Guidelines for New Communication Narratives in Visitor Management

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Guidelines for New Communication Narratives in Visitor Management

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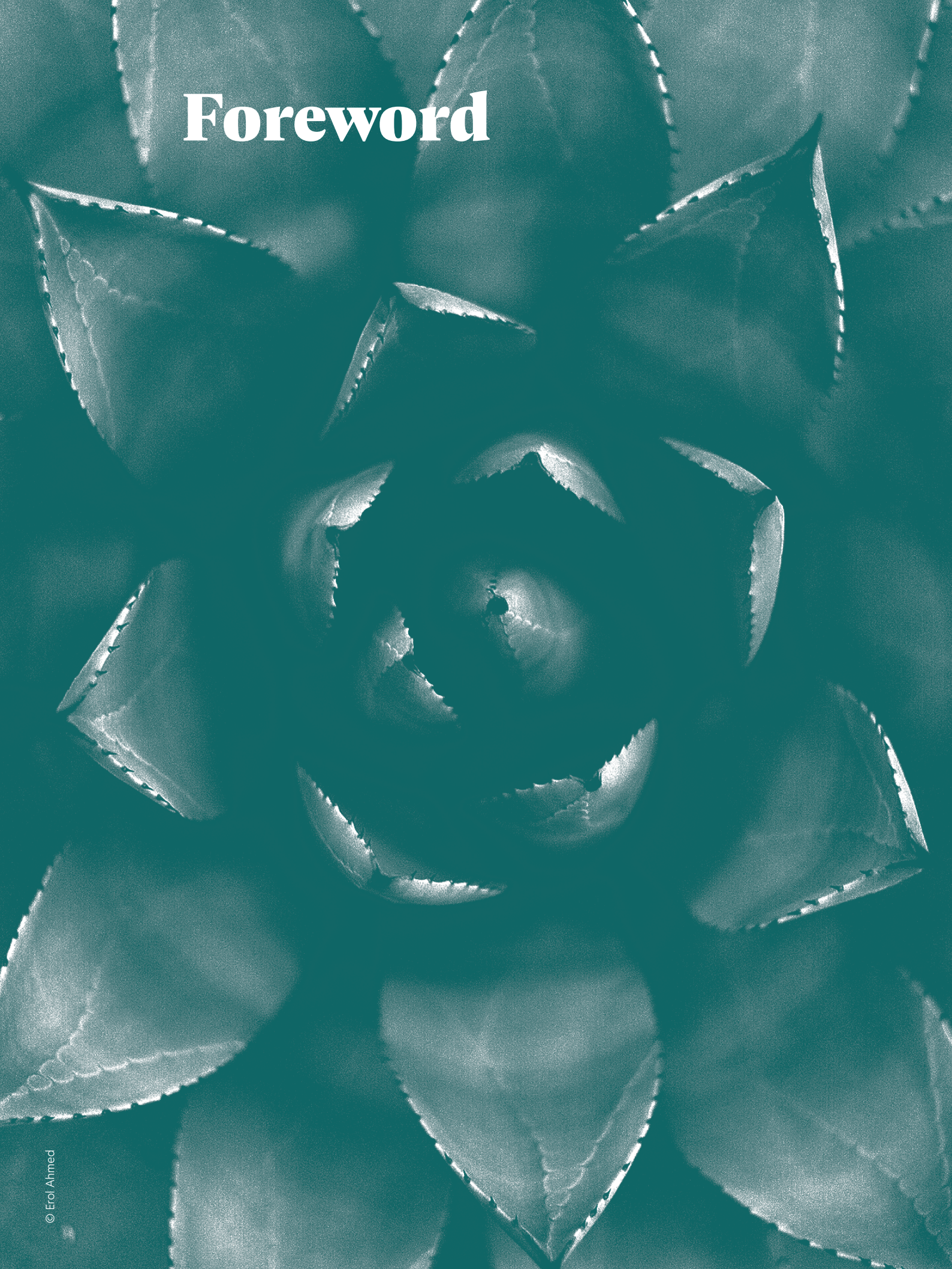


Dear reader,
this document serves as a guide and support manual for narrating natural heritage initiatives.

This document is designed for professionals in park agencies, protected areas and nature reserves who aim to develop engaging and educational communications about these regions. Its goal is to promote conservation awareness and inspire public involvement in related activities.

The underlying objective is to provide a user-friendly handbook that functions both as a comprehensive resource for advancing knowledge in heritage interpretation and communication and as a repository of practical guidelines and operational instructions to be consulted as needed depending on the specific demands of each context.

The work was carried out under the Interreg Central Europe HUMANITA project 'Human-nature interactions and impacts of tourist activities on Protected Areas'. It is the result of the participatory efforts of the project partnership, assisted by international experts in the field of territorial heritage interpretation and narration. The project aims to deepen understanding of tourism impacts on protected areas, improve monitoring practices and develop practical mitigation strategies. These include raising visitor awareness and involving tourists in educational activities and citizen science programmes that contribute to the conservation of the natural environment.

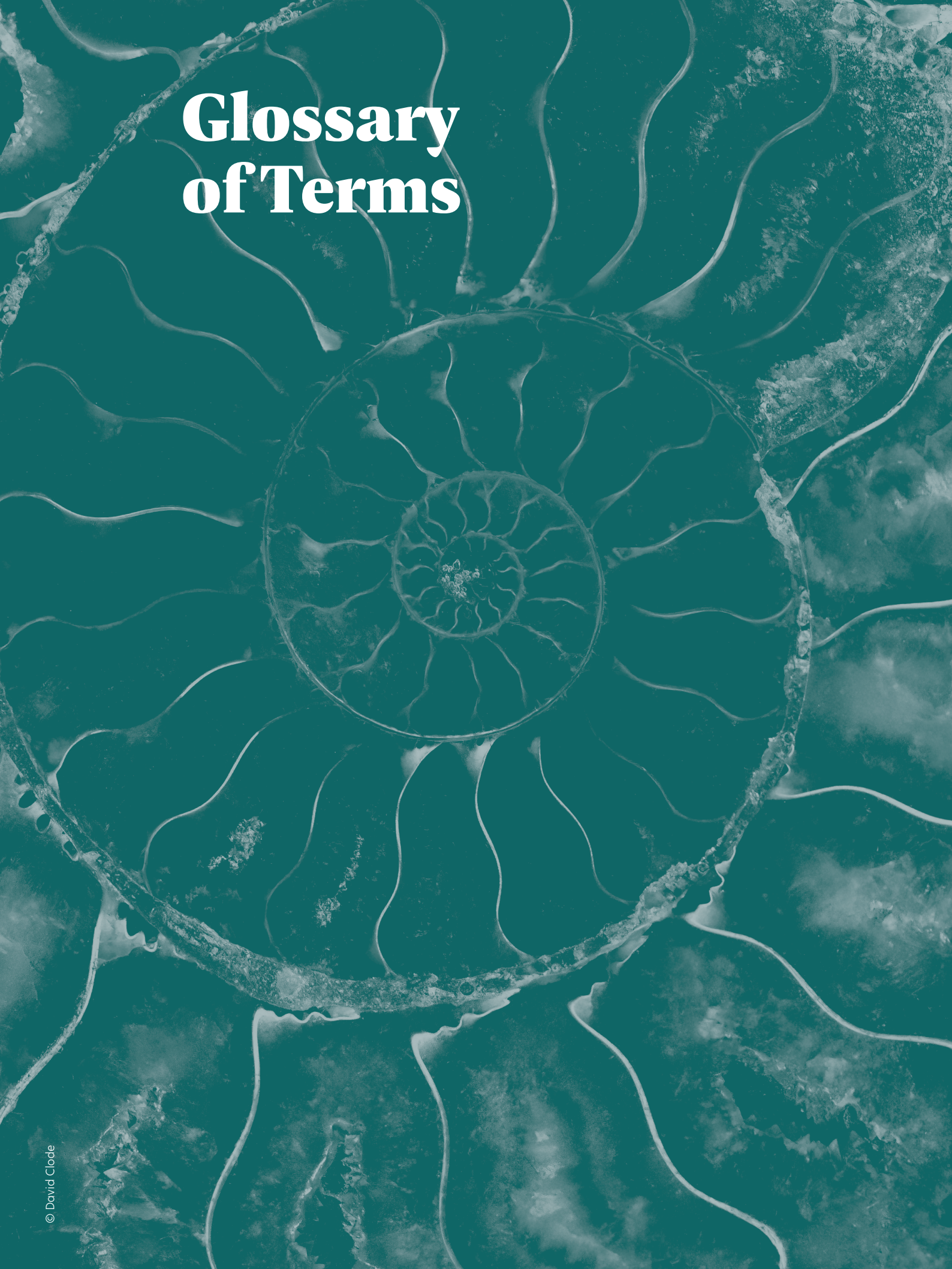
The structure of the document includes an introduction to the development of heritage interpretation, communication practices in parks and nature reserves, the theoretical foundations of narrative-based approaches and relevant composition techniques. It presents a synthesized body of knowledge intended for direct application across diverse field scenarios and professional practices, while maintaining a concise and accessible format to facilitate ease of reference and operational use.

We hope this concise document will stimulate further research and inspire the development of innovative, engaging and forward-looking storytelling approaches for protected natural areas. Researchers are encouraged to share it within their academic and professional networks to expand the discourse and support the evolution of methodologies and collaborative projects in this field.

Heritage interpretation and narration are strategic and essential components in strengthening conservation efforts and promoting the sustainable management of natural heritage.

Isidoro De Bortoli, Paola Menzardi

Glossary of Terms



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5M Interpretation Planning Model A systematic, multi-dimensional process convenient for planning large-scale interpretation projects.

A

Aims In the context of this publication, aims describe the intent, purpose, or the ultimate, long-term aspirations of an interpretive programme, plan or a strategy.

C

Captive Audience In the heritage interpretation context this term refers to audience with external motive for taking part in a programme. Most often participants of formal learning i.e. single-age group with similar knowledge level.

Cognitive Load / Receptive Capacity The limitation on how much information an audience can process simultaneously.

D

Deeper Meanings Universal concepts (like love, betrayal, fear) that are framed or shaped in a way that resonates with personal life of an individual.

Domains: Cognitive, Emotional, Behavioural In HI interpretive program goals are typically expressed in three primary domains:

- Cognitive – What the audience shall know or understand.
- Emotional/Affective – How the audience will feel or value the heritage.
- Behavioral – What the audience shall do or how they shall act differently.

E

Experiential Learning Educational approach centred on learning by doing and making sense of that process through reflection.

Formal Learning Institutionalized, curriculum-driven education, that leads to recognized qualifications.

F

Formative Evaluation (also Implementation Evaluation) is a type of evaluation conducted during the development, creation or implementation phase of a program, project or educational activity, e.g. testing exhibition design on mock-ups with a focus group.

Front-end Evaluation Evaluation conducted during the planning stage of an interpretive project, typically consisting of visitor research focusing on expectations, interests, and misconceptions.

G

Goals In this publication, goals define the desired outcomes of an interpretive programme, plan or a strategy. The difference the interpretation should make in the audience. In HI the goals are often defined in cognitive, emotional and behavioural domains (see Domains). Achievement of goals is measured by defining objectives.

H

Heritage Interpretation A heritage-related educational activity whose aim is to provoke meaning-making process through purposeful communication, participation and experience.

I

Informal Learning The modus operandi of heritage interpretation – learning that takes place outside of formal schooling or non-formal learning curricula (e.g. scouting), such as during visits to natural or cultural heritage sites.

Interpreter An educator who provokes (directly or indirectly) meaningful connection between a heritage and the audience while using heritage interpretation techniques.

Interpretive Plan A document that outlines the methods and approaches for interpreting a particular territory, visitor center, or phenomenon, detailing the thematic structure, media, operational aspects, evaluation, and financial costs.

Interpretive Planning The methodology for developing interpretive programs and communication strategies, ranging from single programs (e.g. educational trail) to strategies for an entire national park.

Interpretive Strategy A document that outlines the approach to interpretation of a larger area or phenomenon, it analyses the heritage aspect, general audiences and gives frame to communication that is further elaborated in individual Interpretive Plans.

M

Meaning-Making A mental process leading to the interpretation of facts and assigning personal significance to the world around us. Interpretation aims to trigger this process in each visitor, which shifts the focus from the interpreter simply delivering a message to the visitor actively internalizing and negotiating that message based on their own background, experiences, and values.

Misconceptions Pre-existing, incorrect, or incomplete ideas, beliefs, or understandings that a visitor holds.

N

Nature Study An educational movement starting 1890s that stressed a hands-on approach and activities in the outdoors, prioritizing the direct experience of a learner and accurate observation over classifications.

O

Objectives Specific, measurable targets that indicate the achievement of previously set goals or aims. Objectives always simplify the reality into measurable indicators, that can also be used for benchmarking.

P

Provocation (Tilden's Principles) The Freeman Tilden's concept that the chief aim of Interpretation is not instruction (transfer of facts) but provoking mental processes and response in the visitor.

R

Relevance (Tilden's Principles / Ham's TORE Model) An interpretive quality achieved when the content is meaningful (connecting to the existing knowledge) and personal (connecting to something recipients care about), often through universal concepts.

Revelation (Tilden's Principles) Act of intentionally uncovering a deeper meaning, universal truth, or significant relationship that lies behind the raw facts within an interpretive program. Revelation connects the factual / tangible with intangible personal meanings.

S

Sense of Place A process-based interpretive planning method that guides interpreters through a series of sequential questions ("why," "what," "for whom," "what form") and is particularly suitable for smaller projects involving local communities. The method was coined as a part of the Highland Interpretation Project in late 1990s and published in a book Sense of Place edited by James Carter.

Sixteen Questions Model A comprehensive interpretive planning model is founded on four core interpretive qualities that derive from the Interpret Europe interpretive triangle. Interpetive planners check meeting each quality in the 4 stages of interpretive planning process by asking a question. Each of the sixteen questions further breaks into more detailed questions.

Storyline Schemes Structured frameworks used to build a coherent story and craft a narrative arc (e.g., ABT, SCQA, TSM).

Strong Theme A theme that is easily understandable and highly relevant, i.e. it provokes thinking and meaning-making processes.

Sub-themes Statements that are directly connected to and support the main theme. In structural design, information should generally be limited to no more than 4 sub-themes at a single hierarchical level to ensure comprehensibility. In Interpret Europe materials, sub-themes are called "themes".

Summative Evaluation Evaluation conducted after a project is completed to assess how visitors interact with the final product and whether it meets the pre-defined goals or objectives.

T

Tangible An attribute relating to the physical, material, or concrete elements of heritage that can be directly perceived by the senses—seen, touched, or measured.

Thematic Approach The leading methodological approach in developing heritage narratives, in which the heritage interpretation programs are built around a clearly stated, single, whole idea (the theme).

Theme The single, central, whole idea that the interpretation program is built upon. It gives both the audience and the provider coherent frame for communication. Empirically it is formulated as a complete sentence.

Theme-line Structure consisting of the main theme and sub-themes which serves as a backbone in development of interpretive narratives.

Tilden's Six Principles The foundational philosophical principles for interpretation published by Freeman Tilden in 1957, that delivered a paradigm change in informal education by relating its content to visitor's experience, revelation of deeper meanings, provoking mental processes, employing senses and presenting context over mere provision of information.

Topic A subject matter of interpretation (e.g. water erosion, gothic masonry, the Alps).

Triangulation Combination of different research methods and/or datasets in social sciences, such cross-checking enhances quality and credibility of the research findings.

TORE Model Sam Ham's model outlining the four essential qualities for a successful interpretive program: Interpretation has a **T**heme, is **O**rganized, is **R**elevant, and is **E**njoyable.

U

Universal Concepts (Universals) Experiences shared by all humans across all times and cultures (e.g. strong emotions: love, fear, care, curiosity; or biological imperatives: birth, hunger). These are employed by interpreters to establish a personal or symbolical connection between the audience and the topic.

Abbreviations

AHI	Association for Heritage Interpretation (UK)
DMO	Destination Management Organisation
EU	European Union
GIS	Geographic Information System
IE	Interpret Europe
IUCN	International Union for Conservation of Nature
HI	Heritage Interpretation
HUMANITA	Human-Nature Interactions and Impacts of Tourist Activities on Protected Areas, a project supported by Interreg Central Europe
NAI	National Association for Heritage Interpretation (USA)
NP	National Park
NPS	United States National Park Service
PLA	Protected Landscape Area (IUCN level V category in the Czech Republic)
SDGs	United Nations Sustainable Development Goals
SIMID	Czech Association for Heritage Interpretation
SMART	Specific, Measurable, Achievable, Relevant and Time-bond aims/goals
UIMID	Czech Institute for Heritage Interpretation
UNESCO	United Nations Educational, Scientific and Cultural Organization

1. Introduction

The more clearly we focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction.

Rachel Carson

In an era dominated by digitalisation, storytelling and narrative increasingly appear to be relegated to the margins of direct communication processes. The possibility of being 'disconnected' is becoming ever more elusive. Nonetheless, the emotional resonance that only words can evoke takes on a deeper significance when it arises from the act of storytelling and is grounded in established knowledge.

This consideration gave rise to the question of how alternative forms of interaction might be employed to effectively engage and raise awareness among visitors to natural areas, particularly where existing environmental issues are already known. The central concern was how direct communication could serve as a constructive educational tool, capable of transforming individuals who contribute to environmental degradation into active participants in its mitigation.

This work stems from the need for a participatory approach to fostering **awareness of the potential impacts of human behaviour on natural environments**, with the overarching aim of promoting mutual learning. The objective is to inform and educate.

The work within the HUMANITA project began with the study and monitoring of tangible and pressing tourism impacts on the environment, such as soil erosion, wildlife disturbance and pollution, most of which are predominantly anthropogenic in origin. This led to inquiries regarding the extent of visitors' awareness of the possible consequences of their presence within the affected areas. Finally, focus was placed on how communication and information-sharing practices within these contexts might be improved, with the dual aim of raising visitors' awareness and making them active participants in the conservation of natural environments.

This manual of **Guidelines for New Communication Narratives** draws upon the extensive field of **heritage interpretation**. From its empirical beginnings under the auspices of the US National Park Service, this field has developed into a distinctive discipline marked by numerous professional associations, university studies and dedicated research journals. It is anchored in informal education theories, specifically focusing on experiential learning during free time activities like visits to national parks or hiking.

The methodological bedrock for creating heritage narratives lies in **informal learning theories**. The goal is to transform natural and cultural phenomena into personal experiences by working with the emotional aspects of **interpretive programmes**, thereby making them relevant to all people and not just experts. This development of programmes is called interpretive planning, which ideally adheres to established planning methodologies.

The subsequent sections are dedicated to '**Compelling Narrative Development**', providing a detailed, step-by-step framework to translate theoretical understanding into effective visitor communication. These narrative development guidelines revolve around four key, interlinked phases, each designed with a people-centred approach at its core.

The manual includes extensive appendices designed to support practitioners who wish to delve deeper into the field and/or apply these guidelines in their own projects. The six appendices provide tools and frameworks with practical templates and examples to assist in the development of compelling narratives.

By systematically following these guidelines, interpreters can harness the rich theoretical background and practical experience of heritage interpretation to craft compelling communication narratives. This approach ensures that heritage sites move beyond mere information delivery to foster personal connections and inspire stewardship for our shared heritage.

2. Beyond Words. Narrative as a Bridge to Visitor Engagement

While a guide on Long's Peak, I developed what may be called the poetic interpretation of the facts of nature. Scientific names in a dead language, together with classifications that dulled interest, were ever received, as they should have been, with indifference and lack of enthusiasm by those who did not know. Hence, I began to state information about most things in the form of its manners and customs, its neighbours and its biography.

Enos Mills

Enos Mills wrote these words (1920) while describing his work with visitors to what is now the Rocky Mountain National Park. At the turn of the nineteenth and twentieth centuries, he was not alone in feeling that connecting visitors with the beauties of nature to spark interest and shape their respect requires a special method.

Marta Brunelli (2013:402) pointed out the context of the 'cult of naturalism' of the nineteenth century that created the demand for education as a part of environmental tourism.

At the same time, the new educational movements emerging in the last quarter of the nineteenth century emphasised a hands-on approach and engagement in outdoor activities; pragmatic pedagogy, scouting, and woodcraft movements, followed in the footsteps of the Romantics and contributed to establishing today's concept of outdoor recreation.

In searching for educational narrative methods, we should not forget the **Nature Study movement**. The Nature Study abandoned classifications and understanding through theoretical constructs, instead placing the learner's direct experience first, as explained by its keen proponent, Liberty H. Bailey:

> *"The first essential in nature study is actually to see the thing or the phenomenon. It is a positive, direct, discriminating, and accurate observation. The second essential is to understand why the thing is so, or what it means. The third essential is the desire to know more, and this comes of itself and thereby is unlike much other effort of the schoolroom. The final result should be the development of a keen personal interest in every natural object and phenomenon." (Brunelli, 2013:413).*

In the 1920s and 1930s, educational efforts within the US National Park Service (NPS) show the pursuit to find distinctive educational methods and forms for national park visitors. However, these efforts often used the concepts from the field of formal education, e.g., national parks were often referred to as 'field laboratories' or 'outdoor classrooms'.

This illustrates that the primary scope of the programmes was field science delivered to both schools and 'lay visitors'. Although the NPS's chief educational officers understood that the educational principles of Nature Study should be applied in the programmes, they searched for a more robust methodological foundation:

> *"There is hope that new methods in adult education will be discovered, and that the national parks will become the great universities of the out-of-doors for which their superlative scientific exhibits so finely equip them." (Bryant and Atwood, 1932:8)*

The word 'interpretation' began to be widely used for educational activities by the National Park Service in the late 1930s (Beck and Cable, 2002:5). Freeman Tilden is credited with laying the long-sought methodological foundations for interpretation (Ludwig, 2003:8). Before examining Tilden's contribution more closely, it should be noted that guided tours of nature were the major educational method practiced both Tilden's and Mills's times.

2.1. Coining Heritage Interpretation

In 1955, journalist Freeman Tilden was commissioned by the US National Park Service to:

> *"Get beneath the surface of method and procedure to the underlying principles —to the art and philosophy that should guide efforts to interpret the great scenic and historical heritage of America to her citizens." (Craig in Tilden, 2007:9)*

After extensive travel and educational experiments, in 1957 Tilden published six principles as (in his own words) a philosophy on which interpretation as an educational activity can be based. The principles are as follows:

1. Any interpretation that does not somehow **relate what is being displayed or described** to something **within the personality or experience** of the visitor will be sterile.

2. Information, as such, is not interpretation. Interpretation is **revelation based upon information**. But they are entirely different things. However, all interpretation includes information.

3. Interpretation is an art that **combines many arts**, whether the materials presented are scientific, historical, or architectural. Any art is, to some degree, teachable.

4. **The chief aim of Interpretation is not instruction, but provocation**.[1]

5. **Interpretation should aim to present a whole rather than a part** and must address itself to the whole man rather than any phase.[2]

6. **Interpretation addressed to children** (say up to the age of twelve) **should not be a dilution of the presentation to adults** but should follow a fundamentally different approach. To be at its best, it will require a separate program.

Unlike his predecessors, Tilden freed himself from the idea of studying natural assets in the unique outdoor environment of national parks. He saw interpretation as:

> *"An educational activity that aims to reveal **meanings and relationships** through the use of original objects, by first-hand experience, and by illustrative media". (Tilden, 2007:33).*

He based his method on a constructivist approach and clearly recognised that mental processes need to be initiated within participants. Thus, the aim of the educational encounter for Tilden is stimulation to widen horizons and interest, not the transfer of facts.

Though not a naturalist, historian, educator or psychologist, Tilden used observation and experimentation to distil key principles of learning in an informal setting (or communication in general). The programme must be perceived as relevant and should **support the personal meaning-making process** within each participant. Visitors should be engaged in active involvement, ideally both mental and physical.

Starting from the real phenomena a person can experience first-hand, the programme should point out to a larger picture or "deeper truths that lie behind any statements of fact", i.e., a generalised idea which a participant can not only take home but also internalise, keeping them connected with the phenomena long after the programme experience (Tilden, 2007:59).

By mentioning the age of twelve in the Principle no. 6, Tilden noted that this method was relevant for adults and children with fully developed abstract thinking, which his contemporary Jean Piaget (1972) termed the formal operational stage of cognitive development. Though this principle is widely accepted, modern educational psychology provides far more detailed frameworks for age-appropriate learning.

Similarly, Principle no. 3 may appear less relevant in today's context. While Tilden acknowledged the importance of teachability, he often portrayed the interpreter as a skilled performer – someone delivering a carefully crafted narrative. Although high-performance standards still matter, contemporary interpretation increasingly positions the audience as an active participant, even a co-creator of meaning. This shift calls for new competencies, including facilitation, community engagement and user-experience design. Moreover, 'the arts' themselves have evolved with the rise of new media and more interactive modes of audience involvement. Tilden's work, even seven decades on, continues to serve as a cornerstone of effective interpretation, rooted in the principles of connection, meaning-making and stimulation.

2.2. Focus on Conservation

Based on the principles formulated by Tilden, interpreters were trained not only within the National Park Service but also in zoos, memory institutions and other natural and cultural heritage sites. The field spread to other countries, particularly English-speaking ones (Merriman and Brochu, 2006).

In the 1960s, a strong emphasis was placed on environmental education and the conservation aspect of interpretive programmes. Freeman Tilden advocated for using the unique vehicle of the National Park Service programmes for educating the target group of adults about environmental issues (Craig in Tilden, 2007:11). At this time, Grant William Sharpe published Interpreting the Environment and Don Aldridge, a key

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[1] By 'provocation' Tilden means provoking mental processes and responses.

[2] Tilden plays here with the idea of going from tangible perception to context in an educational sense, while also engaging as many of the human senses as possible and conveying a deeper meaning (revelation) that transcends the here and now.

figure of heritage interpretation in the UK, defined interpretation as:

> *"The art of explaining **the significance of a place** to the public who visit it to point out a conservation Message". (Aldridge, 1975)*

2.3. Thematic Approach

In 1980, William Lewis expanded the **methodological toolbox of thematic interpretation** (Lewis, 2014), which was further elaborated by psychologist Sam Ham and remains the leading approach to creating heritage narratives to this day. A thematic approach is based on the communication theory which shows that if we clearly state a theme of an interpretive programme (i.e., a single whole idea we want to communicate) and build the programme around it, the audience will understand it much better (Ham, 1992). Although both Sam Ham and the approach's founder, William Lewis (2014), recommend the thematic approach for oral and written presentations, the concept has since then been applied in all forms of interpretive programmes. Today, it is even applied in the field of **interpretive planning** (Brochu 2014:106), a methodology for developing interpretive programmes and communication strategies at levels ranging from a single programme or exhibition to an entire national park.

Sam Ham (2013:14) outlines four qualities that an interpretive programme must have to be successful. For Ham, this success is defined by a programme's ability to both **maintain the audience's attention long enough for them to fully understand the message and to present that message in a convincing way**.

Ham calls this the **TORE model** and further elaborates on each of its components.

In order to engage participants, the theme should be strong. This means provoking people to think, attracting their attention, creating intrigue, and making participants curious (Ham, 2013:122). The process of theme development is fundamental for the construction of interpretive programmes (see Ludwig, 2015; Kohl, 2018).

*"Interpretation is **organized** when it's presented in a way that is easy to follow"* (Ham, 2013:26). The key to remembering new information is the individual's ability to create a meaningful unit from it that can relate to information stored in long-term memory (Revlin, 2012:123). This is applied to interpretive programs by structuring them hierarchically along themes and underpinning subthemes. The number of sub-themes is limited, and messaging is hierarchically structured so as not to overload the audience's receptive capacity. This allows participants to orient themselves within the program's structure, which leads to an improved learning process in the given informal environment.

Relevant interpretation is meaningful because it is both comprehensible to participants and resonates with their prior knowledge. It should also establish a personal connection, a key principle in Tilden's work. Because audiences have diverse backgrounds and different levels of knowledge, interpreters employ universal concepts, topics everyone can relate to, such as love, fear, death, courage or friendship (Brochu & Merriman, 2015). When such concepts are embedded within micro-narratives or framed as moral insights that people can carry with them, interpretation approaches what Tilden described as the pursuit of deeper meaning.

Interpret Europe[3] (2017:14) points out that universal concepts, which lead to individual meaning-making processes, are closely related to mental frames that trigger an individual system of values. Thus, the appropriate framing of messages (usually delivered through stories) of an interpretive programme not only makes the first-

T Interpretation has a Theme

R Interpretation is Relevant

O Interpretation is Organised

E Interpretation is Enjoyable

[3] **Interpret Europe** (European Association for Heritage Interpretation) is an international, membership-based, non-profit organisation based in Germany that focuses on the field of cultural and natural heritage interpretation.

hand experience relevant to a participant, but it can also promote values associated with environmentally friendly behaviour, universalism in particular.

> *"Universalism values derive from the survival needs of individuals and groups. But people do not recognize these needs until they encounter others beyond the extended primary group and until they become aware of the scarcity of natural resources. People may then realize that failure to accept others who are different and treat them justly will lead to life-threatening strife. They may also realize that failure to protect the natural environment will lead to the destruction of the resources on which life depends." (Schwartz, 2012:7).*

An **enjoyable** experience does not mean that the programme must be entertaining but that it provides an experience that is considered reasonable and/or in line with individual's expectations. This can also mean arousing emotions such as sadness or humility at sites of great tragedy. The fourth quality emphasises the fact that communication with the audience starts long before the visit and underpins the crucial importance of the first on-site moments in shaping visitors' expectations.

The mainstream thematic approach in interpretive programmes also has its critics. Steve Van Matre (2009) pointed the focal point of interpretive programmes should be that of **nurturing individual experience with a site or phenomenon**, and **not pursuing personal, deeper truths or an elaborated thematic structure**. He warns against letting the means become the aims and is critical of the jargon used in the field —e.g., referring to natural assets as 'resources' (Van Matre 2009:34). This linguistic concern is also shared by Interpret Europe (Stergioti et al., 2021) which emphasises individual meaning-making, participation and promoting the values leading to humanity and sustainability in the interpretation planning process. Heritage is perceived as a treasure shared with the local people who are largely its authentic stewards (Interpret Europe, 2017), as opposed to programme-development experts parachuted onto sites or conservation institutions managed from afar.

A sceptical view on the institution-driven planning process is also shared by Jon Kohl and Stephen McCool (2016), who argue for a more holistic approach in a world that is not predictable, linear, understandable or stable. In general, all the above-mentioned authors call for a less mechanical approach to programme development in heritage interpretation. They call for **putting the individual's experience with a site on a pedestal**, preventing the repetition of patterns across different locations, and moving beyond programmes that only present the viewpoint of a contract owner.

2.4. New Directions in Heritage Interpretation

Many are the topics resonating within the field of heritage interpretation. Here, we highlight those currently under discussion as they are particularly relevant to the practical application of this manual.

2.4.1. Participatory Approaches

As previously discussed, **participation is integral to both the development and implementation of interpretive programmes**. For example, one of the four core principles of interpretation in the Interpret Europe 'triangle model', which underpins Interpret Europe's training framework (see Appendix 1), is the imperative to "provoke resonance and participation" (Ludwig, 2015). In practice, this principle is reflected in an inclusive interpretive planning process that actively engages a wide range of stakeholders. These stakeholders include "all organisations or individuals, residents or visitors, that have an interest in the site, affect the site, or are affected by the site". This broad and participatory approach extends beyond the more narrowly defined concept of the '**heritage community**' set out in the Council of Europe's Framework Convention on the Value of Cultural Heritage for Society (2005), by not only granting locals a voice in shaping interpretive programmes but also enabling their direct involvement in their delivery (Interpret Europe, 2021).

In the implementation phase of interpretive programmes, participation means in particular allowing visitors to share their own knowledge, perspectives and ideas. Thus, the programme becomes a **collaborative experience that enhances the individual meaning-making process**, while **a well managed two-way dialogue also enriches the overall interpretive experience** for all participants.

2.4.2. The Essence of Authenticity

Long before authenticity became a merchandising tool (Gilmore and Pine, 2007), Freeman Tilden noted

that **the contact with the original** (be it wilderness or a pueblo of native Americans) **is the very essence of interpretive encounter**. He also emphasised the authenticity of interpreters as the priceless ingredients of each programme (Tilden, 2007:130).

Interpretive programmes typically take place during leisure time and within a tourism context and therefore are inevitably positioned within the broader discourse on authenticity, a debate initiated by MacCannell (1973) and further developed by Baudrillard (1981). If we accept that authenticity is not an objective quality inherent to heritage but rather a value judgement derived from the projection of ideas constructed at an individual or societal level (Belhassen, Yaniv et al., 2008), then it is true that authenticity must be continuously negotiated, which leads the debate into several distinct dimensions. Here are a few of them:

- Should participants learn that the primeval forest being protected today was, several centuries ago, a deforested area? To what extent should the programme meet participants' expectations of authenticity, expectations that are cultural constructs of the mind, often not based on the realities of the place?

- The impact of human actions on heritage includes phenomena such as the observer effect, where the very act of observing or engaging with a site alters the character of the observed site. This is particularly evident in interpretive programmes conducted in wilderness areas, where the presence of human participants can diminish the very qualities that define the wilderness experience.

- Intervening in natural or cultural heritage to conserve its state inevitably impacts the perception of authenticity. For example, slowing erosion forces that sculpted rock monuments but inevitably lead to their destruction (Latona Skot, 2010).

The concept of authenticity is core to the heritage interpretation method but is also being *"an elusive concept that lacks a set of central identifying criteria, lacks a standard definition, varies in meaning from place to place, and has varying levels of acceptance by groups within society"* (Prideaux and Timothy, 2013:6). Therefore, the debate is not only far from over, but it will also be addressed in the guidelines presented in this manual.

2.4.3. New Technologies

The **ambiguous contribution of new technologies** has been a prominent topic of debate. On the one side, technology opens up new possibilities for interpretation; on the other side, there is a risk that direct experiences may be replaced by interactions with a device (Beck and Cable, 2011:81).

Good practice insight

Tablets for Spotting Butterflies

Dealing with tablets in an interpretive programme at Pacific Grove Monarch Butterfly Sanctuary can be considered an example of good practice. To enhance the experience of observing the butterflies, the Pacific Grove Museum of Natural History connected tablets to spotting scopes, enabling more participants to view the butterflies on larger screens. However, it became evident that for 3–5th grade pupils, the screens detached them from the on-site experience, as they believed they were watching pre-recorded digital content. The older students could better understand the connection between the on-screen content and the site. For younger participants, the benefit of avoiding the difficulty of manipulating the spotting scopes did enhance their experience; nonetheless, they were less critical about that which they saw on screen. (Stong 2019) It seems that the lecturers, in this case, took to heart the advice on distinguishing meaningful employment of new technologies in interpretive programmes: "If one draws attention away from the resource (sic) to a screen, when visitors return their gaze to their immediate surroundings, they should be able to discern more, appreciate more, question more, enjoy more." (Hristov et al, 2019)

Činčera et al (2018) suggest that currently, the debate is actually of an ontological nature. Romanticists and transcendentalists tend to believe human experience in nature should follow the principles of (natural) simplicity. They point out that gadgets do not enhance experiences of contact with natural elements, an idea already coined by Aldo Leopold in the 1940s (1949:166). Relativists, by contrast, do not label technology as good or evil. They advocate studying the benefits and drawbacks of each individual use of technology. The key is not to forget the mission of an interpretive programme and avoid being carried away by the tide of inflated expectations that often accompany the adoption of new technologies (Gartner's Hype Cycle[4]).

2.5. Summing Up

Since its empirical beginning under the auspices of the US National Park Service, heritage interpretation has evolved into a distinctive field, supported by numerous professional training programmes, university studies and dedicated research journal. It is rooted in **informal education** and focuses on experiential learning during **leisure-time activities** such as visits to national parks, museums or on hiking trails. Interpretive programmes are delivered in various forms, ranging from guided tours to interpretive panels or exhibitions in visitor centres, aiming to reach the widest possible audience. This may explain why the largest professional organisation in the field refers to it as "purposeful approach to communication" (NAI, 2021), marking a shift from the traditional framework of educational activity" (Tilden, 2007).

A common feature of interpretive programmes is that they are **place- (heritage*) centred** and place emphasis on **experiential learning through first-hand, individual experience**. Thus, their aim is to trigger the **meaning-making process** in each visitor with the ultimate goal of **protection and fostering stewardship**.

The methodological approach used in heritage interpretation draws on learning and communication theories to reach the widest possible audience, mostly in informal educational settings. The method is based on engaging with **emotional dimensions** of programmes to transform natural (and cultural) phenomena into experiences and make them relevant to everyone. Programme development is based on an i**nterpretive planning process** that ideally follows one of the established **planning methods**. Most of these use a **thematic approach** to programme design, which, beyond technical aspects of interpretive programmes, supports the creation of **compelling narratives**.

[4] Gartner's Hype Cycle illustrates the typical progression of new technologies from initial innovation to mainstream adoption. It describes how expectations and public perception of emerging technologies change over time, triggering a peak of unrealistic excitement that is inevitably followed by disillusionment. Only after its benefits and practical applications become clearer, technology can reach widespread adoption.

3. Interpretive Planning

Learning is not a process of information absorption, but of meaning construction.

Jerome Bruner

Since narratives for visitors are often developed as part of interpretive planning, we briefly outline the principles and methods of interpretive planning. Three common methods are described in more detail in Appendix 1. to have a closer look at the process of narrative development and further develop comprehensive interpretive plans or strategies.

> *"When you work backwards, deciding on your media first and then checking to see whether it can be shoehorned into the mission of the site or the budget or visitor interest... chances are good you will end up spending a lot of money for something that does not work very well. Better back up and think through the other 4 M-s before getting your heart set on the latest technological gadget that every other visitor center is installing" (Brochu, L., 2014).*

Interpretive planning is **the process of developing an interpretive programme**. Since interpretive planning often involves multiple programmes and communication strategies (e.g., at the national park level), it may follow different planning models. Some are simple, some robust and comprehensive. The scope of planning and the methodology used should correspond to the scope of the work: we would plan differently for a single interpretive panel at a nature reserve, take another approach for an educational trail consisting of a dozen panels, and apply yet other methods for interpreting an entire national park. Despite their differences, the models (Carter et al., 2001; Van Matre, 2007; Brochu, 2014; Interpret Europe, 2021) share many similarities that can be generalized as follows.

The specific feature of programme development in the field of heritage interpretation is that the **form of the programme should be decided at later stages** of the process, only after understanding the target groups, having a clear idea of the programme's content and aims (Brochu, 2014:69). Unlike other educational methods, heritage interpretation:

- intends to **connect** a person with the very place **through first-hand experience**,
- may aspire to **reach lots of people simultaneously**, often across a large space, and
- interpretive projects may be **endowed** with **generous funding**.

Thus, choosing an interpretive medium, such as a leaflet or audio-walk, is a late-stage decision that should be based on what best serves the program's purpose to rationalize the investment and ensure effectiveness.

The Review Phase

This initial phase involves a comprehensive assessment of three key areas:

- **The Heritage:** Examining the specific characteristics, processes that shaped it, the phenomena people can experience on site, as well as any factors endangering it and the conservation measures in place.
- **The Audience:** Analysing who the potential participants are, what their interests are, and how they perceive the heritage.
- **Existing Programmes:** Reviewing the content and quality of current interpretive programmes, including the infrastructure that influences the visitor experience.

The Development Phase

This phase focuses on creating the interpretive program and its core elements:

- **Program Aims:** Defining the specific changes the programme should deliver within its target audience.
- **Program Content:** Developing the core themes and narratives, facilitating first-hand experiences and encouraging meaning-making and participation.
- **Programme Form:** Deciding which media and tools are best suited to deliver the content and achieve the programme's aims.
- **Implementation and Sustainability:** Planning the operational aspects of the programme and establishing a system to evaluate whether its aims have been achieved through evaluation.

4. Guidelines for the Development of Heritage Narration

Narrative is not just a way of telling, it is a way of knowing

Jerome Bruner

Understanding learning in informal educational settings, we know that a strong narrative is essential for transforming a collection of facts into a memorable and meaningful experience. While interpretive planning models often deal with broad aspects such as infrastructure and institutional objectives, the guidelines presented in this chapter focus specifically on developing compelling narratives for the audience.

This framework outlines a **four-step process** for crafting these stories, with each step building on the one before it. The first step involves seeing through the eyes of the audience to understand their expectations and connect with their personal experiences. The next step provides guidance on how to distil complex information into a clear, focused, themed narrative outline with a logical structure. Following this, it explains how to create engaging narratives with compelling storylines. The final step focuses on selecting appropriate media, creating opportunities for visitor participation, and ensuring the continuous refinement of the programmes.

4.1. Seeing Through the Eyes of Your Audience

4.1.1. Expectations and Misconceptions

Identify the expectations and misconceptions your audience brings with them.

Before creating a narrative, it is crucial to view a site through the eyes of the audience. We consider two aspects of particular importance: **expectations** and **preconceptions**, including **potential misconceptions**.

The very core of **constructivist learning** theory is that learners construct their own knowledge rather than merely receive it. This not only means that new information is interpreted and integrated into a person's pre-existing knowledge (Brod et al., 2013:2), but it also means that the site and the whole interpretation of it are viewed based on those preconceptions. On-site, we have a very narrow window to effectively tackle those preconceptions and refine expectations. This window

1. See through the eyes of your audience

1.1 Identify the expectations and misconceptions your audience brings with them.
1.2 Look for a tangible feature that the audience can perceive at the site.
1.3 List the behaviours that negatively influence the heritage.

2. Simplify to amplify

2.1 Summarise what you expect from your audience.
2.2 Sort the information into a main theme supported by sub-themes.
2.3 Shape the information into a logical structure with no more than 2–4 components at each level.

3. Develop the narratives

3.1 Document authentic stories and different viewpoints.
3.2 Establish connections with the everyday lives of your audience through universal emotions and deeper meanings.
3.3 Determine your storyline(s).

4. Get into the practic

4.1 Generate the media options and assess their potential.
4.2 Create opportunities for participation.
4.3 Good narratives require continuous refinement.

Good practice insight

Quest for Mis-concepts

In 2023, during visitor research at Vyšehrad monument in Prague, the Czech Institute for Heritage Interpretation learned that foreign visitors come to the site with high expectations supported by guidebooks translating the site name as 'High Castle' and referring to its significance in Czech history, notably in the 11th century. Once on the site, they often misinterpret the neo-Gothic church as a castle; some even consider its 17th & 18th century fortificationsas medieval. Very common were comparisons to the Prague Castle on the other bank of the Vltava River. Understanding those misconceptions gave the interpreters clear guidelines on the focus to be given to the new on-site exhibition and the interpretive panels.

opens upon arrival at the site, when visitors compare reality with their preconceptions and plan their visit in detail. Once this opportunity is lost, the shift is, of course, still possible, but it requires more effort.

Visitor research

Though visitor research is considered an important part of interpretive planning (Brochu, 2014), it often focuses more on characteristics important for tourism destination management than the creation of narratives. Thus, researchers collect data on demographics (age, education, occupation), geography (where visitors live or stay, which languages they speak), psychographics (hobbies, social status and wealth, lifestyle) and behaviour (length of visit, places visited, means of transport), but fail to ask **what people expect from their visit**, what they would like to enjoy and learn. In the worst-case scenario, the visitors are segmented into groups and their potential opinions are hypothesised based on preconceived notions of the interpreters. The typical example of this approach is the myth saying young people need interpretation to be delivered through their smartphones.

Appendix 2 gives an overview of different visitor research methods. To effectively approach visitor research, consider the following best practices:

1. **Start each research from scratch**, formulate what you want to know, and then create the research design; do not copy from others or previous research.
2. **Learn about different research methods** and do not hesitate to discuss your design with an experienced researcher.
3. **Triangulate** (combine different methods) **and be critical of your assumption**. Keep in mind that the answers you receive reflect the questions you ask.
4. **Understanding the visitors** at your site does **not necessarily require formal segmentation**. However, if segmentation is employed, the criteria chosen should be those that meaningfully influence on-site behaviour or perception, which can vary significantly depending on the context of the site. For instance, at a location featuring show caves, the length of stay may be the primary factor affecting visitor experience, whereas in a spa town, social status might play a more decisive role.

In contexts where resources for formal audience research are limited, valuable insights can still be gained through low-cost methods such as unobtrusive observation or analysis of user-generated content on platforms such as TripAdvisor or Google Reviews. These approaches, while relatively simple, provide meaningful opportunities to understand visitors' perceptions, expectations and levels of prior knowledge. By engaging with this feedback, interpreters can better align their narratives with the audience's existing cognitive frameworks and interests. Conversely, failing to consider what visitors already know or are curious about, may result in an interpretation that is too rudimentary, overly complex, or irrelevant to their curiosity.

4.1.2. On-site Perceptions

Look for a tangible feature that the audience can perceive at the site.

While being experts and knowing all the hidden sites in our national parks, we tend to forget what visitors really see. However, this is exactly where our narratives should begin.

> *"Remember, the language of place is sensory, perceptual, and visceral (what we sense, what we perceive, and how we feel about it)." (Van Matre, 2009: 86)*

Though most of our schooling focuses on learning general principles of nature, when interpreting natural heritage in a national park, we need to **focus on the specific and tangible aspects**:

- What specific phenomena are present at our site?
- What (special) features do they have, and what similarities do they share with phenomena our audience is likely familiar with?
- What natural processes have created or influenced the phenomena at our site?
- What, from all the above, can visitors directly experience and where?

Good practice insight

No First-hand Experience

Recently, Michal Medek was invited to help with developing new content of a visitor centre in a national park. While the NP staff arrived with a list of species they wanted to show in the planned exhibition and a general idea of presenting the journey of water from springs to rivers, the interpreters asked the staff to point on a map what features visitors can see in the natural surroundings near the visitor centre. The NP staff were frustrated, considering this a waste of time because they could not see the connection between the visitors' first-hand experiences and their idea of presenting life in rivers, streams and wetlands.This fundamental disconnection shows the NP staff failed to grasp the critical link between the visitors' potential first-hand experiences and the planned exhibition's narrative about wetlands. It also illustrates the need to grasp theoretical principles of interpretation before engaging into developing a programme.

Figure 1. Despite their modest design, the interpretive panels at Velebit National Park effectively use photos taken in the immediate vicinity. This approach reinforces the message and encourages visitors to actively explore their surroundings.

Living in a world where digital algorithms can create persuasive impressions, the tangible matters even more and is the strongest evidence supporting our narratives. This means both referring to features that visitors have already noticed, as well as uncovering details they should now begin to notice.

4.1.3. Conservation Challenges

List the behaviours that negatively influence the heritage

The purpose of creating interpretive narratives is to **reveal meanings** and **foster appreciation**. However, this mandate is futile if the very act of interpretation leads to the degradation of the heritage it seeks to celebrate. Therefore, we must consider which activities our narratives encourage and how they might influence visitor behaviour. There is no single correct answer to the question of whether revealing a vulnerable site through our narratives will lead to its destruction or further protection through education. Nevertheless, before beginning to develop an interpretation of a natural heritage site, interpreters should always start by **setting clear boundaries**, i.e., defining the threats, unwanted behaviours and off-limit areas for visitors. In the summative evaluation stage, we can assess what actions our narratives encourage both by getting evidence of actual behaviour and/or by conducting an exercise in which each appeal we make to visitors is placed into the following matrix and re-check it based on its position:

Common Misconceptions

Several studies showed two widespread misconceptions shared by visitors:

1. That conservation limits are set for those who disturb nature by littering, being noisy, or destroying the habitat. Thus, they do not apply to those who are nature-loving, quiet, and leave no visible impact.
2. That conservation rules are set for "average tourists" who come by car, eat and sleep in hotels. Those who consider themselves special (long-distance hikers, climbers, trail runners, extreme bikers) do not feel obliged to follow them as they think their (individual) impact is minimal in comparison with the (cumulative and broader environmental) impact of 'other tourists'.

Both misconceptions can be disproved by stressing that sheer human presence makes an impact and showing the discipline of an NP's staff in accessing the off-limits areas for this very reason.

		Expected impact on vulnerable sites		
		High	Medium	Low
Appeal to visitor behaviour	High	Change	Watch impact on site(s)	Support
	Medium	Change	Watch impact on site(s)	Support
	Low	Watch impact on behaviour	Watch impact on behaviour	Strengthen the appeal

Table 1. Impact on vulnerable sites matrix

		Expected impact on vulnerable sites		
		High	Medium	Low
Appeal to visitor behaviour	High	Promoting attractive off-limit sites in tourist materials => leads to regular illegal visits disturbing fauna	Restricted access sites are presented in a visitor centre with careful framing (even the NP staff respect non-intervention status, positive outcomes for fauna are promoted, ...)	Leaflet with designated picnic sites and parking places
	Medium	Promoting the most popular sites, where the tourism already destroys the heritage => leads to increased visitation and erosion	Nesting places of rare birds of prey are shown in a visitor centre while promoting reintroduction effort of the national park	Promoting tours that also include attractive heritage sites out of a national park
	Low	Night hiking adventures introduced by a local guide	Pictures of rare species of grasses or plants from the off-limits parts of a NP are shared	Proposing ranger talks in camps and hotels used by the NP visitors

Table 2. Interpretation examples positioned within the behaviour appeal / site impact matrix

4.2. Simplify to Amplify

4.2.1. Making the Difference

Summarise what you expect from your audience.

> *"...an education programme is defined as a coherent set or sequence of educational activities or communication designed and organized to achieve pre-determined learning objectives or accomplish a specific set of educational tasks..." (UNESCO, 2011)*

The above-mentioned definition of a programme is crucial in the process of creating interpretive narratives. There are considerable pros for adopting programme theory and starting the process with a definition of what our programme should achieve:

- Once identified, goals provide a clear direction for our programme. Without goals, the programme risks becoming merely a scattered collection of activities rather than a cohesive interpretive experience.
- Goals help us prioritize content and formats in the process of development. Interpreters are pushed to focus on all aspects of the experience (cognitive, emotional and behavioural, see below).
- Well-defined goals make measuring the programme's effectiveness possible and provide a basis for evaluation.

Everyone has heard about the importance of aims, goals and objectives, yet in interpretive practice, we repeatedly encounter projects where authors find it difficult to articulate their expected impact.

Defining the Purpose

Aims describe the intention, purpose, or ultimate, long-term aspirations of a programme. They answer the question, "Why are we doing this?"

Goals define the desired outcomes of a programme. They answer, the question "What do we want to achieve?"

Objectives are specific, measurable targets that demontrate the achievement of our goals. They answer, the question "What results shall we see?"

While in education we often define aims/goals within the domains of knowledge, skills, attitudes and/or values, interpreters usually look at the following domains (Veverka, 2011):

- **Cognitive** – what we want our audience to learn.
- **Emotional** – what we want our audience to feel.
- **Behavioural** – what we want our audience to do.

Example: Interpretive projects developed by the Czech Institute for Heritage Interpretation (UIMID) typically begin by identifying a national park's aims. The goals of an interpretive plan are defined within the cognitive, emotional and behavioural domains.

The definition of specific objectives for a concrete interpretive programme is left to the discretion of the national park staff; however, it is strongly recommended that these objectives be formulated after the creative

	Cognitive	Emotional	Behavioural
Aims	Enhance visitor understanding that the National Park primarily exists to enable and protect natural processes.	Support for pro-active preventive measures based on understanding that NP should minimise human-caused events.	Influence visitor behaviour towards responsible and fire-safe practices within the NP and beyond.
Goals	Understanding the basic mechanisms of adaptation of nature to fires.	Conviction that while the fire accelerated natural processes, the National Park does not wish for its repetition.	Visitors behave in a way that prevents fire and knows how to act according to the declared risk level.
Objectives	At least half of visitors understand why the 2022 forest fire speeded up natural processes compared to non-affected areas.	Following their visit, 65% of surveyed visitors will agree that, while the 2022 fire demonstrated nature's resilience, they support the NP's efforts to mitigate future human-induced fire events.	Post-visit surveys will show that 75% of visitors can read the fire- risk indicators in the NP and understand the appropriate behaviour.

Table 3. Example of aims, goals and objectives for a visitor centre on forest fires (real-life project)

process, during the programme evaluation planning. If defined too early, they could hamper the creative process, especially during narrative development, by putting technical indicators of success on a pedestal instead of drawing inspiration from much broader and often immeasurable outcomes.

The example below shows the definition of targets in a real project of an exhibition in a visitor centre focused on forest fires. The list is not complete; its purpose is to demonstrate the differences among domains and levels of target setting.

On the other hand, the definition of aims, goals and objectives of interpretive programmes also poses risks. That is why, for example, Interpret Europe planning scheme (see Appendix 1) does not incorporate this step into the planning process. Among the reasons for this are the risks of:

- Imposing expert opinion over the views of the audience and the heritage community (Council of Europe, 2005), usually excluding diverse (and competing) perspectives.
- Imposing a single, predetermined interpretation of heritage on visitors, rather than allowing them to discover their own connections and interpretations.
- Creating a 'tick-box mentality' which limits the creativity of the development process and places emphasis on demonstrating achievement by meeting predefined criteria rather than genuinely engaging visitors with the heritage.

As we indicated above, it is up to each interpreter to weigh the pros and cons of defining aims, goals and objectives of an interpretive programme. The UIMID example shows that the definition of goals can help both in streamlining the creation process and defining the evaluation methods (based on objectives) in the later stages of the interpretive planning process.

4.2.2. Telling Less, Understanding More

Sort the information into a main theme supported by sub-themes.

Like it or not, our audiences have **limited receptive capacity**. Ham (2013) argues that the interpretive content must be presented in an organised and easy-to-follow manner. If it is confusing, jumbled, or requires too much mental effort to process, the visitor's receptive capacity will quickly be overwhelmed. A well-organised communication respects the visitors' cognitive load and helps them absorb the message. We can identify two aspects in the effort to overcome this significant limitation:

1. An understandable and logical theme line gives the audience a framework or an orientation to navigate through the sea of information and perceptions. The theme line organises the whole interpretive experience and structures the information.
2. A clear hierarchy (see the next chapter) helps the audience increase receptive capacity by attaching the content to the theme line through a concrete underpinning argument.

Theme-line

By theme-line development, we mean the creation of connected statements of the **main theme**[5] and **sub-themes**. A single topic can be approached by different sets of main themes and sub-themes, though some of them may be more easily to understand than others[6].

Both the main theme and the sub-themes should be formulated as complete sentences. This empirically proven approach helps to clearly state the interpretive message. In practice, however, NP staff often mistake a theme for a topic or a slogan. The following table lists these differences, to prevent confusion.

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[5] While North American authors use the terms 'theme' and 'sub-theme', Interpret Europe's materials refer to a 'main theme' and a theme hierarchy. To prevent potential misunderstandings, this text adopts the 'main theme' and 'sub-theme' terminology.

[6] More guidelines on development of "stronger themes" are provided by Ham (2013) and Kohl (2018).

	Topic	Slogan	Theme
What is it	Subject matter	Catchy phrase	The main idea we want to convey in a logical and appealing way
What is it good for	Defining the subject of interpretation	Attracting attention	Organising the communication content so that our audience can clearly navigate through it
Examples	Carpathian bears	The Kings of the Carpathian Covert	Carpathian brown bear story illustrates, how have humans been changing their attitudes towards nature.
	Wetlands in the Šumava NP	In the Realm of Water	Due to Šumava's unique morphology, high precipitation and human activity, different types of wetlands have developed that accumulate water and even affect places located hundreds of kilometres away.
	Moravian karst landscape	The Landscape Connecting Two Worlds	Water's ability to dissolve limestone has sculpted a diverse landscape of the caves, deep valleys and karst plateaus in a small area that is rich of biodiversity and historical evidence of our cave-living ancestors.

Table 4. Example of aims, goals and objectives for a visitor centre on forest fires (real-life project)

Use of theme lines changed according to the different media used (see Appendix 3) and the levels at which interpreters develop the narratives:

- For a ranger leading a **guided tour**, the main theme and sub-themes serve as the orientation framework of the programme. Though the ranger might focus attention on the details the participants encounter along the way and respond to their interests, when talking, he/she should always interpret these in light of the theme line. It is similar to navigating with a compass, it is maintaining the direction despite not walking in a straight line. Unlike guiding with scripts, a ranger does not need to memorise detailed content (all the incremental directions) and can maintain both flexibility and openness to the situation. By keeping to the theme (orientation), he/she avoids aimless improvisation that lacks structure or coherence.

- While developing an **exhibition** in a visitor centre, the theme line helps to structure the content. It clarifies the main messages that should be featured in headlines and lead paragraphs, while indicating which information to place at lower hierarchical levels.

- While developing an **interpretive plan** or strategy for a national park, the main theme and the sub-themes serve as overarching messages that are further developed through concrete interpretive projects, educational trails, visitor centres, etc. Each project then develops its main theme and sub-themes based on its purpose within the interpretive plan. This approach ensures that all communication and informal education across the national park remains consistent and concise and that their synergy amplifies the learning experience.

These examples illustrate that theme lines function as an **underlying framework** for the interpreter and do not need to be spoken verbatim to the audience. Developing narratives along theme lines inevitably involves a **reduction of information**, which corresponds with the

limited receptive capacity of audiences. The statements sometimes heard from national park staff, that it is better to show more information so that each visitor can select according to their interests, go against what is known about learning in informal environments.

The diagram below shows the development of different theme lines based on various main themes. While their respective sub-themes and the information provided may overlap, each line keeps a consistent developmental logic, albeit in different directions.

Theme-line 1

While the Carpathian brown bear population has recovered, the changing environment leads to slow rise of encounters with humans.

While in the last 50 years brown bear population in Slovakia and Romania recovered, it has declined in Ukraine.

Data on population development in different Carpathian countries; 1979 Bern Convention; national legal arrangements and hunting practice.

Brown bears have 'superpowers' that facilitate fast population recovery.

Brown bears are not territorial animals, brown bears can adjust to different diet, brown bears can walk up to 50 km a day.

Changes in the natural environment led to more human-bear encounters.

Climate change impact on crops (maizefields), shorter winters impact on bears, more tourists including fast-moving mountain bikers.

Theme-line 2

Carpathian brown bear story illustrates, how humans have been changing their attitudes towards nature.

Despite many toponyms show the reverence of our ancestors for those animals, in the mid-20th century, bear populations were hunted to extinction.

Toponyms across Carpathians, 'medved' etymology, population decline

Changes in the perception of wildlife have led not only to the 1979 Bern Convention but also to national protection of bears.

Wildlife protection in general (examples of other species), data on population development in different Carpathian countries, 1979 Bern Convention, national legal arrangements and hunting practice.

Changes in the natural environment have led to more human- bear encounters, which in some Carpathian countries has transformed brown bears into a political issue.

List of changes affecting bear behaviour, comparison of bear encounters and media coverage of them, examples of real expert-led and political decisions in brown bear management.

4.2.3. How Much We Can Comprehend

Shape the information into a logical structure with no more than 2–4 components at each level.

For many years, interpreters have claimed that people can comprehend 7 ± 2 separate ideas or items at one time. This view was based on the work of George Miller (Miller, 1956) and introduced into heritage interpretation by Ham (1992). However, Nelson Cowan's research on human cognitive capacity re-examined the issue of our limited ability to process information simultaneously. Cowan (2001) found that Miller's research had overestimated the actual capacity of human working memory, concluding that in most cases, the limit is closer to three or four ideas or items. For interpretation, this means that information should be structured with **no more than four items** at a single hierarchical level; otherwise, we risk that our audience having difficulty understanding them both individually and as a whole.

With some interpretive media, the hierarchy is particularly important (see Appendix 3), e.g., in the case of exhibitions, interpretive panels, brochures, foldouts and digital media with layered information. For guided tours, this means that although we might have more stops along the way, we should not develop the main theme into more than 4 sub-themes.

A Well-organised Exhibition Narrative

Four scientists from different areas of natural history guide visitors through the Darwin Centre at the Natural History Museum in London. Visitors listen to their stories, from their childhood interests in nature to their work at a world-class scientific institution. The four scientists provide a variety of insights into their respective areas and scientific research processes; all this while keeping the amount of stimuli at a proper level and providing a personal touch.

Too Many Topics

A notable example of poor exhibition design is found in a Polish technical museum that re-opened in 2023. The entire history of technology is organised into 12 thematic strands, each marked by a pictogram intended to guide visitors through the history of civilisation. However, the system was so unclear that even the museum's custodians could not understand the meaning of the pictograms. The only way for visitors to understand this sophisticated but utterly incomprehensible information hierarchy was to use a special foldout guide.

An Example of Information Overload

In 2013, the SIMID conducted a small-scale study at a NP visitor centre decorated with beautiful panels. Investigators asked visitors what content they could remember approximately 15 minutes after their visit. The visitors found it very difficult to recall concrete information, though they all knew the exhibition was about a specific national park. Even though the panels were true works of art, having 11 of them at a single hierarchical level caused an information overload and blocked visitors from making sense of their specific content.

4.3. Develop the Narratives

4.3.1. Authenticity Attracts

Document authentic stories and different viewpoints.

To some extent, this step is based on the same principles as the 'On-site perceptions' step. Since the use of original objects is a defining principle of heritage interpretation (Tilden, 2007), the same applies also to original oral, video and text materials. Here are some of the reasons for this approach:

- Authentic materials convey both historical and evidential value, reflecting truth, accuracy, and authority. (Hill and Cable, 2006)
- Apart from bridging time gaps in history, they provide a tangible connection triggering our imagination which starts generating micro-stories with the original objects on stage (DeLyser, 1999).

The "Dead Only" Zone

A common challenge in many interpretive projects is the client's resistance to mentioning living individuals. The usual arguments include concerns like, "How can a contemporary person be in the same exhibition as great historical figures?" or "Don't even think about mentioning my research; my colleagues will think I'm trying to make myself visible". This resistance leads to exhibitions focused solely on people from different historical contexts, whose actions may struggle to inspire contemporary visitors. Audiences walk through visitor centers and displays, learning about the "world out there" but missing the opportunity to see the contributing institution's relevance and impact on the world of science today.

Good practice insight

The Authentic Story of Authenticity

Michal Medek – Once upon a time, I found an ancient flint scraper in the mud of the Pekárna cave in the Moravian Karst. After consultation with an archaeologist, a second life began for this scraper: I used it while guiding excursions to this very cave. At that place, it was not just a tool for scraping fat from leather; it hummed with the echoes of the hands of Magdalenian women. On tours, I witnessed the magic it made to those who were holding it in their hands: 15,000 years of accumulated aura were transferred into a palpable shiver connecting participants to a distant past. Then, it vanished. I asked an experimental archaeologist to make a replica of it and only add a small engraving to distinguish the replica. But with the replica, the magic was gone. No collective thrill, no hushed awe, people merely tested its mechanical qualities. The replica lacked the invisible weight of history, the untold stories of long-gone hands. The tours continue with the replica, but that true connection was lost together with the original flint scraper.

- Authentic materials support 'referential authenticity', tapping into shared memories and longings, thereby creating a sense of continuity with the past (Andriotis, 2011).

- Presenting real people creates a personal and existential experience (Gnoth and Wang, 2015).

To summarise, using **authentic texts** and **real people** in heritage interpretation narratives enables the creation of a **deeper experience**, encompassing objective historical truth, constructed (though still 'real') narratives and deeply personal, existential connections for visitors with the past, nature and culture.

This helps to move beyond the simple dualism between the 'authentic' and the 'non-authentic' and makes the journey of understanding more meaningful and personal (Cohen, 1988); (Hill and Cable, 2006).

4.3.2. Relate to Your Audience

Establish connections with the everyday life of your audience through universal emotions and deeper meanings.

The paradigm shift Freeman Tilden made in 1957 in the field of informal education consisted in shifting the focus from explaining the heritage to an audience to connecting people with the heritage. Four of his six principles (for heritage interpretation are just about that, i.e., fostering a relationship between visitors and heritage by:

- **Relating** the heritage with "something within the personality or experience of the visitor".

- **Revealing** the deeper meanings or 'truths' based upon information about the heritage.

- **Triggering** the thinking process within each visitor to facilitate internalisation of his/her individual connection with the heritage.

- **Presenting** the whole rather than the part and addressing as many senses and aspects of visitor's personality as possible (Tilden, 2007).

Ham (2013) summarised all these points in the principle of **relevance**: information is relevant when it is both **meaningful** (i.e., connecting to something the audience

Deeper meanings

The concept of deeper meaning(s) is one of the most difficult in heritage interpretation. Let us beging with explaining the difference between fact and meaning. While a fact is a piece of information we consider objective, meaning is our interpretation of the personal relevance of a fact to ourselves. Meaning-making is a synthetic mental process consisting in interpreting facts (situations, etc.) and assigning personal significance to the world around us. Thus, the same fact can evoke different meanings in different people.

Universal concepts (or universals) are experiences shared by all humans. These include extreme emotions (love, betrayal, longing), basic biological imperatives (birth, death, hunger) and (re-)shaping experiences (curiosity, hard work, war). Some universals are shared within significantly large groups of people and are used in interpretation, such as motherhood, allegiance to a country and religious beliefs.

Deeper meanings (Tilden, 2007) are universal concepts shaped in a form that resonates with an individual. Deeper meanings can be compared to frameworks that lead us watch films about event that have never happened and read fictional novels. We watch and read them because we project our own world and our personality onto them. Therefore, using deeper meanings in interpretive narratives, means connecting with the lived experiences of the audience. In practice, we often use **principles —moral principles or principles of processes** that describe the functioning of things and the social sphere (e.g., 'kindness kills') and **characters that are real people with whom** individuals in the audience may identify themselves (see the chapter on authenticity).

already knows) and **personal** (i.e., connecting to something the audience cares about). Universal concepts, such as love, fear, survival, betrayal, family or mystery, resonate with human experience across all times and cultures. By developing a narrative revolving around these universal concepts, an interpreter makes the message instantly interesting and can touch the 'soul' of the audience, eliciting a visceral response that captivates attention. This ensures the **narrative resonates at an emotional level**, which is the first step towards effective (i.e., touching) interpretation.

Furthermore, linking interpretation to the personal lives of people in the audience enables individual **meaning-making processes** and profoundly shapes the whole interpretive experience. There are different techniques for having the audience entering directly the story, making the information 'about them' and what they care about, self-referencing, using personal language, using me-messages, comparisons, metaphors, etc. (Ham, 2013); (Ludwig, 2015). This process of active, emotionally charged thinking, or 'mental provocation, is the linchpin for enhancing experiences, promoting appreciative attitudes and influencing behaviour, as people are more likely to care for and protect what they personally understand and feel connected to.

4.3.3. Turning Narratives into Stories

Determine your storyline(s).

We all came across good and bad storytellers. The key essence of good storytellers is their **narrative craftsmanship**. A good storyteller builds a **coherent plot**, develops **characters** and crafts a **clear narrative arc** leading to a **meaningful resolution**. Conversely, a bad storyteller presents disjointed events, lacks character description or fails to establish a clear purpose, the narrative's trajectory. Effective story development transforms even simple events into a memorable narrative, whereas poor development results in a fragmented and easily forgotten account. There are several schemes for story development:

- **ABT:** (...) And (...) => But (...) => Therefore (...) => Resolution
- **SCQA:** Situation: (...) => Complication: (...) => Question (...) => Answer
- **TSM**[7]: Scene setting: (...) => Complication => Climax (problem needs action) => Steps to resolution (...) => Resolution (...) => Moral principle / Lesson

All the storytelling schemes have similar dynamics. They begin with an **introduction** of the situation, followed by **plot development**, which then leads to a **change** that results in a **lesson learned** (usually within the story and always learnt by the recipient). Of course, beyond the basic storyline there are numerous techniques for making an interpretive narrative engaging, which vary according to the medium chosen: personal interpretation (Brochu and Merriman, 2015), (Ludwig, 2015); interpretive writing (Serrell, 2015), (Leftridge, 2006), (Zehr et al., 1988); and digital media (Činčera et al., 2018), (Palmer and Rathbone, 2017). Ham (1992) covered a wider range of interpretive media, although many of these seem outdated today. Olson (2015) focuses more broadly on communication of scientific facts.

Many authors have tried to answer the question of why **we love stories.** When Freeman Tilden (1957) was

Spicing Up Your Narratives

Here are some ways to make your story more appealing: using **examples**, showing **cause and effect** relationships, explaining through **analogies** and **comparisons**, capturing the meanings through **metaphors**, **quoting** original sources or well-known authors, using **contrasting** statements, speaking about things and organisms **as if they were humans**. And reserve space for a bit of **humour**. (Beck and Cable, 2011; Ludwig, 2015)

[7] The Story Mountain: there are different versions of the story-mountain approach in various sources.

commissioned to develop a method for educating national park visitors, one of his best-known statements was "The story is the thing." Interpret Europe (2017: 8) suggests that our affinity to stories is driven by two aspects:

1. **Stories help to organise and contextualize experiences and information**, and

2. **People tend to think metaphorically**, connecting facts to complete images that touch them **and that make sense for them**.

4.4. Get into the Practice

4.4.1. The power of Different Media

Generate the media options and weigh their potential.

> *"When we do the opposite and first design what resources we're going to use and then think about what we're going to communicate with them, how it relates to our organization's goals, how much it's going to cost, and whether it's going to suit our visitors, it's more than likely that we'll easily spend a bundle of money on the desire to have the latest scream of technology just because we've seen it somewhere else." (Brochu, 2014).*

As already mentioned, all the interpretive planning methods described in Appendix 1 have one factor in common: the choice of the medium is only made after the other steps. Why is this sequential approach so important?

1. Because effective interpretation is about **connecting audiences with the significant meanings** of the heritage. This connection is **not media-dependent**, and it can be created only after we get a clear understanding of the audiences and develop a consistent narrative structure.

2. Because interpretation is expensive, and more precisely, because some interpretive media and content creation processes are very expensive. By deferring the decision on the medium to be used until our understanding has deepened and narratives have been formed, we can **make more informed choices**. The selected media will be purpose-built to deliver specific messages to our audiences and to achieve the national park's goals.

There is no golden rule for making media choices.

Research on Interpretive Media

While robust research exists for some media, understanding interactions with others remains in its nascent stages.

Interpretive panels are arguably the best- researched interpretive medium. Through visitor behavior observation, questionnaires, and interviews, many authors have derived guidance for panel creation and placement (Medek et al, 2016; Peterson et al, 2021; Cochran et al, 2023). Thus, we know that panel placement is paramount: visitors tend to read panels directly related to the sites they are visiting, often skipping others along the way, especially those not relevant to their immediate surroundings. Not all of those who stop at a panel actually read it; many just look the headline. People on bicycles do not stop to read panels.

In contrast, the nature of interaction with **smartphone apps** is only just emerging (Mayorga et al, 2016; Činčera et al, 2018; Perera et al, 2024). We know that it is difficult to accommodate vision on both the screen and the surroundings simultaneously, that users report losing control in gamified interpretation, and that they feel overwhelmed when combining screen-based media with other interpretive forms on-site. However, these are merely fragments from scattered research, which still lack integration and grounding in theory.

However, understanding the strengths and weaknesses of each medium is essential for making informed decisions. These are listed in Appendix 3, along with two tools that can help in media selection: assessment of visitor–media interaction and assessment of mental processes based on revised Bloom's taxonomy. Experienced interpreters diligently integrate visitor research with their practical expertise to develop the compelling interpretive elements, the kind often captured in holiday photographs. Getting 'inspiration' without understanding the effort this requires, is likely to prove unsuccessful in other contexts.

4.4.2. Participatory Approach

Grow opportunities for participation.

> *"Participation is the redistribution of power."*
> *Sherry Arnstein (1969)*

Today, participation is just as much a buzzword than it was 50 years ago when Sherry Arnstein published her famous 'Ladder of Citizen Participation', identifying eight levels of participation and non-participation strategies used by public institutions. Although the classification was originally developed for urban planning, it has proved to have universal applicability and began to be used in various fields. We do not plan to go into the details of each category, but we emphasize the main point: the level of **participation corresponds to the extent of citizens' power in determining the final outcome**. In heritage interpretation, we distribute stories rather than power in decision-making regarding resource allocation. Nevertheless, we should be aware of the fact that 'participation' can have different forms and higher levels of participation ultimately mean decentralising institutional control, empowering locals or programme participants.

Nina Simon (2010) was aware of this principle when she introduced her concept of a participatory museum. She expands the classification developed for participation in citizen science and applied it to the domain of museums, which can also be adapted and applied to similar public institutions such as national parks. The **four models of participatory** approaches are:

The contributory model

People are asked to provide specified input, through stories, objects, actions or ideas, to an institutionally controlled process/output. Making comment books or boards and story-sharing stands in exhibitions is an example of this type of participation.

The collaborative model

people are invited to participate as active partners in the creation of projects that are devised and controlled by the institution. Examples of collaborative projects are exhibitions designed according to visitors' directions or the active co-creation of a short film about the local community for an exhibition in an NP visitor centre.

The co-creative model

Community members work together with the institution staff to define the project's goals and generate its outcome according to their community interests. The institution provides partners resources to co-produce exhibitions and programmes that are agreed upon by all parties.

The hosted method

The institution makes its facilities and/or resources available for presenting programmes developed and implemented by public groups or random visitors. An educational trail created by a local school and installed by a national park is an example of this type of participation.

Good practice insight

Locals Becoming Interpreters

The project on the interpretation of the 16th-century historical landscape near Netolice, South Bohemia, did not start in the best possible way. The mayor of the nearby town was not interested in it, and the COVID-19 restrictions dashed the dreams of the two interpreters (Michal Medek & Anna Svobodová), who wanted a participatory approach. The tide turned when some leaders in the community embraced the idea of bringing this local heritage to life. One afternoon, we were sipping tea in the home of a farmer. Mr Brašnička's ancestors had been ploughing the local fields for centuries, which had sparked his interest in local history. As soon as there was a window in the COVID-19 restrictions, a meeting was organised at the Netolice museum, integrating researchers presenting yet unpublished lidar data with the farmer's findings. It was an immense success. The locals were brainstorming ideas on how to interpret the long-gone history that was still visible in their area. The local school mapped historical objects and painted a 3D model of the landscape. The manager of the nearby châteaux (a major tourist attraction) provided space for an exhibition created by the school kids. The local farmer led excursions for his neighbors. Other locals came forward with the idea of re-creating a few meters of the game reserve wall and this encouraged another neighbor to create a series of short videos about local heritage. These were not professional films but truly community-driven interpretations.

Nina Simon suggested that an institution should first assess its capacities before deciding on which participatory model to adopt. Appendix 6 reports a matrix of questions which may help national parks to understand what type of participation they are ready for (Simon, 2010:187).

Meta-analysis by Skibins et al (2012) identifies active engagement of the audience as the second most commonly mentioned best practice in selected heritage interpretation publications, coming right after the thematic approach. Here, we can see **two levels of engagement:**

1. **Giving voice to local communities as heritage co-owners.** Several scholars urge interpreters to: *"... explore alternative histories that may be underrepresented in their park."* (Kane et al, 2023) There are several reasons for giving power to local communities in narrative creation, like:

- **Authenticity and relevance:** local perspectives and tales make the narratives more relevant to the community and more authentic for visitors.

- **Ownership:** fostering a sense of ownership leads to greater care for the heritage and strengthens heritage identity.

- **Richer stories:** locals may come with unique personal anecdotes that interpreters could otherwise miss.

However, some local communities may be at risk, as branding a destination can alter the perception of their local identity (Půtová, 2019:122).

While branding aims to present an image of perfection to become an 'object of desire', it risks sterilising narratives into a generic 'package tourists will like' which the local communities may therefore adopt.

2. Opening up two-way communication between an interpreter (or institution) and a visitor is the true fulfilment of Tilden's principle of provocation, encouraging people to think. Since tourism is based on mental and cultural constructs (Půtová, 2019:65), it can be assumed that visitors are also interested in the perceptions and ideas of their fellow tourists, a point that interpretive practice has proven. This is why platforms such as TripAdvisor, which stand in opposition to official, carefully crafted messages, have created their own genre of authenticity. This understanding should lead interpreters to step out of their traditional roles as educators and institutional advocates and become also **facilitators of meaningful exchanges among visitors**.

4.4.3. Ever-evolving Explanations

Good narratives need continuous development.

Graham Black (2012) challenges the idea of finished interpretation in museum exhibitions, a concept that is equally applicable to national park visitor centres. He advocates for continual improvement based on visitor observation and dialogue, new research findings and world events. While everyone may agree with this principle, only practitioners understand how fundamental a change this proposal entails. Not even the wealthiest museums can afford redeveloping their costly interpretation, let alone national parks.

> *"[transformation to involvement] means embedding the museum within the life of local communities and ensuring continuous evaluation and improvement of content. ... Unless the organization is supportive and empowers staff to initiate change, to think creatively and experiment, and to consult with users, this is unlikely to happen." Black (2012: 87)*

Good practice insight

Evaluation Need Not Be Rocket-science

A few years ago, the Czech Institute for Heritage Interpretation was asked to further develop interpretation in the second-largest Carpathian open-air museum. Although multiple methods were used to evaluate the effectiveness of the current interpretation, the simpler of them proved to be the most effective method. One hundred visitors and some visitor groups received a paper clip with a worksheet and were given a simple task: make a note if you do not understand an explanation and/or if you would like to learn something more than the information provided in the current interpretation. In two days, researchers collected insights for a 17-page report that provided directions on how to develop each historical structure presented in the museum —something the staff had been exchanging ideas about for years.

The paradigm shift from viewing interpretation projects as **ongoing self-developing processes** rather than one-time products expected to last for twenty years as a minimum, remains as distant today as it was in 2012. The grant schemes still support "once-in-a-generation investments", which leads to some visitor centres being completely while others are classed as 'in need of refurbishment'; at best, these schemes only require summative evaluation of the end-product. This stems from the traditional distinction of **evaluation** into three categories (Loomis, 1996:43):

- **Front-end** evaluation occurs during the planning stage and mainly consists in visitor research with a special focus on misconceptions and interests.
- **Formative** evaluation means collecting feedback while presenting an unfinished product or a mock-up to potential visitors or expert colleagues.
- **Summative** evaluation takes place when the project is completed, assessing how visitors interact with the product and whether it meets the pre-determined goals.

Designing visitor research and evaluation may appear complex, yet the guiding principle is straightforward: **any form of feedback enhances the likelihood of achieving higher quality outcomes compared with the absence of feedback.**

4.5. Sustainability as a Cross-cutting Theme

Sustainability stands as the cross-cutting theme underlying the narrative development guidelines presented in this manual. By engaging audiences, fostering local ownership and adoption of stewardship, the LSDG guidelines help safeguard the continued thriving of heritage thrives for future generations, in line with the very essence of the global Sustainable Development Goals.

5. Conclusion

Heritage is not simply what we inherit from the past; it is what we choose to remember, to value, and to pass on.

David Lowenthal

These guidelines have not been created from scratch. It navigates the evolving landscape of heritage interpretation, building upon its recent developments to present a comprehensive framework for developing compelling communication with visitors.

The manual essentially emphasises that effective informal learning goes beyond mere information transfer and instead focuses on fostering a personal connection between audiences and heritage. The guidelines for narrative development are structured around four key steps, with a clear audience-centric approach, as follows:

1. See through the eyes of your audience means that you are aware that understanding your audience is essential.

2. Streamline your message focuses means that you have to outline a clear structure for your narrative so as to ensure it is easy to understand.

3. Develop your narrative(s) means that you have elaborate your narrative(s) to transform the outline into a fully developed storyline.

4. Get into practice means that you have to focus on the media used for communication, creating involvement and ensuring continuous high quality of communication.

This guideline manual concludes with a call addressed to the managers of parks and protected areas as well as to stakeholders engaged in the conservation and promotion of natural environments. This manual encourages the development of new perspectives for interpreting the natural and cultural heritage by indicating a process that considers the viewpoints, capacities and needs of the different target groups.

As in all other fields dealing with education and/or human nature, this manual does not provide a magic solution for changing the values, attitudes and behaviours of those who spend time in nature, whether they are nature enthusiasts, sportspeople or tourists interested in outdoor activities. However, it offers an orientation and provides tools for site managers that increase the probability of effective communication. The hard work of understanding audiences, distilling all the information down to the essentials, elaborating into narratives and presenting the output in a compelling way remains with the people in the field. Nevertheless, both the positive reactions from increasingly demanding visitors and the gradual change in their attitudes make this effort worthwhile.

Succeeding in weaving communication in these terms means fostering, in recipients, an involvement and a determination that are deeper and more far-reaching in terms of space and time. Approaches to natural areas that threaten their conservation —such as littering, unregulated parking, violations of trail rules or disturbance of wildlife— are widespread scenarios and appear difficult to counter with traditional information-transfer methods.

Those entering a natural area must be put in a position to understand its identity and uniqueness and perceive its beauty and fragility, while taking shared responsibility through dialogue with the relevant conservation authorities.

This brief manual, which we hope may find support and interest from both its present and future readers, is an encouragement for park managers to rethink the mechanisms of public communication —to sometimes choose a more difficult path rather than the easiest one, to make less comfortable but more effective decisions.

Narration is not simple communication. The narration of our common heritage is an act of sharing that raises collective awareness; it is a trajectory towards attitudes and behaviours that will define us, our future and the future of the ecosystems of which we are all a part.

References

Aldridge, D. (1975) *Guide to Countryside Interpretation*. Edinburgh: HMSO for Countryside Comission and Countryside Comission for Scotland

Anderson, L.W., Krathwohl, D.R., Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.P., Raths, J., Wittrock, M., 2001. *A Taxonomy for Learning, Teaching a Assesing of Educational Objectives*. Longman, New York.

Andriotis, K., 2011. Genres of Heritage Authenticity: Denotations from a Pilgrimage Landscape. *Annals of Tourism Research* 38, 1613–1633.

Arnstein, S., R. (1969) A Ladder Of Citizen Participation. *Journal of the American Planning Association*, 35: 4, 216 – 224

Beck, L., Cable, T. (2002). *Interpretation for the 21st century.* Champaign: Sagamore publishing

Belhassen, Yaniv, Caton, Kellee, Stewart, William, P., 2008. The Search for Authenticity in the Pilgrim Experience.

Annals of Tourism Research 35, 668–689. https://doi.org/10.1016/j.annals.2008.03.007 Black, G. (2012) *Transforming Museums in the Twenty-first Century.* New York NY: Routledge

Brochu, L. (2014) *Interpretive Planning.* 2nd ed., Fort Collins, CO: National Association for Interpretation

Brochu, L., Merriman, T. (2015) *Personal Interpretation, Connecting Your Audience to Heritage Resources.* Fort Collins, CO: National Association for Interpretation

Brod, G., Werkle-Bergner, M., Shing, Y.L., (2013). The Influence of Prior Knowledge on Memory: A Developmental Cognitive Neuroscience Perspective. *Frontiers in Behavioral Neuroscience* Volume 7-2013. https://doi.org/10.3389/fnbeh.2013.00139

Brunelli, M. (2013) From nature guiding to nature interpretation in the United States (1872-1920). The origins of the professional practice of heritage interpretation: between protection and education. *History of Education & Children's Literature,* VIII, 1 (2013), 399-428

Bryant, H., C., Atwwod, W., W. jr. (1932) *Research and Education in the National Parks.* Washington: US Government Printing Office

Baudrillard, J. (1981) *Simulacres et simulation*. Paris: Galilée

Beck, L., Cable, T. (2011) *Gifts of Interpretation. Fifteen Guiding Principles for Interpreting Nature and Culture.* Urbana (IL): Sagamore

Carter, J., ed. (2001) *A Sense of Place – An Interpretive Planning Handbook*. Inverness: Tourism and the Environment Initiative

Cochran, A., Sharp, R., Peterson, B., Fefer, J. Martin, C. (2023) Utilization of GPS data loggers and GIS analysis for the evaluation of interpretive signage to disperse visitors from the visitor center at Green Ridge State Forest. *Journal of Interpretation Research* 28(2) 166–185

Cohen, E., 1988. Authenticity and Commoditization in Tourism. *Annals of Tourism Research* 15, 371–386 Cornell, J. (1998) *Sharing Nature with Children*. Nevada City (CA): DAWN Publications

Council of Europe (2005) *Framework Convention on the Value of Cultural Heritage for Society*. Faro: Council of Europe

Cowan, N. (2001) The magical number 4 in short-term memory: a reconsideration of mental storage capacity. *The Behavioral and Brain Sciences*, 24(1), 87-114

Činčera, J., Johnson, B., Goldman, D., Alkaher, I., Medek, M. (2023) *Outdoor Environmental Education in the Contemporary World*. Cham: Springer, https://dx.doi.org/10.1007/978-3-031-29257-6.

Činčera, J., Medek, M., Lupač, M. (2018) *Příroda 2.0. Využití digitálních médií pro terénní interpretaci přírodního dědictví.* Brno: Masarykova univerzita

DeLyser, D., 1999. Authenticity on the Ground: Engaging the Past in a California Ghost Town. *Annals of the Association of American Geographers* 89, 602–632.

Gilmore, J., Pine, J. (2007) *Authenticity: What Consumers Really Want?*. Boston: Harvard Business School Press Gnoth, J., Wang, N., 2015. Authentic knowledge and empathy in tourism. Ann. Tour. Res. 50, 159–172.

Ham, S. H. (1992) *Environmental Interpretation: A Practical Guide for People with Big Ideas and Small Budgets*. Golden (CO): Fulcrum Publishing

Ham, S. H. (2013) *Interpretation – Making a Difference on Purpose*. Golden (CO): Fulcrum Publishing

Hill, S., Cable, T.T., 2006. The Concept of Authenticity: Implications for Interpretation. *Journal of Interpretation Research* 11, 55–65. https://doi.org/10.1177/109258720601100104

Hitchcock, D. (2018) [Flintstone scraper] [Online image]. Available at: https://www.dons-maps.com/tools.html (Accessed June 2025)

Hristov, N., Strohecker, K., Allen, L., Merson, M. (2019) Talking Visuals in a Digital Age. *Legacy* 30 (5), 32-35

Interpret Europe (2017) *Engaging Citizens with Europe's Cultural Heritage.* Witzenhausen: Interpret Europe

Kohl, J. (2018) *Interpretive Theme Writer's Field Guide: How to Write a Strong Theme from Big Idea to Presentation*. Fort Collins (CO): InterpPress

Kohl, J., M., McCool, S., F. (2016) *The Future Has Other Plans: Planning Holistically to Conserve Natural and Cultural Heritage*. Golden (CO): Fulcrum Publishing

Latona Skot, 2010. A Conspiracy Theory in Our Parks? *Legacy* 21, 12–15.

Leftridge, A., 2006. *Interpretive Writing*. Fort Collins: National Association for Interpretation. Leopold, A. (1949) *Sand County Almanac.* New York: Oxford University Press

Lewis, W. J. (2014) *Interpreting for Park Visitors*. 12th edn. Philadelphia: Eastern National

Loomis, R. J. (1996) How Do We Know What the Visitor Knows?: Learning From Interpretation. *Journal of Interpretation Research* 1, 1, 39–45

Ludwig, T. (2003) *Basic Interpretive Skills. The Course Manual.* Werleshausen (D): Bildungswerk Interpretation

Ludwig, T. (2015) *The Interpretive Guide: Sharing Heritage with People.* 2nd edn. Werleshausen (D): Bildungswerk Interpretation

MacCannell, D. (1973) Staged Authenticity: Arrangements of Social Space in Tourist Settings. *American Journal of Sociology* 79 (3), 589-603

Mayorga, M., Cable, T. (2017) Evaluation of Interpretive Media Use and Effectiveness at a Nature Center. *Journal of Interpretation Research* 22, 1, 75–82

Medek, M., Činčera, J., Gregorová, J., Pořízová, K., Lísková, M. (2016) *Naučné stezky: zpracování a hodnocení nepřímých interpretačních programů*. Brno: Masarykova univerzita

Merriman, T., Brochu, L. (2006) *The History of Heritage Interpretation in the United States.* Fort Collins (CO): InterpPress

Miller, G., 1956. The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review* 63, 81–97

Mills, E. A. (1920) *The Adventures of a Nature Guide*. New York: Doubleday, Page & Company

Olson, R. (2015) *Houston, We Have a Narrative: Why Science Needs Story*. Chicago IL: University of Chicago Press

Palmer, P., Rathbone, N. (2017) *Interpretation In A Digital Age: How to use smartphone technologies in heritage interpretation.* Create Space Independent Publishing

Perera, P., Webber, S., Smith, W. (2024) *Digital design considerations in urban nature.* Mindtrek '24: Proceedings of the 27th International Academic Mindtrek Conference, 235–243

Peterson, B. A., Sharp, R. L., Fefer, J. P., & Brunson, M. A. (2021) The Utility of GIS for Identifying Areas of Recreation Conflict for Targeted Interpretive Messaging. *Journal of Interpretation Research*, 25(2), 118-131

Piaget, J. (1972) Intellectual evolution from adolescence to adulthood, *Human Development*, 15, 1-12

Půtová, B. (2019) *Antropologie turismu.* Praha: Karolinum

Prideaux, B., Timothy, D., Chon, K. (2008) *Cultural and Heritage Tourism in Asia and the Pacific*. London: Routledge

Revlin, R. (2012) *Cognition: Theory and Practice*. New York: Worth Publishers

Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, 2(1). https://doi.org/10.9707/2307-0919.1116

Sharpe, G. W., ed. (1976) *Interpreting the Environment.* New York: John Wiley & Sons

Serrell, B. (2015) *Exhibit Labels: An Interpretive Approach*. Second. ed., Rowman & Littlefield Publishers, Lanham, Maryland

Simon, N. (2010) *The Participatory Museum.* Santa Cruz CA: Museum 2.0

Stergioti, V., et al (2021) *Interpret Europe Certified Interpretive Planner (CIP) Training and Certification Plan, October 2021.* Unpublished document. Interpret Europe

Stong, N. (2019) To Digiscope... or Not to Digiscope? *Legacy* 30 (5), 9-11

Tilden, F. (2007) *Interpreting our Heritage*. 4th edn. Chapell Hill: The University of North Carolina Press

UNESCO (2011) *International Standard Classification of Education ISCED 2011*. Montreal: UNESCO Institute for Statistics

Van Matre, S. (2009) *Interpretive Design and the Dance of Experience.* Cedar Cove (WV): The Institute for Earth Education

Veverka, J. (2011) *Interpretive master planning. Philosophy, Theory and Practice*. Edinburgh: museumsetc

Zehr, J., Gross, M., Zimmerman, R. (1988). *Creating Environmental Publications: A Guide to Writing and Designing for Interpreters and Environmental Educators*. Madison: UW-SP Foundation Press, University of Wisconsin

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Appendix

Appendix 1

Interpretive Planning Models

> *"Unless there is a shared need for interpretation within the organization or it is clear how it can benefit the organization, it is pointless to continue wasting time and money on interpretation." (Lisa Brochu, 2014)*

Why Plan Interpretation?

The key motive for planning interpretation is timeless: the efficient use of funds and manpower. There is a wide range of phenomena that can be interpreted and a diverse range of means by which they can be interpreted. **The art of good interpretation is to choose what to interpret and how to interpret it.**

Benefits of Planned Interpretation

Selecting the topic to be interpreted, almost everything can be interpreted, but only some of it is of interest to our visitors.

- **Appealing** to recipients: effective interpretation builds upon interests, experiences and capacity of the audience.
- **Efficient** use of resources, without wasting them on media and content that will not work.
- **Evaluation** of quality: clear goals enable the monitoring of achievements.
- **Fundraising** impact: the project's effectiveness is rigorously supported.
- **Enhanced** collaboration: identifying and involving stakeholders.

Planning interpretation can be compared to the documentation involved in carrying out a construction project. It is certainly possible to build without it, but even if each craftsman is a master craftsman, it is unlikely that their work will be unified into a functional whole. It is necessary to first clearly define the purpose of the building, conduct a geological survey and think through the future operation.

The scope of the documentation naturally corresponds to the size, complexity and use of the structure. As in the case of the preparation of construction documentation, a certain procedure must be followed in interpretation, assigning individual professionals tasks that are appropriate to their qualifications and submitting the results of the work carried out for comment to the persons and institutions concerned.

How to Plan Interpretation?

Anyone who has asked themselves how to bring an object of interest closer to visitors has embarked on an interpretation planning process. The scope of this planning and the methodology used should be appropriate to the scale of the work, as, by way of example, planning for a single interpretive panel in a nature reserve is different from planning a nature trail, and interpreting an entire national park requires yet another approach.

In many countries, the planning and implementation of interpretation is usually carried out by specialised professional consultancies, and the way they work is somewhat similar to the aforementioned process of erecting building: the investor's intention is identified, taking into account the function of the building, its users and the desired goal of interpretation. Surrounding buildings and trends are also considered, as visitor research and involvement are, which are key because interpretation methods vary according to the target audience. The conceptual plan is further refined and addressed in technical detail. Mock-ups are used to test whether the chosen interpretive methods achieve the desired results. The financial and economic aspects of construction and operation are calculated.

As far as large projects are concerned, they are implemented gradually and involving specialised professionals such as experts, scholars, 3D designers, graphic designers, engineers, budget experts as well as a facilitator who directs the experts' and stakeholders' debates towards a success.

The outputs can of different types or categories; however, usually outputs consist in two types of documents, as follows:

- **Interpretation Strategy,** i.e., is a broader document initiated by, e.g., a national park management or regional government, **to unify the ways for the different service providers** to present the area to visitors, identify gaps in the market, coordinate the plans of individual entities and initiate cooperation among them. The interpretation strategy can be part of other documents, e.g., a tourism development strategy or a management strategy for a large-scale protected area.

- **Interpretation Plan,** i.e., a document **outlining specific methods and approaches** to be used for interpreting a particular territory, visitor centre or a single phenomenon. It designs the thematic structure and develops the interpretive media. An Interpretation Plan usually also covers operational aspects, gives full details of the evaluation process for the interpretation and defines the roles and responsibilities of all those involved in implementing the interpretation. Crucially, it determines the entire implementation process and the associated financial costs.

Even in the initial planning phase, effective interpretation relies on collaboration among different specialists, public agencies and the community. Understanding the nature of the visitor experience is essential. Visitors perceive both the site and on-site communication holistically; they form a singular, overarching impression and are not concerned with the specific remits or internal workings of individual organisations.

While service providers naturally aim to attract visitors to their specific offerings, it can be far more beneficial to provide a complementary set of experiences that may foster deeper understanding, rather than a fragmented or redundant collection of information.

Interpretive Planning Methods

Several methods have been developed for effective interpretation planning. They can be divided into process methods and model methods, according to the way they work. In this text, we present three methodologies commonly used in Europe.

Process-based Methods

Sense of Place

Process-based methods lead to developing interpretation through a series of questions. One of the best-known methods of this kind was elaborated within the Scottish Highlands Interpretation Project and published in the Sense of Place manual (Carter et al, 2001).

This method is particularly **suitable for smaller interpretation projects**, especially **involving volunteers, local communities** and other people with a good intention to create something but no prior knowledge of how to do it.

The gradual search for answers to the questions displayed in Figure 2 leads interpreters to think about the context of the original intention, determine the final form and content of interpretation and estimate the benefits and future costs.

In the initial phase of an interpretive planning process, it is essential to first make clear the **'why'**, i.e., the rationale for the interpretation and its desired outcomes. The next, and often more complex, question concerns the **'what'**, i.e., the specific phenomena and heritage to be interpreted. This is closely linked to identifying the **'for whom'**, i.e., the target audience. For instance, interpretation for local inhabitants may incorporate local terminology and references to shared experiences, whereas content for international visitors requires a broader contextual explanation. A common challenge for experts is a failure to understand the visitors' interests and background. This can lead to the misguided assumption that interpretation is merely an entertaining transfer of diluted information, when, in fact, even the chosen topic may not be relevant to the audience.

Once the 'why', 'for whom' and 'what' are clear, the next step is to select the appropriate interpretive media and determine **'what form'** the interpretation will take. **The chosen method must align with the operational capacity for its long-term maintenance.** When creation is supported by external funding, a realistic outlook on post-implementation sustainability is crucial.

The final step involves the regular assessment of the project's effectiveness and its consistency with the stated objectives. This ongoing evaluation is an equally important measure to ensure the success and long-term sustainability of the project.

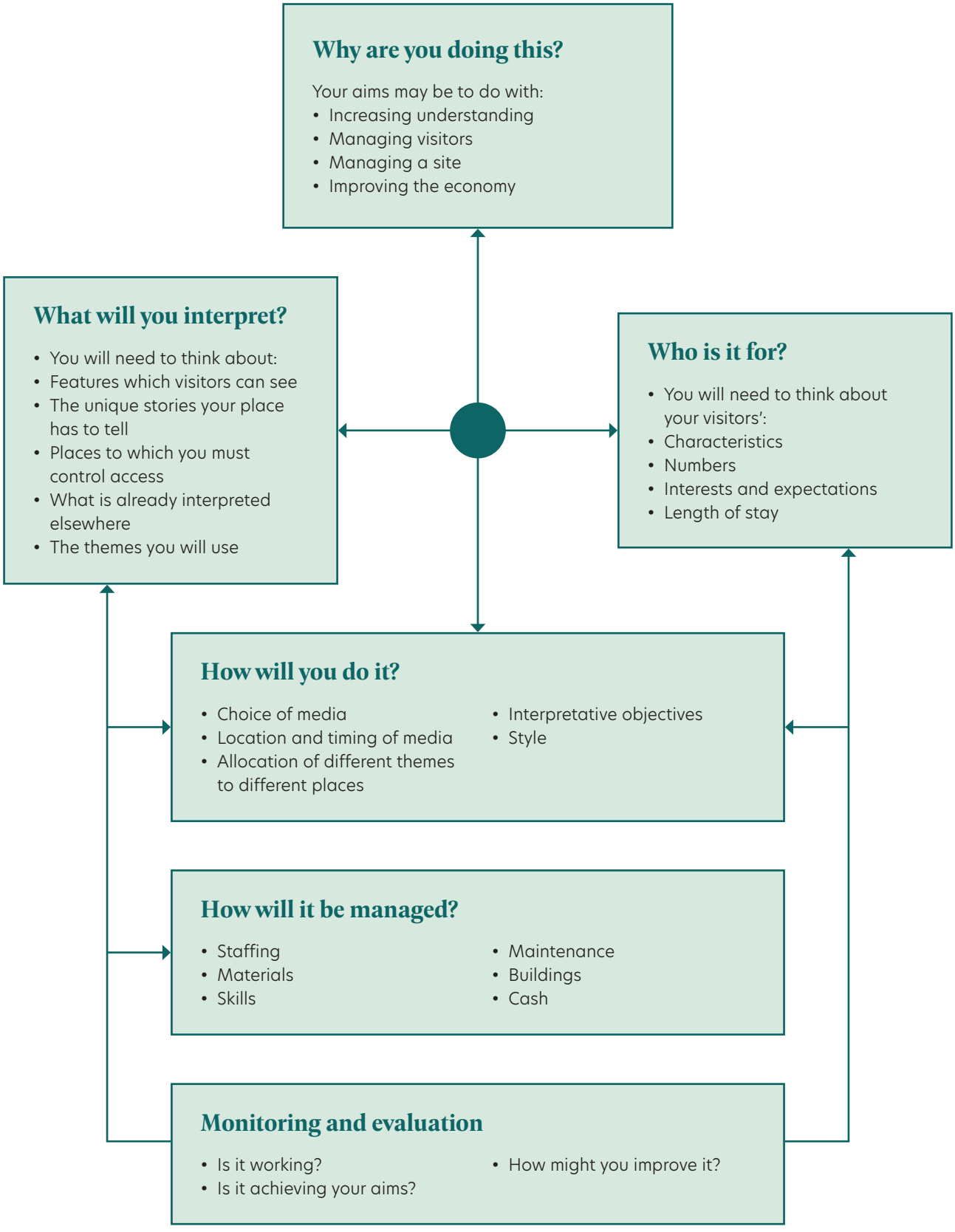


Figure 2. Process of developing each area of the %M model (Bronchu, 2014)

Model-based Methods

Unlike process-based methods, which follow a linear sequence of questions, **model-based methods or 'systematic models' are multi-dimensional**. They provide a more robust framework for planning large- scale interpretation projects that **include many phenomena and wide range of stakeholders** (e.g., interpretive plan for a national park). They are also valuable for improving existing interpretation. The planning process usually results in a diverse range of interpretive tools. The 5M Model (Brochu, 2014) is one of the most widely used methodologies.

5M Interpretation Planning Model

Within the 5M model planning process, several areas are analysed and developed concurrently. **This is a spiral process, where ideas for these four areas are being gradually refined:**

- **Management:** goals of interpretation, relation to conservation management, relation to other institutions, existing interpretations and ideas about the subject of interpretation;
- **Market:** who the visitors are, who the visitors are not (but should be), what product and overall experience is offered to the visitor, what other attractions are around;
- **Message:** existing (authentic) stories, choice of the theme structure (see chapter 4.2);
- **Mechanic:** potential for interpretation, visitors' patterns, availability and placement of individual elements of existing interpretation, planning of spatial requirements;

In each of these four areas, the process follows standard project management steps: gathering and analysing information, choosing the form or content and deciding on the details of implementation.

As in the case of qualitative research in the humanities, it is important to remain open-minded and be ready to repeat the sequence multiple times based on external inputs and the outcomes of other areas. However, with each cycle, the options must be narrowed (decisions must be made), keeping in mind that interpretive planning is a decision-making process to achieve the purpose of interpretation.

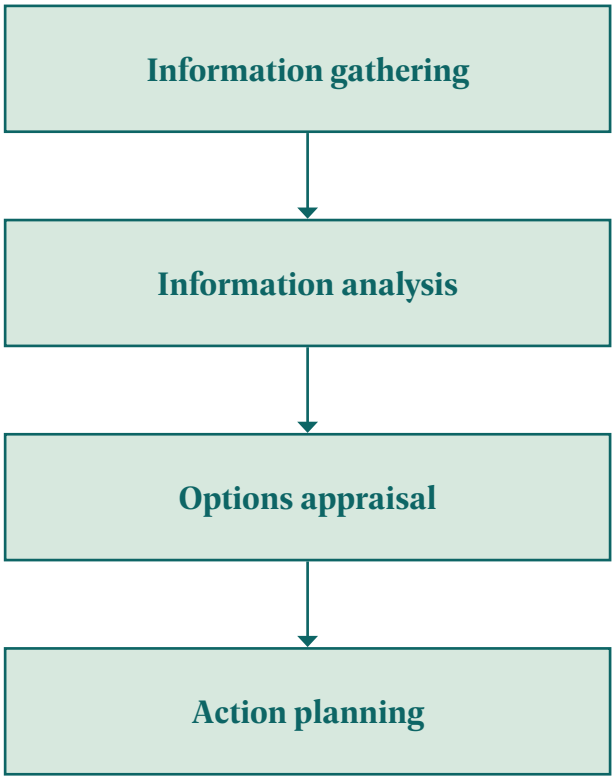


Figure 3. Process of developing each area of the %M model (Bronchu, 2014)

Information gathering

Good planning is always based on facts. T**he more rigorous the information gathering phase is, the more likely the interpretation is to succeed in meeting its goals.** Especially when understanding visitors'' perceptions, research is often the only way to obtain objective information. Unlike with process-based methods, a significant amount of information is first gathered and then analysed.

In interpretation projects led by external contractors, this process leads to a deeper understanding of interpretation possibilities. In an 'insider team' scenario, this significantly increases the likelihood of overcoming the so-called 'operational blindness' and engaging in a more profound reflection on the current situation.

Information analysis

If information gathering has been conducted thoroughly, a wealth of knowledge becomes available. **The**

analysis phase involves sorting, eliminating and selecting the most important facts. Various methods can facilitate this process, including consensus, expert opinion and/or scoring by criteria.

Options appraisal

Based on the analysis of the information gathered, options are weighed and a specific form of interpretive implementation is identified for each respective area.

Action planning

Once reaching consensus in previous steps, the action plan for the respective area can be determined. In practice, action planning usually comes as the last step of the whole planning process, only after the 5th M is determined (the Media). T**he action plan specifies the steps to be taken to implement the project, their timeframe, who will be responsible for them and how much each step will cost.**

Only after the option appraisals for the Management, Message, Media and Mechanics areas has been completed, does **the time come to work on the fifth M: Media.** This is the golden rule of interpretive planning and the 5-M model is no exception. Just like in the other areas, this phase involves gathering and analysing information, selecting the appropriate options and then deciding on the implementation of the chosen interpretive media.

The outcome of the above described selection process leads to defining clear path in all the areas:

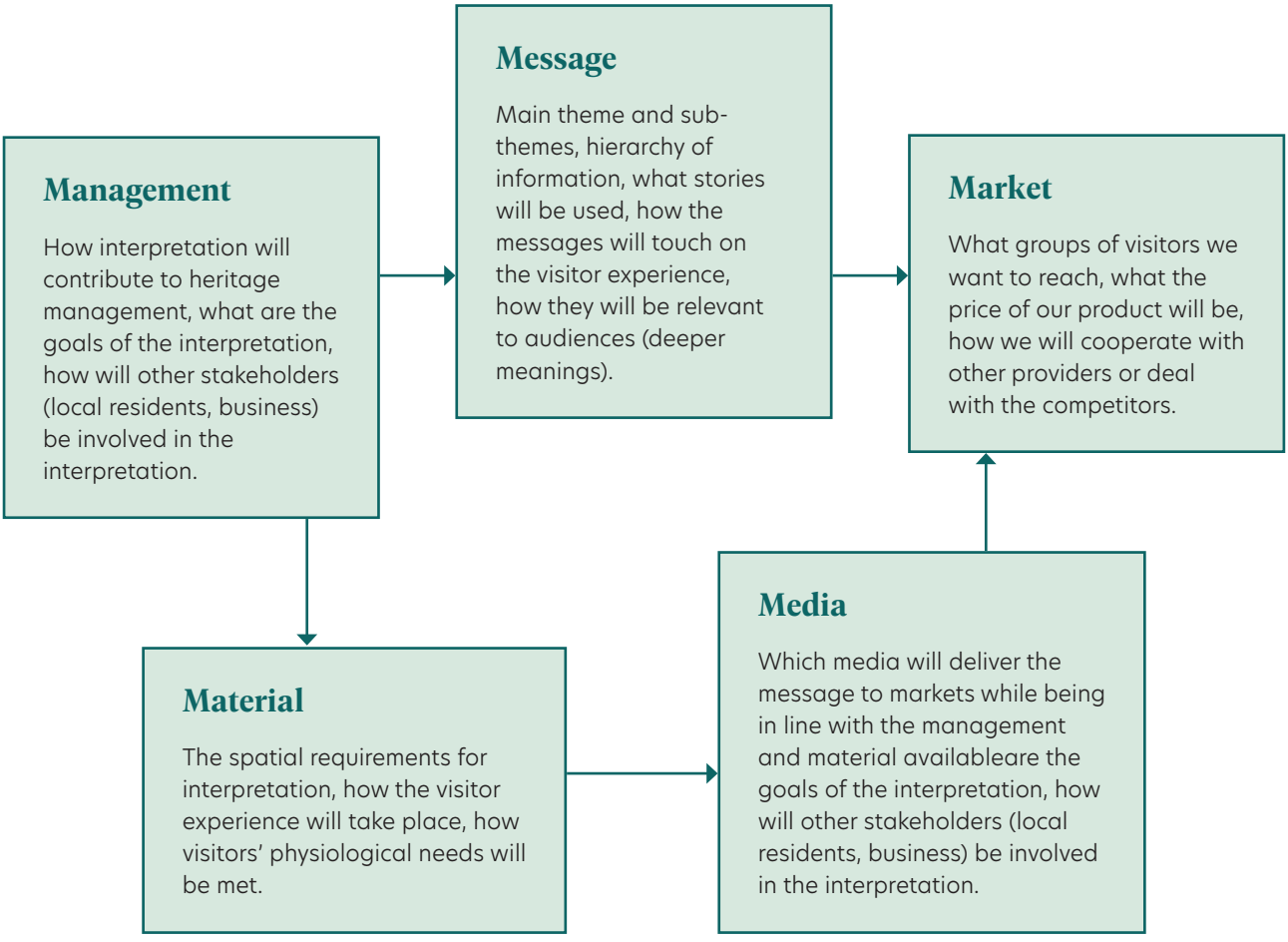


Figure 4. Process of developing each area of the 5M model (Brochu, 2014)

Sixteen Questions Model

This model works with four interpretive qualities (Ludwig, 2015) which create the backbone of the Interpret Europe training programme.

These four qualities are derived from the 'interpretive triangle' that describes interaction among heritage, **interpreter and audience**, at each vertex of the triangle (see Figure 5). The core of the interpretive exchange, the deeper meanings (see chapter 4.3.2), are symbolically placed at the centre of the triangle.

The Sixteen Questions Model can be welcomed by experienced interpretive planners as a handy checklist. However, beginners in the field might find the lack of processual guidelines challenging, in comparison with the two previously mentioned models. Each of the sixteen questions is broken down into five additional subquestions (Stergioti, 2021).

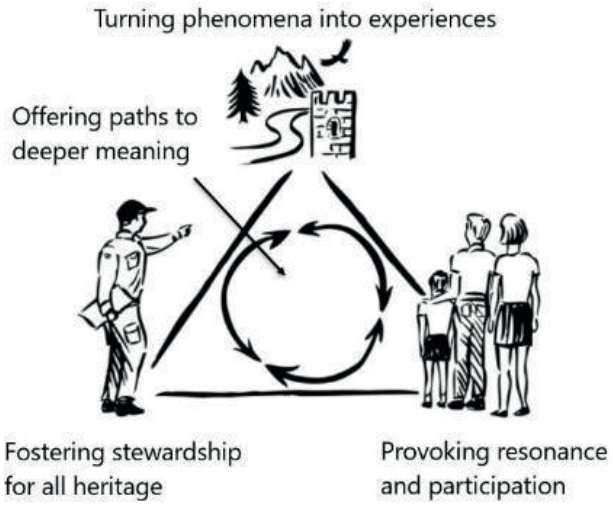


Figure 5. The interpretive triangle (Ludwig, 2015)

Interpretive qualities	Reviewing	Developing		
	Heritage	Interpretive services		Resilience
Turning phenomena into experiences	What heritage phenomena can be experienced and how?	How do interpretive services support the heritage experience?	What first-hand experiences does the new plan facilitate?	How will the planned experiences be sustained in the long- term?
Provoking resonance and participation	How are stakeholders related to the heritage and to each other?	How do interpretive services on site involve people?	How does the new plan help stakeholders relate to the heritage and spark participation?	How will the participation of stakeholders continue?
Offering paths to deeper meaning	What does the heritage mean to different people?	Which viewpoints and stories do the interpretive services emphasize (or not)?	How is meaning-making facilitated by the new plan?	How can the new plan continue to provoke meaning-making in the future?
Fostering stewardship for all heritage	What are the threats to the heritage and the forms of stewardship?	How do interpretive services encourage stewardship for the heritage?	How does the new plan support stewardship for the heritage?	How does the new plan impact people's attitude to all heritage?

Table 4. Sixteen Questions interpretative planning model

Appendix 2

Visitor Research Methods

Understanding visitor perceptions and behaviours is fundamental to effective interpretive planning. The following tables present a range of on-site and off-site visitor research methods that are crucial for gathering the insights needed for informed decision-making. For optimal results, the combination of different methods (triangulation) is highly recommended. It should be noted that expertise in social research is essential for both designing and interpreting the results of the methods.

Off-site Research Methods

Method	Description	Useful for	Not useful for	Strong points	Weak points
Visitor appraisal analysis	Reading reviews on Google, TripAdvisor or similar, coding entries for further analysis	Indirect reference to the experience of a visit (particularly valuable are: advice to other visitors and topics discussed / promoted) => mapping the topics	Assessing % of visitors with similar opinions	A sincere reference based on direct experience (preventing subject bias), operational shortcomings reported, obtaining raw data is easy	Views from a limited group of people (those who share their experience online, usually well-travelled), views might be manipulated for marketing reasons
Search engine analysis	Search engines provide data on the most frequent searches	Seeing what people associate with the site/phenomena, their needs associated with the visit	Deeper understanding of visitor expectations	Reliable 'hard' data, also showing development over time	Only indicative (shallow) data that need further explanation (why is it like that?)
Media analysis	Analysing data provided by special media monitoring platforms	Seeing how media form the view of a site/phenomena (=external picture)	Direct visitor experience and/or expectations	Reliable data, providing information about development over time	Costly analysis both timewise and moneywise (expertise needed)
AI advice analysis	Asking various AI models about a heritage site	Indirect mapping of digital tracks, seeing how phenomena are framed and which are omitted	Mapping direct visitor experience and/or expectations	Obtaining data is easy	Indicative information only, as even the same model can create different content
User-generated content analysis	Looking at various user-generated online platforms: Instagram, YouTube, TikTok, fan FB groups and coding entries and/or views, likes, etc.	1. How do visitors understand a site 2. What people consider to be the most popular topics 3. What expectations are created by influencers	Depends on the analysed content	Usually sincere reference (preventing subject bias), obtaining raw data is relatively easy to get	Further coding and interpretation are needed, analysis only applies to the segment of creators and those who follow them (i.e., groups we know very little about)
Online reference analysis	Analysing sites about a heritage phenomenon (tourism agencies, DMOs, ...)-what picture they create (overlaps with media analysis)	Learning how a site/phenomenon is promoted by the 3rd parties => how and what expectations are created	Researching direct visitor experience and/or expectations	Obtaining data is easy	Further interpretation / analysis are needed; missing information about the real impact

Table 5. Off-site methods of visitor research

On-site Resarch Method

Method	Description	Useful for	Not useful for	Strong points	Weak points
Unobtrusive observation	A researcher watches behaviour, listens to conversations and takes field notes	See what is really happening, even the situations people do not recall if asked later	Understanding inner motives for the behaviour	Cheap method providing an overview of the situation on-site, 'natural' behaviour	Weak evidence
Focus group	The group goes through an experience and is debriefed afterwards	Mapping basic concepts of people, seeing different viewpoints and conflicts	Statistical analysis	Cheap and simple method, participants compare their experiences together	Participants influencing each other, careful selection of respondents is needed
Expert evaluation	a. An expert gives feedback, b. Assessment based on pre-defined expert criteria	Gathering other viewpoints	Not based on direct visitor observation	Comparison with other sites, know-how transfer, experts see the details behind the scenes, on which the others need not reflect	Thinking through theories / paradigms, experts can pursue their own interests, expert opinions can significantly vary
Indirect observation	Certain manifestation of behaviour is observed (carpet paths, license plates, trespassing fines...)	Seeing what is really happening	Reasons for the observed situations are only deduced	No intervention towards the people on the site and their experience	Operationalisation = connecting an indicator with a variable might not be always accurate
(Semi-) structured interview	(Recorded) interview going through a set of pre-defined questions	Concepts people have, their perceptions	Real behaviour, how many people share similar views	Understanding perceptions	This method only gather data,, data analysis uses one of the qualitative research methods => expertise needed
Quantitative data analysis	Analysing data from counters, sold tickets etc.	Figures, trends over time	Quality of experience, reasons for changes in the data	Simple data gathering (if available), non-invasive method	Data need to exist in consistent form in order to be analysed
Questionnaire survey	People either fill in questionnaires or a researcher asks them questions and fills it in	Demographical data, searching causal relationship, understanding some geographical & psychographical data	Individual perception, relationship to real behaviour	Simple processing, considered trustworthy by others, respondents feel anonymous & safe	Large datasets needed (at least 30 entries/ category), external factors influencing the dataset (weather, time of the day etc.)
Mystery shopping	An agent plays role of a visitor and reports about the experience	Survey of the services provided (width, quality)	Changes in time, contexts (why it happened)	Proved data, low bias	Experience might depend on a concrete situation/ employee, ...

Table 6. On-site methods of visitor research

Appendix 3

Interpretive Media

There is a wide range of interpretive media that can transmit our narratives. The following list is not intended to name all of them, but to demonstrate that **each interpretive medium has strengths and weaknesses that need to be considered when planning to use them.** Apart from technical characteristics and limitations, several approaches that can help in choosing the right tool are listed below.

Media / user Interaction

John Veverka (Veverka, 2011) suggested looking at the nature of the interaction between the medium and the audience. Audiences should be offered various types of interaction, for exhibitions Veverka suggests 20% active/active, 30% passive/passive and 50% mixed interaction.

		Audience	
		Active	Passive
Media	Active	web pages, interactive models, live interpretation, interactive smartphone / computer activities	theatre, re-enactement, video
	Passive	audioguides, geocaching, props, static models	panels, dioramas

Table 7. Differentiation of media based on character of interactions

Assessment of Cognitive Processes

Another approach in the media selection process could be an **assessment of the cognitive process that the audience should go through**. In this case, we can use Bloom's taxonomy of mental operations, which was originally developed for the field of formal education. We suggest using its revised version (Anderson et al., 2001) that introduces the matrix of cognitive processes:

The Knowledge Dimension	The Cognitive Process Dimension					
	Remember	Understand	Apply	Analyse	Evaluate	Create
Factual Knowledge	Example 6				Example 6	Example 6
Conceptual Knowledge		Example 2		Example 5		
Procedural Knowledge			Example 1			
Metacognitive Knowledge		Example 3				

Table 8. Matrix of cognitive processes (Anderson et al., 2001) with examples

Translating this to real-life examples, we ask which mental processes we expect the audience to undertake:

- **Example 1** – visitor can make a home composter
- **Example 2** – visitor understands the relationship between deforestation and erosion
- **Example 3** – visitor realises that human decisions affecting nature stem from different ethical views.
- **Example 4** – visitor finds out that some statements in the media are not based on scientific evidence
- **Example 5** – visitor can analyse the history of land use in their home area
- **Example 6** – visitor learns which rare species live in a national park Example 7 – visitor contributes to the database of bird observation

There are no better or worse cognitive processes; some of them are just more demanding. We should provide audiences with opportunities for varied cognitive processes.

Advantages and Limitations of Some Interpretive Media

Medium	Advantages	Limitations
Panels (passive/passive)	Simple production, cheap, can be easily repaired, low operational costs	Not much information (max. 200 words), low engagement of visitors, become part of the scenery, too many of them
Models (mostly passive/passive or active)	Create a 3D sense of place, object, process etc.; can communicate highly complex information very effectively; more immediate and engaging than flat graphics	Limited opportunities for visitor participation; cost to generate / create a model; can frequently require maintenance
Props (active/active or passive)	(Highly) interactive; multisensory experience; relatively cheap	Need further interpretation, need protection (e.g., against theft) => extra costs, maintenance needed
Dioramas & scenic displays (passive/passive)	Provide a sense of history, place, events, and personalities; can engage visitors' imaginations and create spectacle; can be highly cost effective	Offer little or no physical visitor involvement or participation in the media, can be costly to create; require continuous maintenance
Audioguides (active/passive)	Portable and unobtrusive; can provide layers of information; can deliver interpretation in different languages, support management objectives	Require staffing support; can be expensive to set-up; present a security risk; do not encourage visitor communication
Audio/video displays (passive/active)	Visualisation, provision of access, possibility to use authentic material, create mood, can reach many visitors at one time	Can be disturbing, difficult to update, easy to break down, recipient does not control the flow of information
Interactives (active/active)	Can be tailored to multiples learning styles; provide information at varying levels; promote visitor participation; can transcend language and culture barriers	Computer interactives are expensive; require extensive maintenance; must be intuitive to be effective; can be target to vandalism or theft
Digital media (all interactions)	Can be tailored to multiples learning styles; provide information at varying levels; promote visitor participation; can transcend language and culture barriers	Computer interactives are expensive; require extensive maintenance; must be intuitive to be effective
Leaflets, brochures (passive/passive)	Portable; can include detailed content; editions in different languages; can be sold; souvenir of a visit	Can discourage audience participation, require literacy; must be kept up-to-date; staff monitoring needed
Live interpretation (active or passive/active)	Provoking response; immediate; change of pace; intimate; flexible; memorable; could be authentic	Variable, inconsistent quality; could be obtrusive, inefficient, and expensive; limited group size

Table 9. Advantages and disadvantages of different interpretive media

Appendix 4

Templates for Theme-line Generation

Main Theme Generator

Before starting, read *The authentic story of authenticity* on page 35 and identify the different stages in the story development. The exercise proposed here to practice the development of thematic lines is an example proposed by Carter (2001) and Ham (2013).

1. Start by completing the sentence **"Generally, my presentation (talk, exhibit, etc.) is about:** "This will be a general topic, such as a library classification, for example, "nocturnal birds".

2. Write another sentence, this time beginning with **"Specifically, I want to tell my audience about:"** Perhaps you might write "how nocturnal birds were the subject of superstitions".

3. Do the same again, this time completing the sentence **"After hearing my presentation (or reading my exhibit, etc.), I want my audience to understand that:"** This time, what you write is a theme; a sentence in its own right, for example: "Because they're rarely seen, nocturnal birds are the subject of many superstitions."

4. Fine-tune the theme you have stated, and try to **make it stronger.** Strong themes are:

    a) personally relevant,

    b) easily understandable,

    c) connect tangible with meanings and universals,

    d) use comparisons/metaphors,

    e) avoid passive voice and the verb "is",

    f) emphasise the importance of this particular heritage.

A stronger theme could be: *"Because people fear the unfamiliar, nocturnal birds are the subject of many superstitions, leading to negligence of their loss."*

Theme Structure Generator

1. The strong, main theme of the presentation is:

2. Add a maximum of **4 sub-themes**. Sub-themes are directly connected to a theme and support its ideas. You should be able to use "because" between the main theme and sub-theme statements.

    1: _____

    2: _____

    3: _____

    4: _____

3. Add the most important information (2-5 bullet points) to each of the sub-themes.

If you are a visual person, you can also use this graphical format:

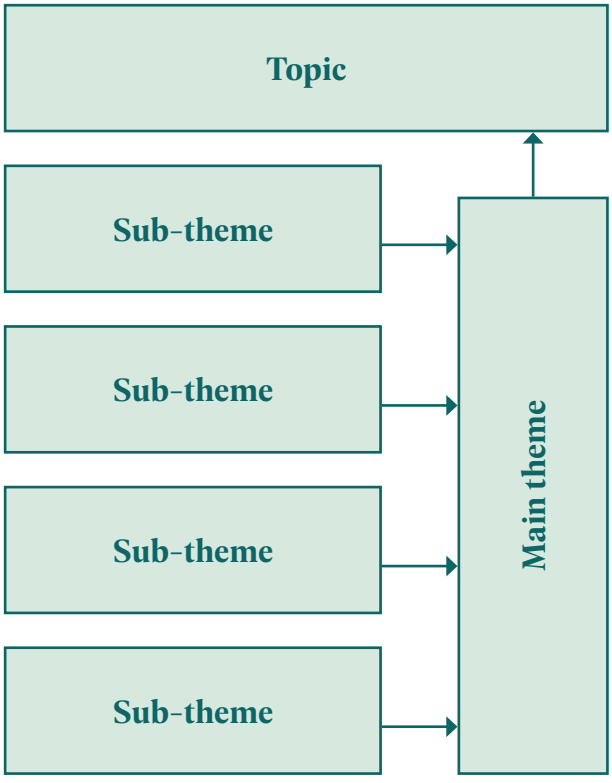
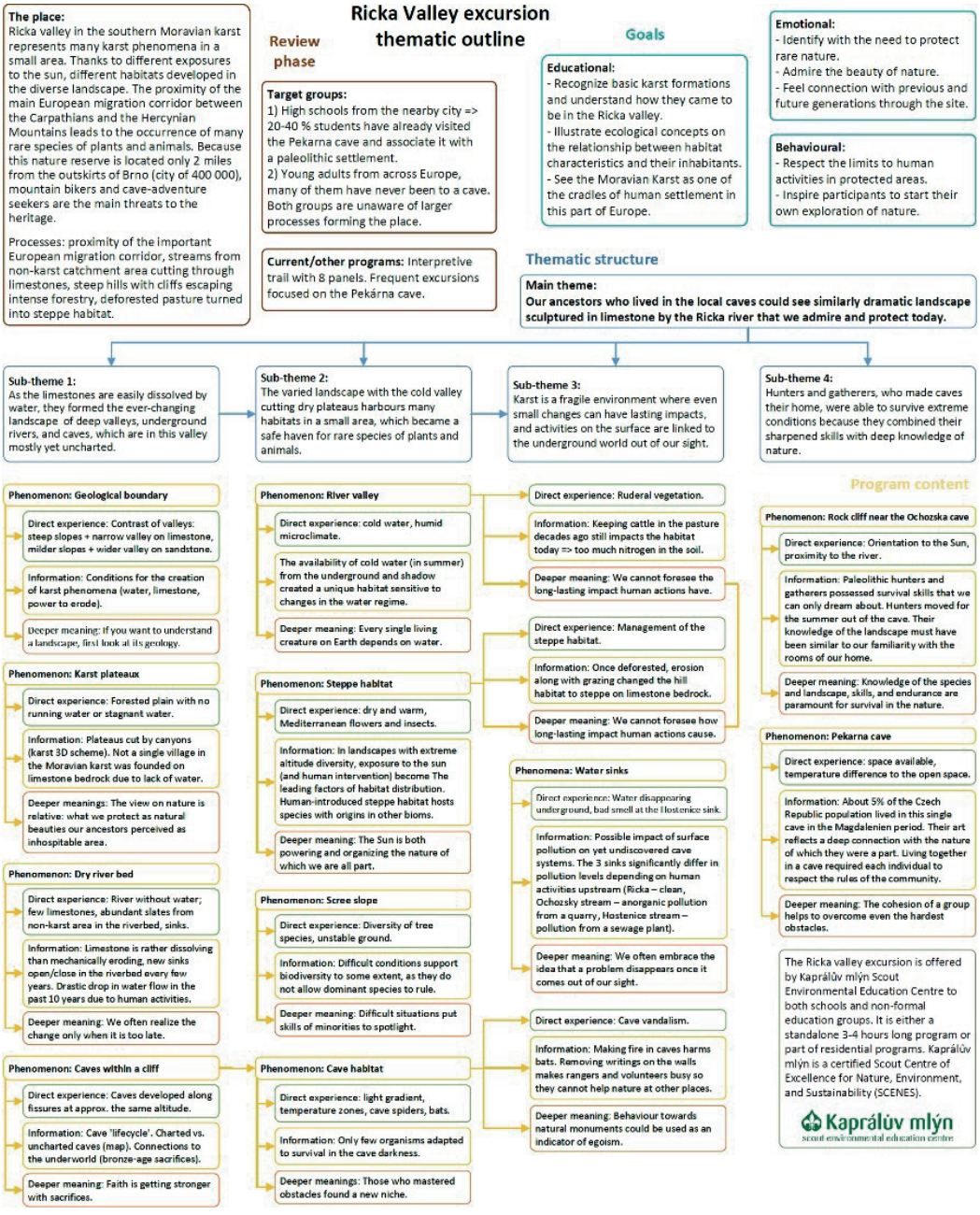


Figure 6. Process of developing each area of the %M model (Bronchu, 2014)

Appendix 5

Example of a Guided Tour Outline

Though the scheme might seem complicated, it presents an outline for a four-hour excursion and replaces dozens of pages of a script. Its purpose is to demonstrate **how the narrative guidelines can be translated into a concrete interpretation program**. The brown section provides context for the reader (chapter 4.1), the turquoise squares show the interpretive goals (chapter 4.2.1), and the blue squares present the elementary structure of themes and sub- themes (chapter 4.2.2) to which each of 11 phenomena-participants encounter along the way-is related. For each phenomenon, the tangible on-site features are listed (chapter 4.1.2), along with descriptive information and deeper meanings (chapter 4.3.2) the guide can use to foster an emotional connection.



Appendix 6

Determining the Model of Participation

Nina Simon (2010:187) expanded the classification developed for participation in citizen science and adapted it for the museum field. She suggests that an **institution should first assess its capacities before making a decision on which participatory model it wants to adopt**. Simon discerns four participatory models described in the Participatory Approach chapter. The following table is a tool to assess the most suitable participatory model for an institution.

	Contributory	Collaborative	Co-Creative	Hosted
What kind of commitment does your institution have to community engagement?	We are committed to helping our visitors and members feel like participants in the institution.	We are committed to developing deep partnerships with specific target communities.	We are committed to supporting the needs of target communities whose goals align with the institution's mission.	We are committed to inviting community members to feel comfortable using the institution for their own purposes.
How much control do you want over the participatory process and product?	A lot – we want participants to follow our rules of engagement and give us what we request.	Staff will control the process, but participants' actions will steer the direction and content of the final product.	Some, but participants' goals and preferred working styles are just as important as those of the staff.	Not much – as long as participants follow our rules, they can produce what they want.
How do you see the institution's relationship with participants during the project?	The institution requests content and the participants supply it, subject to institutional rules.	The institution sets the project concept and plan, and then staff members work closely with participants to make it happen.	The institution gives participants the tools to lead the project and then supports their activities and helps them move forward successfully.	The institution gives the participants rules and resources and then lets the participants do their own thing.
Who do you want to participate and what kind of commitment will you seek from participants?	We want to engage as many visitors as possible, engaging them briefly in the context of a museum or online visit.	We expect some people will opt in casually, but most will come with the explicit intention to participate.	We seek participants who are intentionally engaged and are dedicated to seeing the project all the way through.	We would like to empower people who are ready to manage and implement their projects on their own.
How much staff time will you commit to managing the project and working with participants?	We can manage it lightly, the way we'd maintain an interactive exhibit. But we ideally want to set it up and let it run.	We will manage the process, but we are going to set the rules of engagement based on our goals and capacity.	We will give much time as it takes to make sure participants are able to accomplish their goals.	As little as possible – we want to set it up and let it run on its own.
What kinds of skills do you want participants to gain from their activities during the project?	Creation of content, collection of data or sharing of personal expression. Use of technological tools to support content creation and sharing.	Everything supported by contributory projects, plus the ability to analyse, curate, design and deliver completed products.	Everything supported by collaborative projects, plus project conceptualization, goal-setting, and evaluation skills.	None that the institution will specifically impart, except perhaps around program promotion and audience engagement.
What goals do you have for how non-participating visitors will perceive the project?	The project will help visitors see themselves as potential participants and see the institution as interested in their active involvement.	The project will help visitors see the institution as a place dedicated to supporting and connecting with community.	The project will help visitors see the institution as a community-driven place. It will also bring in new audiences connected to the participants.	The project will attract new audiences who might not see the institution as a comfortable or appealing place for them.

Guidelines for New Communication Narratives in Visitor Management

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