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National Developments

5 MULTIMEDIA AND CENTRAL, EASTERN EUROPE (CEE)

Potential, Realities, Hope

Hope that Beyond Efficiency, the New Way of Communication will Enable Technology to Adapt to Human Diversity and Individuality

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When evaluating the subject of the present paper, I had the same feeling that I had experienced when seeing for the first time multimedia, at the National Gallery Micro Gallery, in London. This feeling was convincingly explained, to us, Eastern Europeans, through a photocopy of a photocopy of an article entitled: "Present at the Revolution - the new technology of the electronic imaging is a communication revolution that may rival the printing press. The unaware be aware!" (Newman, 1992).

[But, I am afraid, I am not able to answer the following possible question: "What do you mean by CEE? " - it might be the subject of another paper - for the sake of this document we will define it as **a condition with some common realities**].

Two aspects will be focused upon: potential versus reality.

TECHNICALLY, - we would like to achieve the answer to the closing question of Umberto Eco's: "Isn't it absurd that in our century we still build stationary expositions ? Shouldn't the designers of the future expositions confront again the problem of Mohammed and the Mountain?". This was written in the context of the world that "...is able to produce splendid expositions but cannot allow all its children to move freely (politically and economically) to attend the Expo school." (Umberto Eco, 1986).

This leads us inevitably to the problem of COMMUNICATION. We would define our goals according to A. Moles' statements, in one of his recent articles: "All the world communication systems are heading towards deregulation..., a breaking of all geographical frontiers: it is no longer possible to stop the images and sound at the border of one nation's territory. Even language, which has been one of the most powerful barriers is not reason enough..." (Moles, 1992).

The next stop is POLITICS. In a recent interview granted to a prestigious Romanian weekly by G. Ionescu, Professor of Political Sciences at Manchester University, UK, of Romanian origin, said: "The political globe has been reduced, politics became global, we are in a constant circuit of interdependencies and the only way is cooperation... "

SUBSTANCE. For long time it has been debated if what counts is, or not, the authenticity of an object. We will not discuss this subject, but the idea that what undoubtedly counts, is the amazing information, an object conveys, in multiple, multimediated forms.

The contextual REALITIES of CEE countries are undergoing a difficult period of reorganisation and re-evaluation. The cultural structures are pendulating between the "old" and the not very stable "new". In the post Orwellian society, where alteration and fabrication of documents forming the collective memory of a society became a common practice: "Who controls the past, controls the future: who controls the present: controls the past" (Orwell, George), the constant element is an overwhelming limited budget. Both old and new organisations struggle to establish their identities: Artists' unions controlling and centralising the arts are being dissolved. Artists supported by the state or restricted by the state are being painfully integrated in a hardly existing commercial art world. Educational institutions for artists, art historians, critics and managers, if existing, are also undergoing a process of change.

In spite of all these, the information gathering process has been evolving. It has been felt as fundamental to future developments. Intellectual activity of analysis and organisation and production of information was a great challenge to those who had been aware that one day the communication technologies would demolish closed societies. It was important to develop powerful conceptual schemes to replace technological advancements. And, surprisingly enough, a solid basis of computer aware and media-oriented audience has been formed along the years.

What are the main AIMS of the present paper ?

- to show the feasibility of multimedia applications in the region
- to develop an understanding for the cultural situation and present significant multimedia/imaging projects in the cultural field
- to present Western results and practices efficient transfer to Central and Eastern Europe and, furthermore, potential benefits for all sides.

All these against a common background of puzzles:

What to change the didactic positivist realism for? How to avoid the narrow prefabricated version of the past? How museums should construct realities and resist the well known cliches: "This is how it was!", leaving no room for doubt. What is the best way to promote new values on the basis of a transformed conception of national tradition and heritage. How to react to the frightening "armchair culture" where thinking is manufactured for the viewer.

MULTIMEDIA is the technology that may offer an answer. The viewer has, not only CHOICE options but also the possibility of DETERMINING the source, form, nature, quantity, quality, substance of the information.

CEE Projects

The Commission of the European Communities: (CEC) and the Maastricht Treaty provisions for cultural matters, contains the following clauses:

- take the cultural aspect into account in all its policies
- promote culture respecting diversity

- foster cultural cooperation among member states and third countries, strengthen relations with non-EC countries, in particular those of CEE.

Eastern Europe receives further help through the ECU 785 million PHARE programme (some projects also have to do with the built heritage) and TEMPUS - Trans-European Mobility Scheme for University Studies.

The Definition Phase of the *Interactive, Multimedia Project on Constantin Brancusi*, is being developed with the assistance of CEC IMPACT 2 Programme, which does not include any direct support for the participants from Romania. The project is a Multimedia Interactive resource to explore a whole span and wide contexts of the work of the major twentieth century sculptor, Constantin Brancusi, born in Romania, mostly working in France, represented in many collections, in Europe and the United States.

The main development partners are: France - Muse National d'Art Moderne; Germany - CompArt; Italy - SIDAC; UK - International Visual Arts Network (IVAIN), Illumination Interactive; USA - Philadelphia Museum of Art; together with British Telecom; Simon Olswang&Co, London and the CEC supported CITED/EXCITED project.

The project has been designed to have three phases:

- a PRE-DEFINITION PHASE resulting in the production of a demonstrator that took the proposal from paper to something explorable interactively by people who are not familiar with the medium and its potential. The Demonstrator was completed in the summer of 1992.
- a DEFINITION PHASE that would add new sample text and image material and re-author with editorial and technical standards. It would more closely approximate the planned final resource.
- an IMPLEMENTATION PHASE which builds on the editorial, structural design, interface design, technical experience and market testing from the first two development phases, to produce a full-scale interactive multimedia resource for art museums, libraries, education and the retail market. Production and publishing of the major parts of the resource on one or several compact disks to be completed prior to the Brancusi retrospective exhibition in Paris and Philadelphia in 1995.

This project is the first collaboration of this type, creating a common context (CEE/European/International) for:

- investigation of multimedia concepts, hardware, software, delivery system choices, man/machine interface, network development in cultural sector
- identification of various rights issues; comparative analysis and overview of the current situation
- survey the current situation regarding Electronic publishing and distribution
- market analysis and forecasting
- creation of a methodology for collaboration (investigating the advantages/disadvantages, pragmatic solutions, a better art/economy interchange)
- implementation of the existing standards on all levels, increasing co-operation and co-ordination
- investigation of the problems regarding a multilingual resource, enabling better access to culture and better information, highlighting a variety of approaches and experiences

- creation of context for interchange of cultural and technical information.

One of the values this project promotes is openness. The feedback from a wide range of many nationalities and cultures, with widely differing direct and previous knowledge, has proved to be extremely valuable. It was exceptionally important that the policy objective of a "content rich" resource has been constantly reaffirmed.

Another major initiative in our region is the Soros Centres for Contemporary Arts Network (SCCA). The SCCA currently being established in Albania, Belarus, Bulgaria, Croatia, Czech Republic, Slovak Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Moldavia, Poland, Romania, Russia, Slovenia, Ukraine and the Republic of Yugoslavia.

The actual aims/activities of these centres are:

- computerised, multimedia, visual, applied & performing arts documentation;
- exhibitions & events;
- international networking;
- national, international grants, exchange, educational, cultural programmes.

The importance of being informed proves to be extremely valuable when addressing a number of offers from a commercial point of view. A different, but not less promising international approach, is that of Continuum's Visual Arts Database. Continuum Productions Corporation was founded in 1989 to pioneer research and development of image databases, exploring and preparing for the coming educational and consumer market for visual information. Continuum's mission is to provide users access to a vast and richly catalogued knowledge-base, enabling them to navigate within it for instruction and enjoyment. The heart of the project is a database of one million images and associated information, now being assembled to be ready in 1996. To provide the foundation of the art component of the database Continuum is establishing strategic relationships with a number of museums among which leading museum names from CEE are to be noted. The evaluation of the generosity of such an offer supposes expertise by professionals in multimedia, image processing, copyright, international assistance and moreover, access to information on other similar experiences.

One of the most stimulating contributions in our region has been conferred by The Getty Art History Information Programme (AHIP). It was AHIP's assistance - financial but even more importantly, encouragement and support - that made RECOMDOC '92: CEE Regional Conference, 1992, Romania, a reality. This conference was a concrete step forward to the integration of CEE museums and projects into Western cultural and intellectual life. One of AHIP's principles, namely: to advance the cause of worldwide art information access through automation which will be attained as a result of developing international standards, was a principal subject of the 80 museum professionals from several former Soviet-block countries and their Western Colleagues. The two workshops on "Planning for Museum Automation" and "Art and Architecture Thesaurus" sponsored by AHIP, created a common language (a regional/international language) to discuss the strategies for planning museum information projects and using standards. But AHIP's understanding of the regional situation and the consequences of prolonged isolation went further. The conference was followed by the opportunities provided for "Eastern-Europeans" to learn about leading institutions and to meet key persons involved in automation projects in the humanities. AHIP openly shared its experience on many subjects organisation, co-ordination, programming, analysis and documentation. A careful attention was paid to the latest developments: multimedia, image processing, the importance of the quality of digital image, its impact on information transfer, images and

arrangements of images. The possibility to compare the CEE practices to those of other institutions, the supportive advice, shared with us so generously, have been of the greatest importance at the crucial point our community has to face. Those ideas constitute a solid basis for evaluation, enhancing the idea that Eastern Europe should not lag behind, trying to catch up with the new, but trying to apply the best solution for a given real situation. AHIP's assistance was of key importance in clarifying and understanding the function of standards.

The RECOMDOC Conference will be followed by the CIDOC meeting to be held in Ljubljana, 1993, with the thematic frame: "East meets West".

Before starting to present some of the typical aspects concerning national initiatives, it is worth mentioning the name of a magazine, BALKANMEDIA - a working example of the regional potential. "For a regional example... that risk is not only of the usual financial and economic nature. Especially today, when Balkan nationalism is having a revival, at a time of economic crisis and armed conflicts, and at a time of a kind of general feeling of tiredness from the slow transition towards market economy and open society in the former socialist countries of the Balkans. Nevertheless, reality offered our multinational team, which managed to cover the road of editorial consolidation outside the old and new state borders and national prejudices, an even more surprised mutual understanding and praise from the even more multinational readership of our magazine" (Rossen Milev, 1992).

When discussing national situation we have to bear in mind the following:

- a large number of trained information specialists
- inadequate access to computers
- a fledging software industry
- a poor public telephone network
- centralised information documentation back-up.

In Albania the average monthly income is $15. In Tirana to have a telephone is still a luxury... . Two articles from the same magazine demonstrate the differences in way the regional situation has been perceived from the inside and from the outside. The first, written by an Albanian, conveys hope, a certain naivete, enthusiasm, as we all, in this region, experienced: "The Albanians, who for many years could not freely express themselves, now forgot the heavy economic crisis and began to think and speak freely in order to compensate in the fastest possible way for the years of silence" (Elsa Ballauri, (1992)).

Ursula Ruston's, "Albanian Culture Wins an Ambiguous Freedom", is differing in tone from the previous one. The analysis is applicable on the regional level. I quote the final phrase: "Whether Albanians continue to discover their own culture, and are able to preserve the best of what comes to light, depends upon economic dictates which are replacing the political structures of Communism. It seems as much a treasure house as a ruined one - a Pandora's Box perhaps, where the message to those who are involved in "opening" the country may be to take good care, in both senses of the word, of what you find there".

In Bulgaria, state owned and private IT companies today produce peripherals, software and information services. A convincing example which represent a typical institution on regional level is TECHNOINVEST providing competitive services and systems fully compliant with the customers requirement. Among their customers we enumerate: Bulgaria, Russia, Poland, Ukraine, Hungary and others.

Croatia, in spite of the war damaged economy is moving up from a low point inDecember 1991. Multinationals (e.g. IBM, Digital, HP, Apple, UNISYS) are represented by Zagreb based companies. There are 400 UNIX users and Croatia received equipment $5 million worth under IBM's European Academic Initiative. The Museum documentation practice in Croatia is coordinated by the Museum Documentation Centre (MDC), responsible for providing access to central databases containing information on all museum objects in Croatia. Information sharing among cultural institutions in Croatia is granted through the System of Cultural Information developed by a working group formed by members from all interested institutions. In addition to the diverse and complex bibliographic databases, the public has access to an image database containing photographs of museums and galleries and of objects in their collections.

A recent survey in the Czech/Slovakia Republics showed that only 20% of PC's carried brand names, the rest being unbranded clones. The PC market is expanding by 50% a year. Existing PCs are mostly 286s, but the trend is towards 386s and even 486s. Mainframes are found chiefly in state/government sectors, with ICL claiming market leadership. The home-grown industry is software-centred. Separate Czech and respectively Slovak telecoms have involved Alcatel and Siemens in their modernisation programmes. Slovakia plans to spend $570 million on telephony.

The Database Centre of the National Library of Prague manages standards work, OPAC, Library Networks, Distribution of important databases on CD-ROM.

The fall of the communist system resulted not only in positive changes. In the new situation the number of art objects thefts increased considerably. In addition to primary security measures, a new documentation project, meant to be a protection tool, was started by the Czech Ministry of Culture and the Ministry of Home Affairs in cooperation with Interpol, each valuable object having basic description and high-quality image. About 200,000 objects are to be input in a short time by 14 regional workstations. The text databases will be transferred from the existing computerised collections.

Hungary has the lion's share of foreign investment at $1.5 billion a year. The 2,000 companies in the computer industry have a powerful presence in software. Major private Hungarian companies Kontrax and Mszertechnika are outstanding both in hardware and telecoms. Communication is modernised with the help of Siemens and Ericsson. In Hungary "on-line culture" is ten years old! In 1982, The National Technical Information Centre and Library (OMIKK) was established to act as a national *focus* for access to databases abroad and by the mid-1980s, 30 Hungarian institutions had international on-line access. Moreover, in 1988 the Hungarian on-line database services were available to users. 1991 - the first Hungarian CD-ROM appeared on the market.

The survey regarding multimedia in the Hungarian cultural institutions conducted by Zsuzsanna Tószegi revealed some interesting features regarding work practices. The survey was initiated for the sake of this Conference supporting the idea that collaborative work might lead to better results. (see Appendix 1).

Presently, Lithuania's communication network is being installed, which will enable the integration of Lithuanian databases with the European telecommunications networks as well as on line access. The Baltic Cooperation Council formed Organisational Informatics Groups: Estonia, Latvia, Lithuania, compatibility of information infrastructure tools, and legislation.

Figures show that Poland spent $200 million out of a regional total of $524 millions sales of Western equipment in 1991 and forecast doubling in 1992. A late 1992 official survey stated that installed units were 61% PCs, 20% minis and 19% mainframes. Companies include: IBM, HP, DIGITAL, MICROSOFT and DELL and there is a flourishing home

industry of some 2,000 companies. State owned TPSA has numerous joint ventures with Siemens and Alcatel, France Telecom/Ameritech.

Romania. Isolated from the 70s till 90s, the Romanian IT industry made clones of western models, which were appreciated in the Eastern markets. When trade was liberalised factories went over to assembling PCs. ICL recently won a $1.6 million government order for UNIX systems. ROMTELECOM is modernising its telephone network with a $175 million EBRD loan. Its partners include: Siemens, Alcatel and France Telecom. In 1990 Romania has joined EUTELSAT.

The Information Centre for Culture and Heritage (CIMEC), Bucharest, administrates and develops the National Cultural Information System with more than 500,000 records at present - a national index of the museum collections. Considering itself responsible for the initiation of the computerisation process and standardisation within the Romanian museums and libraries, CIMEC already started a "consortium" of heritage holders based on direct agreement and collaboration.

The "Transylvanian Rare Books Union Catalogue" is a joint regional Hungarian-Romanian and hopefully Austrian project which CIMEC hopes to publish on a CD-ROM and organise a travelling exhibition on the subject.

In Russia Multimedia is considered to be one of the most important new opportunities for information service in all areas of museum activities. The implementation strategy of multimedia is to take one step at a time. The first task is to create the digital image base (DIB), some museums in Russia have been setting up. Special research is carried out for image input: TV camera with digitisers, STILL camera, scanners), and image storage: CD-ROM, CD-I, WORM. The Russian Museums can be proud of some multimedia products: "Masterpieces from the Russian State Museum" (Interactive Laser Vision), Kremlin", "Troitsko-Sergieva Lavra" (Interactive Floppy-Disks).

In Slovenia IT is said to be more widely developed than in many other Ex-Comecom country.

Europe and the world, through our common work, might built a better understanding of the potential, the richness of cultural diversity. So that one day Eastern Europe and Western Europe would not be confronted as counter-examples but different cultural expressions, in a new, all-European consciousness.

Not long ago if somebody wanted to seize political power in a country, he had to control the army - the recent changes proved that the radio and television are the first target. Today, a country belongs to the people controlling communication. We feel it as a challenge. It is the receiver who transforms the signal into message. But the message is an empty form to which the addressee is free to attribute various meanings, depending on the code he applies. The battle for the survival of man in the Communication Era is not to be won where the communication originates but where it arrives. One possibility is to offer a proper tool to operate and process the information with.

Appendix 1

Multimedia Databases in the Hungarian Museums

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Multimedia integrates the three basic components of human communication: text, sound and image. Multimedia reflects through its complex structure the network of human thinking. Interactivity with the feedback and feed-forward facilities enables a freed movement of the mind through the available information.

The most efficient way to obtain information on multimedia in Hungary was to define a questionnaire. The form was sent to 80 museums, in February, 1993. 59%, 47 institutions answered. To the question: "Do you have computerised databases in your institution ? ", out of 47, 32 answers were positive. "If yes, is it managing information about your collections ?" all the 32 answered "yes".

**Fig. 1** Are there computerised databases in your museum?

Six answers showed that although there were computers in the institution, they were not used for documentation purposes, due to the lack of specialists or suitable programmes. As regarding the question: "If yes, what is the content and the size of the database ?", most of the answers reported the subjects they were considering but omitted to mention the size of the present collection.

| SUBJECTS	SIZE
Natural Sciences	127,000
Archaeology	138,000
History	100,000
Ethnography	115,000
Fine Arts	30,000
Arts&Crafts	23,000
Literature	45,000
History of Music&Theatre	16,000
Other	40,000
Total (reported)	750,000

Regarding hardware, we obtained the following data: 21% of the museums have no computer, 34% have 1-2, 19% 3-5, 9% 6-10, 17% more than 10.

Fig.2   Number of computers
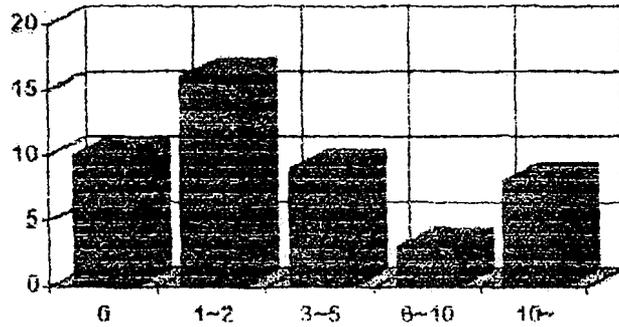
Out of the 227 computers reported, 25 are connected to a local area network. Four institutions are connected to the national X.25 network. Only one institution has a multimedia platform. The next important aspect treated was access: access policy and possibilities. Out of the 32 museum databases, seven are open to the public but only four are accessible through X.25 national network.

Fig. 3   Access through public network?
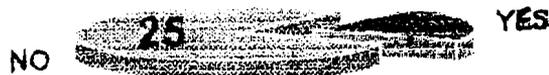
"Are you developing multimedia ?". Five answers were affirmative. Further investigation and contacts revealed that only one was a genuine multimedia database and that there was a large number of other image databases in progress, which were not reported at all.

Fig. 4   Do you have multimedia databases?

YES

NO

42

The reasons for not considering multimedia development were reported 100% to be purely financial!

Fig. 5   The reasons for not having multimedia applications?

4

financial   other
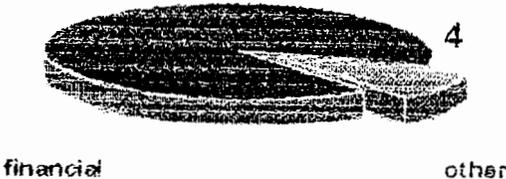
The most exciting question regarding the future development "Do you plan to develop in the following 2-3 years a multimedia database ?" got 25 affirmative answers.

Fig. 6   Do you plan to develop multimedia appications?

We inquired about the subject of the future multimedia databases: History of musical instrument, Locations, Topography, Ethnography, Archaeology, Military History, Gastronomy, etc. Many answers mentioned the photo-archive as their first priority. Probably, they consider to develop an image and not a multimedia database. As regarding hardware, we hardly received a coherent reply. The typical answer explained that hardware choice depends on the available financial support and will be decided accordingly. Many answers showed very little knowledge regarding the current technical developments, trends and standards. Furthermore, they expressed uncertainty regarding planning. In Hungary of today, funds for development projects are not included in the budget of a cultural institution. Development funds, even for national projects, are mostly obtained on the basis of a competition and rules that govern competitions. For example, The National Museum of Hungary, obtained the funds of Ft 12,000,000 ($150,000) for a SUN Server and workstations with UNIX operating system in a LAN. The software will be INGRES.