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On Digital Press

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Our contribution paper is divided in two parts, the first one is about our experience in building up a CD ROM on Cerda's theory, and the second is a daring -corresponding to our ignorance-, is a suggestion. To publish on a digital support it is necessary to clear one's mind. On Production. The nature of the documents, its origin. Order and division of labour. Some notes about the way to produce it. General documentation management. On critical paths. Digital Press. Towards an ECAADE Digital Press?

To publish on a digital support it is necessary to clear one's mind.

The first we need to know is exactly what we want to do, that is to say the boundaries of the topics we want explain, because within an educational system, -that is becoming more and more homogenized and concentrated, as a consequence of the European tendencies-, the topics we use to deal with in our work need to be made shorter without losing content. Need to be explained in less time, but in different places, trying not to lose the concept. Some of these topics deserve to be more transnational even though becoming more universal and less personalized.

On one side, Tutorials, referential books, games, graphical libraries, photo CD, and so on, are the most common products to nurture reading peripheral hardware. There is an initial offering system in hardware that generates demand.

On the other, every time more, investigation, education, generate multiple works in different sizes. We are more and more involved in a visual culture, we use to be helped by images in movement and we desire more to establish links and write quotations.

Digital support is reachable not in a difficult way but, not in a too easy anyway. If for an end user there can be a kind of uncanny, for professionals that usually use computer systems is only a matter of rationalization of ideas and exploration of software.

On Production

Some deducted laws for an easier and faster production should be related. They concern basically with graphical criteria, sort of the documents, the way we want to manage them, and the interface we have to create.

Graphical homogeneous criteria: Colours. Most of the products works 8 bits per pixel this means that we can work simultaneously only with 256 colours. Usually we will use some navigation buttons. They should be the same for all the screens. If we do not use the same colour palette everywhere we can find some difficulties when inserting icons with different colour palette will be forced to remap it, and the colours will change.

Fonts & sizes. If we have used special fonts it would be reasonable to include them in the software, since they could give some problems in the text fields. Never mind this problem can be avoided by transforming all the text fields into bitmap files.

Screen icons, drafted interface. Principal management functions should be established, and according to them several icons will be designed. It is recommended to use as least number of different icons as possible, and place them on the screens following the most simple law.

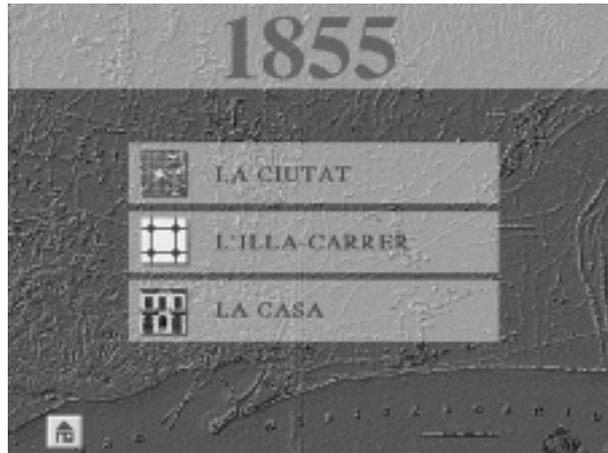


Figure 1. CD ROM. Cerdà and Barcelona. Decision node screen

The nature of the documents, its origin. Order and division of labour. Some notes about the way to produce it.

Text, audio and image are the most common ones.

While the first ones don't bring problems, except those related above, in terms of memory audio documents should be treated with a special care. There are two levels of audio, those that run simultaneously with an animation, and those that do it over a fixed screen. In both cases the shorter they are, the better they run; and the better the sound is, the bigger is the file. So, to make it run on a standard personal computer, big sound files have to be played in a lower quality. The problem is increased when sound is synchronized with animations.

Graphical treatment: Given that all this happens in a graphical environment this is the most important part of the document.

Graphic files have different origins. Those that come from scanned images or 2D files everybody know how to deal with, or how to manipulate.

Concerning architecture the best way to express most of the ideas is by manipulating 3D files. Those files will always allow us to obtain rendered images, 2D images like plans, sections or elevations, but the most conspicuous interest is its capacity of being fragmented and decomposed in order to be rendered again.

Then this heterogeneous family of images offer the possibility of simulating a metamorphosis, or they are able to be inserted as visual help to better explain arguments that may need different transformations.



Figure 2. CD ROM. Cerdà and Barcelona. Animation on urban structure

A third group of graphical documents is that one that comes from digitized video. As everybody know "quick time" technology allows to digitalize video in a computer screen. Anyway this has some restrictions. The first one is the size of the window through which we watch the movie. But also this restriction deserve to be understood as an allied in a multimedia system, especially because movement should be only a complement within a more complex discourse. The second restriction is similar to the one we told about the audio in terms of length and quality, adding moreover the problem of the colour.



Figure 3. CD ROM. Cerdà and Barcelona. Animation on 2nd order housing circulation

General documentation management

Depending on the product we wish to obtain we get an enormous quantity of files. We must guarantee at any moment to anyone the reading, understanding, and easily getting to any file. That means a very clear structure with understandable navigation commands.

One of the best ways to achieve that is to guarantee the control of production, and the links we want to establish. The best way is to manage the whole structure in a traditional way, we suggest not to forget blackboards, papers on a wall, etc. Some traditions are valid, specially if we consider that a work like this one is not far from what a scriptwriter does.

In this way we have to remark the importance of having everything well explained and structured on paper before sitting down in front of the computer and starting the product itself.

On critical paths

Our case is closer to the documental one, if we agree with the most important differences of structure and targets between those Data-bases relational and documental-, since it deals basically with graphical documentation, but in association with some text fields and synchronized audio. This is because we don't need to establish links everywhere to explain what in fact has already been selected and oriented.



Figure 4. CD ROM. Cerdà and Barcelona. Animation on the sewer system

Today all Cerda's known written knowledge is already published, and we don't try to challenge with editions done with great care. We want only to offer a nice cultivated rose in the middle of a garden. We pretend only to stimulate CD-ROM readers to better study his theory, by the way one of the seminals in the second half in the nineteen Century. We want to contribute to a great diffusion of this type of knowledge. And these are not the goals of a relational Data-base.

But those who become readers of Cerda's theory will quickly understand the reasons why it has no sense to index the whole of his writings. They are quite large, they have to many cross concepts, and most of the main ideas should be read with care, in order to catch the variations and subtle transformations of his thoughts along twelve years of his active life.

This documental data-base tries to be neutral, tries not to make a value judgement tries to illuminate certain thoughts. Nevertheless trying to be as simple as possible there is always a choose when selecting and organizing the information, and this means a quite guided reading. What makes information readable is the way it is ordered, hierarchiced and laid out. We used a tree structure beginning with the three different times of his writings, that at the same time are divided in three parts according to the three most determinant approaches of his theory: the city, the city bloc, and the house. Each one of which is followed by other subdivisions that better set bounds to certain concepts. The tree structure is a universal, decimal and well known, system of organizing the knowledge.

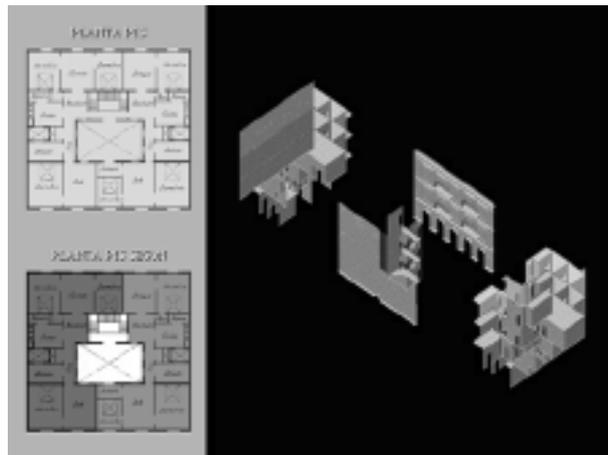


Figure 5. CD ROM. Cerda and Barcelona. Animation on 4th order housing organization

Then, there is an icon that brings you to a screen that shows a tree and allows you to know where you are, and how to get to anywhere at any time, within the always necessary conceptual network that supports all the information. This tree actualizes a diagram that let you understand where are you coming from and the path you are able to follow.

Anyway, as a forewords, we have included a selection of views, audios and animations that offers you an abstract of the contents.

Editing a product of this kind is not only building up synthetic or raster files while associating referential information. Basically is a matter of product organization, division of labour, and last but not least of definition of the subject.

Nowadays, for some reasons, the CD ROM looks like being the best container to hold and deal with the big amount of data that we usually can find in a multimedia interactive product. To built up a CD ROM implies certain activities which not always are chronologically ordered, but divided in different groups. Those that are related to product development, those that correspond to the physical support, and the activities able to guarantee a good distribution.

Digital Press

It is with mixed sentiments that we can suggest and propel an ECAADE Architectural Digital Press in the first age of electronic publishing.

Nobody but we know the many exciting possibilities for architecture in this medium, new for others. Adding video, audio and synthetic image to the texts for history, and other purposes. We are progressively able to increase the number of images. Images can be better diffuse and in a large number being not as prohibitively expensive as they are in traditional printing. Capabilities of searching will always go further than the most cross index system.

It is well known that synchronicity, coincidence between our desire of expanding the definition of architecture beyond the built and the new possibilities for experimental and theoretical works which open new media.

New media, may be, are only the ability of presenting various components as text, audio, video, image, and their respective transformations, fusions, linkage, etc., specially in a non linear fashion.

We are not a publishing company, we should not be interested in tradition of fine papers, nor in simply replacing ink for rows of bits. It does not belong to us to speculate about the future of the book, even about the present of CDs, but we are able to re-format the information, and some times to build-in new one by producing new iconography which helps for better understanding. No others but we are really able to adopt new forms of presenting.

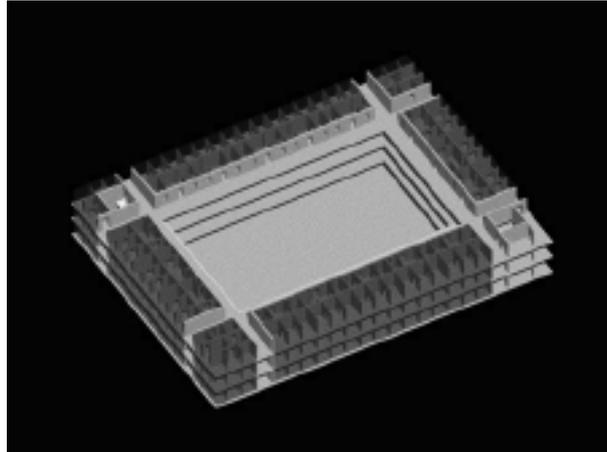


Figure 6. CD ROM. Cerdà and Barcelona. Animation on working class 1st order housing.

We have many reasons to change our mind, we have the know-how, we participate actively in changing programs in schools for European homogeneity.

We are the people who must not doubt about the power of CDs to give us greater knowledge. We know it doesn't signify a betrayal for the book in general terms It simply "is", stays on our table, and we use it. We know there will be a CD reader at any table, because every computer will include one. The quantity of information, as one of the prime offer of digital compacts, should be substituted by the quality, selection, animation, visualization, and many other values. It's time to bethink ourselves about it.

The aim for publishing is to diffuse knowledge, few times is to sale, to diffuse thoughts, and to allow the access to it worldwide.

Arguments in architectural knowledge, as history, theory, technology, building science, and so on, do not need to be so popular, but the more we do in this way the larger number of students will be able to access to it and in the way they need, because his familiarization is out of doubt.

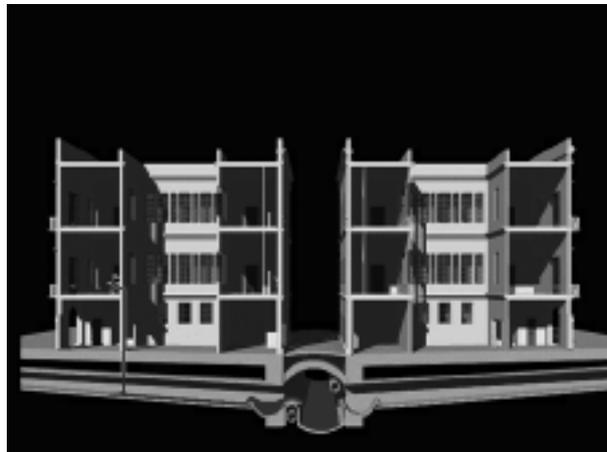


Figure 7. CD ROM. Cerdà and Barcelona. Animation on dirty water evacuation.

Conclusions.Towards an ECAADE Digital Press?

Since 1991 we are hearing and reading a large amount of papers that deal with experiences in education. That was the time when we presented to this conference the work in which we have been involved since 1989.

All these papers have something in common: They try to explain in the best way what has been done in a computer. Most of this works have been conceived to be watched, to be used, for training, better understanding, easier learning, but not merely to be published using ink on paper.

Nevertheless we are here again trying to complete another paper. That's to say writing what, most of the times, was completed only using images.

We must not deceive ourselves again. We write a paper because it's always with pleasure that all of us answer the call for papers. There are not many opportunities to explain an effort. An affair of vanity. We come to the annual meeting because there is a specific quorum that shows different experiences using, and even creating, new software for architecture. We are trying to finish this paper so it can be published. That assures not only a diffusion of our work but a strengthening of ECAADE itself.

It is evident for everybody that the strength of the Conference does not come only from writing papers, but they are the only prove of its existence. That means it is based on a support which is not the main goal, in fact it is only a route. Today most of the initial purposes are achieved. Actually very few schools do not use computers in any of his activities.

Today most of us are using CDs as tutorials, games, encyclopedias, data bases, and so on.

Our proposal is edit CD about annual conference. What for?

Everybody agrees with most of the initial proposals of ECAADE conference. Even with different annual orientations.

We suggest a complementary but a decisive action. To publish on Digital support.

**Order a complete set of
eCAADe Proceedings (1983 - 2000)
on CD-Rom!**

**Further information:
<http://www.ecaade.org>**