Chapter 2
Multi-sensory Experiences at Heritage Places: SCRIPTORAMA, The Black Sea Open Street Museum

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Abstract Under the umbrella of the MIS ETC 2617 ALECTOR, a project within the *ENPI CBC BLACK SEA JOINT OPERATIONAL PROGRAMME 2007–2013*, a novel cultural heritage infrastructure with three components has been developed to communicate local heritage to international audiences. A cross-border partnership, operating in seven countries (Greece, Romania, Bulgaria, Ukraine, Georgia and Turkey), has developed standards for heritage tourism by involving key stakeholders, local communities and citizens into heritage planning in a bottom-up and training process. The project has been completed in a 30 month period with an overall budget of 1,065,894.00 EUR. The main result *SCRIPTORAMA*, a three-component Open Street Museum, accessible through 90 Quick Response Codes in the territory and as eBook at the Appstore and Google Play, is delivering the heritage experience by engaging in a constant dialogue heritage suppliers and heritage users. This paper examines (a) how cognitive-emotional and multi-sensory experiences can foster an (inter)-active knowledge acquisition pattern for non-captive audiences at heritage places; (b) how to integrate new technologies into the cultural heritage experience to support the informal learning modus; and (c) how to democratize the mission of heritage institutions by promoting self-reflective and critically thinking visitors who can perceive, reshape and organize heritage places into a participatory public space accessible by all.

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2.1 Introduction

Although it is well organized and broken down by eras, genres or styles, the modern museum becomes a place where those who want to see everything, would finally not see anything. Eco's idea about an exhibition that emphasizes understanding through the definition of the historical, political, social framework building the prerequisite for cultural literacy is not necessarily a utopia (Eco 2003). But could, for example Botticelli's *Primavera*, the culmination of the Renaissance painting become such a universal value exhibit that can deliver a multi-sensory experience?

In the first hall there would probably be an introduction to the fifteenth century Florence revealing the rediscovery of the humanities with educational panels, exhibitions of books and engravings starting with incunabula, the earliest form of printed books. The objects aforementioned would remain *noli me tangere*, but nevertheless they would attract the audience's attention, to start with. Then the audience familiarizes with the works of the painters who preceded and inspired Botticelli, like Lippi and Verrocchio, and only after it would be introduced to the works of Botticelli before *Primavera*. The scene should be dominated by paintings with female faces that announce those created by Botticelli, to demonstrate that women were seen in a different way in those times and that it is Botticelli who has radically innovated the female social image. Music should be heard, like the one Botticelli must have listened to, along with the voices of poets and philosophers, whose works Botticelli must have studied. The audience would finally enter the central hall, to see *Primavera*, with the now trained eye of a Florentine of the fifteenth century. In the following hall, a screen would reveal all the details of *Primavera*: the pictorial solutions adopted by Botticelli, the comparisons with details of other painters. The last hall would be crowing the experience and would be dedicated to the legacy of Botticelli up to the Pre-Raphaelites.

As much as it is impossible to realize the multi-sensory experience in the bricks and mortar fashion using all authentic paintings in one place, it is feasible to deliver it using digital technology and digital reproductions. The new digital artwork would then allow every known masterpiece to be further spread and every unknown masterpiece to gain its place in the collective memory (Di Russo 2003). Along this line, *SCRIPTORAMA* is the first experiment to support *understanding* at the expense of *admiration* in the multi-ethnic and multi-cultural Black Sea Basin. In the eBook for iOS and Android operating systems, *The Will of Marco Polo: adventure with merchants, laborers and wise men*, the central hero is the visitor, who is travelling across the commerce roads that connect the East and the West: the *Golden Fleece*, the *Silk Road* and the *Golden Leaves*. On his reinvented trail of gold, silk and tobacco, this new *Marco Polo*, meets the Argonauts and the Ten Thousand, Roman and Byzantine Emperors, Mongol rulers, Ottoman Sultans, Western and Eastern travellers and modern era historic personage who share their thoughts and values. The new *Marco Polo* needs to know about the *European Discovery Age*, the *Modernity,* the late *Ottoman Empire*, the *Belle Époque*. Finally, he reaches *World War I* and *World War II* always trying to shed light to causality

mechanisms, equipped with the main ingredient of civilization: human values and human rights. With the choral cantata 147 by J.S. Bach as background music, excellently performed by the children's choir of the Conservatorio di Cagliari under conductor Enrico Di Piana, the new heritage journey starts:

> *Marco Polo was travelling without maps,*
>
> *without streets, but following old tales.*
>
> *He wrote a story that still unites all of us.*
>
> *He did not want to convert anyone.*
>
> *He did not conquer any land.*
>
> *His will was the pursuit of knowledge.*
>
> *Be Marco Polo…and travel with us.*

In the meantime, pervasive media have already transformed the learning paradigm by providing unprecedented opportunities for self-directed learning, collaborative and lifelong learning. In contrast to the prevailing opinion, we argue that as pervasive media, continue to evolve (eBooks, apps, social media) supported by constantly advancing generations of data networking that move faster, the intangible nature of cultural assets will become either more important than the mere physical substance, or just an empty of content virtual shell. The rising tendency to rely on technology to convey cultural information off- and onsite does not necessarily lead to the acquisition of knowledge and the production of a heritage-driven value chain through shared practices: advanced ICT applications (apps, platforms) cannot convey meanings, if void of appealing and appropriate content. An improved understanding of heritage in the spirit of the knowledge economy, where creativity becomes a driver for development through active heritage consumption is the *conditio sine qua non* for the sustainability of heritage places (Francois 2012: 91). However, evidence form Structural Funds in the Programming Period 2007–2013 demonstrates the opposite: out of 347 billion, only 6 billion (1.7%) were allocated to culture. Two main conditions perpetuate this vicious circle:

(a) culture is thought to be of national interest and as such it is not export-oriented, and
(b) the contribution of culture is thought to be only an intangible benefit and as such it is not noticed by those who concentrate on the total value of the turnover as an indication of the significance of an industry (CSES 2013: 19–20).

The contribution of culture in the contemporary economic framework is connected to the obsolete conceptualizations of the relationship between cultural activity and the generation of economic value (Bucci and Segre 2009; Sacco 2011; Revelli 2013; Ates 2014). According to the EU Policy Handbook, in 2012 the economic contribution of the Cultural and Creative Industries (CCI) (2.1%) is higher than that of the sector of food, beverages and tobacco manufacturing (1.9%), the textile industry (0.5%) and the chemicals, rubber and plastic products industry (2.3%). Because culture is still thought to be the highly subsidized and

low-productivity sector, it remains the easiest target for public funding cuts, especially in times of economic recession. This attitude disables the capacity of the CCI sector to contribute to future economic and employment growth. The networked economy demonstrates vacancies for professionals with digital skills, high-average wages, and persistent reports of skill shortages and use of migrant labour (Williams et al. 2012: 68). As a result, new products are delayed, orders are lost and competitiveness is weakened.

2.2   Research Methodology

The Project Area is peripheral and suffers a divergence of supply (heritage offers and businesses) and demand (heritage consumers), as informational asymmetries disable the access to heritage offers and eventually downgrade the onsite experience. In this way, the internationalization of culture through the selection and consumption of quality and highly customized heritage products and services fails. To effectively utilize the dynamics of culture for development, an alternative plan is sought: *SCRIPTORAMA*, a first attempt to operate a 24 h accessible museum in the Black Sea Basin. The range covers three EU NUTS II regions; three NUTS II equivalent regions in Moldova, Ukraine and Georgia and three regions in Turkey: EL51 (Drama in Eastern Macedonia and Thrace); Romania: RO223 (Constanta); Bulgaria; BG331 (Varna); Moldova, Chisinau; Ukraine, Donetsk Oblast, Mariupol; Georgia, Adjara, Batumi; Turkey:TR42 (Sile, Agva) and TR90 (Eastern Black Sea).

The design of multi-sensory experiences at heritage places remains an under-researched topic. The main objective within the ALECTOR Project is to set up a framework for the design of cognitive-emotional experiences for both the onsite and dislocated audiences considering the Project Area particularities and the conditions that regulate the informal learning environment. In contrast to prevailing opinions, we defend that the knowledge pattern of non-captive audiences in cultural heritage settings shall be reconstructed in line with Human Cognitive Architecture (HCA) to respond to the specific needs and requirements in the informal learning environment and thus contribute to successful heritage experiences and the appreciation of heritage. The conditions under which immersive experiences take place in heritage settings have been studied in the Project Area in a 30 month period from a transdisciplinary point of view, so that a new cultural heritage experience pattern based on shared practices could be designed. New services, generated in the creative economy, have been looked at from a technological point of view, so that a new travel motivation can be offered to dislocated audiences and an enriched experience is ensured for onsite visitors improving satisfaction and access to local product offerings.

2.2.1 Defining the Heritage Experience

The experience of visitors at heritage places is a complex and personal interaction between an individual and the heritage environment, natural, built or intangible. Experiential travel is rooted in the antiquity with Pausanias, producing the first travel documentaries, followed by the Grand Tour nobility travellers and later on the Baedeker readers. It regained contemporary understanding from the reference work *Experience Economy*, where the authors demonstrate that there is a fourth level of economic value called "experience" and that customers are willing to pay a premium for it (Pine and Gilmore 1999). The study *Economy of Culture in Europe* in 2006, and the UN report *Creative Economy* in 2008 establish the concept of creative economy and the domain-specific expertise. In 2014, the year of the digitalization of European cinema theatres, the INTERREG IVC report *Creative Industries* showcases that Europe has reached the point, where the internationalization and export of creative services and products will give new impetus to the cross-sectoral economy (Amann and Lange 2014). In the creative economy, the triangle technology, economy and society are converging and traditional skills are being challenged by a constantly changing knowledge ecosystem (HKU 2010: 3; Bruell 2013: 19). This semantic shift is generating new cultural consumers: individuals thinking and operating in the creative environment become exactly those skilled visitors who wish to be intellectually challenged, understand, appreciate and then participate and be involved at heritage places: (Armstrong and Weiler 2003: 14–16; Jurowski 2009: 1; Jager and Sanche 2010: 181; Tussyadiah 2014; Bulencea and Egger 2015).

The completeness and quality of the experience is influenced by the visitor's expectations, the setting, social interactions, degree of active participation (passive through to active), levels of immersion (emotional, physical, intellectual and spiritual engagement) and associated memories: to quote the American novelist Edward Streeter, "travel is ninety per cent anticipation and ten percent recollection" (Streeter in Sharpley and Stone 2012: 3). Although the four realms of experience (education, escapism, entertainment, aesthetics) are not always supported by empirical data, scholarly research provides insight into the experience motivations towards the enrichment of the personal cultural capital and the trend to understand the "other" by actively participating in the local life (Jurowski 2009: 6; TA 2008: 4; Shanks 2012: 21–43; Chen et al. 2014).

The post-war development of mass cultural tourism has led to a "serial reproduction" of culture and the onset of a "vicious cycle" of decline in leading cultural destinations (Russo 2002; Richards and Wilson 2006). Faced with mass consumption, critically thinking individuals seek refuge in less tangible forms of culture that require higher levels of cultural capital and competence to master (Richards 2012). It is exactly this gap that *SCRIPTORAMA* is called to fill offering a genuine cultural heritage experience by challenging intellectually both the onsite and dislocated audiences with audiovisual and media formats that require skills and participatory engagement. Ninety different experiences are formed at 90 heritage

places through a combination of indoor and outdoor activities, settings and the personal connection that arises from the social interaction. An experience engages the senses; it is physical, emotional or spiritual (or all three). All ninety *SCRIPTORAMA* experiences go beyond nice places and good views. They are designed to offer discovery and enquiry learning and create strong memories. They all connect to *genius loci*, meeting visitor needs for unique, authentic encounters and the community need to narrate the cultural self. *SCRIPTORAMA* has practically developed and trained a new audience to demand and require a high-quality cultural experience directly connected to local services in the territory, one that creates higher yield opportunities at local level.

2.2.2 Surveys, Field Work and Involvement of Experts and Stakeholders

The Project Legacy includes a cultural heritage infrastructure with 11 highly replicable tools, a training programme in cultural communication, 5 publications, 5 project-driven networks, the *Black Sea Heritage Register* and *SCRIPTORAMA*, the first Open Street Museum in the Black Sea Basin. This legacy is of substantial value to be left without continuation and collective voice. A Cross-Border Non-Profit Non-Governmental Association, the *Black Sea Heritage Observatory,* is co-founded by Project Partners and cooperating organizations, to ensure further diffusion and sustainability of achieved results, most notably the ideals of *SCRIPTORAMA*. The *Black Sea Heritage Observatory* has adopted a common *Heritage Charter* and a common *Heritage Strategy* up to 2020 to ensure the viability of Project results. A Non-Statutory Cooperation Agreement has been signed by 132 multilevel actors from the three spheres of public administration, civil society, economy and the third sector such as local action groups, the private sector, professional unions, chambers of commerce, NGOs, local heritage organizations and initiatives. These actors have acquired access to project results and to praxis validated heritage planning and management tools. They thus ensure the continuation of the collective voice in the Project Area and promote entrepreneurial innovation in the heritage tourism sector.

SCRIPTORAMA aims to create and globally launch a non-exchangeable, competitive cultural heritage place image in each of the nine heritage places in the Project Area in order to attract market segments from domestic and foreign tourism, stimulate new businesses in the CCI domain and enhance the performance of traditional tourism businesses at local level. Nine Pilot Projects have been therefore developed in the Project Area as follows (Tables 2.1 and 2.2):

ALECTOR has explored the perceived image of each heritage area among domestic and foreign visitors to evaluate heritage offers and to provide suggestions to be fed back into the *SCRIPTORAMA* planning. An e-Survey has been conducted in national languages by all Cross-Border Partners in 2015. 254 out of 459 respondents (56%) have stated that SCRIPTORAMA will attract the general public, while the rest 205

Table 2.1 The ENPI pilot projects

ENPI partners	NUTS III (equivalent)	Heritage project title	Subtitle
ENPI financial lead beneficiary: Drama development D.D.S.A., Drama, Greece	EL51 (Historic centre of Drama)	Tobacco perfumes	Drama 1840–1940. Stories, passions, protagonists
ENPI partner 1: National authority for tourism, Bucharest, Romania	RO 223 (Constanta)	Romania's ancient Black Sea coast	Greek colonists, Dacian kings and Roman legions
ENPI partner 2: Union of Bulgarian black sea local authorities, Varna, Bulgaria	BG 331 (Varna historic town)	100 years in 60 minutes	Varna, 1860–1960
ENPI partner 3: National association of rural, ecological end cultural tourism, Chisinau, Moldova	MO (Chisinau)	Tree of life	Discovering spiritual treasures
ENPI partner 4: Donetsk civic organization "Alliance", Donetsk, Ukraine	UKR (Mariupol)	The Greeks of Priazovie	Mariupol 1778-2016. History, customs and traditions
ENPI partner 5: The Batumi archaeological museum, Batumi, Georgia	GE (Adjara, Batumi)	Colchis, land of the golden fleece	Myths in places with real treasures

Source MIS ETC 2617 ALECTOR project record

Table 2.2 IPA heritage projects

ENPI partners	NUTS III (equivalent)	Heritage project title	Subtitle
IPA financial lead beneficiary: Governorship of Istanbul, Istanbul, Turkey	TR42 (Kocaeli, Sile)	Eastern Black Sea from the silk road to modern times	Sile, Turkey: a lighthouse, legends and mermaids
IPA partner 1: Eastern Black Sea development agency, Trabzon, Turkey	TR90 (Eastern Black Sea)	Legendary Journeys	Eastern Black Sea from the silk road to modern times
IPA partner 1: Bahcesehir University/METGEM development centre for vocational-technical education, Istanbul, Turkey	TR42 (Kocaeli, Agva)	A serenade in nature	Agva, Turkey. Birds, plants and poetry

Source MIS ETC 2617 ALECTOR project record

respondents (44%) considered that contents of the Pilot Projects would rather attract special interest groups. Although more than 50% of the respondents had some knowledge about local heritage assets, they could not connect mentally or emotionally to a certain thematic topic or a cohesive narrative that could express a validated cultural identity of the areas question. The e-Survey has revealed four prevalent suggestions:

- Get to know heritage places and create a greater understanding of the past;
- Exploit the technology intense experience to communicate heritage;
- Promote active visitor participation in the consumption of heritage;
- Identify what business opportunities can be created by originating a new race of entrepreneurs defined as cultural heritage suppliers, who are going to handle a mobile business that is highly customized for the client offering services that mass tourism by definition cannot offer.

The e-Survey has identified a target audience receptive to the Project Area heritage offers: the *heritage experience seeker*. This target audience is looking for unique, involving, customized experiences. It is less affected by the traditional barriers to consumption, like price, distance and time, favouring authenticity, uniqueness and originality at selecting heritage products and services, and is more informed, interested and curious about heritage places, traditional products and iconic values. The class of experience seekers who declare cultural heritage as important for everyday life arguably accounts for about 50% of cultural consumers from key source markets globally and can be found among all age groups, income levels and geographic locations (ATEM 2010; Bucci and Segre 2011; Eurostat 2011; Richards 2013; Eurobarometer 2013; Bui and Trupp 2014). This creative class shows commonalities across countries, placing high value on experiences and hence critically balances benefits with costs. These creative consumers are typically are open-minded and have an interest in world affairs, selective about their media consumption, well-connected, willing to learn from and share information with their peers and investigate cultural heritage options thoroughly. They spend more on quality and like to engage with the local people and lifestyles wishing to absorb and get involved in the day-to-day culture. Consequently, their tourism experiences are more engaging and they are likely to return to heritage places and cultural points of interest.

In their *Manifesto 2013,* the *Arts Council England* is stating: "Every taxpayer, every lottery ticket-holder, every donor, and every reader, theatre-patron and concert-goer is a stakeholder in our world-class arts and culture" (ACE 2013: 3). Embracing this integrative vision, ALECTOR has looked for ways to create the *Cross-Border Stakeholder Map* initiating the dialogue process with multilevel actors. Seeking opportunities to involve heritage authorities, government officials, heritage and tourism-related businesses, third-sector actors, special interest groups and citizens when planning the local Pilot Projects, creating the community story and commonly evaluating preliminary results have led to an intense and fruitful cooperation among local and cross-border stakeholders. To involve communities in the development process to feed back the pilot projects and secure ownership of the final result, was an important consideration right from the start. Locals understand the needs, opportunities, priorities, history and dynamics of the community in ways that professional non-residents do not. Users of services have perspectives and experiences that experts need to know of to develop a service for the market. Local populations are directly affected by problems and have therefore important insights about the causes of problems and ways to address problems. On the other hand

without sufficient domain-specific expertise, it is difficult for communities to understand the underlying nature of heritage valuations or to develop effective and locally feasible solutions to address them. Eighteen field trips have been organized in 2015 in the Project Area to include local communities in the design and delivery of authentic experiences. Seven heritage experts from Greece, Bulgaria, Romania, Moldova, Ukraine, Georgia, Turkey and Italy have developed nine *SCRIPTORAMA* chapters, communicating with each other to ensure the quality of the desired heritage experience and produce a culturally cohesive multimedia narrative with market value.

A qualitative survey (face-to-face interviews) has been conducted with 107 stakeholders in the Project Area. It has been suggested that each Pilot Project within ALECTOR should offer a complex source of information concerning a summative tourist product: geographical location, climatic conditions, natural and cultural resources, local traditions, events and cuisine, major tourist attractions from the built and natural environment and accessibility opportunities. The opinion prevailed that cultural heritage attractions constitute a places' distinct features, its proper identity. But heritage assets cannot speak for themselves; it is therefore needed a holistic planning and management approach to provide for quality heritage experiences. It has been explicitly stated that in the Project Area many businesses offering a service or a product related to the heritage sector, cannot perform globally, because they have to apply local rules. In order to respond to this challenge, ALECTOR strived to identify the services and products that needed to be reshaped or launched and accordingly raise the awareness of the business sector in the Project Area. The participation of stakeholders in seven countries across the Project Area has opened a new dialogue format at cross-border level improving communication between individuals and organizations with an interest in heritage. A common vision has been built around a common view that has generated and enhanced the *SCRIPTORAMA* narrative. The active involvement of stakeholders in the planning process has led to more effective, feasible and responsive solutions, prevented the repetition of ill-advised decisions and enhanced the acceptance and legitimacy of decisions taken. The field work has proved that local stakeholders are empowered when they have the ability to exert control over forces that affect their lives, when have the knowledge, skills and resources to do so, and when they are actually involved in making decisions. These dimensions of local empowerment resonate closely with the basic tenets of participatory democracy. By actively taking part in making decisions and by determining the results of decisions, local stakeholders have gained control over their lives (Table 2.3).

2.2.3 Assessing the Significance of Heritage Resources

A heritage assessment has been undertaken in the Project Area to evaluate heritage assets at *spatial* (global, national, regional, local), *scientific* (research, technical), *historic, aesthetic, social* (national, community, group, family personal) and

Table 2.3 SCRIPTORAMA: stakeholder classification

Collective actors (327)	
1	Collective actors who clearly saw potential opportunities in the implementation and marketing of the Local Pilot Project (180)
2	Cultural heritage operators (museum, collection, heritage site, natural-protected area, women cooperatives on traditional products, etc.) (36)
3	Communities interested in the operation of the Local Pilot Project
4	Municipalities (111)
Individual actors (60)	
1	Individual actors who clearly saw potential opportunities in the implementation and marketing of the Local Pilot Project (56)
2	Heritage property owners within the Pilot Project Area (4)
Authorities (90)	
1	Agencies in charge of managing the heritage place (state, regional, municipal, local ministerial authorities, archaeological authorities, spatial planning authorities, etc.) (90)
Professional actors (209)	
1	Associations and professional unions interested in the operation of Cross-Border Projects (11)
2	Local businesses, especially those who would be affected by increased tourism flows that would positively impact the cultural consumption pattern (180)
3	Convention and Visitor Centres and Bureaus, Chambers of Commerce, and other local groups dedicated to promoting cultural consumption and tourism (18)

Source MIS ETC 2617 ALECTOR project record

spiritual (tradition, religion, rites and beliefs, lifestyles) level. A multi-criteria *Significance Assessment Tool* (SAT) has been applied to facilitate the selection of cultural heritage assets with interpretive potential (Papathanasiou-Zuhrt and Weiss-Ibanez 2014). Ninety heritage assets in seven countries are classified according to natural, man-made and spiritual heritage classes. All ninety assets and have been further evaluated according to the criteria described in the lists of designated monuments in Greece, Bulgaria, Romania, Moldova, Ukraine, Georgia and Turkey and the *Unesco Operational Guidelines*. A validated *Statement of Significance* has been formulated for each asset, generating the conservation motive for authorities and the travel and consumption motive for visitors (UNESCO 2012). The 90-asset-body forms the *Black Sea Heritage Registry* (Table 2.4).

Authenticity is a core value in cultural communication and central to the quality experience. Authenticity relates both to the representations of the past combined with visitor perceptions of authenticity, while from conservation management perspective it means to be as historically accurate as possible in the scientific representation of historical events, rehabilitation and restoration as per Venice Charter (1964); Amsterdam Declaration (1975); Florence Charter (1982); UNESCO (1994). In the development context of *SCRIPTORAMA*, visitors play an active role in the authenticity of heritage, rather than simply being a passive recipient of historical knowledge. It is of crucial importance to realize that the audience is not

Table 2.4 Heritage significance assessment process

Secondary criteria	Modifiers
Provenance	**1.1** Authenticity; **1.2** Originality; **1.3** Designation
Integrity	**2.1** Completeness; **2.2** Exemplarity; **2.3** Bio- and cultural diversity
Distinctiveness	**3.1** Novelty; **3.2** Familiarity
Accessibility	**4.1** Availability; **4.2** Carrying capacity; **4.2** Condition; 4.4 Facilities; **4.5** Service capacity
Interpretive potential	**5.1** Legal status; **5.2** Intervention possibilities; **5.3** Asset knowledge; **5.4** Knowledge of the audience; **5.6** Media selection; **5.5**. Experience opportunities

Source MIS ETC 2617 ALECTOR project record

only seeking knowledge but also enjoyment through the emotional interaction with the past. Presenting original assets and dry facts disconnect the audience from the experience vehicle and lead to an "in vitro image of the departed past" (Gyimothi and Johns 2001: 249). What *SCRIPTORAMA* wishes to avoid by all means is the "serial reproduction" of culture and the onset of a "vicious cycle" of decline in heritage places (Richards and Wilson 2006; Russo 2002).

2.2.4 Restructuring the Knowledge Pattern for Non-captive Audiences

SCRIPTORAMA aims to demonstrate the value of *Human Cognitive Architecture* for the recreational learning environment: the spatiotemporal gap generated by authentic heritage settings is produced by both the tangible (material substance) and the intangible (hidden meanings) dimension of heritage assets: architectural forms, inherent meanings, community values, universal values, state of integrity etc.,—and the inability of visitors without prior knowledge to access the bigger picture. This very particular time-distance condition is further sharpened by cultural and mentality differences, which impedes altogether non-captive audiences to grasp the value of heritage. The spatiotemporal gap is a matter of *cognition* closely linked to experiential learning as defined by Dewy (1938) and Kolb (1984) (Fig. 2.1).

Descriptions authored by the supply side (heritage authorities) are usually coded in the expert jargon. They are little adjusted to the eye-scan-path movement, the general cognitive ability **g**, the category learning, the ability to perceive and process information, retain and evoke mental representations, the capacity of working memory and the interactions of working and long-term memory and non-accidental connections between kinds and properties and grounded cognition (Baddeley and Hitch 1974; Prasada 2000; Barsalou 2008, 2010; Baddeley 2012; Baddeley et al. 2014). This vicious circle is responsible for the poor quality of onsite experiences, and as such it is generating significant revenues losses.

Fig. 2.1 Low readability panel in Turkish, Arabic and English with fragmented socio-historical information at the entrance of Ayasofya Museum in Trabzon, Turkey (*Source* The ALECTOR project record, 2015)

Cultural growth is linked to the presence of particular tangible assets, such as monuments, museums, heritage sites and historic cities, natural attractions and cultural landscapes. Tourism operators try to attract consumers, merely focusing on the tangible form of heritage assets, exploiting the iconic visibility at the maximum, while the intangible dimension, the meaning hidden in the tangible form, is neglected. On the other hand, cultural heritage authorities hold the monopoly of information and often reject the individual expressions and aspects about heritage assets as untrue. In fact some individual expressions can be hold true, while others cannot. Therefore, how to deliver validated knowledge patterns, how to establish a new learning paradigm and how to generate visitors that become self-providers and distributors of knowledge are the major research questions within ALECTOR.

We assume that non-captive audiences at heritage places are heterogeneous (multi-national, multi-cultural and multi-generational) groups, exploring information potentially connected with their own pre-understandings and prior knowledge. The main difference between learners in formal settings and non-captive audiences is the possibility to rehearse material. As the human working memory is limited in capacity with respect to the number of elements it can handle simultaneously, rehearsal is necessary to prevent information loss. This condition cannot be met with time-scarce and non-captive audiences. In order to create a mental bridge to selected phenomena, and make the novel seem familiar by relating it to prior knowledge and/or universal concepts in a much shorter time period and more

entertaining way, a new approach is required: brain literacy is the *conditio sine qua non* to accurately identify opportunities for cognitive accessibility, exploiting both the visual, interactive and reading environment and list all features that enhance the perception. *SCRIPTORAMA* is an attempt to clarify the conditions in which understanding takes place. Among these, conditions are prejudices and fore-meanings in the mind of the interpreting visitor. Understanding is therefore interpretation, where one uses the own preconceptions so that the meaning of the object can really be made to speak or it can be altered in a non-desirable way. Understanding is a productive process, with interpretations keep changing during the process of what and when is being understood. An important condition in which understanding takes place is temporal distance: present and past are firmly connected and the past is not something that has to be painfully regained in each present, *if* the interpreter has the tool to decode it. One of the main problems is with is how to distinguish "true prejudices", by which we understand, from the "false" ones, by which we misunderstand. However, visitors at heritage places are not always aware of historic specificities. It is the knowledge of the undistorted history that is enabling the audience to put aside the own prejudices and evaluate heritage from a different light and multiple perspectives. But how to achieve this at heritage places and sites? *SCRIPTORAMA* relies on hermeneutics to bridge the spatiotemporal gap between the "object" and the "interpreter". Hermeneutics is a systems' logic that derives from the ability of humans to think in abstract and taxonomic categories, naming it categorical knowledge and that memories are composed of associations, as firstly put by Aristotle (Μανδηλαράς 2000). Mental activity does not occur in a vacuum, but is grounded in the type of worlds our bodies inhabit, meaning that humans use context to "guide the encoding and retrieve information" (Radvansky 2016: 17). Therefore, to link tangible aspects of heritage to their intangible meanings by connecting the visible form with the invisible meaning is an imperative task. Common threads between the asset and the rest of the world are needed to facilitate the understanding and appreciation of phenomena. If the audience understands how heritage is relating to the bigger picture, and why it is important, all connected services in heritage places acquire a special added value. To help the audience make sense of local phenomena, *SCRIPTORAMA* links them to the bigger picture employing storytelling in the format of audiovisual narratives designed in correspondence with the principles of Human Cognitive Architecture (HCA): the information architecture adopted by ALECTOR presupposes a limited working memory capacity to deal with visual, auditory and verbal material and an almost unlimited long-term memory, capable of retaining retain schemas, i.e. mental representations that vary in their degree of automation (Sweller 2008: 370–381; Paas et al. 2010; Baddeley et al. 2014; Radvansky 2016). Information units are chunked with three novel concepts per unit, below the limit proposed by Miller (1956, 2003). Graphic design is aligned with the eye-scan-path movement, and layering follows international standards for the interpretation of heritage (ICOMOS 2006). In order to decongest the working memory and redirect attention, metaphors, associations and universal concepts have been extensively utilized, and meanings are communicated through the use of universal concepts. Capitalizing on the

attention-value-model suggested by Bitgood, a heritage narrative has been modelled in line with the cognitive load theory, to respond to the working memory constraints and the specific needs and requirements of attention and memory span in informal learning settings (Sweller et al. 2007; Bitgood 2013). The communication strategy considers an intrinsic, extraneous and germane cognitive load involving detailed didactic skills to model the narrative according to the findings obtained by empirical evidence in ninety heritage places across the Project Area. The model aims to demonstrate the value of a cognitive-driven narratology, making brain literacy educationally relevant for the museum sector, and provide the Project Area with cognitive-emotionally accessible heritage assets connecting them to local offers, products and services. Information management is concerned with the elimination of mental fatigue and the (re)direction of the attention with catchy elements. Ninety-six guidelines have been applied across five cognitive domains: Attention (28); Cognitive Chains (31); Comprehension (19); Decongestion of the working memory (36); Activation of Prior Knowledge (10).

2.3 SCRIPTORAMA Mise en Scène

SCRIPTORAMA, the first *Black Sea Open Street Museum,* has implemented a 90 geolocation connectivity map with 90 heritage assets with a total cost of 119.600 EUR (ENPI cost: 132.700; IPA cost 71.100 EUR). A scenario relates to 90 cultural heritage objects enabling visitors to select desired objects in the locations of interest. Heritage assets gain new significance, as they reclaim hidden values through a sophisticated audiovisual narrative that allows for cognitive-emotional encounters and stimulates imagination and participatory exchanges. *SCRIPTORAMA* is devoted to provide a deeper understanding of heritage places enriching the cultural experience. The 90 selected geolocations are accessible via QRC in the territory, and services attached around them, ensured through constantly updating Google map, integral part of the eBook for iOS and Android operating systems (Tables 2.5 and 2.6).

2.3.1 Universal Values: The Open Street Museum Exhibition

Heritage may broaden the audience's horizons by offering *distinctiveness* and *authenticity*, but at many heritage places a conflict is taking place: the one between *perception* and *understanding*, which is both of emotional and cognitive nature. Despite being driven by the "need of cognition", the visitor interest decreases as the museum visits progress (Cacioppo and Petty 1982; Davey 2005; Bitgood 2009). The same applies for the discovery process at heritage places. Working memory fatigue and other location-related inconveniencies trigger resignation in the last

Table 2.5 SCRIPTORAMA: the ENPI geolocations

ENPI funded partners	No	Monument	Geolocation
Greece: ENPI Financial Lead Beneficiary: Drama Development S.A.	1	Anastasiadis Tobacco Factory, 1875	41° 9′ 0.53″N, 24° 8′ 33.60″E
	2	Drama railway station, 1895	41° 8′ 26.20″N, 24° 8′ 51.18″E
	3	Portokaloglou Tobacco Factory, 1904	41° 9′ 1.45″N, 24° 8′ 20.80″E
	4	School of the Greek Orthodox Community, 1909	41° 9′ 9.46″N, 24° 8′ 19.14″E
	5	Michailidi Tobacco Factory, 1912	41° 9′ 4.13″N, 24° 8′ 30.46″E
	6	Olympia Cinema, 1920	41° 9′ 5.79″N, 24° 8′ 36.63″E
	7	Spierer Tobacco Factory, 1925	41° 9′ 2.07″N, 24° 8′ 31.20″E
	8	Tzimou Mansion, 1925	41° 8′ 58.60″N, 24° 8′ 18.14″E
	9	Feiss Mansion, 1927	41° 9′ 6.63″N, 24° 8′ 47.04″E
	10	National Bank, 1928	41° 9′ 4.96″N, 24° 8′ 48.13″E
Romania: ENPI 1, National Tourism Authority	1	Museum for National History and Archaeology Constanta	44° 10′ 25″N, 28° 39′ 29″E
	2	Roman Edifice with Mosaic	44° 10′ 25″N, 28° 39′ 29″E
	3	Constanta Archaeological Park	44° 10′ 16.79″ N, 28° 39′ 39.38″E
	4	Callatis Archaeology Museum	43° 49′ 2.2404″N, 28° 34′ 59.6568″E
	5	Callatis Fortress	43° 49′N, 28° 35′ E
	6	Tropaeum Traiani Monument	44° 6′ 7.2″N, 27° 57′ 18″E
	7	Tropaeum Traiani Fortress	44° 5′ 0″N, 27° 57′ 16″E
	8	Tropaeum Traiani Museum	44° 5′ 0″N, 27° 57′ 16″E
	9	Histria Fortress	44° 32′ 51″N, 28° 46′ 29″E
	10	Capidava Fortress	44° 29′ 37″N, 28° 5′ 25″E

Table 2.5 (continued)

ENPI funded partners	No	Monument	Geolocation
Bulgaria: ENPI 2, Union of Bulgarian Black Sea Local Authorities	1	Varna Cathedral	43.205289, 27.909724
	2	The Tower Clock	43.204303, 27.910404
	3	The Drama Theatre	43.203708, 27.912550
	4	The Ethnographic Museum	43.201109, 27.913452
	5	The Roman baths	43.199965, 27.917392
	6	Varna history Museum	43.198661, 27.917994
	7	Varna Maritime Museum	43.200232, 27.921575
	8	Sea Garden	43.203758, 27.922318
	9	St. Nikolas thaugamature	43.204424, 27.917971
	10	Archaeological Museum	43.207389, 27.914961
Moldova: ENPI 3: National Association of Rural, Ecological and Cultural Tourism	1	National Museum, Chisinau	47° 1′ 23.7252″N, 28° 49′ 12.7848″E
	2	Wine Factory "Cricova"	47° 8′ 17.3256″N, 28° 51′ 20.9808″E
	3	Museum Complex "Orheiul Vechi"	47° 18′ 10.9188″ N, 28° 58′ 02.1072″E
	4	Touristic halt "Vatra Stramoseasca"	47° 20′ 27.0024″ N, 28° 37′ 24.2832″E
	5	Curchi Monastery	47° 20′ 1.1256″ N, 28° 39′ 11.3112″E
	6	Soroca Fortress, Soroca	48° 9′ 40.8168″ N, 28° 18′ 19.6632″E
	7	Domulgeni Village, Floresti	47° 47′ 27.9276″ N, 28° 26′ 46.1904″E
	8	Ethno-cultural Complex "Vatra"	47° 10′ 32.6568″ N, 28° 29′ 44.9664″E
	9	Wine Complex "Milestii mici"	46° 55′ 11.5140″ N, 28° 49′ 17.1948″E
	10	"Carpe Diem" wine shop, Chisinau	47° 1′ 48.4932″N, 28° 49′ 50.9664″E

Table 2.5 (continued)

ENPI funded partners	No	Monument	Geolocation
Ukraine: ENPI P 4, Donetsk Civic Organization "Alliance"	1	Mariupol Museum of local history	47° 5′ 34.2486″N, 37° 33′ 26.4594″E
	2	Mariupol art Museum "A. Kuindji"	47° 5′ 36.24″N, 37° 33′ 2.88″E
	3	"Meotida" cultural centre	47° 6′ 3.4128″N, 37° 31′ 29.067″E
	4	Church of St. John the Zlatoust	46° 57′ 44.856″N, 37° 16′ 9.6954″E
	5	Monument of metropolitan Ignatius	47° 5′ 46.0854″N, 37° 39′ 36.795″E
	6	Museum of Greek ethnography	47° 10′ 30.36″N, 37° 41′ 38.7594″E
	7	House of culture of Tamara Katsy	47° 10′ 13.7166″ N, 37° 41′ 20.3784″E
	8	Cultural Centre "Village of Vashura"	47° 0′ 13.0794″N, 37° 41′ 49.92″E
	9	St. Michael Church	46° 54′ 57.9918″ N, 37° 5′ 51.5862″E
	10	Mariupol Museum of folklife	47° 5′ 38.0394″N, 37° 33′ 0.7194″E
Georgia: ENPI 5, Batumi Archaeological Museum	1	Kvirike Mosque	41° 46′ 0.78″N, 41° 50′ 20.94″E
	2	Petra-Tsikhisdziri Fort	41° 46′ 6.39″N, 41° 45′ 13.12″E
	3	Batumi Botanical Garden	41° 41′ 48.08″N, 41° 42′ 48.26″E
	4	The Nobel Brothers Batumi Technological Museum	41° 39′ 42.31″N, 41° 40′ 49.45″E
	5	Batumi Fort	41° 39′ 49.42″N, 41° 40′ 57.98″E
	6	Art gallery Dotcomma	41° 38′ 54.68″N, 41° 38′ 2.81″E
	7	Batumi Boulevard	41° 39′ 17.14″N, 41° 38′ 4.58″E
	8	Batumi Archaeological Museum	41° 38′ 35.71″N, 41° 37′ 55.20″E
	9	Avgia Church	41° 34′ 27.21″N, 41° 35′ 18.07″E
	10	Gonio-Apsarus Fort and Museum	41° 34′ 23.64″N, 41° 34′ 24.55″E

Source MIS ETC 2617 ALECTOR project record

Table 2.6 SCRIPTORAMA: the ENPI geolocations

IPA Funded Partners	No	Monument	Geolocation
Turkey: IPA financial lead beneficiary Governorship of Istanbul	1	The sile lighthouse	41° 10′ 40.6″N, 29° 36′ 58.5″E
	2	Sile castle	41° 10′ 54.7″N, 29° 36′ 33.4″E
	3	Weeping rock	41° 10′ 31.6″N, 29° 37′ 27.2″E
	4	Fishing traditions	41° 10′ 52.7″N, 29° 36′ 25.2″E
	5	Historic ship rescue station	41° 10′ 31.3″N, 29° 36′ 29.4″E
	6	The Sile fabric	41° 09′ 20.8″N, 29°35′17.6″E
	7	Sofular's geology	41° 10′ 50.4″N, 29° 31′ 32.6″E
	8	Sile's past	41° 07′ 19.1″N, 29° 39′ 16.7″E
	9	Yenikoy's history	41° 07′ 19.1″N, 29° 39′ 16.7″E
	10	Yenikoy's beekeeping tradition	41° 07′ 19.1″N, 29° 39′ 16.7″E
Turkey: IPA 1, Eastern Black Sea development agency	1	Yason Cape, Ordu	41° 07′ 49″N, 37° 42′ 34″E
	2	Giresun Island, Giresun	40° 56′ 26″N, 38° 26′ 03″E
	3	Sümela Monastery, Macka	40° 38′ 27″N, 39° 41′ 18″E
	4	Ayasofya museum, Trabzon	40° 59′ 56″N, 39° 41′ 54″E
	5	Zil castle, Rize	40° 51′ 44″N, 41° 01′ 11″E
	6	Bedesten Bazaar, Trabzon	41° 00′ 11″N, 39° 43′ 56″E
	7	Memisaga mension, Surmene	40° 52′ 35″N, 40° 08′ 37″E
	8	Ataturk Pavillon, Soguksu	40° 00′ 13″N, 39° 17′ 51″E
	9	Trabzon museum, Trabzon	41° 58′ 33″N, 39° 44′ 15″E
	10	Santa Ruins, Gumushane	40° 58′ 33″N, 39° 44′ 15″E

<div align="right">(continued)</div>

Table 2.6 (continued)

IPA Funded Partners	No	Monument	Geolocation
Turkey: IPA 2, Bahceseheir University/Metgem development centre for vocational-technical education	1	Akcakese's history & local culture	41° 08′ 33.2″N, 29° 43′ 04.2″E
	2	Akcakese's timber heritage	41° 08′ 33.2″N, 29° 43′ 04.2″E
	3	Traditional sile fabric embroidery	41° 08′ 37.7″N, 29° 41′ 18.1″E
	4	Poetry of the women in Sile and Agva	41° 08′ 33.2″N, 29° 43′ 04.2″E
	5	Agva's local culture	41° 08′ 20.3″N, 29° 51′ 18.7″E
	6	Natural heritage—birds	41° 08′ 03.6″N, 29° 50′ 24.1″E
	7	Natural heritage—plants	41° 08′ 18.6″N, 29° 50′ 55.3″E
	8	Kilimli cliffs ecosystems	41° 08′ 30.1″N, 29° 52′ 22.7″E
	9	Kilimli cliffs geomorphology	41° 08′ 31.0″N, 29° 52′ 13.0″E
	10	Kilimli cliffs—the future of heritage	41° 08′ 30.6″N, 29° 52′ 03.9″E

Source MIS ETC 2617 ALECTOR project record

phase of the visit. Given that the value of the read thread is known since the time of Theseus and Ariadne, a space without a read thread cannot become a successful attraction. However, telling the story is a creative process that cannot rely only on expert knowledge but shall include many types of synergies among stakeholders and the audience (Di Russo and Papathanasiou 2015: 6). Through the story, stakeholders can express what is unusual and special about their communities and heritage. Each heritage narrative created is the intentional, coordinated message that each heritage asset selected by the Cross-Border Partnership conveys to the audience. By producing the *Cross-Border Stakeholder Map*, the long-term viability of the operation is ensured.

The standardized heritage narrative is a max. 600 words long story structured in three subtitled and interconnected story segments. Each segment relates to the valuable traits of each individual heritage asset (museum item, monument, heritage place, cultural landscape, natural heritage phenomenon, place of memory, customs and traditions, traditional handicrafts, artwork, community innovation). Each narrative is tied to six intrinsic qualities: archaeological, socio-historical, artistic-cultural, natural, recreational and scenic (Wells et al. 2009: 25–27). These values are made explicit in the *Statement of Significance* for each of the 90 heritage assets included in the *Heritage Registry* of the MIS ETC 2617 Project ALECTOR. An asterisk section is included in the end of each story segment, not to disrupt the

reading flow. At the end of each story, a connection is being made to other relevant stories in the same thematic chapter. Both the panels and the eBook keep the same story format; however, the eBook is interactive in many perspectives, while the access to the panels is ensured via the QRC in the territory scanned through a smart device.

Extensively capitalizing on the Narrative Museum in Castel La gopesole in Italy, *Il Mondo di Federico II. Tra storia e legende*, the historic personage is mise en scène, narrating in the first person to ensure direct emotional impact, always relating to a succinct and clear narrative, built on a well-documented historic fact (Papathanasiou and Di Russo 2015). The heritage narratives are connected with each other indicating the cultural bonds among the places:

WORLD TRAVELLER

EvliyaÇelebi*, the great Ottoman travel writer arrives in August 1640 in Trabzon, one of biggest merchant centres for silk and spices to Istanbul.

"I am Evliya* Çelebi, the *blessed one*. I was born in 1611 in the capital of our Empire*. I was fortunate enough to have received a good education. For 40 years now I am touring all the Ottoman lands. I have also seen Vienna, Nile, Caucasus and Persia. I travel on official business, but also for pleasure. My passion is to observe the everyday life: buildings, markets, landmarks and traditions. People call me scholar, raconteur, dervish, musician, and linguist. I call myself world traveler. My faithful companion is my ring with the inscription *The World Traveler Evliya*. I write down everything I see in my journeys, in my Book of Travels, the *Seyahatname*. The best place to observe life and customs is the Bazaar. Therefore I have visited the Trabzon Bazaar. It was originally built by Genoese merchants. Its shape is rectangular, like it is sitting on four elephant legs. In the course of the time it became the only single-domed covered bazaar among the covered bazaars of our Empire. It is a true Caravanserai with great stone doors. The interior walls are skillfully carved with seventy or eighty crowded shops inside with rich merchants and all kinds of tradesmen. They say that famous Marco Polo called the port of Trabzon on his way to Venice. The goldsmiths of Trabzon are the best in the world. Diamond and jewelry as precious as corn, dazzle in the wealthy merchants' cases! During the knight 60 watchmen safeguard the Bazaar.

*Greek: Evlogia; Latin: Benedictus.
**Present day Istanbul in Turkey.
*EvliyaCelebi: Seyahatname, (The Book of Travels), 1640.
For more adventures: *Follow Story no 8: THE GOLDEN PASSPORT.*

From: THE MARVELS OF TRABZON, Bedesten Bazaar, 1640.
In: LEGENDARY JOURNEYS: Eastern Black Sea from the Silk Road to Modern Times.
Source: MIS ETC 2617 ALECTOR Project Record

Layout and texts ensure that cultural assets are identified and that intangible meanings and universal concepts are linked to selected assets and generate a cohesive and memorable heritage narrative. To express the values of each asset monolithic interpretations are avoided, instead community values and a diversity of controversial aspects are included, so that visitors can make up their own mind in a reflective and dialogical process. Critical and political issues are providing multiples views and aspects and opinions, while relying validated socio-historical information. Thematic frameworks are developed by experts to connect non-captive audiences without a need for prior knowledge to the desired heritage experiences. The stories encompass the ordinary/every day and the extraordinary/unique and promoting the audience's capacity to reflect on the values of the assets presented, stimulating the visitor–monument–community interaction at a visual, haptic, cognitive and emotional level. All 90 selected heritage objects are integrated in the wider social community and the territory by including and involving specific interest groups (Table 2.7).

The smart device revolution has changed the way; software is distributed and used among consumers. The rise of (social networking) apps as a signal of maturation for the platforms opens new business opportunities. Smart devices are powerful, connected and always with consumers. The mobile telephony is marked by the dramatic rise of smartphones in the mainstream, the burgeoning of tablets and other web-enabled connected devices and a cultural shift towards cross-platform digital media consumption. Apps are a critical component of the mobile media ecosystem, playing an important role in consumers' mobile device purchase decision while shaping their engagement with mobile media content. They are used to share social experiences and can leverage the significance of heritage places, but can also act fame killers.

SCRIPTORAMA implements 90 *Quick Response Codes* (QRC) by directly guiding audiences to product information, without any other media intervention in the between. QR codes came onto the scene as a way to bridge mobile and traditional media across various mediums including print publications, product packaging, outdoor kiosks and more. A QR (Quick Response) code is a specific matrix barcode (or two-dimensional code) that is readable by smart devices with one touch only and do not require typing URL addresses or other tiring web searches. QR codes result in client offers, event information and location-based mobile check-in services to name but a few examples. Quality content that is built for mobile tagging and delivered through QR codes is designed with the mobile user experience in mind. *SCRIPTORAMA* understands how users are engaging with these codes and how these codes can complement the heritage experience in situ. The deployment of the *QRC Inventory* across the Project Area enables a vast customer pool to retrieve key media information, building thus an effective marketing tool (Figs. 2.2, 2.3 and 2.4).

Table 2.7 SCRIPTORAMA: heritage narrative sample

SCRIPTORAMA	
The black sea open street museum	
Partner	**DOKA** (Eastern Black Sea development agency)
Chapter	**Legendary Journeys**
Subtitle	Eastern Black Sea from the silk road to modern times
Monument	**Zil castle**
Story date	**1807**
Story title	**The golden passport**
Segment I	***Guardian of the silk road*** In 1807 French Ambassador Gardane starts his journey from Istanbul to Persia. The diplomat Joseph-Michel Tancoigne keeps the journey's diary: "Our caravan reached on the 6th of October 1807 the fortress of Zil in the stormy valley of the Firtina River. The Castle was built in the reign of Emperor Justinian* and was used by the Empire of Trabzon**. It is now used by the Ottoman Sultan for military purposes passing on information to Rize Castle. Zil is built 750 m above the sea level and 100 m up the river bank. It has outer walls, middle walls and an inner castle. Zil lies on the historical *Silk Road* and functioned as a security and checkpoint. Silk was the most valuable product in the Mediaeval Ages after pepper. The *Silk Road* was a network of trade routes established in ancient China. It linked the East and the West from 130 BC to 1453 AD. When the Ottoman Empire closed the *Silk Road*, merchants took the sea route to continue trading. Thus the *Discovery Age** started in 1453"
Asterisk section	**Byzantine Emperor Justinian the Great (482–565 AD)* **The Empire of Trebizond (1204–1461) was the longest survivor of the Byzantine successor states* ***European historical period (fifteenth–eighteenth century) with extensive overseas explorations*
Segment II	***MARCO POLO*** Marco Polo was the only foreigner envoy at the Court of Kublai Khan* with a golden passport. Marco was born into a merchant family in Venice in 1254. He travelled with his father and uncle from Europe to Asia for more than 20 years (1271–1295). To make sure the Polos would be given any assistance on their travels *Kublai Khan* presented them with a *Golden Tablet of Command*, a 30 cm long and 2 cm wide! It was inscribed with the words: *By the strength of the eternal Heaven, holy be the Khan's name. Let him that pays him not reverence be killed*. It was a special passport, authorizing travellers to receive horses, lodging, food and guides throughout the dominions of the Great Khan. It took the Polos three years to return to Venice passing the South China Sea to Sumatra and the Indian Ocean to arrive at Hormuz in Persia, where they found out that Kublai Kahn died. However, his protection outlived him: the golden tablet protected them throughout the bandit-ridden interior. From Trebizond, the Polos went by sea to Bosporus and from there to Venice in 1295
Asterisk section	**Fifth Khan of the Mongol Empire, grandchild of Genghis Khan and founder of the Yuan Dynasty (1215–1294)* ***paiza in Chinese; gerege in Mongolian*

<div align="right">(continued)</div>

Table 2.7 (continued)

SCRIPTORAMA	
The black sea open street museum	
Partner	**DOKA** (Eastern Black Sea development agency)
Segment III	*A MILLION LIES?* After his return to Venice, Marco commanded a ship in a war against Genoa. He was captured and sent to a Genoese prison, where he met *Rustichello da Pisa* whom he described his journeys. *The Travels of Marco Polo* made Marco a celebrity, but few readers believed the tales. They called the book *Il Milione**, the million lies. After his release from prison, Marco marries in Venice and carried the family business for the next 25 years. He died at his home in 1324. As he lay dying he said: *I have not told half of what I saw*. His possessions of clothes, valuable pieces, brocades of silk and gold and other precious objects were exactly like those mentioned in his book. Among them, there was the *Golden Tablet of Command* given to him by the *Great Kublai Khan* on his departure from the Mongol capital
Asterisk section	**According to recent research Il Milione is correctly interpreted as a million miles*
Connection	For more adventures follow *STORY NO 3*: *THE MARVELS OF TRABZON*

Source MIS ETC 2617 ALECTOR project record

Fig. 2.2 ALECTOR QRC outdoor display label indicating heritage area, monument and geolocation (*Source* MIS ETC 2617 ALECTOR project record)

Fig. 2.3 ALECTOR QRC gallery (*Source* The ALECTOR project record)

Fig. 2.4 SCRIPTORAMA, The Eurasian story (*Source* The ALECTOR project record)

2.3.2   Information with Tourism Value: The Travel Aider

The *Travel Aider* is a printed booklet of 100 pages in an 24 * 26.5 cm which provides information with tourism value. It is perceived of as having a *floor plan* with a collection of *individual rooms* or *landscape units* that can be entered and experienced, like the rooms of a building. The intent of this task is to define the *Heritage Area Floor Plan* by identifying and mapping all of the individual units adding to a quality visitor experience. With regards to the natural heritage assets, topography, hydrology and vegetation will primarily define the landscape units; whereas cultural heritage assets are composed by the distinctive features of the built environment and the intangible cultural heritage assets, some of which are unique, at global level, are mapped according to their sociocultural significance. The *Travel Aider* is composing the bigger picture for *SCRIPTORAMA* connected to the larger storytelling of the eBook.

The *Travel Aider* includes an introduction to the heritage area, explicitly making a statement of significance for the cultural value of the each selected area. Each asset is presented with a short narrative, no longer than 400 words and a representative image. In this way, the *Travel Aider* embeds each heritage identity in a visitor floor plan with ten different heritage units per partner area. A section follows with accessibility information per asset and the QRC for each asset separately. By scanning the QRC, the visitor is accessing the bilingual panel with the heritage story in the national and English language. This integrative list allows the formation of experience diversity and promotes the customized selection of one or many experiences in the territory: visitors can decide which location to visit using the Google map that is incorporated to the eBook. Accessibility to attractions that meet changing needs of tourism markets will help local businesses to reach specific tourism development targets. Gunn emphasizes the repeated error in spontaneous tourism development: instead of developed and managed attractions heritage classes are listed to attract visitors: this practice often jeopardizes the nature of heritage and decreases the tourism experience (Gunn and Var 2002: 41) (Figs. 2.5 and 2.6).

To export the heritage experience in the Project Area to international markets, the *Travel Aider* groups the attractions according to location, key themes, operation and purchase information. Theme routes developed and heritage trails designed ensure the accessibility and proximity to tourism goods and services. Finally the *QRC Inventory* gives a further impetus to the desired travel motive at cross border level (Travel Aider, pp. 3–5).

2.3.3   The Power of Emotions: The eBook

As the Project Area is facing the lack of access points, which incorporate barriers for visitors and clients in terms of directly accessing local services and promoting

Fig. 2.5 MIS ETC ALECTOR, The travel aider (*Source* MIS ETC 2617 ALECTOR project record)

synergies among local businesses, the role of a new generation of web-based applications and services that leverage standards and open platforms involvement of key stakeholders, such as public bodies and businesses, with strong involvement of end-users and SMEs, is the only reality for the sector to face the financial crisis, with an instrument which connects and reshapes existing services, and formulates the ones that need to be invented.

The general aim of the ALECTOR eBook is to launch a new cultural consumption model by shaping and steering new integrative experiences able to deliver cultural values to consumers spreading local and regional boundaries with the use of mobile technologies. The eBook becomes thus an instrument which facilitates and stimulates the development of attractive services and applications, fostering
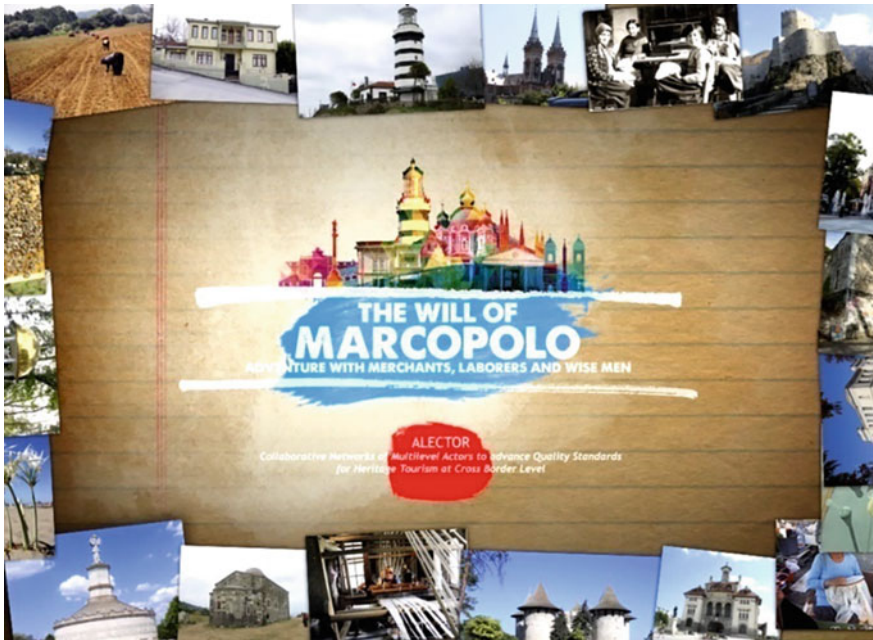
Fig. 2.6 ALECTOR eBook: Video section with interactive elements (*Source* The ALECTOR project record, 2015)

consumer demand. It shall further support the implementation of similar products and services in the Project Area and the uptake of innovation in cultural heritage production not only as a project-driven business model, but also as the proactive promoter of each participating region.

2.3.3.1　Technical Features

Any eBook can be purchased, borrowed, downloaded, and used immediately, whereas when one buys or borrows a tangible book, one must go to a bookshop, a home library, or public library during limited hours, or wait for a delivery. Unlike the paper book, an eBook can be backed up and recovered in the case of loss or damage to the device on which they are stored, and it may be possible to recover a new copy without incurring an additional cost from the distributor. Finally, an eBook has an infinite distribution potential, an unlimited capacity for updates, real-time synchronization with all the devices independently of place and time and can be disseminated by the AppStore and Google Play selling points.

The ALECTOR eBook is designed for both the iOS and Android operating systems in order to disseminate the heritage experience in the Project Area at a cross-platform level. It is creating a heritage corridor with 90 selected geolocations

virally disseminating nine heritage identities on smart devices, phones, PCs and tablet applications, offered as a **free download** at the AppStore and Google Play and stimulates thus the individual travel motive in the Project Area. The ALECTOR eBook is not to be exchanged with any other digital format that belongs to certain categories and cannot be modified like .doc and .pdf documents. Instead, it uses a technology that includes and may converge various and different electronic formats in one format like pictures, sound, music, text, video, multi-visions and interactive pictures. Into the eBook, pages are embedded non-textual multimedia including interactive images and image galleries, videos, audio files and interactive animated and sophisticated graphic design. By adopting the eBook as a heritage communication medium, the Cross-Border Partnership offers to onsite and dislocated audiences a significance chance to create their personal place-bonding through a digital publication, consisting of text, images, interactive images, videos and multimedia and a variety of shared practices (Bookry/Reader Cloud; Google +; Facebook; Twitter; Email; Web embedding). Mobile availability is provided for users with a mobile data connection, alternatively a copy of the eBook can be stored on the device. In the space that a comparably sized print book takes up, e-readers can potentially contain thousands of eBooks, limited only by the storage memory capacity. The Partnership decision aimed to ensure a unique output that can exceed the project lifetime by far, available for further updates and considering transformations in the connected consumer market.

The ALECTOR eBook has not been created in isolation, but in collaboration with local stakeholders, whose valuable feedback has facilitated the crossing of the bridge of vision to the valley of implementation. It capitalizes on existing local resources to enable local businesses with proximity to the selected geolocations of the Open Street Museum to benefit by being present in the Google Map that leads to the enhanced visitor revenues. Connected to an interactive Google Map, the eBook inevitably becomes an agent for change per se: a model for cultural heritage products and services that is not yet in place, but needed in the context of the revalorization of the territory: consumers increasingly consult their trustworthy shopping companion—the smartphone—inside stores and at street level in format of downloadable videos, images to Whatsapp images, Instagram photos and geo-media location data. The Google Map integrates contents of the retail environment providing local SMEs with a significant opportunity to reach customers through a highly personal digital media channel incorporated into the eBook. In this way, a clear image of each local heritage identity is created, part of the Project Area identity, as understood and launched by the Cross-Border Partnership.

Added value and local expertise are mapped so that the Google Map becomes an *Inventory of Products & Services* in the Project Area. Through the Google Map, anyone interested may access all available consumption points in the territory: from hotels and restaurants to pharmacies and gas stations, from stores and souvenirs to hospitals and police stations. In this way, a business platform is operated for local products and services, an inventory linked to the local–global markets, proactively promoting the Project Area: the eBook launches *SCRIPTORAMA* as business

venture in the Project Area identifying how consumer time is shifting across app categories and operating systems.

Shopping can also be very important for the visitor experience—memory shopping of material culture (Moreno et al. 2005; Yuksel 2005; Yuksel and Yuksel 2007). There is a certain need for visitors to buy things as memories of their holidays. Consuming quality goods onsite adds to the sense of place; consuming them in the permanent place of residence is adding to the memory: the location visited, its people and the climate acquire a special added value. By-products such as traditional gourmet products, handicrafts and participatory activities like cooking and language learning contribute to the *genius loci* as well. For example, a considerable amount of wine is bought at cellars around Drama (Greece), in Varna (Bulgaria), in Batumi (Georgia) and in Chisinau (Moldova); traditional silverware and jewellery are offered in Trabzon (Turkey); Sile (Turkey) is famous for its hand-made cloth and the prize-crowned chestnut honey; Batumi's artistic production has spread boundaries: the list of quality products is long in the Project area.

Factual information about selected geolocations is transformed into a fully comprehensible AV and multimedia narrative for a better understanding of cultural heritage and the improvement of independent travel practices. In this vein, the eBook ensures that cultural heritage assets become fully accessible across computers, smart devices and mobile phones, with the streetscape playing a protagonist role in the experience framework. However, as highly advanced this can be in terms of technical implementation, it is neither the hardware nor the device, nor the software that offer a cultural heritage experience, but the overall quality of contents: the cognitive-emotional experience and the possibility for immersion—the latter relates to the emotional, physical, intellectual and spiritual engagement in the activities in which skilled visitors participate. Quality assurance in regards to the specification for design and use is guaranteed by Apple Corporation. The ALECTOR eBook is accordingly registered at the Apple Store. The *eBook* is the registered name of the Apple software to produce electronic books for the iPad. The ALECTOR eBook will be uploaded at the Apple platform that is called eBook store. Apple allows producing it again for the competitor, who is Android, if it is made for free, e.g., it has not been destined to be sold for profit. Apple provides the creators with an ISDN for the official publication, which is an extra added value for the dissemination. The eBook will be produced in both versions to gain visibility and promote the efforts of the ALECTOR Cross-Border Partnership, by addressing the connected consumer market, e.g. both iOS and Android users. Depending on the device, the eBook may be readable in low light or in total darkness. Many newer readers have the ability to display motion, enlarge or change fonts, use text-to-speech software to read the text aloud for visually impaired, partially sighted, elderly or dyslectic people or just for convenience, search for key terms, find definitions or allow highlighting bookmarking and annotation. Additionally, the eBook allows readers to look up words or find more information about the topic immediately.

2.3.3.2 Content Design

The ALECTOR eBook is not a database of static facts about heritage places and sites but an interactive cognitive-emotional and dynamic experience collection which identifies and presents the diverse intangible values and universal meanings to the audience. It shows multiple perspectives and the relationships of events, encouraging visitors to derive personal meanings. It provides guidance on artistic and cultural achievements allowing readers to understand causal and functional relationships, alternative hypotheses and the nature of evidence. The interpretive nature of *SCRIPTORAMA* reflects the goals and objectives set by local stakeholders and the Cross-Border Partnership. To create powerful emotions, storytelling is applied: old as prehistoric times, storytelling is a powerful tool for conveying and sharing ideas, beliefs, values and traditions. All ninety heritage assets in SCRIPTORAMA have a variety of stories to tell. Not all stories have the same emotional impact, as they are addressing different ethnic, generational, religious and cultural audiences, but they convey the significance of the asset in terms of universal values. Interesting aspects connecting the asset with the audience are linked together in sequences. Creating emotional impact and regulating behaviour to embrace values of heritage including protection and conservation objectives, intercultural and interfaith dialogue and political awareness is the quintessence of a quality cultural heritage service. To focus on a concise story and avoid causing mental overload, the contents are organized into stories, with a main messages, the audience carries away. Meanings are easily communicated through storytelling that helps the audience appreciate what's special about heritage places. The repository of stories is well balanced between history and legend, between facts and imagination. It is based on historic evidence and research with archives and literature, so as to give the different audiences clear threads to follow, rather than a series of disconnected facts, but it is leaving significant space for the imagination and fantasy to capture the audience's attention and stimulate the cognitive-emotional interactivity with selected phenomena. The stories always support the significance and importance of the interpreted heritage assets. They are written in complete sentences focusing on a single message the audience is likely to remember, going beyond a mere description of facts. The level of details is presented is appropriate for the non-captive audiences linking tangible things to intangible ideas, allowing visitors to derive personal connections and discoveries.

A cognitive-driven instructional design strategy has been developed to facilitate knowledge transfer. It ensures cognitive accessibility by activating perception through provocation, by relating to prior acquired experiences with universal values, and by providing for novelty and variety, surprise and exploration. Capturing the attention means to create bridges between the inherent values of phenomena selected for presentation, and the audiences. Far beyond the dissemination of factual information, cognitive accessibility aims to create meanings, so that visitors can put a phenomenon into personal perspective and identify with it in a more profound and enduring way. Leaning on the concept of multi-vision (vast screens with a resolution unattainable by any other means creating thus the enabling technical

environment to enhance the possibilities of the photographic medium in animation), the eBook has exploited animation possibilities and has extensively used static documents of any kind to produce cultural manifestations in an interactive continuum. This makes both the onsite and offsite place visit an integrative experience: visual, haptic, educational, physical and emotional. The artistic concept derives from the 3 major Eurasian trails:

A: the pursuit of gold in early antiquity, expressed by the myth of the *Argonautica* and the *Golden Fleece*;

B: the commerce of silk and spices in the Antiquity and the Middle Ages, manifested by the *Silk Road*, the commercial route that brought Asia to Europe and the Mediterranean shores;

C: the trade of the oriental tobacco, covering the period from the late Ottoman Empire until the World War II.

In this tapestry of human history, the Cross-Border Partnership includes regions that played major roles in all historic periods. The title, *The will of Marco Polo. Adventure with merchants, laborers and wise men,* is inspired by the legacy of Marco Polo as a merchant and discoverer, compared to the EU acquis for "free movement of people, goods and services" as established by the Treaty of Rome signed on the 25 March 1957 at the Capitoline Hill by the founding members of the now European Union: Belgium, Netherlands, West Germany, Luxemburg, Italy and France. *Marco Polo* is not the tautology of the historic personage, but left to the imagination of the reader, to identify or not with one or with many of the historic personages included in the cultural tapestry.

The eBook is the unique project output that has exploited the infinite potential of static documents such as photographs, documents, archival materials, parchments, newspapers by enriching them with new elements and integrating them into the new storytelling with unprecedented possibilities for the creation of emotions and effects. Thus, the eBook has enriched the reader experience with diversified media, which otherwise would have stayed in the archives. The use of digital graphics and videos has introduced further changes in the narration, enabling to infer the unknown from something known within the horizon of the readers. Heritage narratives presented in the eBook are not made only by documents, but by a cluster of links between each document that creates a bridge between each event, between a letter and photograph, an object and a label, i.e., multiple links between different elements. The eBook has merged static archival elements in one great ensemble that has the possibility to create emotions and thus interact with the reader. Photos, portraits and manuscripts of all kinds are carefully put together in a counterpoint of a contemporary event and thus facilitate the perception, bridging the spatiotemporal gap between the object and the reader. The interactive character of the eBook is not restricted to the technical feature provided by Apple, but is a cognitive-emotional effort to provide knowledge to non-captive audiences and thus stimulate social consensus. Therefore, subject matter knowledge and socio-historic documentation for each heritage chapter presented in the eBook is ensured through nine *Authentication Papers*: they testify the production of high-quality heritage narratives, plagiarism-free texts and AV materials with special permissions (paid royalties; in-house production; by courtesy of

individuals or institutions, registered in EUROPEANA). AV materials have been produced in full conformity with the EU directive 013/37/EU laying down the general principle that documents from libraries, museums and archives shall be reusable for commercial and non-commercial purposes (European Commission 2014: 11) (Figs. 2.7, 2.8 and 2.9).

Fig. 2.7 Chapter Cover with embedded Google Map and Historic Photo Gallery (*Source* MIS ETC 2617 project record)
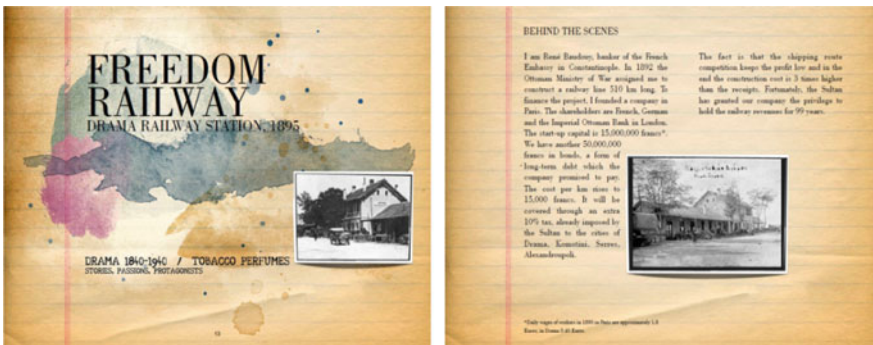

Fig. 2.8 Asset story cover with narrative (*Source* MIS ETC 2617 project record)
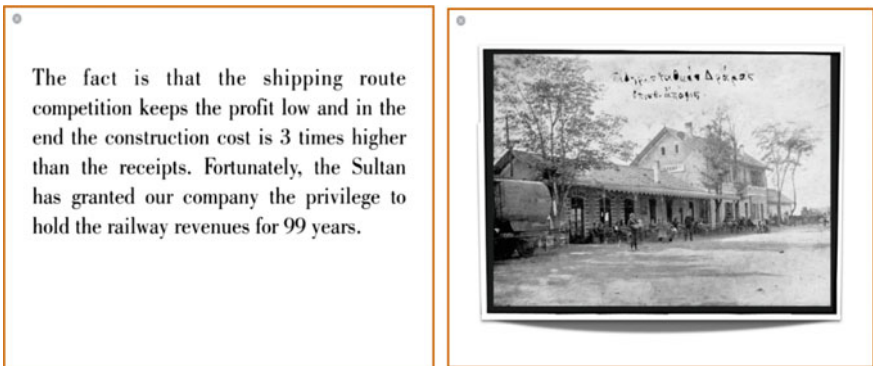

Fig. 2.9 Readability and interactivity of text and image (*Source* MIS ETC 2617 project record)

2.4   Conclusions

The official discourse on EU integration focuses on identity for over 60 years with cultural heritage being the uncontested common thread for all Europeans. However, cognitive-emotional accessibility to heritage assets is alarmingly low. The ICT revolution has created a digitally innate youth; however, the latter acquires new digital literacies in a self-directed learning environment with no formal opportunity for meta-cognition and critical thinking. But the *conditio sine qua non* for the future of Europe is to develop as many as thinker-citizens as possible. In this vein, the need to develop critical skills among the youth and raise its awareness for semiotic codes through a new knowledge pattern in the heritage settings is a challenging opportunity the Union's future.

The Council of Europe (COE) demonstrates that the entire European digital industries sector experiences stagnation including television, cinema, video and video on demand (VoD). Contents and values in digital cinema, video games, broadcasting services pay-tv platforms and the production of online VoD are mainly controlled by US groups meaning that the European Audiovisual Sector (AV) lost 5.3% of its global market share in the period 2009–2013 despite a 133 billion revenue €. The competitiveness of the European Audiovisual industry depends increasingly on its ability to generate and manage knowledge innovation: it is cultural heritage that can contribute to the sector's desired knowledge innovation. Viewed from this angle the implementation of the ALECTOR Project has shed light into five areas of concern:

- **Supply-demand divergence**: Developments in ICT and mobile telephony have produced a new market, the digitally innate youth. The use of outdated languages and technology results in the loss of the audience in the sector. On the other hand, developments in the digital heritage sector stagnate in front of the fossilization of professions with outdated skills. Activating training of workforces that brings the work to follow the development and launching new professional profiles is the remedy to unemployment in the cultural heritage sector.
- **New skills for new jobs**: Traditional curricula in both the cultural heritage and tourism planning sector are not up to the task, as they address outdated organizational structures depending on individuals with outdated skill sets. Also the ICT sector is affected by skills–jobs mismatches: The European Commission is calling for a Grand *Coalition for Digital Skills and Jobs*, as Europe might face a shortage of up to 825,000 ICT professionals by 2020, risking its potential for growth, social cohesion and digital competitiveness. Outdated languages and technology result in the loss of the audience in the sector. Unidentified skills needs, mismatches, stakeholder fragmentation and the US control of the industry disable self-employment, SME development and public procurements. The facts aforementioned lead us to support the view that specific job-related competences learned throughout education and training must be underpinned by transversal competences, especially digital and entrepreneurial competences, in order to both encourage self-directed learning rather than simple reproduction of received knowledge and to better adapt to learners and employers' needs,

especially in the cultural heritage sector, where diversification of higher skills and competencies build the prerequisite for the final results.

- **Stakeholder fragmentation**: The cultural heritage sector, the main public employer, is extremely fragmented across the EU because: (a) different institutional/legal structures and frameworks/capacities with overlapping state–regional–local government responsibilities perpetuate tensions in the policy context; (b) different perceptions of culture by different actors at different levels give rise to competition between the public–private sector actors. A more flexible structure is urgently needed to plan success stories and yield the potential benefits: a public–private–third-sector partnership in the spirit of social economy could become an agent of change.

- **Violence Contamination of the AV Sector**: The transformation of film theatres to digital has been completed in 2014. The process cannot be considered an evolution without the cultural impact that the new distribution system has over the territory and identity of Europe. This last aspect has to be guided by a cultural policy, which can result in a virtuous connection between the public and private sector and contribute to the programming of media events related to cultural heritage. European AV productions are being contaminated by alienated contents with own languages, which lie outside of the European cultural values, human rights and education to democratic citizenship. Too often violence is shown as a solution for daily problems, which if it remains uncontested, will be producing **horror insensitive youth**. Bollywood, disputable social contents in-game alternate realities, discrimination, race and political incorrectness invade the screens and the minds, without possibility for critical reflection and resistance. Although the CREATIVE EUROPE MEDIA offers continuous training for AV skills regarding technology, much lesser attention is allocated contents promoting cultural heritage values and human rights.

- **A new narrative for Europe** is needed intends to share and spread European values, enhance citizen reflection and sociability performance, interlink nations through a new trans-generational digital cultural learning, deconstruct violence and promote abstract thinking and scientific ethics is utilizing new iconic AV languages with high-quality contents is not a utopia. Content literacy is enhanced with transversal key competences, integrating acquired skills and media formats into the labour market through the creation of a new value-driven heritage narrative with commercialization potential. The digital revolution has altered the production of various industrial sectors, the AV market in particular. New communication patterns define new market preferences, while the constant use of e-devices in daily life impacts the common sense through the interpretation of visual codes. It is only in May 2016 that the European Commission has amended the Audiovisual Media Services Directive (AVMSD), requiring from international broadcasters like Netflix and Amazon to invest about 20% of their revenues into making or commissioning original content and to spend at least 50% of their time showing European works, including materials made in their own country. The amendment of the AVMSD in 2016, pursuing also the creation of new symbols or phrases that would warn viewers of potentially harmful

video content—such as bad language, sex or drugs—shall be used across the EU by both broadcasters and internet-based platforms, is a clear indication that policymaking has acquired a deeper understanding of the situation and is determined to move towards a better and visible Europe. Following this path, the ALECTOR Project is making a conscious effort to uptake innovative heritage-based ICT solutions to improve the cultural experience on a social inclusion basis: local communities and businesses have been trained and involved in the heritage planning, as they have shared their profound knowledge and have provided for the storytelling that package tours cannot deliver.

The *European Heritage Audiovisuals Market* is an underestimated opportunity for combatting unemployment and brain drain. Europe needs to define a strategic approach to this market and connect higher skilled AV and multimedia workers to the educational, cultural heritage and the entertainment sector. The digital heritage audiovisuals offer more than any other medium the possibility for image manipulation of the image and incorporate the most advanced technologies available while it becomes a stimulus for future creations, exploiting Europe's vast static archives. Sites such as EUROPEANA, the European Film Gateway or EU Screen allow to access picture and sound recordings dating back to the very birth of cinema. However, the digital shell does not necessarily embed quality, citizen education and the shared European identity. The digital audiovisual, although extensively utilized, is under-researched as communication production pattern, and seldom taught in the tertiary education. This default is currently disabling the European heritage industry to develop with new digital heritage artworks. In times where the European identity is contested by the economic global economic crisis, refugee flows and terrorist attacks, it is imperative to rethink the mission of the heritage sector to shape citizen attitude and its capacity to establish ideas for an improved society. It is necessary to determine the quintessential steps to define a strategic approach to the *European Cultural Heritage Market* and find new opportunities for research, application and creation of new iconic contents to design and deliver cognitive-emotional experiences.

The recent economic recession is urgently calling for productivity and innovation, capabilities increasingly dependent on new skills and education. The ALECTOR Project has built a first attempt to invest in human capital in the Black Sea Basin by creating an open and participatory knowledge exchange platform for new competences, utilizing imagination, creativity and place knowledge of local populations to facilitate, through the deployment of mobile services, the transformation of the Project Area to a node for culture without frontiers. Supporting the provision of multi-sensory experiences and innovation in cultural heritage consumption, *SCRIPTORAMA,* the *Black Sea Open Street Museum*, becomes an instrument to facilitate and stimulate the development of heritage offers to serve the rising demand for services that are not yet in place, but are needed as agent for change in the context of sustainable development and cultural diversity.

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