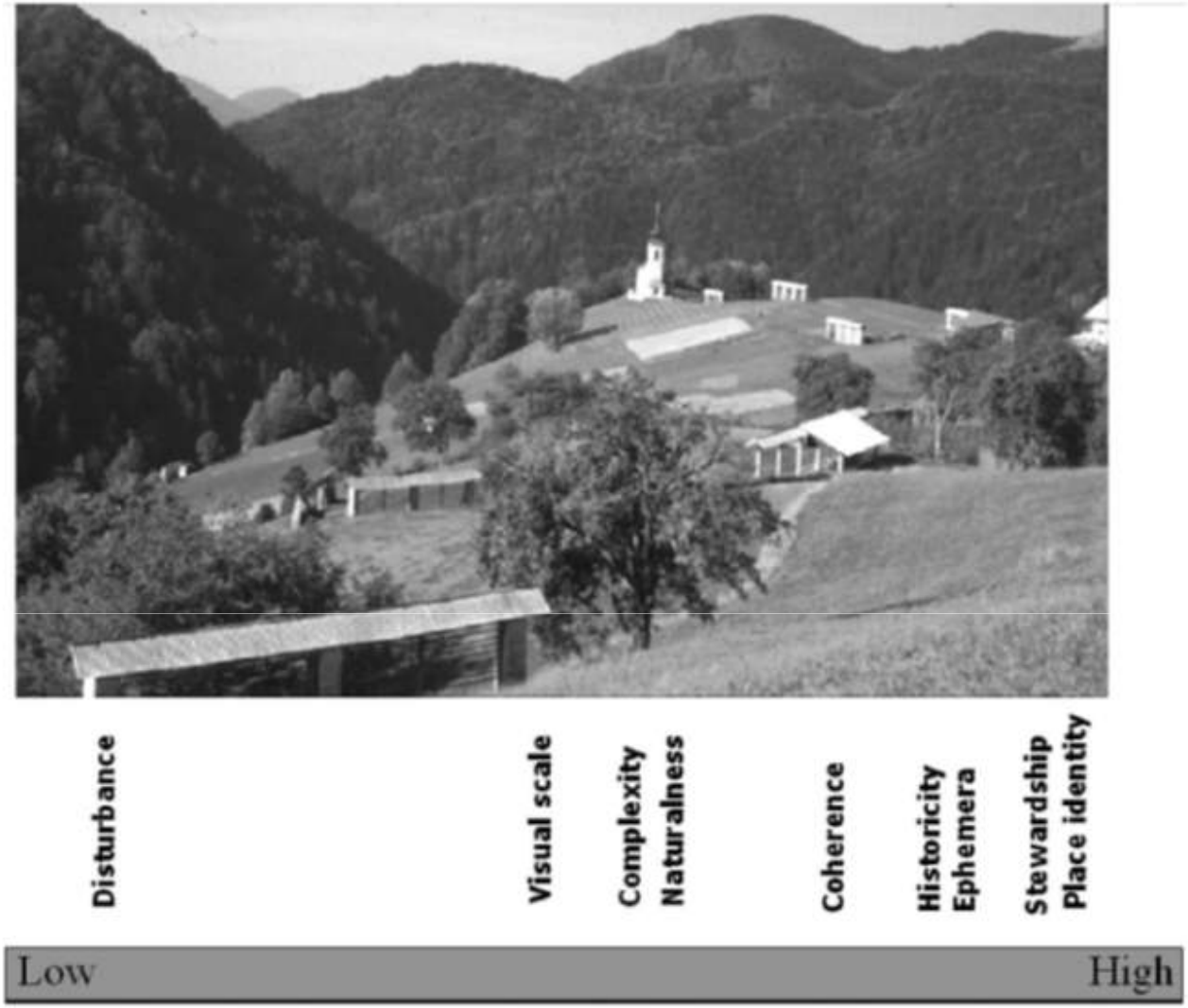


Figure 2: Cornwall Historic Landscape Characterisation Time-Depth Matrices (Herring 1999)

Dobson S. 2008 Exploring Ontologies of Historic Landscape Characterisation: Towards an approach for recognising the impact of incremental change to historic legibility in urban areas. 2nd Workshop COST Action C21 – Towntology. Ontologies for urban development: conceptual models for practitioners, pp. 114 – 124.

Integration with visual landscape characterization



Concept
Complexity
Coherence
Disturbance
Stewardship
Imageability
Visual scale
Naturalness
Historicity
Ephemera

Tveit, M., Ode, A. and Fry, G. (2006) Key concepts in a framework for analyzing visual landscape character. Landscape Research 31(3): 229–255.

Figure 2. Targeted development scenario of the Landscape Development and Protection Area of Volčji Potok

Figure 1. Unplanned development scenario of the Landscape Development and Protection Area of Volčji Potok

Landscape T: Radiating fields, scattered trees and mystery/legibility (Sample A);

Landscape M:– Rectangular fields and clumped trees

Landscape O: Radiating fields, clumped trees and mystery/legibility (Sample B).

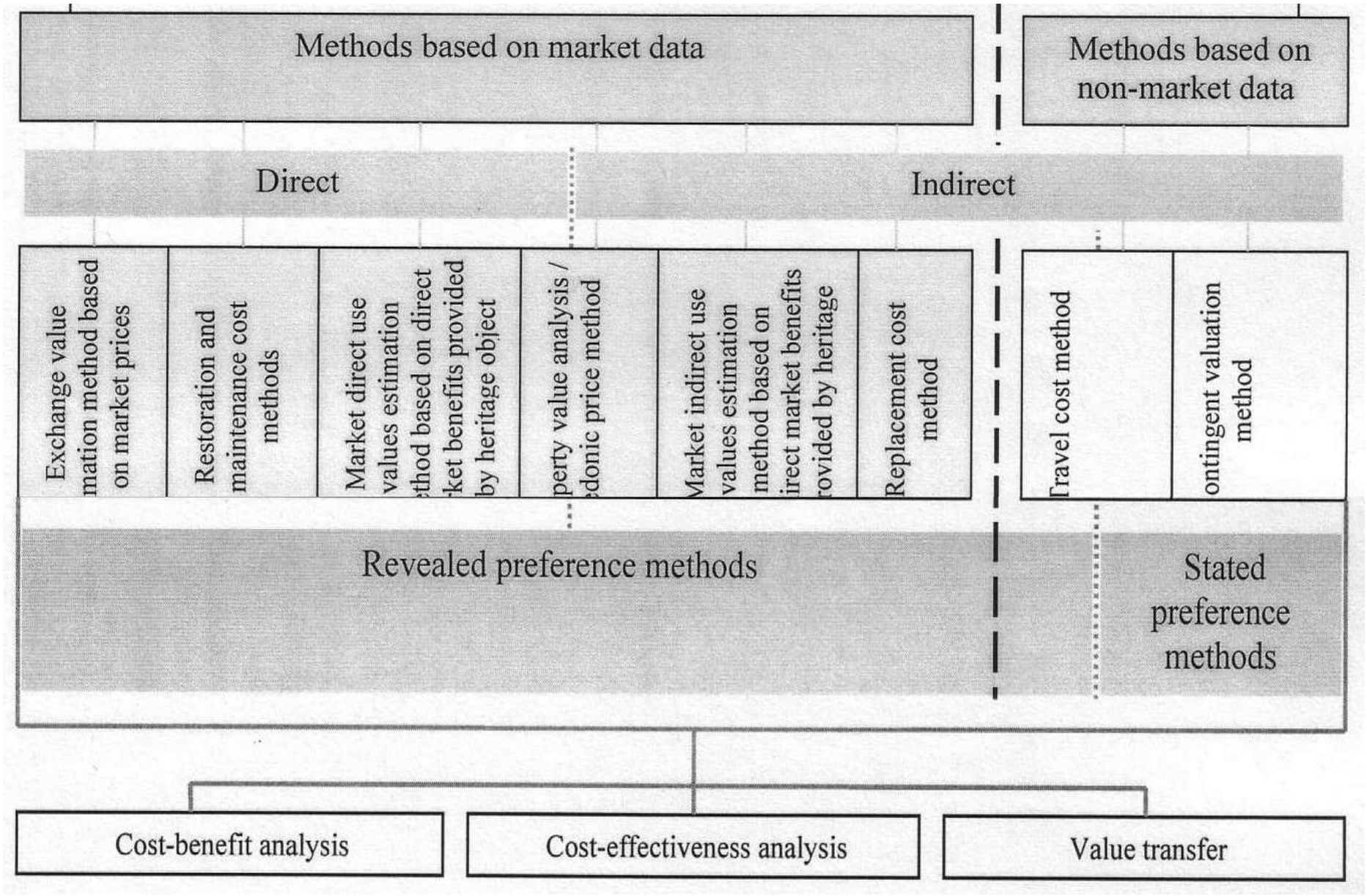
Landscape W: Rectangular fields and scattered trees;

Methods

Descriptive analysis, content analysis

CONSTRUCT	1 British Museum	2 Victoria and Albert	3 Sir John Soane's Museum	4 National Gallery	5 Tate Gallery	6 Hayward Gallery	7 Museum of London	8 Imperial War Museum	9 Transport Museum	10 Natural History Museum	11 Science Museum	**CONTRAST**
1 More general	(x)	X			( )		X	X	X	X	(x)	Specific to art
2 Traditional	X	(x)		X	(x)		X	( )		X	X	A negative place
3 High status visitors			(x)			(x)			( )			Average
4 Generally art/paintings	( )		X	(x)	(x)	X						Different kinds of exhibits
5 Reflects historical issues	X	X			( )	X	(x)	X	X	(x)	X	Deals more with art
6 Paintings		( )	X	(x)	(x)	X	(x)					More about English history
7 Interesting	X			(x)	(x)	( )					X	Less interesting
8 Have a good reputation	(x)	X		X	(x)		X		X	( )		Less well known
9 Not interesting		X	(x)		( )	X	X	(x)	X	X		Interesting
10 Far from city centre		X	(x)		( )				X	(x)		Good location
11 Museums	(x)	X	X			( )	X	X	(x)	X	X	Gallery
12 More British	X	(x)		X	( )		(x)					General
13 Snobbish		X	X		(x)	(x)				( )		Closer to my taste
14 Objects other than pictures	(x)	X			( )		X	(x)	X	X	X	Just pictures
15 Technological							( )	X	(x)		(x)	Not to do with technology
16 For adults			X		(x)	(x)					( )	Children would love it

Market use values estimation method based on direct and indirect market benefits provided by heritage object	Exchange value estimation method based on market prices	Restoration and maintenance cost methods	Replacement cost method	Property value analysis / hedonic price method	Travel cost method	Contingent valuation method


Methods based on market data
Methods based on non-market data
Direct
Indirect
Exchange value mation method based on market prices
Restoration and maintenance cost methods
Market direct use values estimation thod based on direct ket benefits provided by heritage object
perty value analysis / donic price method
Market indirect use values estimation method based on irect market benefits rovided by heritage
Replacement cost method
Travel cost method
ontingent valuation method
Revealed preference methods
Stated preference methods
Cost-benefit analysis
Cost-effectiveness analysis
Value transfer

Travel Cost Method: An Example

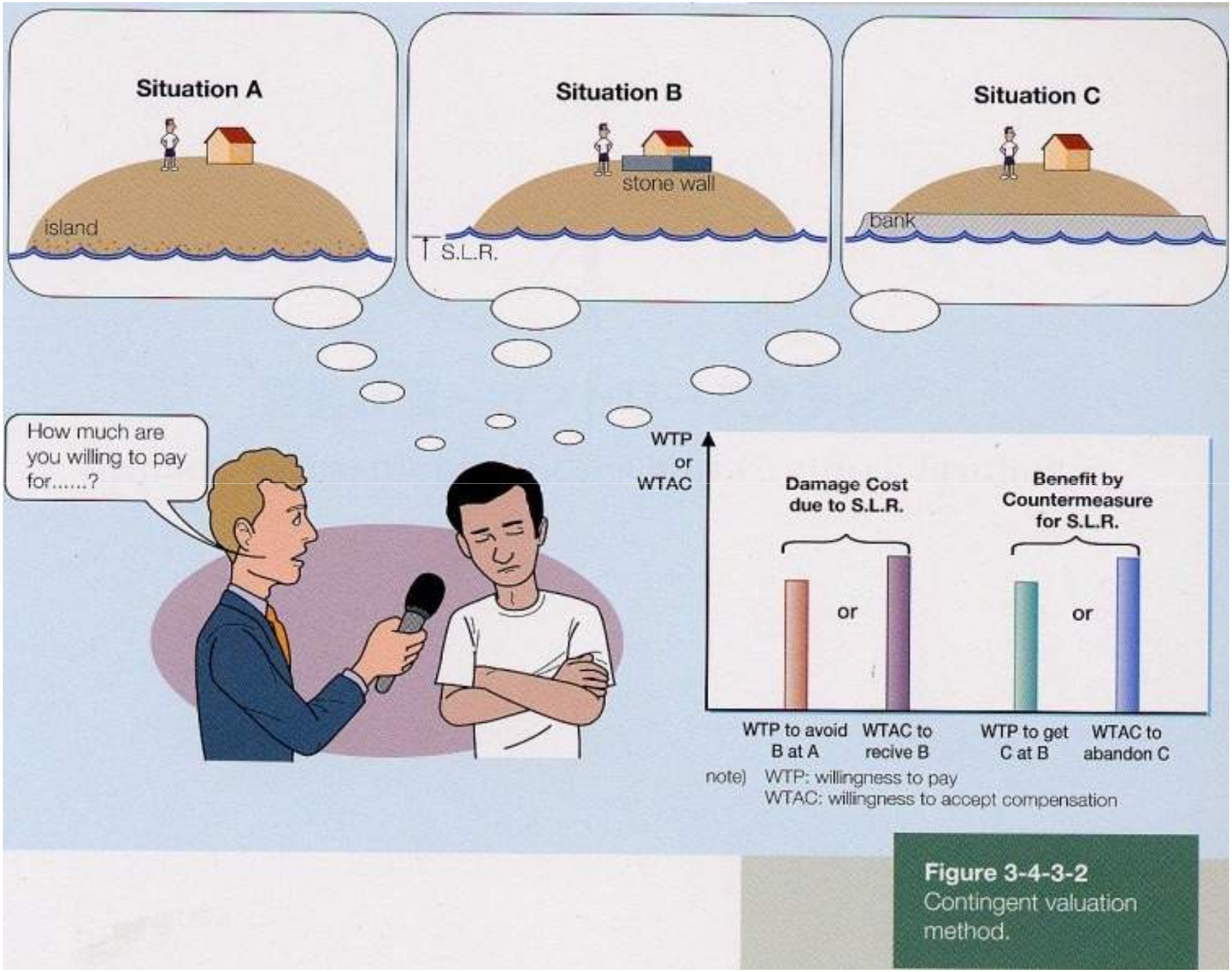
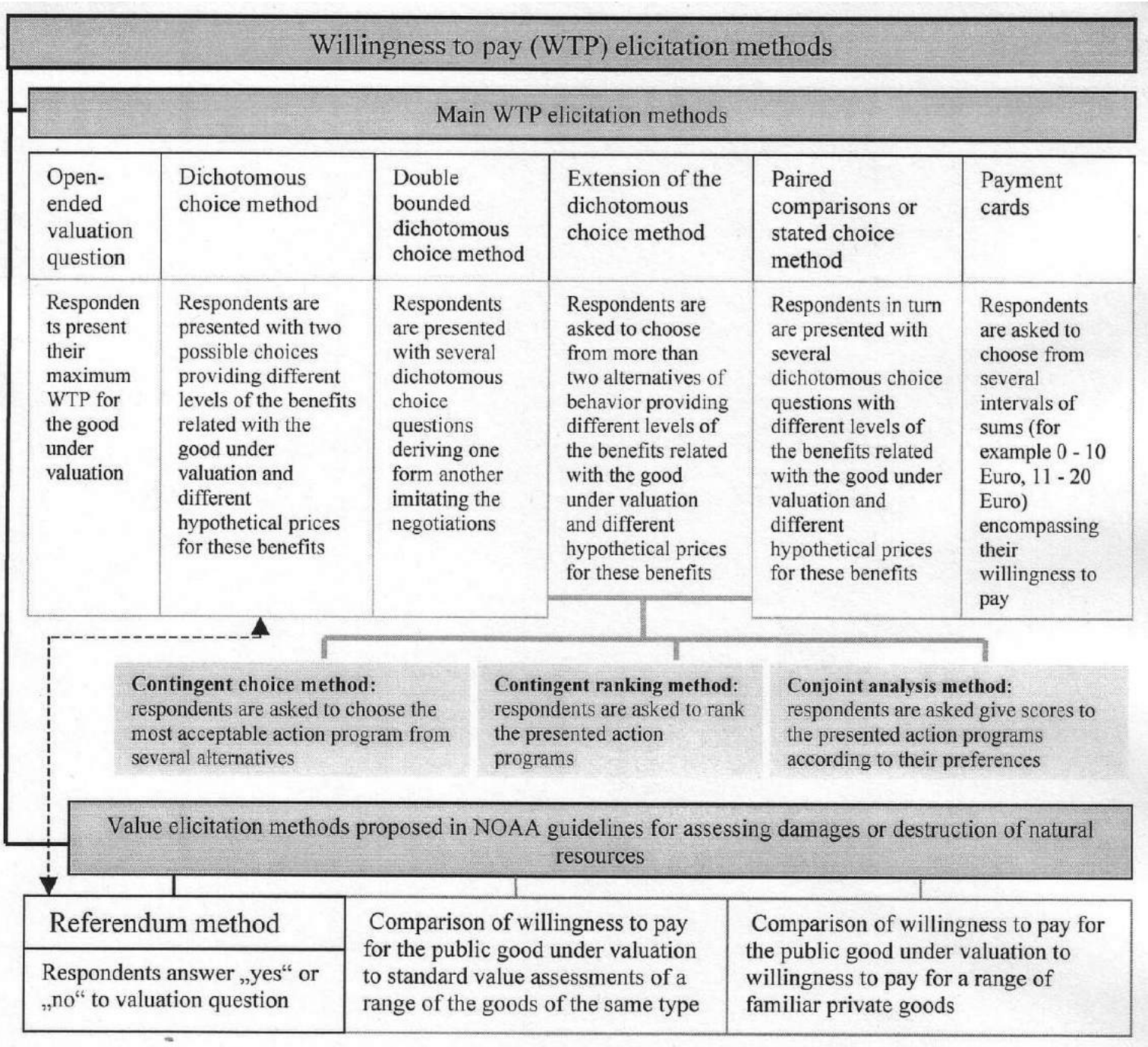
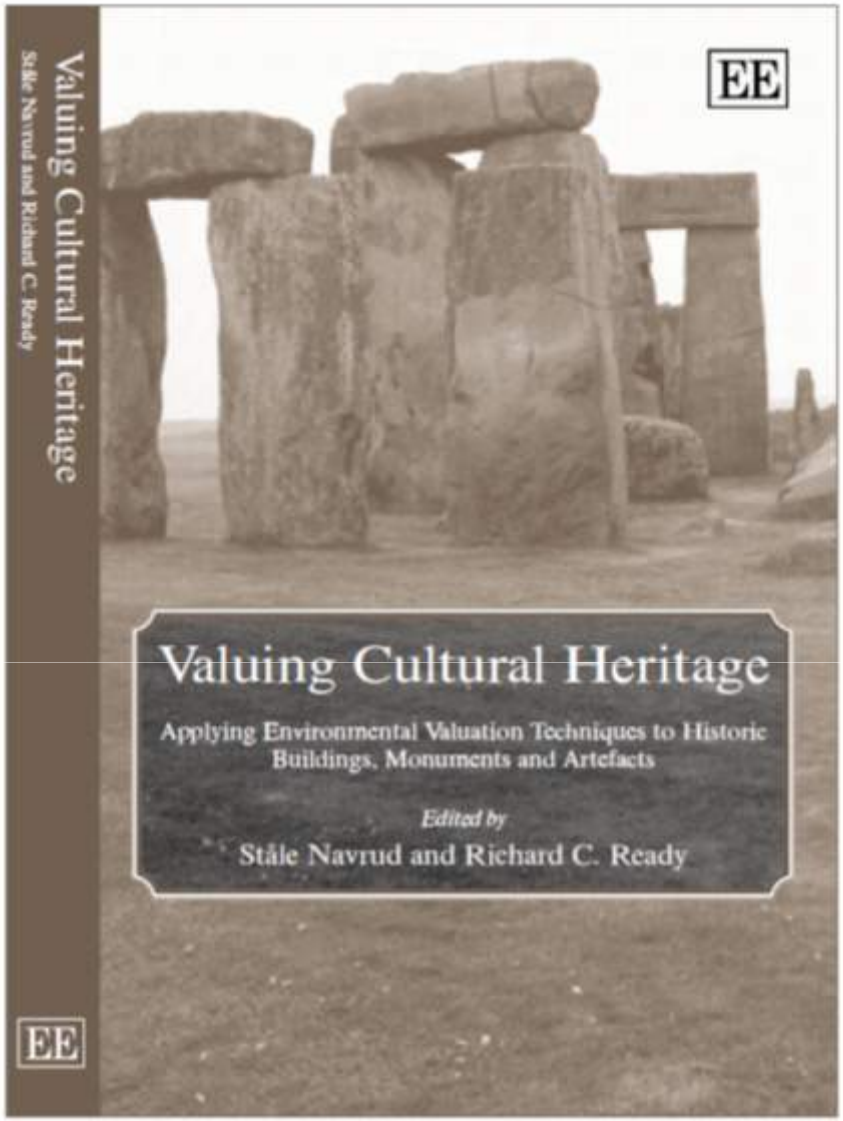


Figure 3-4-3-2
Contingent valuation method.


Willingness to pay (WTP) elicitation methods
Main WTP elicitation methods
Open-ended valuation question
Dichotomous choice method
Double bounded dichotomous choice method
Extension of the dichotomous choice method
Paired comparisons or stated choice method
Payment cards
Respondents present their maximum WTP for the good under valuation
Respondents are presented with two possible choices providing different levels of the benefits related with the good under valuation and different hypothetical prices for these benefits
Respondents are presented with several dichotomous choice questions deriving one form another imitating the negotiations
Respondents are asked to choose from more than two alternatives of behavior providing different levels of the benefits related with the good under valuation and different hypothetical prices for these benefits
Respondents in turn are presented with several dichotomous choice questions with different levels of the benefits related with the good under valuation and different hypothetical prices for these benefits
Respondents are asked to choose from several intervals of sums (for example 0 - 10 Euro, 11 - 20 Euro) encompassing their willingness to pay
Contingent choice method: respondents are asked to choose the most acceptable action program from several alternatives
Contingent ranking method: respondents are asked to rank the presented action programs
Conjoint analysis method: respondents are asked give scores to the presented action programs according to their preferences
Value elicitation methods proposed in NOAA guidelines for assessing damages or destruction of natural resources
Referendum method
Respondents answer „yes“ or „no“ to valuation question
Comparison of willingness to pay for the public good under valuation to standard value assessments of a range of the goods of the same type
Comparison of willingness to pay for the public good under valuation to willingness to pay for a range of familiar private goods



Holden J. 2004. Capturing Cultural Value. How Culture Has Become a Tool of Government Policy. Demos, London

Navrud S., Ready R. C. Valuing cultural heritage. Applying environmental valuation techniques to historic buildings, monuments and artefacts. Edward Elgar, Cheltenham

Study and nature of the asset	WTP (US$) [1]	WTP definition [2]	Annuity (US$) [3]	% zero WTP	% of stated income [4]
Campi Flegrei archaeological park in Napoli, Italy. Contingent valuation. (Chapter 10)		Annual, 5 years, SB DC, donation		(approx.)	
Renovation of historical buildings in Grainger City, Newcastle, UK. Contingent valuation. (Chapter 4)	16-22	Household, annual, OE, tax	16-22	47%	n.a.
Recreational value of aboriginal rock paintings, Nopiming Park, Canada. Contingent valuation (Chapter 8)	134	Individual, annual, CB, travel cost	134	n.a.	n.a.
Valuing the right to access two Italian art museums at present charges. Contingent valuation. (Chapter 12)	28-33	Individual, annual, SB DC, donation	28-33	18% (approx.)	n.a.
Valuing visitor benefits to Warkworth Castle. UK. Contingent valuation. (Chapter 4)	4	Individual, per visit, OE, fee	4 (average no. of visits = 1)	n.a.	0.01
Value of continuing current activities of the Royal Theatre in Copenhagen. Contingent valuation. (Chapter 13)	9-24	Individual, annual, OE, tax	9-24	18%	n.a.
Maintaining the Napoli Musei Aperti. Contingent Valuation (Chapter 14)	11 (users) 4 (non users)	Household, annual OE donation	11 4	34% (users) 67% (non-users)	n.a.
Damages from air pollution on the Nidaros Cathedral, Norway. Contingent	51: originality preserved 45: restoration -	Individual, annual, OE, tax and	51 45	9-20 % (domestic visitors)	n.a.

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Stonehenge
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Regular Article

Valuing Landscape: a Contingent Valuation Approach

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Abstract

Landscapes can change over time as a consequence of economic demands and technological innovation in agriculture. This study assesses the preferences for and the value of different landscapes which could arise in the future in the Yorkshire Dales National Park. The landscapes assessed comprised images of a range of possible future agricultural landscapes: today's landscape; abandoned; semi-intensive agricultural; intensive agricultural; planned; conserved; sporting; and wild landscapes. A majority of both visitors to and residents of the Dales preferred today's landscapes, although the conserved landscape was also valued highly. A comparison of the costs of maintaining each landscape with their respective benefits indicates that more public expenditure should be devoted to protecting and enhancing environmental attributes such as dry stone walls and stone barns, wild flowers and hay meadows, and small broadleaved woodlands. Methodological tests on the contingent valuation technique underpinning this study suggests that the results are reliable and robust.

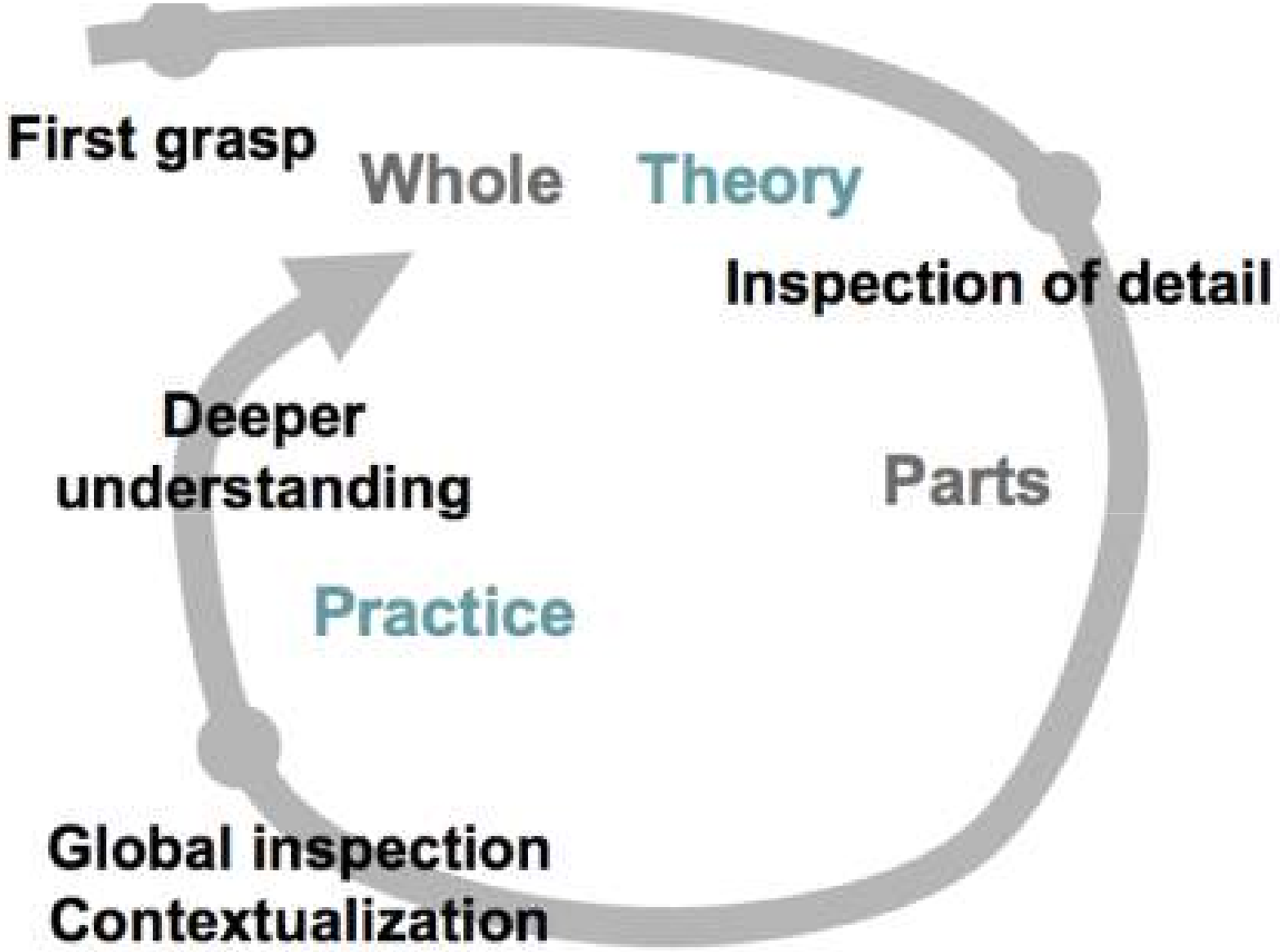
Figure 3.1. Landscapes used in survey

Figure 1a Baseline landscape

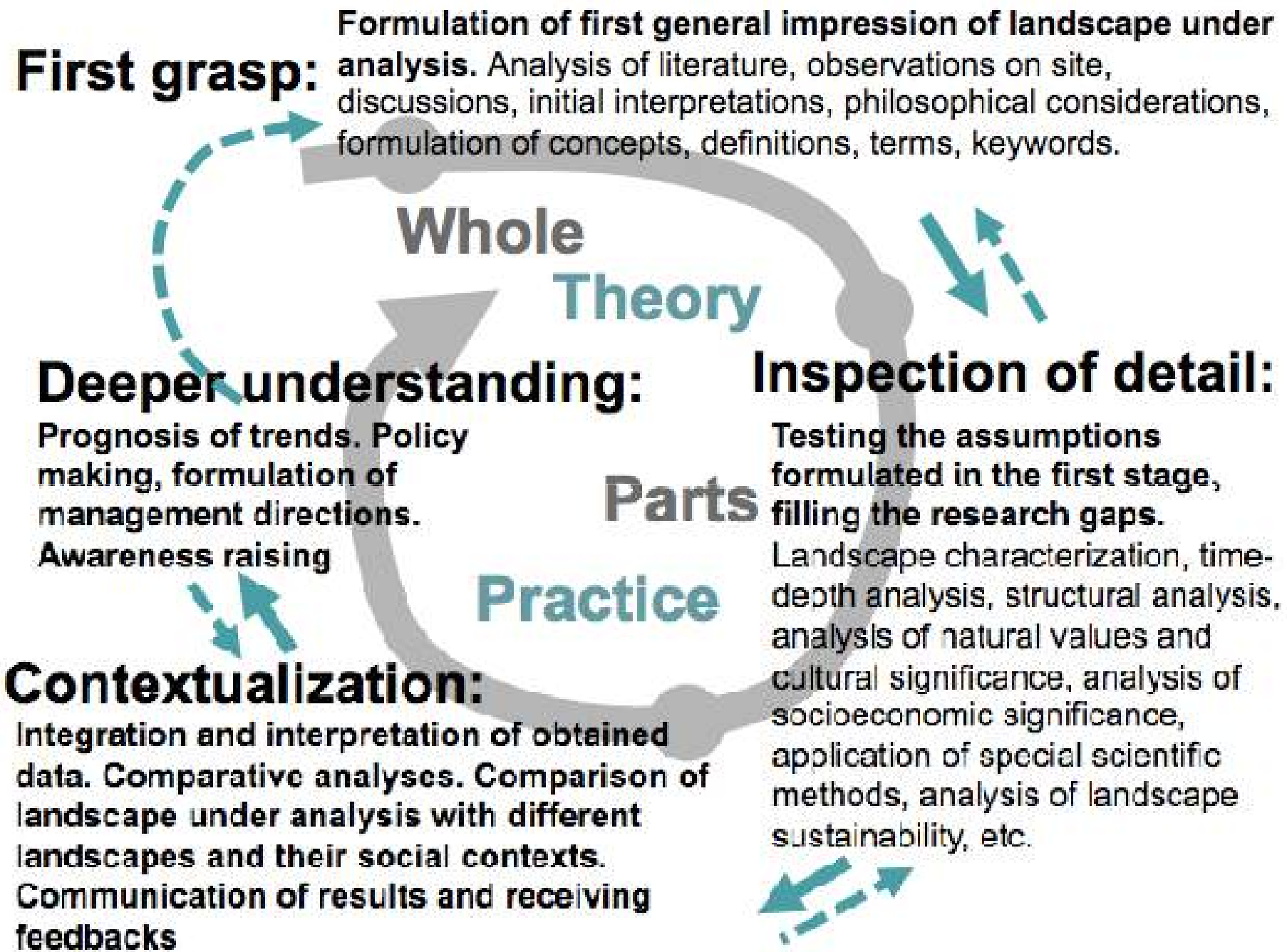
Figure 1b Landscape under agri-environmental management

Figure 1c Landscape under abandonment

Figure 1c Landscape under abandonment



Hermeneutic circle adapted from Hermeneutics (2013), Research… (2013) and F. Bargiela-Chiappini (2011)


First grasp:
Formulation of first general impression of landscape under analysis. Analysis of literature, observations on site, discussions, initial interpretations, philosophical considerations, formulation of concepts, definitions, terms, keywords.
Whole
Theory
Deeper understanding:
Prognosis of trends. Policy making, formulation of management directions. Awareness raising
Parts
Inspection of detail:
Testing the assumptions formulated in the first stage, filling the research gaps. Landscape characterization, time-depth analysis, structural analysis, analysis of natural values and cultural significance, analysis of socioeconomic significance, application of special scientific methods, analysis of landscape sustainability, etc.
Practice
Contextualization:
Integration and interpretation of obtained data. Comparative analyses. Comparison of landscape under analysis with different landscapes and their social contexts. Communication of results and receiving feedbacks

Thanks for your attention