CONSEIL INTERNATIONAL DES MONUMENTS ET DES SITES — ICOMOS — INTERNATIONAL COUNCIL ON MONUMENTS AND SITES

Comité scientifique international pour la pierre

International Scientific Committee for Stone

Minutes of the meeting held at KIK-IRPA, Brussels

on September 20-21st 2002

Content :

Report

Next ISCS meeting:

16-17 May, 2003
I.G.M.E, Athens
Our Host : Myrsini Varti-Matarangas

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Friday September 20th 2002

1. Morning

The minutes of the preceding meeting are approved

1.1. News, forthcoming events, new international research and networks projects:

COALITION. The project COALITION of the EU Environment programme City of Tomorrow started April 1 and will end up in March 2003. The objectives of this program are the following:
1. To identify, introduce and enhance the use of molecular biology and biotechnology techniques suitable to be of interest in the field of conservation/restoration of the cultural heritage.
2. To obtain information on the type of microorganisms colonizing different and representative materials, by producing an inventory of the microorganisms associated with the damages to cultural assets.
3. To disseminate the advantages of using molecular techniques for diagnostic purposes to end users, e.g. architects, restorers, curators, responsible for cultural heritage, etc.
COALITION brings together clusters of researchers in different areas, with particular emphasis in molecular microbiology, microbial ecology and biodeterioration and will achieve the exchange of results of ongoing work, the development of new research initiatives, the preparation of "state of the art" reviews, and the coordination of research on cultural heritage that is already funded by the European Commission. In addition, the project will foster cooperation and dissemination between scientists, conservators and restorers inside and outside the European Union and training of molecular microbiology techniques.
The COALITION web site address is the following: http://africa.geomic.uni-oldenburg.de/projekte/coalition/coalitionnews.htm

MICROCORE : finished project. web site address : http://africa.geomic.uni-oldenburg.de/projekte/microcore/index.html

The **ESCoN** network, in which some of the people are involved, is still in strong negotiations with EC.

New Publications:

Siegesmund, S., Vollbrecht, A., Weiss, T. Eds. (2002), Natural Stone, Weathering Phenomena, Conservation Strategies and Case Studies, Geological Society Special Publication, No. 205, ISBN 1-86239-123-8.

TNO (R. van Hees) has recently finished a study on Bentheim Sandstone, the main natural stone material used in the Netherlands.

C. Franzen mentions a new analysis technique for precise **determination of water sorption isotherms**. Some members suggest a short presentation on this technique during the next ISCS meeting.

1.2. Presentations

- **1st presentation:** « **Is it useful to classify decay forms? »** by R. van Hees

On the basis of the knowledge gathered for the constitution of the Masonry Decay Diagnostic System (MDDS), RVH presents the classification of decay forms as a useful tool for:
i) communication
ii) drawing relationships between phenomena and processes
iii) facilitating diagnostic
As a result of the discussion that follows, participants agree that **a classification is compulsory**, in addition to the glossary. **The way the classification will be presented in the web site is not yet discussed**. It is proposed to compare the two classification systems available at the moment : the Fitzner one, the MDDS one. B. Fitzner underlines the need of a classification, considering that in the literature, atlases and glossaries on decay forms can be found. LRMH will present a synthesis on this topic in the next ISCS meeting. This will be used as a basis for future decisions.

- **2nd presentation: "ISCS web site",** by Veronique Vergès Belmin

The web site can be reached at the following address :

http://galaad.culture.fr/Site_Web_Icomos/index/index.htm

First of all it is mentioned that the glossary named "Fitzner" in the web site is in fact the glossary made by the board of German Engineers. (VDI-3798). Actually,although it is possible to count the terms in the Fitzner system, it does not bear any formal definition of each term. Thus, at the moment, the terms of the Fitzner's system of classification cannot be introduced on the web site.
The number of terms is very different from one glossary to the other (Figure 1). The two more elaborated glossaries (those associated with a classification system) have got a significantly higher number of terms.

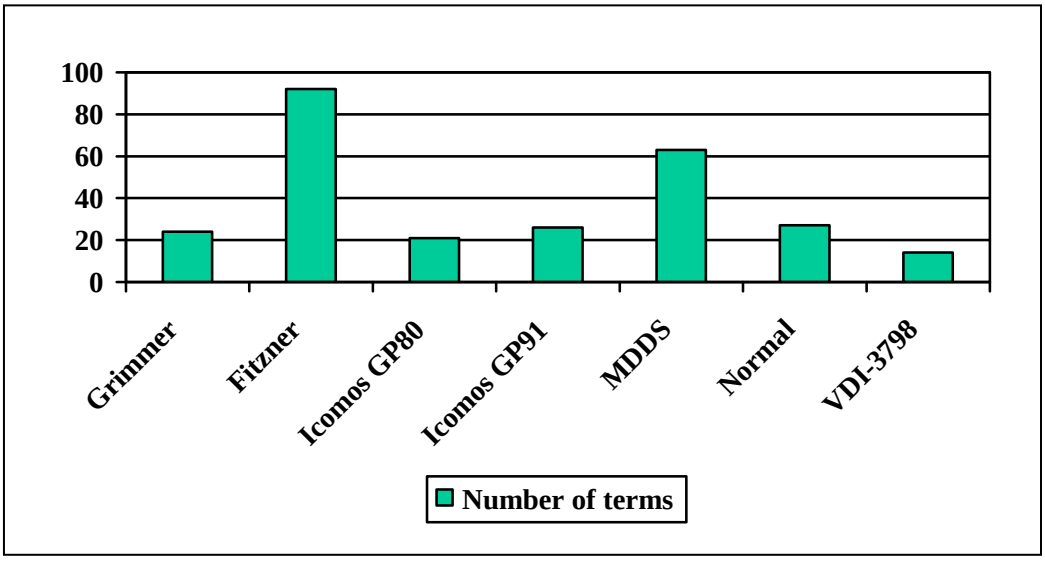

Figure 1. Number of terms in each glossary. The Fitzner list of terms (not included in the web site) has been added for better comparison.

The cumulated list of English terms bears 140 items (Figure 2). This is enormous in comparison to the other cumulated lists (German/Spanish/French). It is obviously due to the fact that most glossaries have been translated into English, some terms being rather gothic, others being a repetition of other ones.

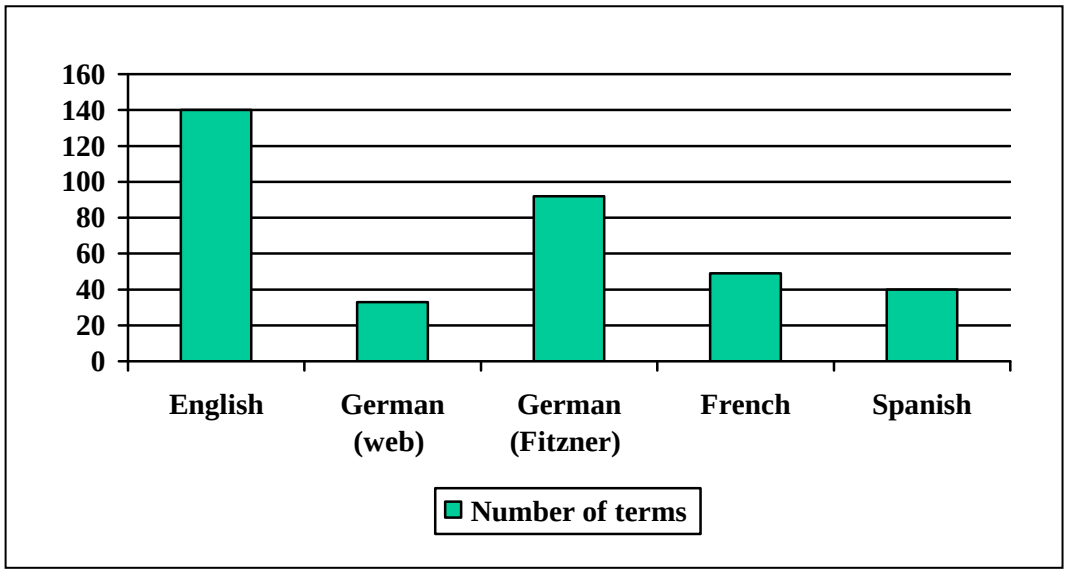

Figure 2. Number of terms in each cumulated list of the web site. The Fitzner list of terms (not included in the web site) has been added for better comparison.

It is proposed to create an updated glossary in English, on the basis of the already existing list of English terms (total number:140). The group decides to work on this glossary on Friday, and to postpone on Saturday morning the discussion on the other parts of the web site project.

2. Afternoon

First steps towards the creation of an ICOMOS ISCS glossary:

All the work is performed on the basis of the English glossary available on the web. Thus it does not take into account the Fitzner list of terms.
The group is parted in three subgroups, which, owing to special arrangements performed by IRPA, can individually have an access to the web site.
Subgroup 1: will work on terms "Abrasion" until "Disintegration along bedding »
EDW, BFR, MKR, IPF, RVH
Subgroup 2 will work on terms "Displacement" until " Peeling hide "
CFN, JMG, WKN, VVB, KWR
Subgroup **3** will work on terms **"Pellicle" until "Weathering"**
JCR,TII, WKN,TNA, AQR.

The discussion is devoted only to the terms themselves, the definitions are not validated, but can be used as a basis for the selection or rejection of terms.

Each subgroup has to select appropriate terms, using some basic criteria:

- If terms are almost identical a selection should be made ("chip" or "chipping" but not both)
- the singular form of the terms should be preferred to the plural one
- terms which are not part of the common technical English idiom (ca. "deposit surface") should be suppressed

Once the task completed, each subgroup presents its suggestions to the other participants, for a common validation. If the discussion is too long on whether the term should be kept or not, the term is kept.

Saturday September 21st 2002

1. Morning

A new voting member is introduced, Francis Tourneur, representing with E. de Witte, the national committee of Belgium.
Eddy DeWitte presents the KIK-IRPA, and leads the group to a "promenade" through the KIK/IRPA laboratory.
The discussion on the ***ICOMOS ISCS glossary***, continues on Saturday morning.
The results can be found in the table of the ANNEX 2 The discussion on formal aspect of the web site project follows. Changes are proposed, and those which are accepted by the group will appear within some weeks on the web site.

Among others, it is suggested to clarify the headings in the following way :

WELCOME

ISCS ACTIVITIES
- MEMBERS
- COMMITTEE HISTORY
- NEWS AND MEETINGS
- GLOSSARIES

GENERAL INFORMATION
- BIBLIOGRAPHY
- DATA BASES
- FORTHCOMING EVENTS
- LINKS

Instead of:
- WELCOME/ MEMBERS/ COMMITTEE HISTORY/ NEWS / ACTIVITIES/ GLOSSARY on DETERIORATION/ DATA BASES / DOCUMENTATION/ FORTHCOMING EVENTS/ LINKS

It is proposed to let all the parts of the web site be accessible on the web except the glossary, to be put after the next meeting.

VVB proposes an unified nomenclature for all documents to be exchanged within ISCS. (See the following frame)

Nomenclature of documents to be exchanged among the ICOMOS International Scientific Committee for Stone

1. It is proposed to follow a certain code for the documents and generally all messages that everyone in ICOMOS Stone Committee sends. The documents should be named :

ISCS Δ acronym of the institution Δ name of the document.extension

The date should be year/month/date in double figures.
For example :
A « word »document proposed by Vasco Fassina, could have been named :
ISCS IVBC draft glossary.doc
A « power point » document proposed by Véronique Vergès-Belmin could have been named :
ISCS LRMH web site project.ppt

The date and place for the next meeting is confirmed :

16-17 May, 2003
I.G.M.E, Athens
Our Host : Myrsini Varti-Matarangas

2. Afternoon

Eddie De Witte and Francis Tourneur lead the group through a promenade in Brussels. Description and comments are made on the types of building stones, stone decay and on restoration practice.

ANNEX 1

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ANNEX 2

TERMS SELECTED by the ISCS among the 140 terms of the English list

The following table is containing, in its **second and fourth columns** all the English terms that can be found on the ICOMOS SCS web site. These terms come from the following glossaries: VDI guideline, Atlas of damage forms from the MDDS, ICOMOS GP glossary, ICOMOS GP91 glossary, Grimmer glossary, Italian Standard translated by Fassina, and Italian Standard translated by Charola. The English terms which are appearing in the Fitzner's classification system have not been included into this list.

The first column corresponds to the reference number of the term.
In the second column are listed the "Terms to be kept" and in the fourth one the "Terms to be removed".
Two additional columns are presented: in the second column called "Type", appears a classification of each term retained into one of the following categories:

- P = process
- F = form
- GT = general term.

Some terms may have been classified in two categories.

The fifth column of the table is devoted to comments. The words coloured in blue correspond to terms which should be either changed, checked and/or added to the glossary. The words coloured in red are terms that Isabelle Pallot-Frossard consider as important to re-introduce in the list of terms to be kept. The final decision will be taken during the next meeting.

This table is the basis for the creation of a new glossary. The new glossary has got the following name: **ISCS_2002_glossary_1**. At the moment, this glossary does not contain any definition, it is only a list of terms that experts consider as useful for:

- The description of decay forms (terms quoted as "F")
- The description of decay processes (terms quoted as "P")
- The general communication (oral and written) in the field of stone decay.

The definitions of these terms will be made on the basis of already existing definitions that have been gathered on the web site, or will be gathered within the next months. These definitions generally exist in English, but if not, they can be translated from other languages, if considered appropriate by experts.

N°	Terms to be kept	Type	Terms to be removed	Comments
1	Abrasion	P		
2	Algae	F		
3	Alteration	GT		better to use surface change?
4	Alveolar Erosion	P		
5	Alveolization	P F		honeycombing to be added?
6	Alveolus	F		
7	Bending	F		
8	Biological growth	GT P		
9			Biological overgrowth	
10			Biological Patina	
11	Blistering	F		
12			Brick-blistering	
13	Bulging	F		
14	Bursting	F		
15	Cavity	F		
16	Chalking?	F		
17			Chip	
18	Chipping	F		
19			Chipping (spalling)	
20	Chromatic Alteration	F		see discoloration
21	Concretions	F		(s has to be removed)
22	Contour scaling, scale	F		(scale has to be removed)
23			Coving	
24	Crack or Fissure	F		to be separated? Or related to each other
25			Cracking	
26			Cracking or fissuring	

N°	Terms to be kept	Type	Terms to be removed	Comments
27	Craquele	F		
28			Cratering	
29			Crazing	
30	Crumbling	F		
31	Crust	F		
32			Crusts	
33	Cryptoflorescence	FP		
34			Cut or incision	to be replaced by scratch
35	Decay	GT		
36	Deformation	GT		
37	Degradation	GT		
38	Delamination	F		
39			Deposit & biological growth	
40			Deposit surface	
41			Desquamation	
42	Detachment	F		
43			Differential deterioration	
44			Differential Erosion	
45	Disaggregation	F		
46	Discoloration	F		(see chromatic alteration)
47	Disintegration	F GT		
48			Disintegration along bedding	looking for a better term
49	Displacement	F		Desc/structure
50			Dissolution (karst, microkarst)	
51	Efflorescence	F		
52			Efflorescence (subflorescence)	
53	Encrustation	F		We should discriminate between crust, encrustation and incrustation
54	Erosion	P		To be kept but problems with signification
55	Exfoliation	F		
56	Fading	F		Part of discoloration
57	Film	F		See pellicle
58	Fissure	F		
59			Fissures or cracks	Fissures and cracks should be separated
60	Flaking	F		
61	Fracture	F		
62			Fracture or fissure	should be separated
63			Friability	Big discussion: not a decay form….
64			Gap	Does not sound good. A word is to be found: missing part?
65	Graffiti	F		
66	Granular disintegration			To be linked to disintegration
67	Hair crack			Check with "hair line crack"
68		F	Higher plants	To be replaced by plants
69			Incoherence	
70			Incoherence of stone assemblage	
71	Incrustation			We should discriminate between crust, encrustation and incrustation to be checked
72			intergranular incoherence	Same as granular disintegration
73	Karst (microkarst, dissolution)	F		Karst, microkarst, OK, but not dissolution
74			Lack	Need for a term describing this: "missing part"
75			Lacuna	Term related to (mural) painting
76			Layering	No precise definition… Should be kept if nothing more precise exists…
77	Leaning	F		Related to masonr!es
78	Lichens	F		s to be removed?
79			Liverworts	Moss is enough
80			Living exogenous material	
81		F	Loss	Proposal to be replaced by: "loss of material"
82	Loss of adhesion	F		Very general term

N°	Terms to be kept	Type	Terms to be removed	Comments
83		F	Loss of bond	Confusion possible with chemical terminology?
84	Loss of cohesion	F		Very similar to granular disintegration
85			Mechanical damage	Interpretation on the process…
86			Mechanical damage (general)	
87	Microkarst (karst, Dissolution)	F		Karst, microkarst, OK, but not dissolution Split the terms karst and microkarst… problem of definition
88	Moist spots/zones	F		the "s" have to be removed…
89	Moulds	F		Mold should be included, the "s" has to be removed…
90	Mosses	F		the "s" has to be removed…
91	Patina	F		
92	Peeling			
93			Peeling hide	Peeling sufficient
94			Pellicle	skin / similar to film
95			Perforation	
96			Pit	
97	Pitting	F		
98	Plants	F		s to be removed
99	Plaque	F		
100			Plaquette	
101	Plastic Deformation	P		
102			Powder	
103	Powdering	F		
104			Pulverization	
105	Push out	F		
106	Relief formation	GT		This term should be changed
107	Rising Damp	P		
108		F-	Rupture, flaw	rupture to be kept
109			Salt efflorescence	"salt" to be kept
110			Salt Fretting	
111			Sand	
112	Sanding	F		definition to be changed
113	Scale	F		big discussion
114			Scale, contour scaling	use contour scaling only
115	Scaling	F? P?		
116	Scratch	F		
117	Soiling	FP		
118			Spall	
119	Spalling	F		
120			Spalling (chipping)	
121	Splitting	FP		
122	Stain	F		
123			Stain/Spot	
124	Staining	P		
125			Star crack	to include under crack
126	Subflorescence	F		
127			Subflorescence(efflorescence)	why 2 times?
128	Sugaring	F		to be linked to disaggregation
129			Superficial film	
130	Surface change	GT		
131			Surface crust/Surface incrustation	crusts are always at the surface
132		F	Surface Deposit	deposit to be kept
133			Surface incrustation / Surface crust	crusts are always at the surface
134			Transformation	too wide as term
135	Twisting			??
136	Vegetation	FGT		
137			Vertical cracks	cracks only
138			Visible damp areas	
139	Voids	F		take the s away
140	Weathering	GT		