



Dissemination of Knowledge in Architectural Endoscopy

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Introduction

The first EAEA conference was hosted 1993 in Tampere (Finland) and subsequently a further six conferences have taken place. Future conferences are already pre-scheduled and a steadily rising number of papers has been written. So far, the conference proceedings have been published in a paperbased format and, as these were published in small numbers, it is rather hard to take stock of preceding entries. However, the published proceedings can be regarded as capital for the EAEA-Association and it is both necessary and worthwhile to preserve this collective memory by means of an archived e-collection. At the time of the formation of the EAEA, electronic publishing was not yet widely used. Since then, computerbased infrastructure and related (web-based) software tools have become widely available. There is even an ongoing debate within the associations dedicated to electronic publishing, as to whether conference proceedings should be solely distributed in a digital format. Doubtless, a discussion towards the value of electronic publication output in the framework of research assessments etc. would be a step too far for this paper. Still, a dual strategy for the EAEA could be aiming at the production of a limited number of paperbased copies, which would mainly be distributed to the conference participants (and the remaining part being made available resp. free library copies to make this output more visible). However, the high commercial interest derived by financial revenues is not given and dissemination by digital means is far more in the interest of both the participants and the EAEA-association. Today, the creation of an electronic version of the conference proceedings costs very little extra. In both cases (analogue and digital) the materials should not only be “deposited” on the desktop of individuals, but also be capable of reaching more public destinations. As the conference host is changing biennially, it has to be confirmed that the hosting institution will handle the delivery of metadata. Local printing houses arrange the printing work, and no further interests (concerning copyright, revenues etc) from the side of publishing houses are in charge. The import of the provided metadata is supported by way of self-organisation on a shoestring budget, as it does not require extensive work if properly defined. This means that minimal effort is needed to make the material available and to achieve a certain level of sustainability.

In the next following sections, the background information on the working conditions of the EAEA will be described first. After this, the developed technical solution concerning the e-collection of EAEA-papers will be highlighted. Finally, the paper will end with the outlook on the potential of these efforts and draw some conclusions.

Mission statement of the Endoscopy Association

The original mission statement - called “statutes” - dates from 1993 and was repeatedly distributed during the first conferences. It is also made available on the web [1]. Though never adapted until now, some discussion was performed on the occasion of biennial conferences. The goal of the Endoscopy Association is defined as follows:

“To argue for the significance of endoscopy as a unique medium for the exploration and representation of architecture and space. It is a platform for experimentation, research, communication development, user participation and teaching by means of endoscopy and environmental simulation.”

The meaning of the term “endoscopy” is not explicitly elaborated in this document. However, it can be understood as the perception of the “interior”, or more specifically the “interior view”. Endoscopes were originally invented for medial applications which are to perform a diagnosis of hollow areas in human bodies without complicated (and dangerous!) surgery. Although initial solutions were used around two centuries ago, specific versions of this instrument for use in environmental simulation were developed in the second half of the last century [2]. Although the function on non-destroyable positioning in models was given here, a high interest for visual image quality stands in the forefront. Endoscopes are much smaller than camera lenses and the optical construction in the tubes allows the reaching of all kind of positions within a model without causing any damage. Unfortunately, the compactness of building leads to a compromised reduction in resolution and sharpness when attaching recording media. The instrument as such can easily be used by individuals and gives immediate a good visual image. However, in need for conservation, the final result on paper or video does not present a perfectly sharp result. Furthermore, it

requires a degree of professional experience in photography to produce an image with an acceptable level of quality.

It has to be stated that in the course of time, the earlier “fixation” on the endoscope as an instrument became less important within the Endoscopy Association, as more attention was paid to the fields of application itself. This is not a surprise as the ongoing discussion concerning analogue versus digital media gained interest [3,4] and computer-aided applications matured in their capabilities. The need to build a physical model is lessening, whereas the use of endoscopical instrumentation naturally depends heavily on the availability of such a model.

Although “architectural” is defined in the naming of the association, this is to be regarded as a clear distinction from, for example, the area of medicine. The scope is much wider and the field of activity is stated in the “statutes” as follows:

“Visualisation and Application in Architecture and Town-Planning: built environments, road-design, housing areas, urban spaces, interior spaces, etc. Implementation of Endoscopy in Design-work. Research on environmental simulation and experience of environment in motion. Observation of technical developments.”

The European Architectural Endoscopy Association was never formally formed as a legal body. It simply started with a like-minded group of people, who simply recognised a demand to meet and to exchange ideas. In a similar vein, the “European Full-scale Modelling Association (EFA)” was setup a couple of years earlier. In the sense of self-organization this worked out well so far as the main task of a group of activists was directed to “appoint” a conference host for a forthcoming conference. Naturally, this had to be someone, who had participated in the preceding conference, in order to secure continuity. The first “E” of EAEA refers to Europe, but though a significant number of members stem from Europe, this might be seen as too limited, as it would provoke an AAEA (Asian or American...) etc.

Setting up an e-Collection for EAEA-publications

Dissemination of published papers is of interest to the authorship. This is closely related to the speed in which citations of interest can be retrieved in fulltext format. Nowadays library loan is too slow (it may take up to 8-10

weeks!) and users simply tend to “Google” another paper, supporting the idea of easy access.

It has already been stated, that the number of copies of the paperbased EAEA-proceedings was relatively low. “Produce once - publish twice” in terms of a parallel situation (analogue on “paper” and digital as “data”) serves as a working solution today. However, the archiving of printed books etc. is maintained by (institutional) libraries. But how should the archiving of digital data be handled, whilst maintaining a low cost? Many scientists would probably be willing to invest a bit of time in self-organizing solutions and serve the community. The eventual backdigitisation of older publications is a topic of general interest, as in the early nineties of the last century storage of graphical data was relatively expensive. Furthermore, the storage media may no longer be readable. In the case of the EAEA-papers from all previous conferences with the exception of 1997, all data could be recreated. Delft University Press published the entries from 1997, but unfortunately data was not archived there. However, backdigitisation is planned here.

In the framework of the SciX-project [5] focussing on “Open, self organising repository for scientific information exchange” the metadata from previous EAEA-proceedings was created and entered into the CUMINCAD-repository [6].

A search in this digital library is as easy as in Google. The search expression <EAEA> delivers a good overview. Also, <endoscopy> would serve as well, but may display entries beyond the EAEA area. Also, a user may be interested in a certain set of proceedings and would have to enter for example <EAEA year:1993>. It should be pointed out that recently proceedings have been published in the year following the conference:

- EAEA 1993: 22 papers
- EAEA 1995: 12 papers
- EAEA 1997: 20 papers
- EAEA 1999: 8 papers
- EAEA 2001: 15 papers (published 2002)
- EAEA 2003: 22 papers (published 2004)

If someone were looking for all papers from Martijn Stellingwerff archived in CUMINCAD, the search expression <stellingwerff> would deliver also entries of proceedings, in which the author acted as editor (this appears in the field “source”). Therefore <authors:stellingwerff> secures, that only the authors-field is being searched. Search for all papers from Stellingwerff on the occasion of EAEA-conferences would require the following syntax: <+EAEA authors:stellingwerff>. The search for a specific paper could be for example: <+EAEA authors:stellingwerff year:1997>. Many records contain an email-adress, so that a user could contact the author. Discussions and ratings are built-in features as well.

The notion of ease of use was mentioned. It is essential for the usership to make full texts available as well. At the time of writing a limited “Open Access” policy is implemented. This means that subscription to CUMINCAD is free and gives access to currently over thousands of papers in PDF-format older than 2 years (year of publication). Access to recent papers is restricted to members of donating associations.

Individual contributions are welcome as long as they fit into the scope of the repository. A user follows the link “Add your work” and enters the proposed data. The proposed entries are not immediately visible, but will first be checked by the repository management.

Future work

The first stare to be scheduled will be the backdigitisation of the 1997-proceedings so that a complete set of e-papers can be accessible. The recording of forthcoming publications, starting with EAEA 2005, is also planned. Theses and dissertations - related to the wider field of architectural endoscopy and environmental simulation - are of high interest as well and should, with the help of the respective authors, also be incorporated. This is also a good chance to provide these typical examples of so-called “grey literature” with enhanced dissemination.

More personal input would be required to extract metadata from the references (at the end of a paper) and input them into the already existing citation index. In practice this means to capture the text data for 5-10 citations per paper and split this into parts.

It has to be said that although one might believe that archiving could serve as the only goal, that the collecting is a first step. Based on availability of digital records in a database environment, an analysis of content could be performed. Less than half of the entries contain keywords. Even if keywords are defined by the authors, it is - especially within a growing number of records - not guaranteed that a user will find the most appropriate results in a query. Keywords are essential for the accessibility and retrievability of the paper. Each keyword (which can be a phrase of more than one word) should describe one single concept. Unfortunately this is not always the case, when taking solely a look at the keyword definition. With the help of an implemented keywording system, automated classification could be derived and similar records are defined.

Conclusions

This paper has briefly provided an outline on the working context of the EAEA-association and the field of architectural endoscopy. The core message focussed on the creation of an e-collection of publications, which were edited in the framework of EAEA-conferences. The EAEA has a track record, which is worthy of enhanced dissemination, and access to information would avoid unintended duplication. Of special use for “newcomers”, an overview on previous work and the “state of the art” can be easily provided now. In the sense of an “associational memory” published papers can be accessed by a web-based interface. It is hoped that the community will take advantage of these efforts and individuals are stimulated to input further donations as well.

References

- [1] <http://info.tuwien.ac.at/eaea/> This site contains statutes, a directory and an overview on previous conferences.
- [2] Ilkka Alavalkama has provided a list of selected literature, which can be found here:
http://info.tuwien.ac.at/eaea/endolit97_1.html
- [3] Siitonen, Petri (1993), Future of Endoscopy Endoscopy as a Tool in Architecture, in Proceedings of the 1st European Architectural Endoscopy Association Conference, p. 181-184, Tampere, TKK Tampere, 1993
- [4] Siitonen, Petri (1995), Future of Endoscopy, Updated, in Proceedings of the 2nd European Architectural Endoscopy Association Conference: The Future of Endoscopy, p. 69-73, Vienna, TU Wien, 1995.
- [5] <http://www.scix.net> [EU-IST project 2001-33127]
- [6] <http://cumincad.scix.net> which started in 1998. It provides currently 7.200 records (with 4.500 full text) and over 2.000 users are subscribed.