

CUMINCAD HACKS

Bob Martens

Vienna University of Technology
Faculty of Architecture and Regional Planning
Karlsplatz 13, A-1040 Vienna (Austria)
b.martens@tuwien.ac.at

Abstract

CUMINCAD – An CUMulative INdex of papers on CAD [1] – was created in 1998 and since then hundreds of users working in the field of CAAD have been taken advantage of this Digital Library. The number of recorded entries is currently over 6.600, from which a substantial part also provide a full paper in PDF-format. The effort is part of a portal solution: for example CUMINCAD archives English CAAD-related publications; CUMINCAD.ES [2] focuses on publications in Spanish. A search in these Digital Libraries is as simple as in Google, but with the help of the following instructions, more valuable information could potentially be retrieved and this defines the goal of this paper. In other words: How to get more out of CUMINCAD and CUMINCAD.ES?

1. Introduction

Since the creation of CUMINCAD in 1998, a number of papers on the development and future plans of this repository have been presented on the occasion of CAAD-related conferences. Recent publications [3,4,5] are advised in this context to use as further reading. A substantial part of the recorded entries in this Digital Library stems from the contributing CAAD-associations [6]; their collections of (bi-) annual proceedings are complete and kept up to date in CUMINCAD. These associations are responsible for an annual growth of approx. 350-450 papers. It may be, therefore, in certain working areas of CAAD, it emerges that there is a need to filter the "right stuff" from a query with a large number of hits. The idea behind this workshop is that users, who are confronted with such a situation, would be able to enter a more appropriate query, perform adequate refinements and thus receive a better selection of records out of these Digital Libraries. During the SiGradi 2004 Conference, this workshop will be held interactively, so that the outcome of entered data can be followed and commented on immediately by the audience. This is something which can not be simulated to the same extent in a paper-based medium. As a reader of this paper it is likely that you may not have participated in this workshop. It is therefore recommended to proceed to an internetbrowser and to experiment with the examples which are part of this paper.

First of all an overview on the login-modalities will be delivered. The status of a userlogin is for example dependent on membership of a CAAD-association. Furthermore, the use of the (advanced) search syntax and underutilized features are elaborated. This may be studied and used to receive optimised query results in the future. Finally, the Citation Index – which is part of the CUMINCAD-portal – will be highlighted. This allows the user to get a deeper insight into the use of references in conference papers.

2. Technical background

The Digital Libraries mentioned in this contribution have been developed in the framework of the SciX-project [7], – an acronym

for "Open, self organising repository for scientific information exchange". SciX Open Publishing Services (SOPS – [8]) is to be regarded as a modular software that allows setting up various on-line scientific publishing media (including workflow support) such as:

- subject-specific archives,
- personal archives,
- institutional archives,
- electronic journals,
- electronic conference proceedings,
- etc.

SOPS is built using WODA (Web Oriented DAtabase, [9]), which was created and established by Ziga Turk (University of Ljubljana – Slovenia). It consists of a PERL program and several supporting programs, icons and javascripts. Each individual service is defined in the service definition file. This file defines the data dictionary, customizes the user interface and then calls the engine to process the user request and generates the appropriate HTML or XML page. SOPS is multilingual and exists currently in English, German and Slovenian language. Upon agreement of the software license, SOPS can be used for free.

3. Login modalities and levels of access

Entering anonymously means that only bibliographic information is disclosed, this being an incentive for registration, which is free of charge. An email-address is used in this case as login and a password can be chosen. After a login, the user is entitled to viewing summaries and advanced search features. Retrieval of full-text versions – as available – has been restricted to the members of the CAAD associations so far. These associations support the continuing contribution of full-papers in pdf-format and offer this as an additional service for valid memberships. If a user requests a full paper, an email address has to be entered, to which the pdf-paper will be sent. At this point the userdatabase is being checked. Non-members will find a message on the screen, stating that this service is only available for members of

CAAD-associations. Recently a principal agreement with these associations was achieved concerning a shift towards open access (regarding the full-text versions). In this case all recorded entries, which were contributed by the CAAD-associations being e.g. older than two years, would be freely available. Thus the associations would still offer their members exclusive access to recently issued publications as an additional bonus.

4. Search syntax and library features

First of all it has to be stated, that all numbers mentioned here may change in the course of time as new entries are recorded in the repository. As a matter of principle, the search mask is "google-like": just enter any query and see what the interface

delivers back. This may work out well in a Digital Library with a limited number of entries, but as soon as fifty or more hits are displayed a user may not be willing to start to scroll from the beginning till the end. A typical search expression in CUMINCAD for endless lists is for example the buzzword <design> (Fig.1). The current number of 4.890 hits is no surprise. In case nothing is entered in the search mask a click on the search button will show all recorded entries. A user should proceed now to the advanced-search-menu to narrow down the number of hits. Here also the field names of the database (Fig. 2) can be found in order to retrieve an adequate selection of entries, for example all entries, which have "Design" in the keywordfield and this in the year 2004 (Fig. 3) .

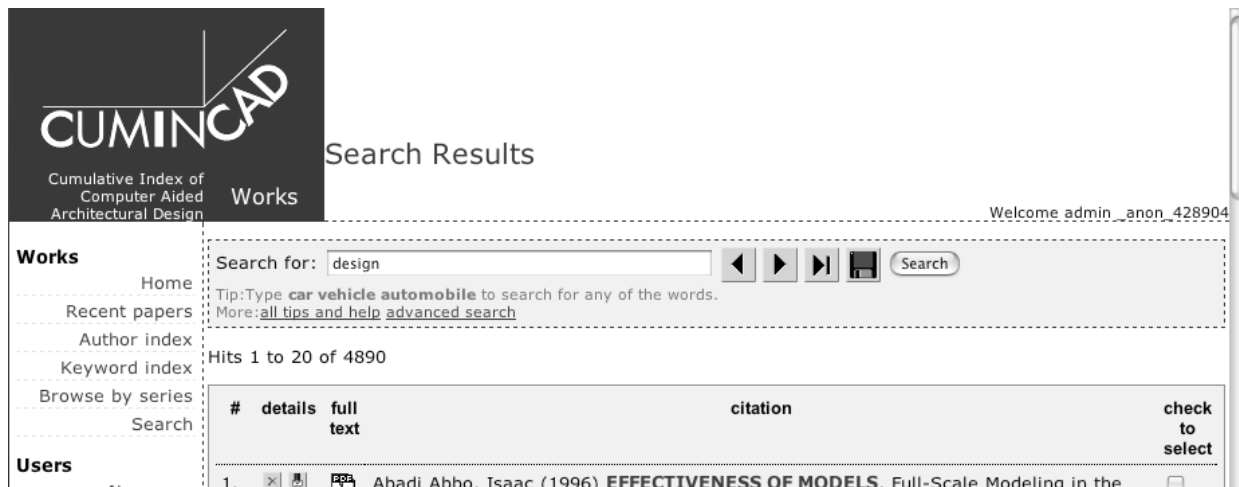


Figure 1: The search expression <design> delivers currently 4.890 hits.

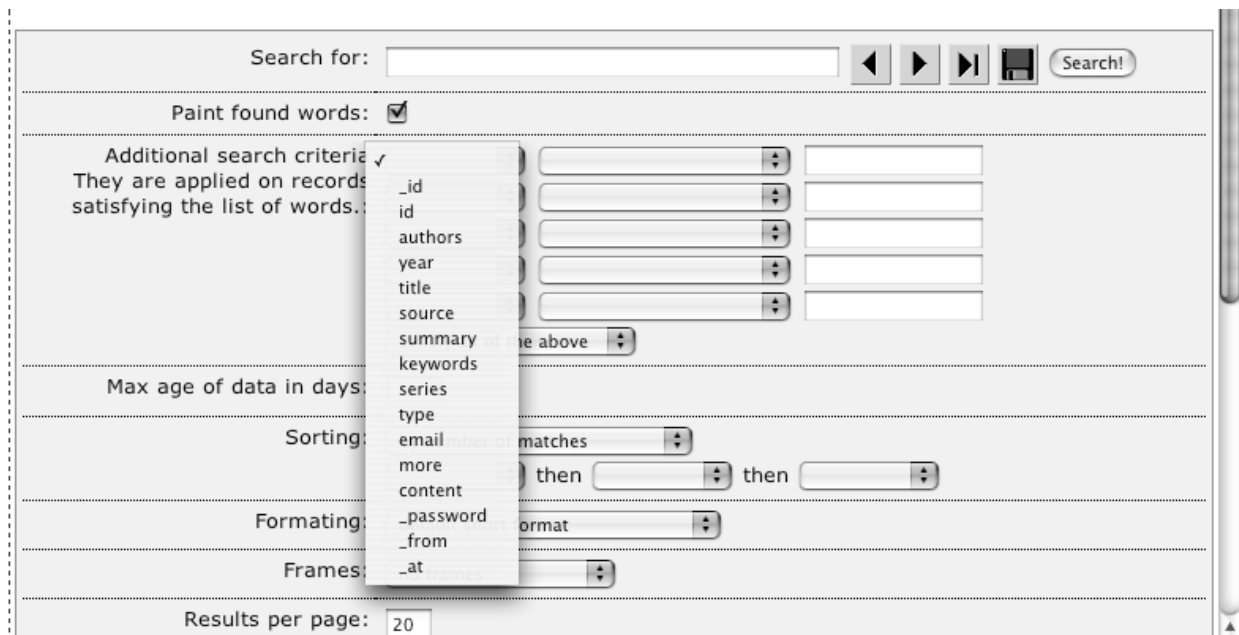


Figure 2: Advanced search menu and pop-up of field names (authors, year, etc.).

The search expression: <maver> finds 160 hits as a lookup in all fields is performed. It is likely that <maver> appears somewhere in the summaries. If only authors named "maver" should be retrieved, <authors:maver> should be entered and 149 hits will be returned. The difference of 11 hits can be displayed with <maver -authors:maver>. The advanced-search-menu allows

for combinations of manually entered search expressions and data entry in the pop-up-areas as is shown in Fig. 4. It makes sense to explore further features (accommodated in pop-ups) in advanced-search-menu. For example the sorting and formatting routines of the retrieved hits (see Fig. 5)

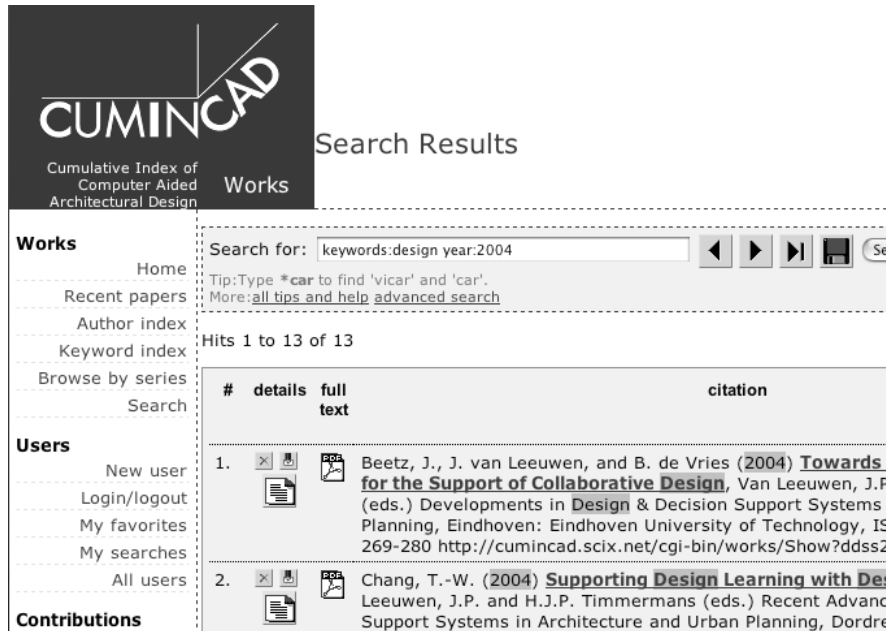


Figure 3: Direct entry of <keywords:design year:2004> leads to 13 hits.

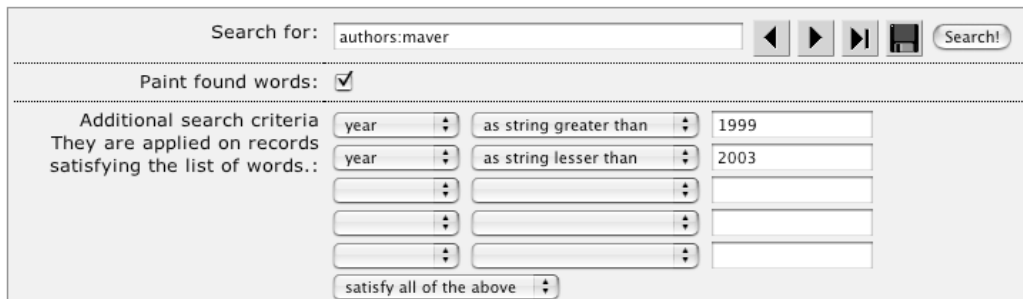


Figure 4: Search expression for all papers from the author "maver" in the period 2000-2002.

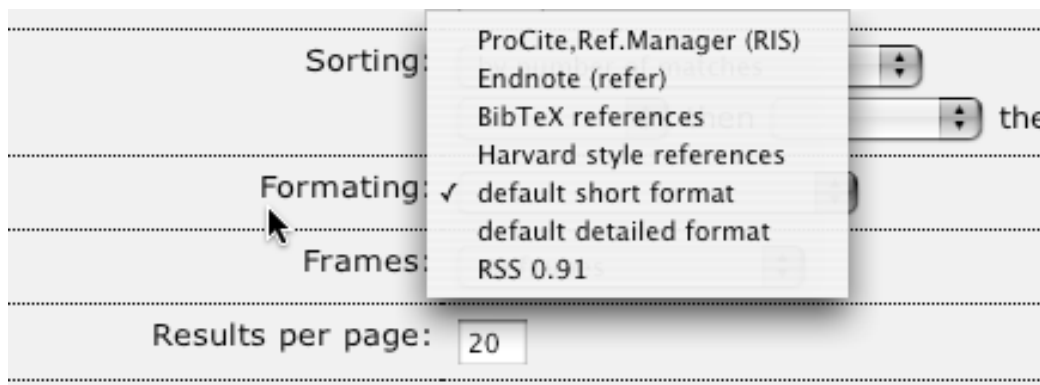


Figure 5: Popping-up formatting features facilitate export in different formats (result in Fig. 6a-b).

Entries can be displayed in different formats and this can be very useful to administer them in a personal collection (Fig. 6a-b). The use of the basket allows the saving of a selection of preferred entries (click on the “check to select” boxes – see Fig. 6a). For example reading lists can be created in this way.

Concerning the URLs, which are used by CUMINCAD and related Digital Libraries, it should be noticed that after login [.../cgi-bin/works/...](#) appears. However, if a user intends to edit personal information [.../cgi-bin/users/...](#) will be shown. The logo

on the top left of the browser will be changed accordingly, i.e. “Works” or “Users” will be inserted here (Fig. 7a-b).

Other databases within the Digital Library Portal are “Forum” for discussions on a specific entry (Fig. 8a-b), “Ratings” (Fig. 9) and “News”. The news-entries are displayed at the startpage on the top right; following the link to announcements would bring a user here as well. Users may propose new contributions as well and follow the link “Add your work” which leads to [...cgi-bin/contrib/](#). The Citation Index with references is accommodated under [...cgi-bin/refs/](#) and will be elaborated in section 5 (Note: not implemented in CUMINCAD.ES).

The image shows two screenshots of the CUMINCAD search results page. The top screenshot shows the 'Short default format' with a table of search results. The bottom screenshot shows the 'Harvard Style' format with a list of search results.

Search for: authors:maver {year} gt "1999" and {year} lt "2003"

Tip: Type **n?w** to find 'now' and 'new'.
More: [all tips and help](#) [advanced search](#)

Hits 1 to 18 of 18

#	details	full text	citation	check to select
1.			Conti, G., Ucelli, G. and Maver , T. (2001) JCAD-VR: Java Collaborative Architectural Design Tool in Virtual Reality - A Java3D based scalable framework for real-time, multiplatform VR environments , Architectural Information Management [19th eCAADe Conference Proceedings / ISBN 0-9523687-8-1] Helsinki (Finland) 29-31 August 2001, pp. 454-459 http://cumincad.scix.net/cgi-bin/works/Show?	<input type="checkbox"/>
2.			Ennis, Gary and Maver , Tom (2001) Visit VR Glasgow - Welcoming multiple visitors to the Virtual City , Architectural Information Management [19th eCAADe Conference Proceedings / ISBN 0-9523687-8-1] Helsinki (Finland) 29-31 August	<input type="checkbox"/>

Search for: authors:maver {year} gt "1999" and {year} lt "2003"

Tip: Type **new +car** to find only records which do contain 'car' and may contain word 'new'.
More: [all tips and help](#) [advanced search](#)

Hits 1 to 18 of 18

- Conti, G., Ucelli, G. and **Maver**, T. (2001) **JCAD-VR: Java Collaborative Architectural Design Tool in Virtual Reality - A Java3D based scalable framework for real-time, multiplatform VR environments** Architectural Information Management [19th eCAADe Conference Proceedings / ISBN 0-9523687-8-1] Helsinki (Finland) 29-31 August 2001, pp. 454-459 <http://cumincad.scix.net/cgi-bin/works/Show?>.
- Ennis, Gary and **Maver**, Tom (2001) **Visit VR Glasgow - Welcoming multiple visitors to the Virtual City** Architectural Information Management [19th eCAADe Conference Proceedings / ISBN 0-9523687-8-1] Helsinki (Finland) 29-31 August 2001. pp. 423-429 <http://cumincad.scix.net/cgi-bin/works/Show?>.

Figure 6a-b: Exporting data “Short default format” vs. “Harvard Style” (publications 2000-2002).

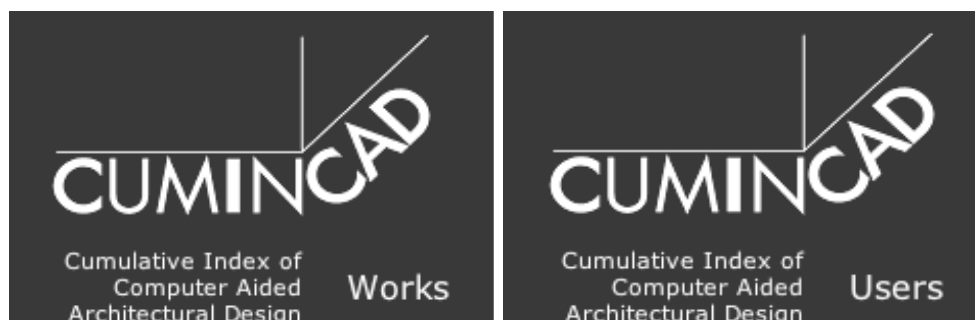


Figure 7a-b: <http://cumincad.scix.net/cgi-bin/works/> and <http://cumincad.scix.net/cgi-bin/users/>

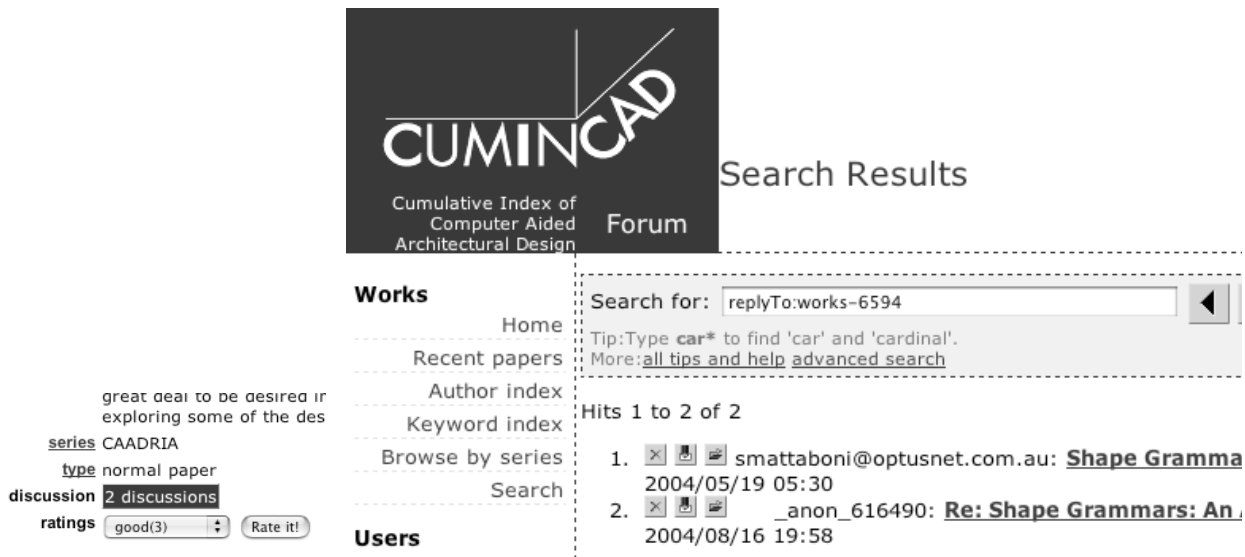


Figure 8a-b: Follow the links discussion (image left) and display of the discussions on entry "6594".



Figure 9: In this example the editor of the SiGraDi-2001-proceedings displays his personal rating.

5. Citation index

Until recently, citation analysis was solely accommodated in the domain of specialized institutions like Thomson ISI, which offers a multidisciplinary collection of bibliographic information mainly from printed and especially peer-reviewed journals. The disadvantage of services like ISI is that they do not provide information on domain specific collections like CUMINCAD. With the evolution of digital libraries and open scientific exchange, citation indexing has also become a domain of Digital Libraries. The impact of scientific contributions is in this respect not only

determined through citation analysis, but also through the web usage statistics (views of abstracts, downloads of full texts, etc.).

In the case of CUMINCAD first of all references from CAAD conference papers were extracted from the pdf-files (full papers). The citation data was divided into four parts and tagged with the CUMINCAD-ID of the specific publication, in order to provide a link to the display. At the time of writing 26.817 references are stored in CUMINCAD.REFS [10]. There is a direct link on the CUMINCAD-home to these references.

authors Rodríguez Barros, Diana and Montagu, Arturo
year 2000
title PROCESSES OF VIRTUALIZATION, PLURALITY OF NE
source SIGraDi'2000 - Construindo (n)º espacio digital (co
 Conference Proceedings / ISBN 85-88027-02-X] Ric
 pp. 77-80






summary The links among architecture, reality and materiali
 through centuries. In the present world of mediatiz
 appearance of digital technologies, among others, l
 crisis. This work formulates theoretical reflections
 analysis which involve the concepts of plurality of i


series SIGRADI
type normal paper
email dibarros@mdp.edu.ar, amontagu@fadu.uba.ar

discussion No discussions. [Post discussion ...](#)

ratings


references


details	citation
	Anders, Peter (1999)  Anthropics cybe space from first principles , Libro de po Congreso Iberoamericano de Gráfica Digi Montevideo. pp. 56-62
	Bauman, Zygmunt (1999)  Globalizatic Polity Press and Blackell Ed. London. pp.
	Montagu, A., Rodríguez Barros, D. and Ch reality through virtuality , Ecaade 2000. Universitaet Weimar

full text  ... 197293 bytes ... members only by email!


Works

- [Home](#)
- [Recent papers](#)
- [Author index](#)
- [Keyword index](#)
- [Browse by series](#)
- [Search](#)

in paper  **Rodríguez Barros, Diana and Montagu, Arturo (2000) PROCES
PLURALITY OF NEW TIMES AND PLURALITY OF NEW SPACES**

authors  Anders, Peter

year 1999

title  Anthropics cyberspace: Defining electronic space from first princ

source Libro de ponencias SIGRADI 1999. III Congreso Iberoamericano de G
de la República. Montevideo. pp. 56-62

Reference 2b6f

Figure 10a-b: CUMINCAD-record with references (left) and details of a selected reference (right).

Please note that the bibliographical data is not 100% "clean", as the information stems from the authors and mistakes may have occurred (inconsistent citation, typing errors etc.). Furthermore the raw lines were manually split into four parts and mistakes may have taken place here as well. Nevertheless, mechanisms have been developed to gather similar papers (with certain errors) into collections [10].

Authors can trace back who else has been citing his/her publications. For example, the search expression <authors:maver> in the citation index at <http://cuminCAD.scix.net/cgi-bin/refs> would deliver 129 citations and it can easily find out in which entries a certain reference appears.

6. Conclusion

This paper was written to serve as accompanying information for a workshop on the occasion of SiGraDi 2004. The intention is to serve the growing user-community and provide tips and tricks which support a creative use of repositories such as CUMINCAD, CUMINCAD.REFS and CUMINCAD.ES. In the area of CAAD from year to year a growing number of (conference) papers is produced and an enhanced dissemination is in the interest of the authors. Digital libraries with e-papers can support this task in a fruitful way.

References

1. <http://CUMINCAD.SciX.net> [14-08-2004].

2. <http://CUMINCAD.ES.SciX.net> [14-08-2004].
3. Martens, B. and Turk, Z., Cumulative Index of CAAD: Current Status and Future Directions, Int. Journal of Architectural Computing, 2004, 1(2), 220-231
4. Martens, B., Turk, Z. and Cooper, Z., A Study on Content Sources and Acquisition Techniques of CAAD-related Publications, in: Choutgrajank, A., Charoensilp, E., Keatruangkamala, K. and Nakapan, W. (eds.), CAADRIA 2003 Conference Proceedings, Bangkok (Thailand), 2003, pp. 237-248
5. Martens, B. and Turk, Z., CUMINCAD.ES: A First Step Towards Multilingual Digital Libraries in CAAD, in: Carmena, S. and Utge's, R. (eds.), SIGRADI 2003 Conference Proceedings, Rosario (Argentina), 2003, pp. 44-46
6. <http://www.acadia.org>, <http://www.caadfutures.org>, <http://www.caadria.org>, <http://www.ecaade.org>, <http://www.sigradi.org> [14-08-2004].
7. <http://www.SciX.net> [14-08-2004].
8. www.SciX.net/sops.htm [14-08-2004].
9. www.ddatabase.com [14-08-2004].
10. Cerovsek, T. and Martens, B., On the Extended Use of Citations in CAAD – Making the network between related publications visible, in: Van Leeuwen, J.P. and Timmermans, H.J.P. (eds.), Developments in Design & Descision Support Systems in Architecture and Urban Planning – Proceedings of the 7th DDSS conference, St.Michielsgestel (The Netherlands), 2004, 1-17