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A Project of digitalization and classification of Architectural Monuments of Islamic Countries

A Project of digitalization and classification of Architectural Monuments of Islamic Countries: a possible use.

The cataloguing of monuments of Islamic architecture, a work that was ahead of its time, initially financed by UNESCO in the 1980s, but then continued with private funds, is largely due to Paolo Cuneo.

The work of the Ce.S.A.D.A. (Centro Studi Automazione Dati in Architettura) has been conducted for years involving various specialists from various countries: architectural historians, restorers, architects, designers.

This work has laid the foundations for a basically complete catalogue, the General Inventory of Islamic Architecture.

Each monument's card presents various fields, among others: a brief architectural description, historical and chronological data, an accurate bibliography, and the plan, also taken from

unobtainable publications and, many times, from unpublished sources.

All this makes it a detailed handbook of architectural monuments, not only religious, of the vast Islamic world.

The untimely death of Professor Cuneo did not interrupt the work, which was carried out by his collaborators. The Politecnico di Torino II Faculty of Architecture has collaborated in the revision and updating.

The objective of this work is the systematic use of the General Inventory, which is available to scholars of multiple disciplines.

The multiplicity of data inserted allows to highlight different elements of the monuments themselves, to compare them, to detect similarities of models, co-presences of types in different areas, similarities and concordances, signs of ethnic and cultural contagion, but also signs of continuity.

Keywords:
Islamic; Architecture; Inventory

The project of the early '80s of the last century, much ahead of its time, the General Inventory of Islamic Architecture of the Ce.S.A.D.A. (Centro Studi Automazione Dati in Architettura), was almost completely blocked with the untimely death of Professor Paolo Cuneo, who had gathered around him valuable collaborators. Attempts to involve institutions to increase and correct the tens of thousands of cards, to normalize all the plans, to add an iconographic kit (photos and drawings), has been unsuccessful.

Just a few words about the Scientific Board who drew up the cards and who compiled them.

Some of the compilers were among the best specialists in the field, and some of them have left signs of continuity. Indeed several compilers, then young scholars, have over the years become professors in various Italian universities and museum officials, continuing the well known tradition of Italian studies concerning Islam.

First of all I would like to mention here, among those who have collaborated, with competence and enthusiasm at this General Inventory, at least Umberto Scerrato, Eugenio Galdieri, Yildiz Demiriz and Juan Zozaya.

Umberto Scerrato (1928 -2004), archaeologist and historian of Islamic art he has been the Professor of the first chair in Italy of Archaeology and History of Islamic Art, in the University L'Orientale of Naples. A keen connoisseur of Afghanistan, where he excavated in Ghazni as early as 1957, and also of Pakistan and Yemen. In his honour and with materials largely collected by him, the University L'Orientale of Naples inaugurated on November 13, 2013 the Oriental Museum 'Umberto Scerrato', an educational museum, helping students and scholars in the complex field of Islamic studies.

He has been the first specialist to be consulted by Nino Pellò at the very beginnings of the project of the Ce.S.A.D.A.

Eugenio Galdieri, (1925-2010), architect and restorer, profound connoisseur of Islamic and above all Persian architecture. Appreciated abroad and, especially in Iran, where he worked for a long time, in Isfahan, above all, so much so

as to be considered the "father" of the ancient and venerable Friday Mosque, hit by bombing during the bloody Iran-Iraq war of 1980-1988. He collaborated by filling, of course in various Monuments Cards, of Iran, Central Asia and Yemen were other areas of his work. His archive, which also includes 'series of graphic works, studies and restoration of Islamic architecture', as well as 'series, correspondence and documents of Islamic architecture', was acquired by the Archival Superintendence of Rome in 2015, and made available to scholars and students. His experience still serves those who work in Islamic architecture, and it has also been the subject of a degree thesis in quite recent years. On Iran he worked intensely, continuing the cataloguing of a country that he also knows very well, Michele Bernardini who holds the chair of Persian language and literature at the Oriental University of Naples.

Yildiz Demiriz (1929-2016), Turkish scholar, open to the West, from Germany to Italy, student and then assistant of the most famous Turkish art historians, Semavi Eyice and Oktay Aslanapa. She dealt with the history of Islamic and Ottoman architecture and its decoration. She collaborated intensely with the Ce.S.A.D.A. from the earliest stages of the work, also given her great passion for the computer work in its early stage, and in which she had immersed herself. She filled almost four thousand Monuments Cards of Turkey, and many of the former Ottoman territories, as Eastern Europe, the Balkans and Cyprus.

Juan Zozaya (1939-2017), historian, archaeologist, especially of the medieval period, scholar of Islamic art, especially in Spain, his country. He began the study of Islamic archaeology, participating in archaeological excavations in many Spanish sites, but also in other Mediterranean countries. He collaborated with Ce.S.A.D.A. regarding the Iberian Peninsula, also with the younger Manuel Retuerce, another specialist archaeologist in the same field of studies. The Ce.S.A.D.A. Catalogue, is a comprehensive inventory, not based on a choice on an aesthetic or historical basis, but a catalogue including also minor buildings, of distant regions, relatively little known.

As written in the 'Note about the origin and development of the project', the booklet enclosed in the CD Rom of the General Inventory, "The main purpose of the Inventory is to extend the knowledge of an important and numerically substantial portion of the global historical-architectural heritage scattered in several countries of the three continents that formed the Old World".

Each Monument card includes even elements that are not strictly architectural, but historical, geographical, etc. such as the name of the dynasty, the dating, the geographical position in relation to cities or provincial capitals, when the site is not well known, local terms that determine the buildings, architectural characteristics as type of plan, the roof, materials, decorations. There is also a series of additional information, in a specific field of the data base without space limits, with the name of the architect, when known, the name of the founder, the restorations, the transformations and so on. (figg. 1, 2, 3, 4).

A special field give us 1,076 cross references to the different denominations or to the different toponyms of towns, villages, and so on.

The Monuments Cards are in all nearly 34,000. The following list shows the countries that have the highest number of Cards: India 6,509 cards with 816 plans, Turkey 4,601 cards with 2,404 plans, Iran 4,451 cards with 1,701 plans, Morocco 1,538 cards with 385 plans, Pakistan 1,493 cards with 145 plans, Yemen 1,281 cards with 528 plans, Tunisia 1,353 cards with 245 plans, Egypt 1,110 cards with 465 plans, Algeria 1,000 cards with 203 plans.

To underline some features connected with the Ce.S.A.D.A. data base, particularly the building plans are the following facts worthy of consideration.

First. The importance not only the number of the plans, but also the variety of the sources. 3,321 books, articles, reports, published, sometimes in little know publications, published in periodicals including local ones with very limited circulation. In some cases the information deal with topics not strictly connected with Islamic architecture. Many of these sources are difficult to find, published in many different languages, even

little spread ones. Works has been consulted in European languages, in addition to the most widespread languages, including Russian, Bulgarian and Macedonian, Slovak, Czech, Croatian, Modern Greek, Albanian, Hungarian, Dutch, Catalan and some Oriental languages, as Turkish, Arabic and Persian.

There are also unpublished plans, especially of Yemen, and Comoro Islands.

Second. The large number of buildings and complexes with plans are 10,183, for many buildings, two different plans are shown.

Third. The data base give us a large number of different types of buildings with plans, numbering 109. The most important of which are: religious typologies, residence typologies, social and public typologies, military typologies, trade and travel typologies, technology and agriculture typologies.

Fourth. Plans of buildings that have changed destination, mostly churches transformed in mosques. But also the less known and much less number of churches obtained from mosques, such it happened particularly in Greece, in Spain. Of note the exceptional case of the mosque inside St. Catherine Monastery in Sinai (Egypt).

Fifth. Plans of buildings with a notable (or less notable) Islamic imprint and aspect, but not Islamic building, as quite well known synagogues in Spain, but also, strangely, in Afghanistan (Herat). We can add churches built in Spain in Mozarabic and Mudejar style, with a strong taste of Islamic features and decoration.

Sixth. Plans of Islamic buildings in non-Islamic countries, or in countries that have been under Islamic domination for a very short period in many, many years ago. Other buildings in some countries which wanted to delete, destroy, or to obliterate nearly all the traces of those periods, or in countries with Muslim minorities, like Myanmar, Armenia, Georgia, Russia, Hungary, Bulgaria, Greece, Croatia and even Italy. For examples: three mosques in Mandalay (Myanmar), 14 buildings in Erevan (Armenia), six buildings in Georgia, 120 buildings in Russia, almost all in Dagestan, 34 buildings in Budapest, Eger, Esztergom, Pecs, Szigetvar (Hungary),

104 building spread in whole Bulgaria, 321 monuments in Greece especially in Rhodes, Crete and Thrace, two mosques at Klis in Croatia. Seventh. Plans of buildings destroyed, in ruins and now being archaeological remains, but with legible architectural structures. The examples

are many hundreds, to be noted the remains of the mosque close to Segesta, in Sicily, and the ruins of some buildings of the old, abandoned Central-Asian town of Otrar (Kazakhstan).

Eight. Plans of not very wide spread type of building as fortified granary, snow reservoir, and pigeon loft.

Monument card

Code	3940	Plan	<input checked="" type="checkbox"/> Available Map	<input checked="" type="checkbox"/> Bibliogr. Reference
Name	GEDIK AHMET PASHA CAMII			
Type	56	mosque	religious typologies	
Loc. term	220	cami		
Dynasty	109	Ottomans		
Date		1281	Turkey, Near East, Arabia, Egypt, North Africa, Balka	
	1472	1473 (A.D.)	877	878 (Hegira)
Town	Afyon			
Location				
Ref. place	563	Afyon	Turkey	56 (Turk)
Struct. 1	227	rectangular prayer hall		
Struct. 2	407	spiral minaret		
Struct. 3	518	ribbed dome/s		
Material	18	hewn stone		
Decoration	134	carved wood+marble slab		
Bibliography	71	Kuran-1968	p. 144-5 f. 157-9 pl. 156*	
		The Mosque in Early Ottoman Architecture,		
	84	Ayyerdi 3-1973	p. 1-16 f. 3-23 pl. 1-2*	
		Osmanli mimarisinde Fatih devri (Fatih period in Ottoman architecture)		
Add. information	founded by Gedik Ahmet Pasha. See Külliye no. 7986			
Compilation	18	y.d.		

Fig. 1 - Monument Card 1, Example: Card no. 3940.

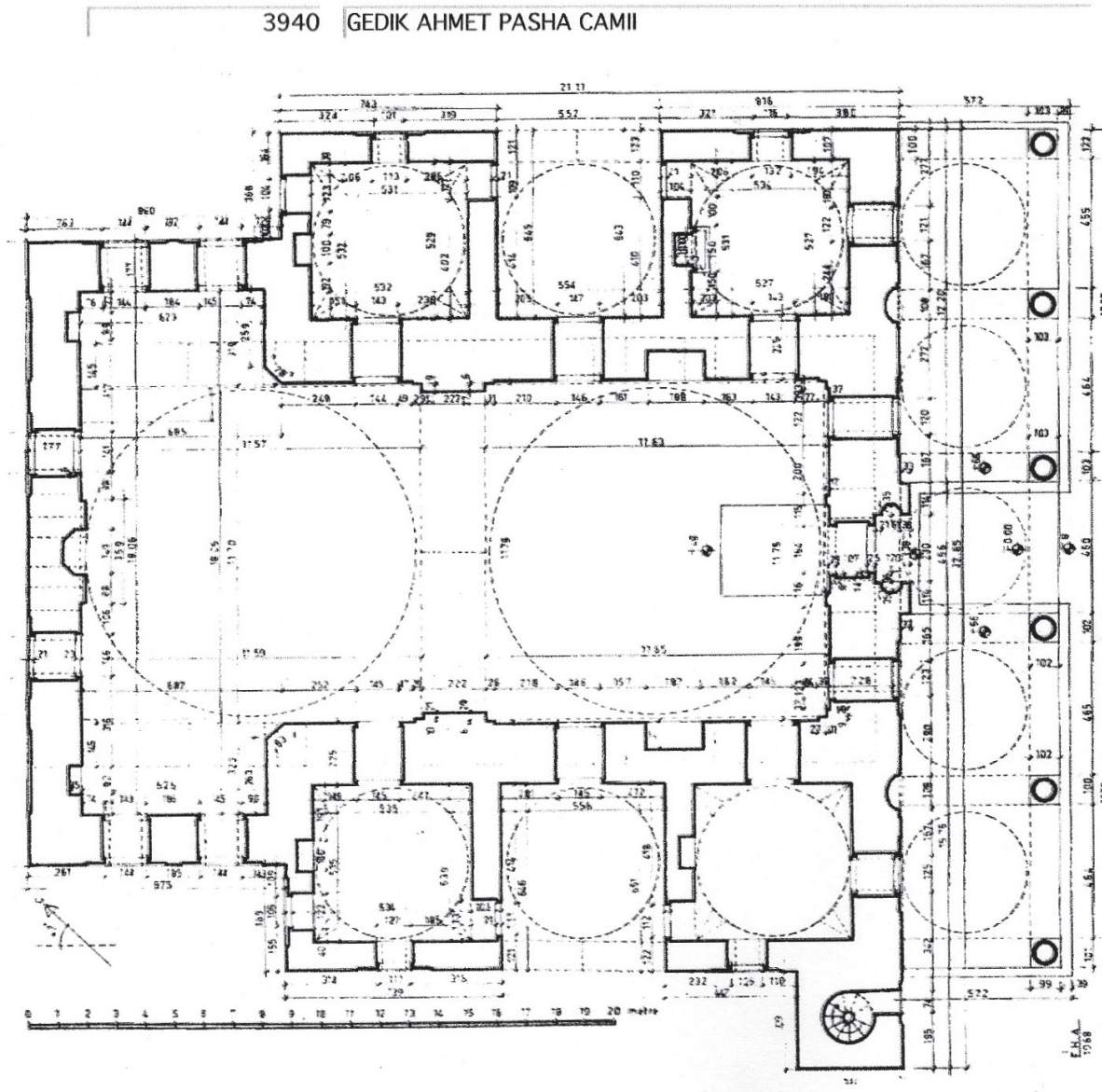


Fig. 2 - Monument Card 2, Example: Card no. 3940, plan from published source.

Ninth. Plans of almost unknown, or little-known or only locally known buildings. This choice is based on the principle of not excluding anything, and therefore also including minor elements, in such a way as to make them known to a large circle of scholars.

Tenth. Plan of large archaeological areas and sites, from Spain to Caucasus, from Iran to Saudi Arabia and beyond.
Eleventh. Last but not least, a great number of general plans. Different types of religious, commercial, military complexes and centres, almost

a thousand of plans from Afghanistan to Yemen. Among those also maps of towns, of villages, of districts, historical maps of cities or neighbourhoods, or regions, of more or less large areas, maps of caravan routes. Many of these plans show the location of the listed monuments, with references. Sometimes the plans indicate the location of sites in entire regions.

It would be very useful to have a precise confirmation of the current situation of the monuments in countries that in these years have known and know very bloody wars, such as Syria, Yemen (particularly detailed in the Ce.S.A.D.A. cataloguing), Iraq, Libya. Architectural heritage that has certainly suffered considerable damage in these countries.

Comparisons of the Ce.S.A.D.A. database with current systems are difficult: the ICCD system of the Mibact (Ministero per i Beni e le Attività Culturali e per il Turismo) is extremely more sophisticated, based on cataloguing standards that are not comparable with the filing, substantially simple though essential, of the Ce.S.A.D.A. The cataloguing of the Ce.S.A.D.A. is limited to a substantial listing, which could have been enriched by further data, and, above all, by updates, which, for various reasons, have been lacking.

Among the limits are the lack of uniformity of the plants (different scale and graphics, different orientation, often not indicated), and the lack of many of the essential data: everything, certainly derived from sources, but not amended by subsequent research.

Even the use of a program like 4th Dimension, a database born in the mid 80's of the last century, is not comparable with what can be found today, of course.

The General Inventory is little known, we can quote a doctoral dissertation supported in December 2014 at the Ecole Polytechnique d'architecture et d'urbanisme d'Alger (EPAU): Arrar M., [2014]. *Elaboration d'une base de données des mosquées du beylik el Gharb*: La méthode Ce.S.A.D.A. (UNESCO). University of

Monument card

Code	6083	Plan	<input checked="" type="checkbox"/> Available Map	<input checked="" type="checkbox"/> Bibliogr. Reference
Name	AL-'AQIL MOSQUE			
Type	56	mosque	religious typologies	
Loc. term	52	jami'		
Dynasty	118	Rasulids		
		1229	Yemen	
Date	1400	1499 (A.D.)	802	904 (Hegira)
Town	San'a			
Location	in the Suq			
Ref. place	475	San'a	Yemen	45 (Yem)
Struct. 1	219	pillared hall		
Struct. 2	420	one minaret		
Struct. 3	258	altered		
Material	0			
Decoration	0			
Bibliography	61	Serjeant, Lewcock-1981		p. 372 f.19.62
		San'a, an Arabian Islamic City,		
	3190	Scerrato, Ventrone, Cuneo		pl. *
		Unpublished documents from the ISMEO		
Add. information	extensively rebuilt in 947/1540 a.d.. Minaret built in 967 H./1560a.D.			
Compilation	17	u.s.		

Fig. 3 - Monument Card 3, Example: Card no. 6083.

Algiers (Algeria), with the well-known professor Yousef Chennaoui as supervisor.

Despite imperfections and deficiencies and some lacks of information, the corpus of more than 33,000 Cards, of which are more than 10,000 building plans the Ce.S.A.D.A. database can have some utility and some interest today, even though the enormous amount of publications on that topic in recent years remain excluded from this Catalogue, and also despite the enormous amount of information spread on internet.

Who can take advantage from the Catalogue? Mainly those looking for an immediate answer to requests as follow: how many are the buildings of a certain type of plan, or buildings that show a certain type of decoration, or buildings of an historical period, of a certain dynasty. And also how many buildings contain *spolia* of the Roman period in the Mediterranean countries, or of the pre-Islamic period in Yemen, or in Iran and in Central Asia. How many churches are decorated with Islamic marble or pottery.

Who can take advantage from such a so great mass of information? Above all it can still be useful to those who want immediately compare dozens and dozens of plans of different buildings, even the least known.

Last but not least one can only hope that the precious workload of this cataloguing will not be lost, and that it can find some institution interested in managing it, updating it and adapting it to current cataloguing systems, making it an accessible and implementable tool for researchers all over the world.

Fig. 4 - Monument Card 4, Example: Card no. 6083, plan from unpublished source.

