DIVERSITY AND TAXONOMY IN CULTURAL HERITAGE

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ABSTRACT:

The discipline of Cultural Heritage is nowadays developing very well. Moreover, the field of Cultural Heritage Preservation is also developing well. The necessity of well-organized taxonomy and classification now seems to be an outstanding significant topic. The scope of this paper regards such taxonomy; more precisely, it proposes this kind of taxonomy. The final products of this paper are the *Diagram of Cultural Heritage & its Preservation* and the *Universal Cultural Heritage & Preservation Classification* ($_UCH\&P_C$). The Cultural Taxonomy proposed here is expected to offer additive features of significant value (as for instance order, efficacy, clarification, simplicity, supervision etc.) distributed all over the individual fields of Cultural Heritage. The products of this paper are the innovative outcomes of a multifaceted research endeavor.

1. INTRODUCTION

We present in this article a scheme of classification for Cultural Heritage. The latter field (Cultural Heritage) is now an area with ongoing interest and research. Its inherent nature as well as the aforementioned special interest, tends to turn Cultural Heritage into a gigantic individual corpus. After that, the necessity of supervision and control in this field becomes obvious. We focus here on the hierarchical organization of the independent or cross-correlated fields of Cultural Heritage and its Preservation. Finally, we offer means for classifying the abovementioned hierarchized Cultural Heritage. A manifold and long research endeavor results in the outcomes presented here.

2. CULTURAL HERITAGE PRESERVATION DIAGRAM [C(H&P)D]

It is evident that in order to sufficiently understand a field (subject, meaning etc.) an observer must initially comprehend the etymology of the name describing the field under examination. We thus give at this point a definition of the term 'Cultural Heritage'. We cite herein simply the definition with no further analysis.

Cultural Heritage is the complete space of products/objects of Culture originated from the distant Past until now.

Initially, we should observe, regarding our subject, three implicated areas. These areas are hierarchically:
(a) *Culture*
(b) *Cultural Heritage*
(c) *Cultural Heritage Preservation*
However, for the sake of simplicity we may abbreviate by writing as follows:
Cultural (Heritage (Preservation))
where this notation is suitable.

Hereinafter, we demonstrate a panoramic view *of the whole of Culture,* resulting from a thorough study. In order to successfully demonstrate this view, the most succesfull approach is by using a hierarchical diagram (*the backbone of the Culture*). This diagram (*the **C**ultural (**H**eritage (**P**reservation)) Diagram* **[C(H&P)D]**) is depicted in Fig.1.

In this diagram we should notice the (sequential) succession regarding the chain *Production – Heritage – Preservation*; moreover, the inner classification of individual areas of Cultural Heritage Preservation. It is evident that the herein presented diagram (Fig.1) is an open diagram which can be continuously extended.

3. CATEGORIES OF CULTURAL HERITAGE PRESERVATION

In the aforementioned diagram we should initially consider the following fundamental categories of culture preservation, i.e.

    (1) technical

&

    (2) digital

The term 'technical' incorporates all those means which contribute to the physical or materialistic preservation of cultural elements (e.g. restoration (Conti & Glanville, 2007), reconstruction etc.). The term 'digital', on the other hand, refers to each tool which helps preserve cultural elements by means of computers and digital technology (MacDonald, 2006). However, there are means which fall into one or the other category or, even, in the cross-section of them. Such a characteristic example is the use of lasers in Cultural Preservation (Fotakis et al., 2006).

Moreover, there are also other supplementary categories of preservation such as for instance *audio-visual* and *chemical,* which could be characterized as (a) subareas of the previously mentioned general categories of preservation, or (b) bilateral fields.

At last we should refer, as independent fields of Cultural Heritage Preservation, the *traditional* categories of Cultural Information Preservation, i.e. the *imprinted* and *oral* ones. Therefore, we may form the fundamental triptych of Cultural Heritage Preservation -with reference to its kind- as
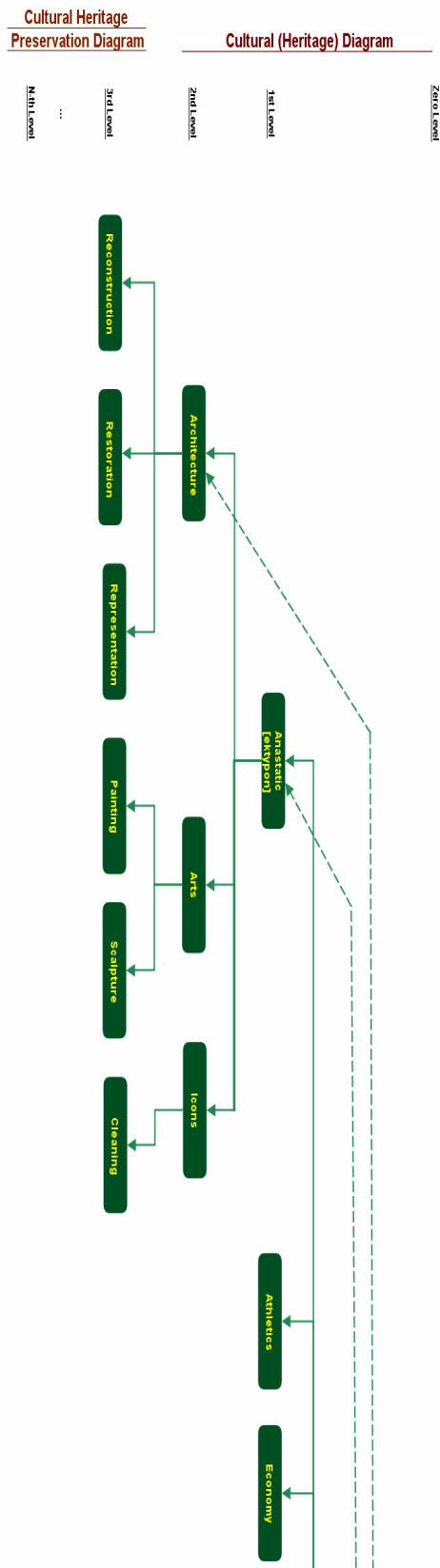
(digital, technical, traditional)

Cultural Heritage Preservation Diagram

Cultural (Heritage) Diagram

N-th Level … 3rd Level 2nd Level 1st Level Zero Level

Reconstruction

Restoration

Representation

Architecture

Painting

Anastatic [ektypon]

Arts

Sculpture

Icons

Cleaning

Athletics

Economy

Ethic

Faith/Religion

Monuments

Worship

Production

Dance

Heritage

Culture

Folkloric

Music

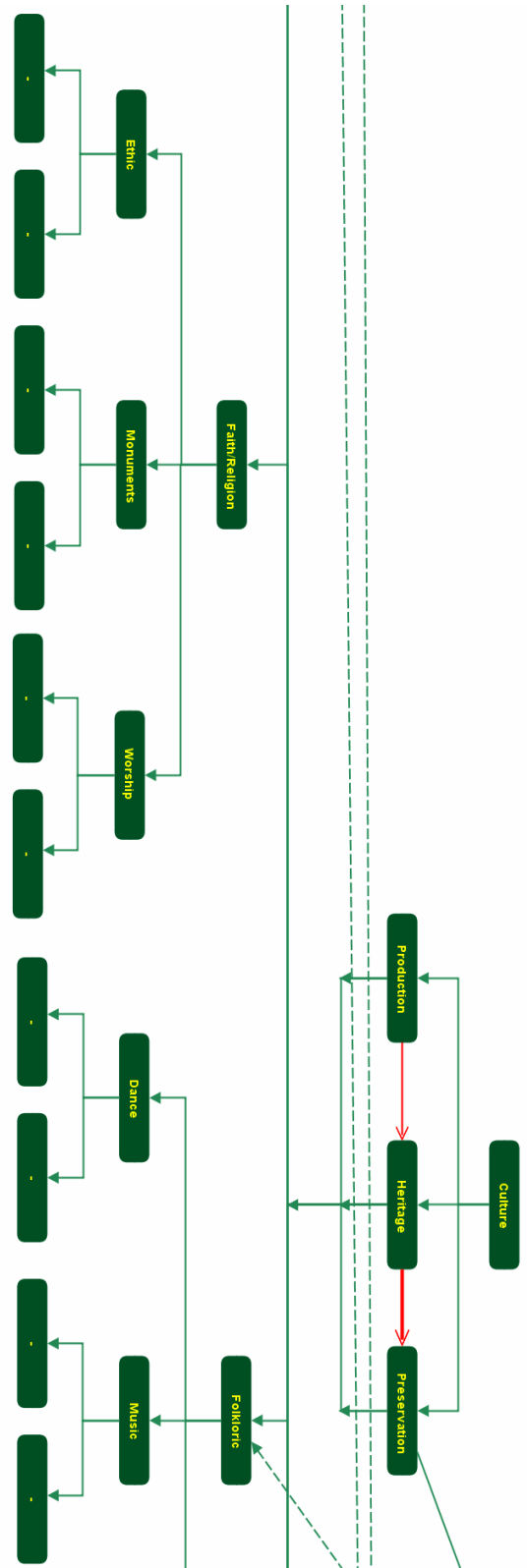Preservation

Figure 1: Part 2/4

Figure 1: Part 1/4

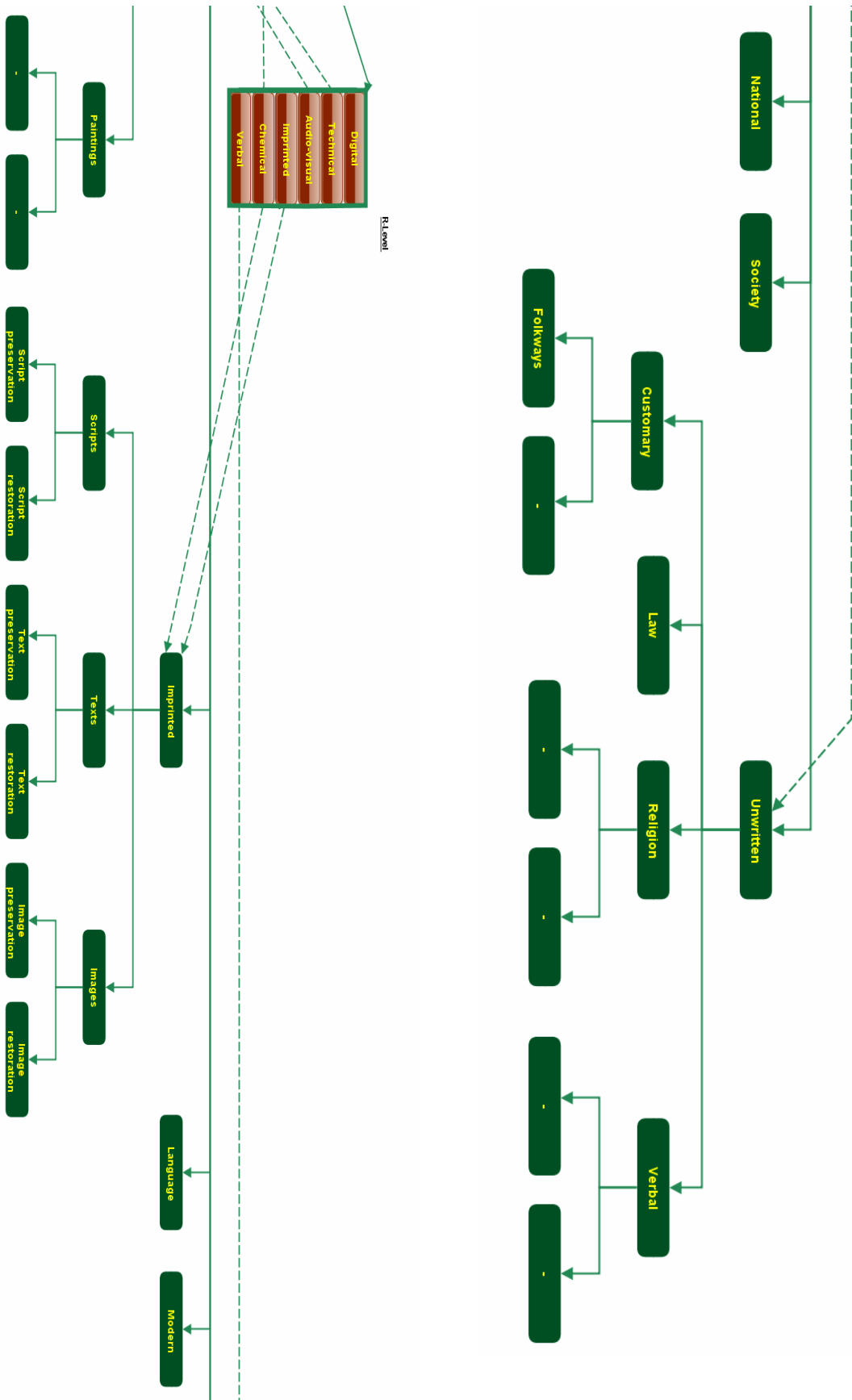Figure 1: *The Cultural (Heritage (Preservation)) Diagram* **[C(H&P)D]**

Figure 1: Part 3/4

Figure 1: Part 4/4

Figure 1: *The Cultural (Heritage (Preservation)) Diagram* **[C(H&P)D]**

The assembly of all the previously mentioned classes of Preservation is encompassed in Table 1.

4. THE UNIVERSAL CLASSIFICATION SCHEME ($_U$CH&P$_C$)

We now demonstrate the major product of the previous diagram [C(H&P)D], i.e. the ability to globally classify the whole area of Culture or, in other words, of the Cultural Heritage Preservation. Attempts to systematically process Culture could also be found in the literature (e.g. Hofstede et al., 2010).

According to Fig.1 we can construct a universal subject classification scheme regarding Culture and Cultural Heritage Preservation, namely the $_U$CH&P$_C$ (**U**niversal **C**ultural **H**eritage **& P**reservation **C**lassification**)**. This universal classification of Culture will strongly enhance the general effort to systemise, clarify, process and promote Culture (see for instance (American Mathematical Society, 2010)). Moreover, it will contribute in conjunction with other universal efforts to efficiently resolve the megatheme of Culture (UNESCO (Frey & Pamini, 2009) etc.)

The structure of this classification model is illustrated in Table 1; the zero level refers to the *phase of the Culture* and is codified according to the code P-H-R (*stands for Production-Heritage-Preservation*). The rest of the coding scheme is also depicted in this Table. The distinctive feature of cultural preservation is – of course – its kind. The *R-level* (Table 1) refers to the Preservation and illustrates the different types of it. Thus, it is very important to classify cultural objects into ontological families (*1st level*), i.e. larger assemblies embodying distinct entities, using as criteria their fundamental and characteristic inherent forms (e.g. the materialistic structure of the entity, how the entity is constructed, its cross-references etc.). The *2nd level* incorporates the characteristic kinds of cultural objects. Finally, the distinctive procedures which refer to the global process of Cultural Preservation are accumulated in the 3rd level. We should of course notice that the classification progress can proceed further in order to encompass more explicit works and processes in Cultural Heritage Preservation.

We proceed now by citing an instance of this classification scheme regarding the case of *scripts' restoration*; that is, the classification code *R-ff-14-F* (according to Table 1)*. Furthermore, if it is necessary to specify the type of preservation (e.g. chemical) then we shall rewrite the code as *R-c- ff-14-F*.

We finally give a sample (instance) of the Universal Cultural Heritage Classification ($_U$CH&P$_C$) according to Fig.1. This instance is illustrated in Table 2. The C(H&P) Diagram can be even more analytic, by incorporating more aspects and facets. Thus the $_U$CH&P$_C$ scheme could be more explicit too. Therefore we acquire through this process the ability to supervise and analytically know, in depth, the overall space of Cultural Heritage Preservation.

5. CONCLUSION

A specific paradox of contemporary era is obvious: the nowadays human civilization recapitulates the overall civilization of the preceding History. People during previous centuries, were creating culture all over the world; the advantage of the present era is the ability -based on its technological civilization- of storing, processing and evaluation of the overall Culture which has already been created in the past. The necessity, consequently, of a unified and systematic classification and taxonomy of the huge field of Culture becomes evident and imperative. The herein proposed *Universal Cultural Heritage & Preservation Classification* ($_U$CH&P$_C$) scheme fulfills this need. The expected value of this classification scheme is yet inestimable.

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Zero level Phase		
P	H	R

		R- level Type	
		oa	audio-visual
		c	chemical
		e	digital
		i	imprinted
		t	technical
		v	verbal

Code	1st level Ontology
aa	Anastatic [*ektypon*]
bb	Athletic
cc	Economy
dd	Faith/Religion
ee	Folkloric
ff	Imprinted
gg	Language
hh	Modern
ii	National
jj	Societal
kk	Unwritten
	…

Code	2nd level Object
01	Architecture
02	*Dance*
03	*Ethic*
04	*Folkways/ Mores*
05	*Icons*
06	*Images*
07	*Law*
08	*Monuments*
09	*Music*
10	*Paintings*
11	*Pottery*
12	*Religion*
13	*Sculptures*
14	*Scripts*
15	*Texts*
16	*Tools*
17	*Verbal*
18	*Worship*
	…

Code	3rd level Process
A	Cleaning
B	Preservation
C	Reconstruction
D	Recording
E	Representation
F	Restoration
.	…

Table 1: The hierarchical structure of the classification model $_U$CH&P$_C$ (Universal Cultural Heritage & Preservation Classification)

Code	Category		Code	Category
aa-xx	**Anastatic [*ektypon*]**		**ff-xx**	**Imprinted**
aa01	*Architecture*		…	...
aa01C	Reconstruction		ff06	*Images*
aa01E	Representation		ff06B	Image preservation
aa01F	Restoration		ff06F	Image restoration
…	...		ff14	*Scripts*
aa05	*Icons*		ff14B	Script preservation
aa05A	Cleaning		ff14F	Script restoration
…	...		ff15	*Texts*
aa10	*Paintins*		ff15B	Text preservation
…	...		ff15F	Text restoration
aa13	*Sculptures*		**…**	**…**
aa13A	Cleaning		**gg-xx**	**Language**
..	…		**hh-xx**	**Modern**
bb-xx	**Athletic**		**…**	**…**
cc-xx	**Economy**		**ii-xx**	**National**
dd-xx	**Faith/Religion**		**…**	**…**
dd03	*Ethic*		**jj-xx**	**Societal**
dd08	*Monuments*		**…**	**…**
dd18	*Worship*		**kk-xx**	**Unwritten**
..	**…**		*kk04*	*Folkways/ Mores*
ee-xx	**Folkloric**		kk04D	Recording
ee02	*Dance*		*kk07*	*Law*
ee09	*Music*		*kk12*	*Religion*
ee10	*Paintings*		*kk17*	*Verbal*
...	...		**..**	**…**

Table 2: An instance of the Universal Cultural Heritage & Preservation Classification ($_U$CH&P$_C$)