Architectural Records and Information Systems: a tool for community building / Documentos de arquitectura y sistemas de información: una herramienta para la construcción comunitaria

João Vieira
Presidente de la Sección de Documentos de Arquitectura (ICA/SAR)
Consejo Internacional de Archivos
vieirajoaosantos@gmail.com

Resumen
La reivindicación en favor de la función probatoria primaria de documentos y archivos, de alguna manera ha minimizado su importancia social inherente como herramientas para el fortalecimiento de las identidades colectivas. Este artículo se centrará en el valor potencial de los documentos de arquitectura y de los sistemas de información como herramientas para la construcción comunitaria. El autor compartirá una serie de reflexiones sobre el tema, extraídas de las experiencias en curso proporcionadas por el Sistema de Información del Patrimonio Arquitectónico Portugués (SIPA).

Abstract
The claim in favour of the primary evidential function of records and archives has somehow underplayed their inherent social significance as tools for the reinforcement of collective identities. This paper will focus on the potential value of architectural records and information systems as tools for community building. The author will share a number of reflections on the subject drawn from ongoing experiences within the Portuguese Architectural Heritage Information System (SIPA).

Palabras clave: Archivos – arquitectura – Sistema de Información del Patrimonio Arquitectónico (SIPA) – Portugal

Keywords: Archives – Architecture – Architectural Heritage Information System (SIPA) – Portugal
It is currently accepted that contemporary societies are based on the primacy of knowledge. The control of information and communications has long been understood to shape how societies develop and behave. The effective control and access to available information, to the sources of knowledge, are increasingly considered as distinction and competitiveness factors for governments and public administrations, social and economic agents, communities and citizens.

Archival professionals and institutions worldwide have long sought to emphasize the role of archives as key components of corporate information systems, as causes of effectiveness and efficiency of administrative action, as a prerequisite for governance transparency and accountability and, ultimately, as the guarantee of rights and duties of states, organizations and citizens.

However, this claim in favour of the primary evidential function of records and archives has somehow underplayed their inherent social significance as tools for the reinforcement of collective identities. This paper will focus on the potential value of architectural records and information systems as tools for community building. The author will share a number of reflections on the subject drawn from on-going experiences within the Portuguese Architectural Heritage Information System (SIPA).

Architecture is one of the most remarkable creations of mankind, one that induces the greatest impact on diverse scales of social life - from the social whole, to the individual, from the various communities to specific groups and organizations - and on many of its plans - political, socioeconomic, environmental, technological, scientific, cultural, symbolic, psychological, etc..

The architectural field convenes a number of different social actors – politicians, legislators, promoters, developers/builders, authors, owners, managers, users, litigants, conservators, critics, publicists, researchers, educators, students, etc.– interacting throughout multiple and intersecting activities. Often these activities are developed through highly complex administrative, scientific, technical and technological processes, where only specialists have the capacity and the legitimacy to intervene. On other occasions, though, architectural activities stir up public opinion, being subject of strong politicization and intense media coverage. In short, Architecture is an area par excellence for communication and exchange of ideas, values, meanings and emotions. But it is also a territory where diverse interests and expectations tend to confront.

Understood in its broadest sense, Architecture encompasses not only the buildings, but also the urban settlements and the landscapes that successively contextualize each single built work. In addition to structurally complex, architectural objects are also dynamic. They tend to endure over the long run, crossing several generations and suffering from changes induced by political, economic, social, technological and cultural developments at different scales of the territory.

---

1 According to William Morris' definition, Architecture encompasses all activities relating to “the molding and altering to human needs of the very face of the earth itself.”

Beyond its physical attributes, architectural structures often incorporate an immaterial dimension generated by the significant bonds that link them to communities and individuals. In fact, the buildings themselves do not have nor determine any signification. They acquire the meanings assigned to them by individuals and groups with which they interact. These meanings will be different for different individuals at different times, in different contexts. Throughout the historical process of the life of a building a dialogue is established between the sphere of practices and the sphere of spaces, the outcome of which is always unpredictable. The potential meanings that Architecture can virtually produce, anchor and transmit are, thus, inextricably associated with the values assigned to it by communities, organizations and individuals: from the functional to the economic/financial values, from the artistic and cultural to the scientific and technological values, from the historical/biographic and documentary to the symbolic and identitary values.

In summary, one may say that architectural heritage is a dynamic complex composed, on one hand, by the multi-level physical structures and, on the other, by the corresponding web of meanings that a determined community, organization or individual acknowledge and especially value in a given historical moment.

It is now generally agreed that architectural heritage, being a relevant component of the cultural heritage of a region or a community, is a powerful factor of social distinction and identification for individuals, groups and organizations. The buildings and cities survive beyond the time limits of each generation of their inhabitants. They leave visible traces on the territory, but also in the collective imaginary and habits. These marks can survive beyond the physical presence of the architectural and urban objects that were in their origin. In short, the buildings and cities become, to a great extent, the most persistent material expression of the community's culture.

Most of our mental maps - an individual's own internal map of his known world – tends to stress and focus on our own neighbourhood, the site that is familiar to us. Particularly public buildings and monuments in the cities are objects easily remembered by individuals and groups. They function as "identification devices", as they can give a distinctive and recognizable form to the neighbourhood or the city as a whole, a visible mark to which the community can relate and through which can be internally and externally identified. This is a legacy successively transmitted, adapted and transformed, as consecutively reinterpreted. The buildings and the city are thus the source and basis of traditions, grounded on memory to create shared identities. They are focuses of collective and individual identification, statements of culture.

---


Despite its importance as both support and component of civilization and culture, as a basis for social and individual identities, Architecture is an object difficult to grasp, represent and document, given its dynamic and multidimensional complexity. Nevertheless, Architecture is an area of business within which information and records are produced, processed, transmitted and (re)used in large numbers. In addition to that architectural records often present complicated administrative, scientific, technical and technological contents, complex documentary structures and are created using different languages, types of representation and encoding and inscription methods. Despite the social and cultural relevance of architectural information and documentation, there are also strong limitations to public access, obstacles imposed either by conservation reasons, or by the overriding need to protect intellectual property and privacy rights, as well as to ensure the safety of buildings and their users.

And yet, documenting Architecture, as well as architectural activities, processes and agents, and making the resulting records available for public access are consensually considered essential contributions to the understanding, enhancement and appropriation of this cultural legacy by communities and individuals, as well as to support its management and protection. This is a key idea that underlies any system of information and documentation on Architecture.

Ultimately, architectural information and documentation may be consider as “Architecture’s metadata” and, within this “metadata device”, architectural authentic records and archives play a central role, given not only the in-depth of the information stored in them but also their incomparable evidential strength. Even though, none of the abovementioned characteristics of architectural information and records reconcile easily with the documentary efficiency architectural information and records are supposed to guarantee as “Architecture’s metadata”, let alone when it comes to granting access to them by the general public or by communities of non-specialists.

In the past, public architectural organizations and architectural firms and professionals supplied their own information needs through the construction and maintenance of architectural register and inventory systems. Most of them were paper-based. Some addressed legal matters; others, instead, had a pure historical and artistic scope. They all tended to document exceptional architectural isolated pieces only, using very formal representation methods. Relevant data to assist conservation activities and the overall management of the buildings and structures, including their use, were normally missing. Also the relationship between these architectural registers and inventories and the corresponding records and archives was rather weak and indirect, if existing. Moreover, the management of archives has long been dominated by a limited conception of its organizational potential, merely as a documentary evidence of specific legal transactions.

In short, these were architectural information and documentation systems created exclusively by and for public architectural authorities and, eventually, for the art and architectural professional elites. The general public and local communities weren’t obviously their target audience.

For quite some decades now, especially with the dissemination of the new information and communication technologies (personal computers, corporate networks and more recently internet), modern computerized tools support the creation, processing, transmission and use of
architectural information and documentation in nearly all kinds of sophisticated formats and using different software packages, including robust database systems. Interrelated textual, tabular, raster, vectorial and 3D files can be summoned in order to create complex and reliable representations of architectural objects in both their material and immaterial dimensions, and to accurately record all different kinds of managerial (architectural and non-architectural) activities performed on those objects.

On the other hand, the interrelation between these architectural information databases and repositories and the corresponding architectural records systems and archives is not only viable but, in some cases, firmly encouraged as a benchmarked solution. In fact, building up an integrated architectural information and documentation system that relies on a strong functional interdependence and interoperability between Information (structured data files) and Documentation, in other words, between an architectural inventory’s database and the architectural records themselves, is considered a proven informational strategy. Records are expected to be the inventory’s documentary resources, as well as its evidential support. On the other hand, as a consistent database on architectural objects, the inventory is expected to work as a privileged interface in the access to those records. In addition, this cooperative relationship between informational and documentary resources has the added advantage of structuring the final “informational package” in different layers in order to better tailor it to the diverse needs of potential users: the upper layer (Database files) including highly structured Information, although with limited depth; the lower layer (Records) integrating unstructured information but of great depth.

In a context where:

- the very concept of built heritage has gone through a process of expansion over the last decades,
- the awareness of policy makers, private sector, communities and individuals of the strategic value of architectural heritage for the qualification and the economic development of places and regions and for the reinforcement of communitarian identities has raised significantly,

these new TIC (technologies of information and communication) and the opportunities created for building up information networks based on integrated solutions endorse and facilitate the creation of central architectural information and documentation systems that aspire to:

- provide informational and documentary support to land use management, urban planning and cultural heritage policy making and assessment processes;
- promote the creation and conservation of and access to accurate information and authentic records on architectural, urban and landscape heritage;
- raise the collective and individual awareness of the quality of the built environment and the importance of safeguarding this heritage, bearing in mind its possible social values—functional, economic, artistic, cultural, scientific and technological, historical, documentary, symbolic and in forming identities;
- promote scientific and technical research in associated fields of study;
• encourage the use of architectural contents as an educational and recreational resource.

In short, we are clearly not anymore, as we were before the TIC revolution, facing linear and monofunctional architectural information and documentation systems aiming at creating formal representations of architectural exceptional isolated objects for the use of architectural authorities and professional elites only. On the contrary, these new systems have reasonably tackled and incorporated the overwhelming complexity of multidimensional, multi-scale and dynamic architectural objects. And, since they generally are web-based, these systems can also provide extensive access to content to diverse audiences, including the general public and local communities.

Despite of their power and sophistication, these new architectural information and documentation systems haven’t so far succeeded overcoming a weakness, namely the fact that their contents frequently end up serving out the unilateral perspective of their owners and managers. This is an unfortunate consequence of the traditional top-down strategy that orients the information collecting, processing and disseminating processes. And it turns out to be an handicap in view of those systems’ potential as communitarian as well as individual identity devices.

•

On the other hand, as we move into the new century, “(...) new paradigms of communications are beginning to take hold. The range of sources of information has multiplied exponentially with the arrival of satellite communications and the internet. No longer are we reliant on a single or limited number of sources that define our understanding and opinions, but we may gather information from a heterogeneous collection of places. Although much of it is the same, we now have at our disposal an unprecedented ability to see from other perspectives, through different eyes.”

Not only that, but it is two ways: people do wish to comment, to communicate their interpretation of events, to participate in the culture they are part of. This radical shift in information flow and control away from large institutions (both public and private) to ordinary people can have a profound social and cultural impact on daily life, as well as on social and community relations. It can have a significant consequence on how we take part in and build a better civil society.

In fact, “the future for our society lies in broadening the capabilities of its members to be actors, agents and authors, not merely consumers of a culture created by others employed in the 'culture industry'.” Using network technologies (e.g. mobile network technologies such as mobile phones) to gather, create and share knowledge at grassroots –no matter how informal– offers the possibility of profound changes to the way in which we engage with our environment and the people who inhabit it.5

---


5 Giles LANE, op.cit., p. 4.
“The impact of the revolution in communications has been to shift our perceptions of space and territory so that we are no longer defined or our horizons limited by the (particularly nineteenth century) concept of nationhood. Our sense of where, to whom and what we belong to alters too. In an age of conflicting loyalties and populations that are less and less ethnically or religiously homogenous, this presents a major problem to the traditional apparatus of power, yet offers extraordinary possibilities for individuals and communities.\(^6\)

The development and the continuing maintenance of integrated, accurate and relevant architectural information and documentation systems independently of their juridical/territorial and subject scopes and the diversity of visions and perspectives to be conveyed call for solid expertise, depend on genuine and effective networking and cooperation of a number of different agents (public and private sector) in the field and rely on steady funding policies and mechanisms. These are some of the challenges most of the architectural information and documentation systems are facing right now.

• SIPA, the Portuguese Architectural Heritage Information System, is a good example of this tendency. SIPA is a governmental architectural information and documentation program and repository currently run by the Institute for Housing and Urban Renewal (IHRU), a department of the Portuguese Ministry of Environment. Launched in the early 1990s by the former Directorate General for National Buildings and Monuments (DGEMN / Ministry of Public Works), SIPA’s work is based on the abovementioned premise that “documenting architecture, as well as architectural activities and agents, and keeping the resulting records preserved over time and available for public access constitutes a crucial contribution to the understanding, enhancement and appropriation of that complex and multidimensional cultural legacy by communities and individuals, as well as to supporting its management and protection”.

SIPA provides a set of specialized and interrelated information and documentation resources on Portuguese architectural, urban and cultural landscape heritage. Its resources include, among others, databases, archives, and a library. In particular, SIPA offers three databases:

• The Architectural Heritage Inventory, which currently includes around thirty thousand database files comprising textual and iconographic information on Portuguese buildings and monuments, urban settlements, sites and cultural landscapes, both in Portugal and in some of the territories of the former Portuguese empire.

• The Landscapes and Urban Settlements Database which is developed in a geographic information system (GIS) environment and provides information in the form of thematic maps characterizing the urban fabric and the humanized landscape.

\(^6\) Giles LANE, op.cit., p. 5.
• SIPA Thesaurus, an ongoing structured vocabulary on architecture, town planning, landscape, territory, documentation, and associated areas, whose main objective is to control the terminology used in the production, representation, research and exploration of contents within the context of the information system.

SIPA also holds an architectural archive, an analogue and digital repository of original records on architecture and associated arts in Portugal, comprising the archival fonds generated by the various governmental services and public bodies preceding the IHRU (namely, the abovementioned DGEMN), as well as private archives and collections created by Portuguese architects, urban planners and designers from the twentieth and twenty-first centuries. These archival fonds, especially those originating from public organizations, preserve the memory of the Portuguese government’s large and small-scale public architectural projects from the mid nineteenth-century onwards, including construction, major repair, renovation, extension, conservation and restoration programs.

The archives include around one million measured drawings (200,000 of which are available in digital form), 600,000 photographs (236,370 in digital form), 6,125 linear meters of textual records (12.5 million pages of which are available in digital form) and a small collection of architectural models. These materials extensively document the following topics: historic and contemporary buildings of diverse architectural typologies; urban settlements; sites and landscapes; sculpture and painting; decorative arts; medieval and modern epigraphy; mechanisms, equipments and special supporting systems; principles, policies and strategies of intervention on architectural heritage; construction techniques and materials; disasters and other physical causes of structural decay; building or restoration projects, both executed and unexecuted; workers and other specialized agents; as well as everyday and special uses of architecture.

Finally, SIPA maintains a specialized library covering topics such as housing, urban renewal, architecture and architectural heritage, history of art and architecture, construction and conservation techniques, and related fields.

SIPA offers a range of architectural research, information and documentation activities and services. Examples of these activities include the identification, documentation, interpretation, study and publicizing of buildings and built structures, urban settlements and cultural landscapes, as well as the acquisition, archival processing, conservation and dissemination of information and authentic records on those architectural objects.

The outcomes of some SIPA research projects are published as books. SIPA has electronically published several guides to inventorying architectural heritage, and also plans to publish a collection of books on each architect or architectural firm represented by holdings in its

---

7 These include office buildings, churches, custom houses, post offices, public banks, military and police facilities, schools and universities, public libraries, archives and museums, scientific laboratories and experimental farms, hospitals, legislative and presidential buildings, courts of law, penitentiaries, and embassies.
architectural archives. Selected research outcomes authored by SIPA team members are periodically published in Monumentos, a semiannual national journal specialized in areas such as architectural and art history, architectural heritage and urban renewal.

SIPA has been developed by an experienced and multidisciplinary team of thirty-five collaborators with different backgrounds: architecture, landscape architecture, urban planning, history and art history, geography, archival and library sciences, and conservation. A significant number of GIS information producing entities, research institutions, and managers of architectural, urban and landscape heritage also contribute to the development and improvement of the various SIPA products and services.

Distinct kinds of corporate and individual users' groups intensively search and access SIPA information and documentary contents, namely professionals in architectural, urban and landscape heritage, public and private sector managers, students and educators, researchers, and the general public. Access to SIPA’s information and documentary contents occurs mainly via the website www.monumentos.pt. Nevertheless, a significant group of users –mostly scholars and graduate students who need to carry out sophisticated queries or access classified materials– often request our on-site reference, consultation and reproduction services, which are based at the Forte de Sacavém.

SIPA has its headquarters in the Forte de Sacavém, a small nineteenth-century fortress located twelve kilometres away from central Lisbon. This fully restored and expanded building supports all SIPA activities and is also the centre for promoting and disseminating SIPA contents in analogue and digital format. Forte de Sacavém complies with the most demanding technical, technological and functional requirements, assuring high standards for the preservation of archival material.

Since 2007, SIPA’s projects and activities have been guided, among others, by the following strategic objectives:

• To promote extensive online and on-site access to all architectural databases and associated archival contents (except for those classified or protected by copyright).

• To develop and reinforce the SIPA network through the creation of partnerships which will contribute to the enhancement of the contents’ relevance and quality and to the financial sustainability of the program. In particular, SIPA pursues partnerships with other public and private sector architectural agents —from national to local— given their potential value as SIPA content providers and users and with other creators of geographical information relevant to contextualizing and deepening the SIPA information and documentary contents.

• To create a SIPA Extranet as a tool to enable data and documents interchange between SIPA network partners and corporate and individual users and to renovate the SIPA website www.monumentos.pt in order to convert it into the system’s dissemination and communication platform. This new website and extranet (currently under construction) will facilitate logged-in institutional and individual contributors to upload new or updated contents to SIPA subject to validation. It will also include the possibility of adding
comments to and voting each content in the website. Finally, it will create a number of different content output formats according to the diversity of the audiences.

• To strengthen the scientific component of our projects and activities, by establishing partnerships with research centers in scientific areas relevant to SIPA, such as architecture, art and architectural history, archival and library sciences, and conservation.

• To develop capacity-building projects, such as creating and disseminating standards and best practices, and providing training courses on architectural documentation and inventorying.

• To increase outreach initiatives, such as group visits and public lectures on architecture, architectural documentation, art and architectural history and allied fields; and develop other educational programs.

We believe most of these objectives will certainly contribute to reinforce the social relevance of SIPA as a tool for community building, as they create the possibility for individuals and groups to contribute to the central system with their own views and perspectives on what they specially value as a common cultural legacy of the community they belong to.