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The Hellenic Archaeological Cadastre: A Land Administration System Specifically Designed for the Documentation and Management of Cultural Heritage

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Abstract: How is land management related to cultural policy and how do these two different scientific fields contribute to cultural heritage protection? How may archaeological sites, immovable monuments, and state property be recorded in a specific Land Administration System? What are the records of the system in numbers? These questions will be answered in this publication, and the example of the Hellenic Archaeological Cadastre (HAC) will be analyzed in detail. The HAC project is one of the most important projects that has been designed, implemented, and launched within the last decade by the Hellenic Ministry of Culture. The transition of the whole public sector in the digital era and the urgent need for reliable and updated geospatial documentation of public parcels of land and constructions, archaeological sites, and immovable monuments were the two main factors that led to the compilation and implementation of the specific LAS. This study presents the available tools, administrative procedures, records, qualitative and quantitative data, and prominent examples of public parcels of land accessible online in the open access web GIS platform. A SWOT analysis is also performed for its evaluation.

Keywords: land administration systems; land management; Hellenic Archaeological Cadastre; cultural policy; SWOT analysis

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1. Introduction

Public policies aim to solve problems [1] in terms of means and ends. Those policies are implemented by authorities [2] who have to evaluate their contribution in order to create more effective responses to policy problems [3]. Cultural policy flourished right after the end of World War II in order for the state and governmental, intergovernmental, and non-governmental organizations to protect cultural heritage in turbulent times [4]. In parallel, governmental intervention and interest in cultural activities increased as the authorities realized the significance of cultural capital and its impact on key areas such as the economy, society, and the environment. Many researchers have provided different definitions for cultural policy; however, one of the most predominant ones [5] defines cultural policy as the enhancement and dissemination of the cultural phenomenon of a community for a given period of time.

Cultural policy in Greece acquired an administrative status after 1971 when the corresponding Ministry was established. Until then, every practiced policy was based on the material-centric model of the protection and preservation of antiquities, through restoration and excavation methods performed by the Hellenic State and foreign archaeological schools. In 1980, within the framework of the preparation of EU membership, a new and rather significant cultural policy reform was introduced [6]. In that context, Greece harmonized text and policies and ratified a series of national conventions in order to meet the general requirements set by the EU. In the 1990s, European programs were launched to fund cultural projects implemented by the Member States; thus, the policy drawn up

was largely based on financial tools and policies designed by the EU. Nowadays, European funding and governmental initiative are both utilized for the implementation of the national cultural policy.

The legal framework for cultural heritage protection goes back to the 19th century following the establishment of the new Hellenic State. The first Law, 10/22-5-1834, was legislated in order to protect cultural heritage and safeguard movable and immovable antiquities. The next most important law, that is 2646/1899, focused on ownership rights over immovable cultural heritage while law 5351/1932 remained in effect, and it was subject to minor amendments by law 1469/1950. National legislation has been updated by law 4858/2021 without major amendments in comparison to law 3028/2002 that introduced major changes, becoming the most contemporary legal tool for twenty years. All the aforementioned laws put emphasis on tangible cultural heritage and its protection. Nonetheless, only after 2000 did the Hellenic State adopt EU policies on intangible cultural heritage (laws 3028/2002 and 3521/2006).

Additionally, article 24 of the Hellenic Constitution of 1975, being valid until today, introduces the need for environmental and cultural protection. Specifically, in its sixth paragraph, the protection of cultural heritage by the state is emphasized, and terms such as "public right", "private ownership", and "compensation" are introduced. Under this land policy framework, a new geospatial data infrastructure and specifically a Land Administration System were designed and launched by the Hellenic Ministry of Culture, entitled "The Hellenic Archaeological Cadastre" (HAC).

1.1. Land Administration Systems: A Necessary Public Policy

Land Administration is a relatively new term which was introduced in the 1990s. Many researchers have investigated the topic of Land Administration and have contributed to various aspects of this academic field [7–9]. In the literature, Land Administration is defined as the process of determining, recording, and disseminating information about the tenure, value, and use of land when implementing land management policies. In other words, land management contains all the activities of land and natural resources required to achieve sustainable development. Land Administration Systems (LASs) are institutional policies [10]. Four functions of Land Administration should be underlined: land tenure, land use, land value, and land development [11]. Other researchers [12] focus on how Land Administration has evolved in terms of cadastre and land registry with respect to land rights' protection.

Land Administration Systems (LASs) can also be used as a technical tool to assist this academic discipline. Land issues, from land policy to land parcel, are depicted as an inverted pyramid in order to present the terms' hierarchy [13]. LASs are situated in the middle of the pyramid and provides the technical tool for the implementation of land policies and land management strategies. LASs are also referred to as the basis for conceptualizing rights, restrictions, and responsibilities [14]. Currently, LASs are associated with fair taxation [15] and sustainable development [16], indicating its evolution. It is stated [17] "that LAS serves society on a long-term basis and normally has a long-term return on investment". In other words, LASs are of service to cadastral procedures in order to combine multiple record types of parcels of land and documents for public and private properties in terms of prosperity. LAS is considered to be the most contemporary term linked to sustainable real estate markets and good management in comparison to "Cadastre" [18].

According to thorough research [19] carried out during the last decades, numerous projects were categorized by the need they serve. The majority of the projects provide formal recognition of land rights and facilitate access in the market. The main objectives are related to the weaknesses that every state faces. For example, upgrading registration practices or updating data storage and providing efficient and effective Land Administration services are among the best solutions to tackle the aforementioned weaknesses. The research also indicated that the socioeconomic system of a country, whether socialist or capitalist, does

not affect the effectiveness of the procedures mentioned above. Countries examined in the research also cover the full economic spectrum, ranging from poorest to developed. The need for LAS projects is vital worldwide and it is currently correlated to the 2030 Agenda set as a milestone in land management history [18].

However, a common characteristic of all projects is that the ones focused on Land Administration require great resources, funding, and are long-term. In order to cover various needs related to land, the different systems are called fit-for-purpose LASs.

1.2. Predominant Examples of LASs for Archaeological Site and Monument Documentation Worldwide

LASs for archaeological purposes may be found in literature reviews with different terms, such as specific registries or databases. They may also contain attributable and spatial data and be supervised by the relevant ministries or cultural institutions. Each and every LAS fulfills the requirements for updated and easily accessible data as a long-term priority of the states. Nevertheless, while many countries maintain contemporary systems, some retain only hard copies, and others utilize contemporary IT systems. Within recent decades, governments have faced great challenges in terms of data design and maintenance. A few predominant examples, presented below, depict the reality worldwide. The examples may have a national, regional, or local impact depending on the content and the structure of the IT systems.

In Slovenia, the most important database is named ARKAS Archaeological Cadastre of Slovenia (ARheološki KAtaster Slovenije), which is an up-to-date monuments and site database. The back-end was designed as a relational database in 1993, and its structure remains unchanged. Since 2004, ARKAS has included an online GIS and a database front-end [20].

In Norway, the Directorate for Cultural Heritage manages various registrations of archaeological sites and monuments; the National Registry of Buildings, the Archaeological Remains Registry, and the Rock-Art database are only a few examples which are classified according to the type and chronology of the cultural heritage and are accessible to the public [21]. The Directorate is the sole authority responsible for searching for cultural heritage and updating the existing data in cooperation with the local authorities. The Foundation for Nature Research and the Cultural Heritage Research were in charge of its update and development into a GIS-based database in the 2000s.

In Hungary, the only digital database that includes both metadata and documents is the Archaeology Database of the National Museum. The database contains only attribute data and documents. Other relevant information is stored in hard copies in museums all over the country; therefore, it is not publicly accessible or catalogued. It also lacks geospatial information [22].

In the United Kingdom, a private organization influences public policy on the subject by maintaining a reliable database archive of more than 200,000 British Archaeological Sites covering the whole of England, Scotland, and Wales. ARCHI UK is available online to everyone that may be interested upon payment. It is regularly updated, with 10,000 new additions made to the database every year [23].

In Greece, from the 19th century following the establishment of the new Hellenic State, the relevant information was stored only in hard copies in the competent Directorates of the Hellenic Ministry of Culture. Related projects were implemented since the 1990s, such as "Polemonas" and the "Digital Property Registration", which used the Microsoft Access database for the registration of the public parcels of land in 2009 and the "List of Monuments". The latter, being a digital project, provided basic information and administrative acts until 2012, when it was abandoned. HAC is a specific LAS focused on cultural heritage protection filling the existing gap.

In parallel, various web-based frameworks have beem launched in order to protect cultural heritage data, such as the 5DMeteora framework [24] or the web-based platform for the management and visualization of geometric entities of cultural heritage sites [25].

These projects do not present any similarities to the HAC project, so they will not be analyzed further.

Previous research over HAC was focused on its potential extension as a 3D model [26] or proposed standardized modeling for the development of spatial infrastructure [27]. Other researchers [28] evaluated combined methods for the creation of an integrated geospatial data infrastructure in Greece to improve the geometric documentation and cultural heritage management.

Since the very start, the public opinion rooted for its progress and outcomes. Following the beginning of the HAC project, a scientific publication investigated on its impact and benefits [29]. Numerous press conferences were held to present its progress in 2012, 2015, and 2021.

The present publication is the first one after the official administrative conclusion of the project which presents it in detail and applies a SWOT analysis for outcome evaluation.

2. Materials and Methods

2.1. The Hellenic Archaeological Cadastre (HAC)

The project arose in response to the need for an updated LAS for the cultural heritage parcels and objects. The rare archived material (maps and documents) stored in hard copies was digitized and made accessible to all, attribute data were documented, old paper maps were transformed in digital spatial data, and spare information was rendering the new system interoperable with other digital systems.

According to the official website, which was active during the trial period of the project [30], the HAC is based on the systematic collection, comprehensive investigation, coding, input, and recording of data and metadata, spatial localization and visualization, storage, and management. According to the aforementioned information, the database management system includes the following:

(i) Areas of archaeological interest, archaeological sites and historic places, buffer zones, sites of natural beauty, as well as underwater archaeological sites;
(ii) Immovable monuments from prehistoric to modern times;
(iii) Public property, such as parcels and buildings which were expropriated, purchased, or donated for archaeological reasons (Figure 1).

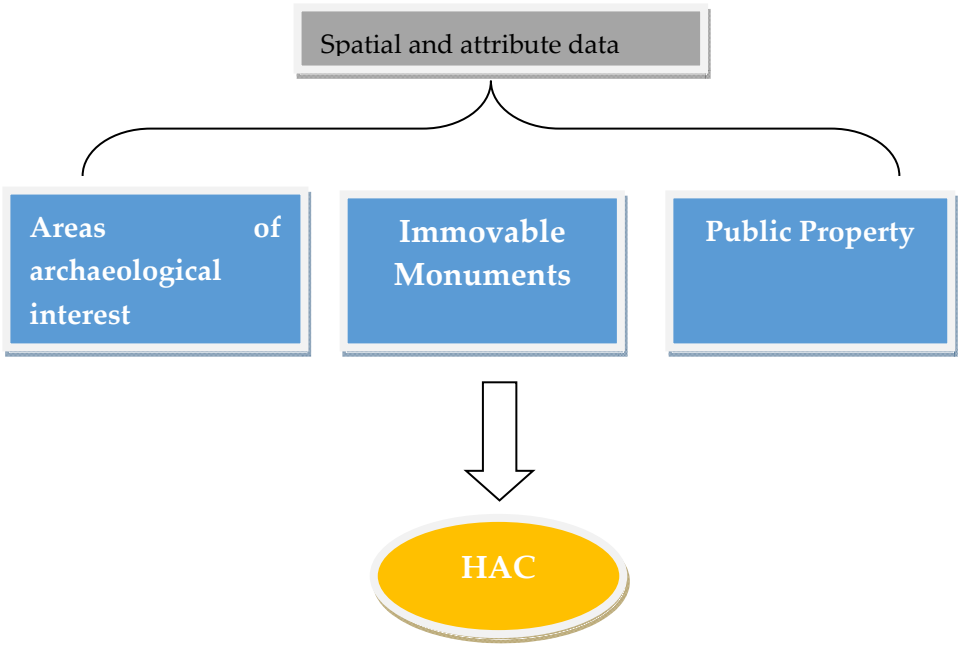


Figure 1. The content of the HAC project.

The three project pillars are not separated; in most cases, public property may be part of an archaeological site or an immovable monument that needs to be expropriated by the state for its protection most of the time. Among the registries, there are also apartments, houses, or land donated by individuals. Furthermore, the presented diagram indicates a simplified version of the IT system's structure. As for the public property section, it contains sensitive documentation for former owners and compensations so that claims and frauds are to be avoided. This information is not included in the other two pillars.

Following its trial period, the Integrated Information System was enriched by the Directorate of the National Archive of Monuments with new records of museums and intangible cultural heritage elements, as well as monuments that are inscribed in UNESCO's World Heritage List and Jewish landmarks.

The project consists of an Integrated Information System where all attribute and spatial data are stored, manipulated, and displayed, as well as a Web Portal where data are accessible to the public. The HAC stores spatial and attribute data and records the administrative procedures of land take. The administrative process is available online, although it has not yet been adopted by all public servants and the relevant public bodies.

The projects' benefits are various and can be divided into three main categories: transparency, digitalization, and sustainability. Firstly, transparency means that data are accessible to everyone and citizens can be informed about all of the administrative process stages in real-time, a fact rather important especially in land take procedures or general planning restrictions applied to new constructions. Secondly, the digitalization of data, services, products, etc., ensures the interoperability with other relevant digital systems, avoids redundant work and minimizes costs and time to respond to users' queries, including various professionals and researchers. Thirdly, sustainability is ensured due to cultural heritage efficient protection and management. Moreover, investment projects take into consideration archaeological restrictions and prohibitions, expropriation projects are rationalized, and good management of public property is achieved in total.

The HAC project can be utilized in the environmental, urban, and spatial planning of the country. It can also contribute to civil protection plans against natural disasters concerning the ongoing discussion about the protection of cultural heritage and nature monuments from the effects of climate change.

2.2. Designing the Project: A New Digital Era in Cultural Heritage Administration

The initiative was launched in 2011 when it was included in a co-funded operational program entitled "Digital Convocation" of the European Regional Development Fund in the context of the 2007–2013 programming period, and it continued as a phasing project at the 2014–2020 programming period. It was completed in 2021, and according to official sources [31,32], the budget reached EUR 2,274,780.42 at the 2007–2013 programming period and EUR 2,980,978.38 at the second one. The total budget amounted to EUR 5,255,758.80. The main beneficiary was the Directorate of the National Archive of Monuments.

The project was divided into three sub-projects (Figure 2). The first sub-project was carried out under in-house procurement procedures for its design, implementation, and monitoring by the Hellenic Ministry of Culture. Public Servants and employees temporarily hired for the projects' needs (25 surveyors and archaeologists) documented the attribute and spatial data[1]. The second sub-project utilized a new Integrated Information System being developed to electronically support and store information with fully computerized workflows and document transfers by a private contractor. The third sub-project was also developed by a private contractor. The main duties of the contractor included old paper maps scanning and georeferencing, terrestrial localization measuring, and field measurements for non-identified records concerning primarily missing information about public property or archaeological sites and monuments. Spatial data were stored in the Integrated Information System, and quality control was applied. These last two subprojects are still in progress.

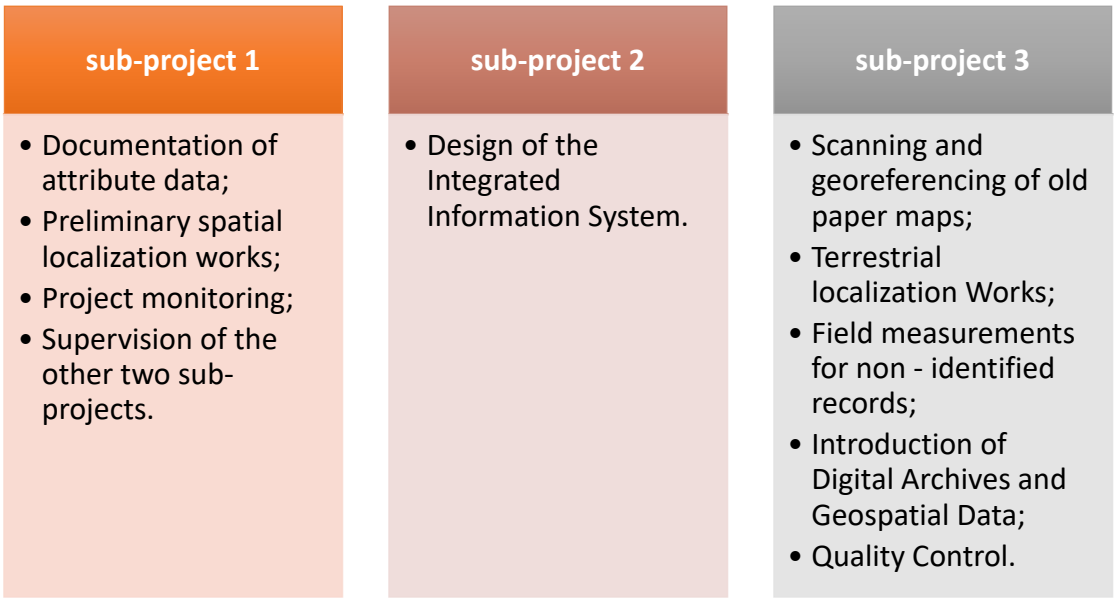


Figure 2. The three sub-projects of the HAC.

Attribute data collected in terms of the project vary and depend on the required documentation for each category; public property is examined through judicial decisions, cadastral tables, acts, deposit slips, or any significant land take proof. The information is cross-checked with data provided by the Hellenic Cadastre, such as its unique ID (KAEK), its address, and other qualitative characteristics including perimeter and area.

Archaeological sites, monuments, and historic places are documented by acts and laws for their protection, photographs, and other relevant administrative documents.

Spatial data primarily consist of digitized and georeferenced old paper topographic diagrams following the Hellenic Geodetic Reference System EGSA 87′ and secondly consist of field measurements. Orthophoto images provided by the Hellenic Cadastre are used as the base map. Depending on the required accuracy, the field measurements may be points or polygons; for example, modern individual monuments are displayed as points on the map, while archaeological sites and public parcels of land are displayed as polygons. It is worth mentioning that the requirements posed by the team leaders for geospatial data were compatible with the principles of the INSPIRE Directive.

2.3. Swot Analysis

In order to acquire a comprehensive perception of the projects' key parameters, a SWOT analysis is applied. SWOT analysis is a holistic data modeling method that can be adapted to a variety of situations and contexts [33] such as IT projects [34], rendering it possible to meet the criteria of project planning and implementation. The specific framework sheds light on the projects' internal and external environment, as well as strengths, weaknesses, opportunities, and threats. The outcomes will be particularly useful for the further design and implementation of new digital projects in the public administration sector in Greece.

2.3.1. External Environment

Opportunities:

- The HAC project came as a result of the political and financial recovery of Greece after the major debt crisis (2009–2018), which led to structural reforms in many sectors, including the public one.
- There is potential for additional financing via funding programs implemented in the context of the multiannual financial framework aiming to support EU policies. The current EU long-term budget (MFF) 2021–2027 and the NextGenerationEU instrument

support Europe's recovery plan. Among its main pillars is digital transition funded by the Just Transition Fund and the Digital Europe Program [35].

- It may easily be integrated into the National Spatial Data Infrastructure, which is under development in Greece. Major geospatial data and services provided by the Hellenic public authorities are gradually digitalized. The Hellenic Cadastre project is nearing completion, forest maps are currently designed and validated, the "e-poleodomia" project with all city and land use plans is successfully progressing, while the digital project for coast line measurement is about to be finalized.
- Three-dimensional geospatial data about cultural heritage as well as BIMs may also be integrated into HAC. Such a geospatial data infrastructure may support the development of digital twins for the management and protection of cultural heritage in Greece. Further research is being conducted [36] in this academic field.
- It satisfies the citizens' growing demand for timely, digital, and transparent procedures.

Threats:

- The general economic instability due to the ongoing armed conflicts in Ukraine and Palestine, leading to enormous cost increases in goods and services, is anticipated to cause delays in the progress of all projects.
- Cyber-attacks that may affect IT systems. For instance, in July 2023, all digital systems supported by the Hellenic Ministry of Culture were rendered inoperable due to a hackers' attack. Emails, digital archives, and IT systems, including the HAC project, were affected for a two-month period before their recovery. For that purpose, the Hellenic Ministry of Culture has increased funding and installed security updates to its IT Systems to prevent similar threats in the future. Cyber security is considered a growing challenge today.

2.3.2. Internal Environment

Strengths:

- Continuous enrichment of the HAC with new data (such as the data retrieved from the Jewish Museum of Greece), new functionalities, improved layout, updated base maps, and advanced tools.
- Interoperability among IT systems designed and operated by the Ministry of Culture, such as the movable monuments and the Hellenic Museum Accreditation Program.
- Organization of press conferences by the Hellenic Ministry of Culture and the responsible Directorate for the project publicization throughout its lifecycle.

Weaknesses:

- Reduced human resources dedicated to the project. The number of public servants was significantly reduced after the Greek debt crisis due to the 1:5 ratio of hire to termination applied to the public sector in order to reduce costs.
- Administrative processes utilizing hard copies remain in parallel to the new digital LAS until cyber security is improved and new high-tech personnel are hired by the Hellenic Ministry of Culture.

It is clear that the HAC offers opportunities and demonstrates remarkable strengths able to overcome the weaknesses and the risks deriving from the external environment.

The weaknesses may be alleviated by applying structural reforms and targeted measures. SWOT framework analysis indicated the projects' prospects and perspectives.

3. Results

Data in Numbers and Indicative Examples of the HAC

Data accessibility supports transparency and offers valuable information to all. To this day, all data are stored in archives. Currently, the relevant information is displayed at the HAC and is updated daily by the competent authority. The database of the HAC project contains the following [37]:

- A total of 3100 archaeological sites;

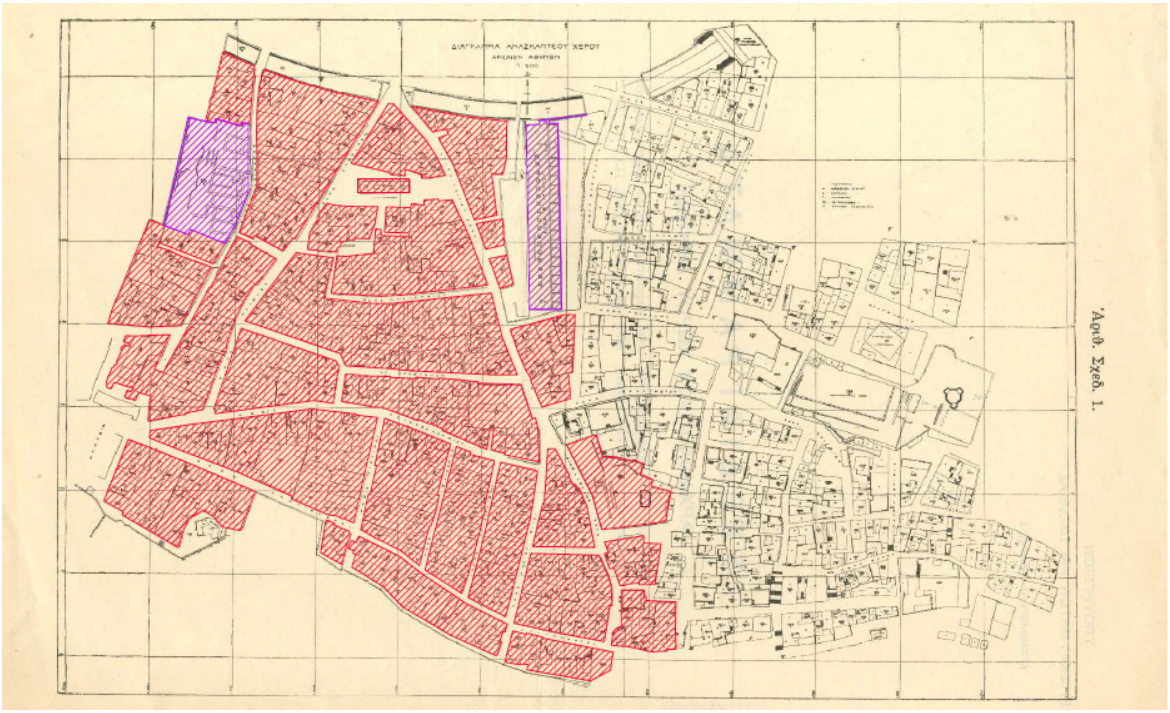
- A total of 420 historic places;
- A total of 844 buffer zones;
- A total of 17,000 monuments;
- A total of 220 museums.

During the trial period, a temporary database was designed by the employees of the project for data manipulation and storage. (Figure 3).

Figure 3. The public property at the Anafiotika and Plaka neighborhood (source: [29]).

Currently, citizens may access the Web Portal and obtain informed about all the available data. Listed below are three indicative examples related to the area of Plaka: (a) the archaeological site of the Ancient Market, (b) the Museum of Greek Folk Musical Instruments, and (c) Kolleti House, which indicates how an entity may belong to more than one category and how it is displayed at the online Web Portal of the HAC.

(a) The Archaeological Site of the Ancient Market is located at the city-center of Athens, specifically in the south part of Plaka neighborhood. In the 19th century, the area was an urban neighborhood that consisted of parcels of land, roads, and points of public interest, such as churches. At the end of the 19th century, the land parcels (and their buildings) were purchased or expropriated by the American School of Classical Studies for archaeological purposes in a relatively short amount of time according to the Act of 23 March 1929. The old paper maps held by the Directorate of the National Archive of Monuments indicate the morphology of the area in the 19th century (Figure 4a), while the HAC Web Portal presents the same archaeological site after the excavations (Figure 4b).



(**a**)

(**b**)

Figure 4. (**a**) The digitized old map of the area which is stored at the archive of the Directorate of the National Archive of Monuments (source: [38]). (**b**) The archaeological site of the Ancient Market as it is displayed at the Portal. The cyan polygon indicates the archaeological site's boundaries. (source: [39]).

(b) The Museum of Greek Folk Musical Instruments is located close to the Ancient Market and operates under the supervision and funding of the Hellenic Ministry of Culture (Figure 5). It constitutes a small but rather important museum dedicated to folk musical instruments, as its name reveals. The building belonged to the Hellenic Ministry of Education intended to host the first Hellenic University after the establishment of the new Hellenic State. However, it was quite small for this purpose; thus, it was exchanged with another building owned by the Archaeological Service. The building is documented as public property at the archives of the Hellenic Ministry of Culture, and it is archived as a museum with a POI at the Web Portal of the HAC.

Figure 5. The museum of Greek Folk Musical Instruments as it is displayed at the Web Portal of the HAC (source: [39]).

(c) The last example is recorded at the LAS of the HAC as public property. The house of the first Prime Minister Ioannis Kolletis, who served from 1834 to 1835 and from 1844 to 1847, carries a rich heritage. The building is among the first that were built in the area of Plaka (Figure 6a), constructed in 1870 [40]. In 1960, it was characterized by the state as a modern monument, and in 1980, it was expropriated for archaeological purposes. For many years, the building was used by the Hellenic Ministry of Culture; however, following the earthquake that occurred in 1999, it was abandoned. Currently, the building is undergoing restoration by the Acropolis Restoration Service in order to host its valuable archive. The monument is displayed as a polygon at the Web Portal of the HAC (Figure 6b).

(**a**)

(**b**)

Figure 6. (**a**) The "Kolleti" House (source: [41]). (**b**) "Kolleti" House as it is displayed at the HAC Map (source: [39]).

4. Discussion

4.1. Next Steps

The HAC, for the time being, is under full operation. The Directorate of the National Archive of Monuments keeps it constantly updated with new records, corrections, and public property entities. The latter are not available to the public due to the Regulation 2016/679 of the European Parliament and of the council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (GDPR). The employees of the Hellenic Ministry of Culture are trained to use the Integrated Information System for administrative purposes.

The system will also interoperate with another Integrated Information System designed to store information about the Hellenic Museum Accreditation Program and the movable monuments. Valuable data are recorded and stored in both Integrated Information Systems. This data are currently available only to the staff of the Hellenic Ministry of Culture. For safety and cyber security purposes, the server provided by the General Secretariat for Information Systems and Digital Governance, named G-Cloud, hosts the HAC project.

Story maps have been uploaded at the Web Portal as a new section, displaying spatial and attribute data of other archaeological projects that run by the Hellenic Ministry of Culture. Records of intangible cultural heritage, the inscription of world heritage monuments in UNESCO's list, and the site of traditional wooden shipbuilding in the Aegean are three indicative examples. The users may be informed about valuable stories by navigating on the map.

The HAC is also enriched with other valuable information such as Jewish landmarks in Greek territory. This project is a collaborative effort between the Directorate of the National Archive of Monuments and third parties (cultural institutions, etc.) to showcase lesser-known places related to the Jewish community that existed before WWII.

The project aims to incrementally integrate all relevant information about cultural heritage available in the various agencies in Greece and thus to build a national geospatial data infrastructure, with the HAC as its backbone. It is also considered innovative for the relevant public administration branch and was therefore nominated for a prize in the "Best Implemented Idea" category in the "Education and Culture" thematic section at the Digital Governance Awards 2020–2021 [42].

4.2. Evaluation and Further Recommendation

In order to evaluate the HAC project, the time needed for the Hellenic Cadastre to be completed, the official processes required, and the relevant costs must be taken into consideration [43]. The process was accelerated by the urgent need for the digitalization of rare archival material and the protection of public property and cultural heritage. Recording and documenting the available information, digitizing paper maps, field measurements, design, and the use of the Integrated Information System are among the factors that led to a new LAS, namely the HAC.

The HAC documented cultural heritage. The boundaries of the archaeological sites, the historic places, and their buffer zones are currently displayed online as polygons. Previously, they were published as a list of coordinates at the official Government Gazette, so the provided information was either "hidden" or "coded" for the users. At present, everyone may access the available information, explore data, and navigate on the map.

Furthermore, the project is gradually enhanced with new data; however, the documentation of the public property and the familiarity of the public servants with the HAC remain limited. Currently, the Hellenic Ministry of Culture, with the aim of maintaining the HAC project and making it sustainable, supplements the content continuously, ensuring interoperability with other IT systems and funding by national resources.

It is also obvious that the HAC should interoperate with all other relevant systems provided by the public authorities, such as the Hellenic Cadastre, the Forestry Directory, and the Regional Directorates of Construction in order to cut down bureaucracy. The achievement of the aforementioned goals is equally important.

The HAC should also be further improved to receive users' requests online and provide them with digital services and products, such as e-certificates and digital government documents in a fully automated workflow. The HAC may also provide information about the state's restrictions in construction or further requirements for land use permitting in regulated parcels of land. Land take procedures should be fully digitized, and citizens should be informed about them in real-time online.

It is clear that the project has been embraced by the users and the leadership of the Hellenic Ministry of Culture, so it may evolve in various ways. The HAC project may be

used both as a guide in designing similar projects related to digital transition and as a good practice in cultural administration.

5. Conclusions

This publication constitutes the first attempt to evaluate the HAC project, its functionality, and the data provided to the citizens. The SWOT analysis indicated that there are great opportunities and numerous strengths in its use, as well as weaknesses that should be addressed. Most of the weaknesses are manageable; however, threats cannot be easily tackled. The HAC may be improved in various ways by covering all aspects of the administrative process, but most importantly by reducing bureaucracy and hard copies.

The HAC project is among the major achievements of the Greek public sector. Experience is acquired in designing and implementing notable digital projects effectively to provide users with fine-tuned electronic services. HAC has great potential for further amelioration and evaluation.

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Data Availability Statement: Data derived from public domain resources: https://www.arxaiologikoktimatologio.gov.gr/ (accessed on 30 March 2024).

Conflicts of Interest: The author declares no conflicts of interest.

Notes

[1] The author was among the employees of the project from its beginning in 2011. She worked at the Directorate of Expropriations as well as at the Directorate of the National Archive of Monuments for 5 years and 9 months in total. Among her duties were the attribute and spatial documentation of the public property. She was responsible for this specific sector until she successfully passed the entrance exams of the National School of Public Administration and Local Government, so she had to quit from her previous position in order to compulsory attend her new studies and become a specialized official of the Public Sector.

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