Potential infrastructures: An unaccomplished project of a computer database of artistic culture at the Centre for Contemporary Art Ujazdowski Castle in Warsaw, 1985–1995

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Potential infrastructures: An unaccomplished project of a computer database of artistic culture at the Centre for Contemporary Art Ujazdowski Castle in Warsaw, 1985–1995
The article deals with a forgotten chapter in the history of museum informatics and digital museology in Poland. It presents the development of a nationwide computer database of information on the artistic culture at the Centre for Information and Documentation of Contemporary Art (CIDCA), established in 1985 within the structure of the Centre for Contemporary Art Ujazdowski Castle (CCA), Warsaw. The study focuses on the factors responsible for the emergence and the ultimate failure of this pioneering initiative between 1985 and 1995. Subsequent attempts to develop digital databases at the CCA, from the mid-1990s to the present, are also addressed. The analysis combines the perspectives of infrastructure studies and potential history. Based on archival research and interviews with the institution's staff, the purpose and the structure of the database are traced and the economic, technological, institutional, organisational, legal and political infrastructures of the late socialist and transitional period in Poland that were negotiated in the process of its development are reconstructed. The effort to build the database infrastructure is shown to be both an example of the local infrastructure fetishism and a gesture that maintains the existence of a productive potential and transfers it over time.

Keywords: Centre for Contemporary Art Ujazdowski Castle, computer database, art documentation, infrastructure studies, museum informatics.

Introduction: a forgotten chapter in the history of "museum informatics"

Contemporary efforts by art museums, centres and galleries to digitise and share online their collections of artworks and art documentation archives can be viewed from at least two different perspectives. On the one hand, such endeavours aim to broaden the scope of institutional activities and increase their impact. The new possibilities provided by digital media and the Internet offer art institutions the opportunity to transform and expand the traditional exhibition culture, to work on audience development – turning their viewers into "users" and engaging them more deeply – and, last but not least, to promote themselves.[1] On the other

[1] For elaboration of various issues related to the situation of museums and other cultural institutions in the digital age, see, for instance: PARRY, Rose. *Recoding the Museum. Digital Heritage and the Technologies of Change*. Abingdon and New York: Routledge, 2007; MARTY, Paul F., JONES, Katherine B. (eds.). *Museum Informatics. People, Information, and Technology in Museums*. New York and Abingdon: Routledge, 2008; GRAU, Olivier, COONES, Wendy, Rühse, Viola (eds.). *Museum and Archive on the Move. Changing Cultural Institutions in the Digital Era*. Berlin and Boston: de Gruyter, 2017.

hand, institutional databases of digitised artworks and archival documents have become part of the ever-growing list of online resources for professional research and knowledge production – academic, curatorial, educational or otherwise – whose structure has been dramatically altered by, among other things, this global online accessibility of cultural artefacts, primary source documents and scholarly publications.[2] In different – and shorter – terms, the two perspectives are those of digital heritage and digital humanities, respectively.[3]

In Poland, as a post-socialist country in East–Central Europe, a rapid development of cultural heritage digitisation projects began in the 2010s. This was linked to Poland's accession to the European Union (2004) and the launch of a series of long-term strategic programmes for the sharing of local cultural heritage, such as Cultural Heritage (2007–2009), Digital Resources (2010), Culture+ (2011–2015), and Digital Culture (2016 to the present). Yet, the history of efforts to introduce digital technologies into Polish art museums, centres and galleries predates the country's accession to the EU. Numerous such attempts were made in the 1990s, and far-reaching plans for the creation of Polish computer databases on artistic culture that would be connected to broader international networks were developed as early as the 1980s, during the period of late state socialism. While more recent achievements in the digitisation of cultural heritage and the creation of online databases, multi-search engines, or content aggregators have been well researched and presented,[4] the early chapters in the history of "museum informatics"[5] and "digital museology"[6] in Poland remain understudied, if not largely forgotten – especially

[2] See, for instance: BORGMAN, Christine L. *Scholarship in the Digital Age. Information, Infrastructure, and the Internet*. Cambridge and London: MIT Press, 2007; EDWARDS, Paul N., JACKSON, Steven J., CHALMERS, Melissa K., BOWKER, Geoffrey C., BORGMAN, Christine L., RIBES, David, BURTON, Matt, CALVERT, Scout. *Knowledge Infrastructures: Intellectual Frameworks and Research Challenges*. Ann Arbor: Deep Blue, 2013. http://hdl.handle.net/2027.42/97552, accessed 23 September 2024; BENARDOU, Agiatis, CHAMPION, Eric, DALLAS, Costis, HUGHES, Lorna M. (eds.). *Cultural Heritage Infrastructures in Digital Humanities*. Abingdon and New York: Routledge, 2018; MILLIGAN, Ian. *History in the Age of Abundance? How the Web is Transforming Historical Research*. Montreal: McGill-Queen's University Press, 2019; CHOUCHENE, Amina M. Historical Research in the Digital Age: Opportunities and Challenges. In: *International Journal of Humanities and Cultural Studies*, vol. 6, 2019, no. 2, pp. 73–84; BROWN, Kathryn (ed.). *The Routledge Companion to Digital Humanities and Art History*. Abingdon and New York: Routledge, 2020.

[3] BENARDOU, Agiatis, CHAMPION, Eric, DALLAS, Costis, HUGHES, Lorna M. Introduction: a critique of digital practices and research infrastructures. In: BENARDOU, Agiatis, CHAMPION, Eric, DALLAS, Costis, HUGHES, Lorna M. (eds.). *Cultural Heritage Infrastructures in Digital Humanities*... p. 1.

[4] See, for instance: Digitalizacja dóbr kultury w Polsce. Informacja o wynikach kontroli. Warszawa: Najwyższa Izba Kontroli, 2016. https://www.nik.gov.pl/kontrole/P/14/029/, accessed 29 September 2024; MONDZELEWSKI, Marcin. Po co nam digitalizacja? Katalogi internetowe i wirtualne muzea. Nowe metodologie. In: *Muzealnictwo*, no. 56, 2015, pp. 253–262; DZIĘGIELEWSKI, Mariusz, GUZIK, Aldona. *Procesy digitalizacji dziedzictwa. Prawodawstwo, typy repozytoriów i przykłady ich wykorzystania w latach 2004–2014*, Kraków: Małopolski Instytut Kultury w Krakowie, 2015; BOSOMTWE, Oliwia, BUCHNER, Anna, JANUS, Aleksandra, WIERZBICKA, Maria, WILKOWSKI, Marcin. *Dobro wspólne. Pasja i praktyka. Cyfrowe zasoby kultury w Polsce*. Warszawa, 2018; BAKA, Małgorzata. Standardy i schematy metadanych w digitalizacji muzealiów w Polsce – przegląd. In: BAKA, Małgorzata (ed.). *Muzeologia cyfrowa. Muzeum i narzędzia cyfrowe humanistyki*. Toruń: Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, 2020, pp. 135–163.

[5] MARTY, Paul F., JONES, Katherine B. (eds.). *Museum Informatics. People, Information, and Technology in Museums*...

[6] LANGLAIS, Dominique. Cybermuseology and Intangible Heritage. In: *Etopia*, March, 2005. https://doi.org/10.25071/1718-4657.36745, accesed 23 September 2024; LESHCHENKO, Anna. Digital Dimensions of the Museum. Defining Cybermuseology´s Subject of Study. In: *ICOFOM Study Series*, vol. 43a, 2015, pp. 237–241.

when they involved not only museums, but also art centres and galleries.[7]

One of the pioneering initiatives in this field was the work of the Centre for Information and Documentation of Contemporary Art (CIDCA) [Ośrodek Informacji i Dokumentacji Sztuki Współczesnej], established in 1985 within the structure of the Centre for Contemporary Art Ujazdowski Castle (CCA) in Warsaw. Its flagship project was the development of a nationwide database of information on the artistic culture of the visual arts in post-1945 Poland, intended primarily for academics and art professionals. In its first phase, it was supposed to take the form of an analogue archive, but in time, it was to become an automated computer system that would serve not only as an art database but also as a meta-information tool for integrating and coordinating a nationwide network of institutional archives documenting post-1945 art in Poland. There were also wide-ranging plans to connect it to similar systems in Western Europe. Unfortunately, the project did not come to fruition as intended, and the documentation collected in the CIDCA´s analogue archive could only play a more limited, though still significant, role in the production of knowledge and memory about artistic culture.

In this article, I offer a historical analysis of the unaccomplished project of the computer database in relation to various conditions of its creation, development and implementation. My main interest is in the factors responsible for the emergence and the ultimate failure of this pioneering initiative. I concentrate on the activities of the CIDCA between 1985 and 1995, but I also briefly refer to subsequent attempts to develop digital databases at the CCA from the mid-1990s to the present. My approach combines the perspectives of infrastructure studies and potential history. The former concerns assemblages of various material and non-material elements that underpin, support and shape social relations and practices, making them possible but also constraining them.[8] The latter invites us to re-examine archives in search of unfulfilled potentials – ideas, visions, postulates, plans, and projects that have not been implemented or fully realised but which, if brought out of oblivion, can become vital imperatives, challenging for the present and binding for the future.[9] Drawing on these inspirations, I will consider the following questions. What was the purpose and the structure of the computer database created at the CCA Ujazdowski Castle? What economic, technological, institutional, organisational,

[7] FOLGA-JANISZEWSKA, Dorota. Informatyka w muzeach. In: *Opuscula Musealia*, no. 10, 2000, pp. 269–283; FOLGA-JANISZEWSKA, Dorota. Muzea w Polsce 1989–2008. In: *Muzealnictwo*, no. 50, 2009, pp. 24–26; Diagnoza stanu digitalizacji oraz gromadzenia, przechowywania i udostępniania obiektów cyfrowych w latach 1989–2008. In: *Program digitalizacji dóbr kultury oraz gromadzenia, przechowywania i udostępniania obiektów cyfrowych w Polsce 2009–2020*. Warszawa: Ministerstwo Kultury i Dziedzictwa Narodowego, 2009, pp. 7–24. https://www.nac.gov.pl/wp-content/uploads/2015/05/Program-digitalizacji-2009-2020-1.pdf, accessed 28 September 2024; BAKA, Małgorzata (ed.). *Muzeologia cyfrowa. Muzeum i narzędzia cyfrowe humanistyki*...

[8] See, in particular: BOWKER, Geoffrey C., STAR, Susan L. *Sorting Things Out. Classification and Its Consequences*. Cambridge and London: The MIT Press, 2000; LARKIN, Brian. The Politics and Poetics of Infrastructure. In: *Annual Review of Anthropology*, vol. 42, 2013, pp. 327–343; HARVEY, Penny, JENSEN, Casper B., MORITA, Atsuro (eds.). *Infrastructures and Social Complexity. A Companion*. London and New York: Routledge, 2017; PINNIX, Aaron, VOLMAR, Axel, ESPOSITO, Fernando, BINDER, Nora (eds.). *Rethinking Infrastructure Across the Humanities*. Bielefeld: transcript Verlag, 2023.

[9] The notion of potential history is often associated with Ariella Aïsha Azoulay´s decolonial project as presented in her book *Potential History: Unlearning Imperialism*. London and New York: Verso, 2019. My own understanding of the term shares certain features with her perspective, most notably the need to study archival traces of historical potentialities that have not been realized, but is more closely linked to the way unrealised potentialities are conceptualised in the field of infrastructure studies. In this regard, see in particular: CARSE, Ashley and KNEAS, David. Unbuilt and Unfinished. The Temporalities of Infrastructure. In: *Environment and Society: Advances in Research*, 10, 2019, pp. 9–28. I develop this issue further in the article.

legal, and political infrastructures of the late socialist and transitional period in Poland were negotiated in the process of its emergence, development, and implementation? How did they shape the process, but also prevent its final completion? And if the project failed, what other effects did it still have? What potential for the production of knowledge could the database offer, and to what extent is this potential still valid today?

The analysis is based on extensive archival research[10] and a series of in-depth, non-directive interviews with former and current staff members of the CCA Ujazdowski Castle. It contributes to the history of artistic institutions, as well as to the broader history of artistic culture.

A difficult emergence: negotiating the concept of the database

In one of the seminal texts for the field of infrastructure studies, Susan Leigh Star and Karen Ruhleder analyse the development of a collaborative digital research, information and publication system designed for a community of US-based scientists (biologists) in 1991–1994, during a period of the dynamic growth of the Internet and its utility software.[11] The system was designed to link geographically dispersed researchers and to transform the organisation of their work by creating a kind of supra-laboratory extending across the entire scientific community. As the development process was not successfully completed, Star and Ruhleder trace a configuration of infrastructural factors, challenges, and barriers that shaped the emergence of the system and contributed to its ultimate failure.

In this regard, and despite all the differences (chronological, geopolitical, economic and functional) between the cases analysed, the article provides an important methodological reference and offers a number of useful tips for the study I am going to present here. Firstly, Star and Ruthleder treat the computer system as a form of infrastructure that is, in turn, connected to and conditioned by various other material, non-material, and human infrastructures. These infrastructures can be approached and configured in terms of different assemblages, networks, levels, circuits and scales. Secondly, infrastructure is "a fundamentally relational concept" without "an absolute boundary and a priori definition."[12] This means that any infrastructure is relational, in that it is always embedded in other infrastructures. It also emerges in relation to people and their organised practices, and it appears differently to different groups, depending on their respective interests and professional cultures. More precisely, infrastructures shape and are shaped by different communities with their specific relations, standards and conventions of practice. In effect, new infrastructures are built on an already existing infrastructural base, struggling with its inertia and inheriting its strengths and limitations. Finally, infrastructures need an ecology, a relational connection and a certain balance between the multitude of their conditioning, shaping and often conflicting factors.[13] These assumptions form the main guidelines that I follow in my further analysis.

The beginnings of the CIDCA and the development of its computer database were marked by three types of infrastructural factors:

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[10] My research has been carried out in the following archives in Warsaw: the Archives of the Centre for Contemporary Art Ujazdowski Castle (henceforth ACCAUC), the Archives of the Ministry of Culture and National Heritage (AMCNH), and the Archives of Modern Records (AMR).

[11] STAR, Susan Leigh, RUHLEDER, Karen. Steps Toward an Ecology of Infrastructure. Design and Access for Large Information Spaces. In: *Information Systems Research*, 7(1), 1996, pp. 111–134.

[12] Ibidem, p. 113.

[13] Ibidem, pp. 113–114.

- material, organisational, financial and legal issues related to the subordination of the CCA Ujazdowski Castle to the Ministry of Culture and Art, the inoperable infrastructure of the unfinished building of Ujazdowski Castle, and the highly unstable situation caused by frequent changes in the CCA´s management;
- standards, classifications, protocols and conventions of practice specific to the academic and institutional field of library and information science;
- socio-institutional networks of contacts, relations and uneasy cooperation with representatives of other art documentation and information units across Poland.

The establishment of the CIDCA and its work on the project of a computer database was the culmination of a long-standing discussion among Polish visual artists and art professionals about the growing importance of documenting artistic practices and the need to create a central institutional unit that would be responsible for producing, collecting and managing art documentation nationwide. Among the first art documentation units to be formed in the post-war period were the Studio of Contemporary Art, which opened in 1954 at the then Polish Institute of Art (renamed the Institute of Art and incorporated into the structure of the Polish Academy of Sciences in 1956)[14] and the Editorial and Documentation Department, which opened in 1962 at the Central Bureau of Artistic Exhibitions "Zachęta" in Warsaw.[15] Documentation was also collected by units formed in museums dealing with contemporary art, such as the Department of Scientific Documentation, established in 1967–1968 at the Museum of Art in Łódź.[16] In the 1970s, the Union of Polish Visual Artists made repeated demands to the Ministry of Culture and Art for the creation of a nationwide centre for documentation and information on contemporary art.[17] The decision to establish such a unit was delayed until 1982, when it was incorporated into the structure of the Centre for Contemporary Art, a newly conceived institution to be housed in the building of the Ujazdowski Castle in Warsaw. The CCA´s preliminary programme included "a centre for art documentation" and "the computer" as one of its main documentation media.[18]

[14] HUML, Irena. Pracownia Plastyki Współczesnej. In: KRASIŃSKI, Edward (ed.). *Instytut Sztuki Polskiej Akademii Nauk 1949–1999*, Warszawa: Instytut Sztuki Polskiej Akademii Nauk, 2000, pp. 105–110.

[15] MANSFELD, Joanna. Centralne Biuro Wystaw Artystycznych. In: ŚWITEK, Gabriela (ed.). *Zachęta 1860–2000*, Warszawa: Zachęta Narodowa Galeria Sztuki, 2003, pp. 179–182.

[16] OJRZYŃSKI, Jacek. Historia Muzeum Sztuki w Łodzi. Wstęp. In: BRUDZYŃSKI, Ryszard, CZARTORYSKA, Urszula, MOŁDAWA, Alina, OJRZYŃSKI, Jacek, OJRZYŃSKA, Janina, UJMA, Magdalena, URBAŃSKA, Lucyna. *Muzeum Sztuki w Łodzi. Historia i wystawy*. Łódź: Oficyna Bibliofilów and Towarzystwo Przyjaciół Muzeum Sztuki w Łodzi, 1998, pp. 24–25.

[17] See: PROKOP, Aleksandra. Kto dokumentuje polską sztukę współczesną. In: *Biuletyn Związku Polskich Artystów Plastyków*, no. 1, 1974, pp. 29–33; V Sesja Rady Artystycznej ZPAP w Łodzi. In: *Biuletyn Rady Artystycznej Związku Polskich Artystów Plastyków*, no. 3, 1975, p. 5–41; Centrum sztuki: i co dalej? In: *Informator Zarządu Głównego Związku Polskich Artystów Plastyków*, no. 3, 1980, pp. 7–8.

[18] SOYTA, Jan. Utility program for the Ujazdowski Castle in Warsaw as a Center for Contemporary Art, September 1982, typescript, p. 13. In: AMCNH, Center for Contemporary Art. Utility Programs 1982–1983, inv. no. 1401/36.

When the CCA was formally founded, its main physical infrastructure, the Ujazdowski Castle building[19] was still under reconstruction. The lack of architectural plans and technical documentation necessary for the adaptation of the building as an art centre, the ongoing media campaign for the relocation of the CCA, and the lack of an adequate subsidy from the Ministry of Culture and Art – which was itself embedded in the deep economic crisis that Poland had been experiencing since the late 1970s – led to considerable delays. As a result, the CCA did not begin its work in the partially completed premises until mid-1985. The part of the building that was ready for use was the attic on the second floor, and it was there that the CIDCA began to operate as the only department of the institution. It was divided into the Department of Documentation and Scientific Information (DDSI) – its main part, which was responsible for collecting and managing information on art; the Library and Reading Room; and the Department of Technical Documentation, which dealt with photographic and video documentation. In September 1985, Jadwiga Majewska-Tronowicz, the former head of the Department of Scientific Information at the Polish Academy of Sciences, was selected to head the DDSI, and in the months that followed her team was completed with graduates in art history, library and scientific information, and cultural studies. The group included, among others, Ewa Gorządek, Małgorzata Czyżewska and Andrzej Gontarz.

The DDSI was responsible for fulfilling the CIDCA´s main task of creating a nationwide information system on contemporary art in the form of a computer database. In its initial phase, the database was supposed to take the form of an analogue archive with index cards, a collection of publications (exhibition catalogues, leaflets, press clippings and other printed matter) and iconographic materials (photographs and videos). Later the information stored therein was to be transferred to computer software. However, the emergent idea of the CIDCA and its system still oscillated between two variants: a nationwide unit that would store all available data and manage other documentation and information units across the country, and a unit that, in addition to building its own database, would link other units into a network, coordinate their activities, and serve as a central meta-database with information about the content of their archival collections. In the absence of clear provisions on this point in the legal documents defining the tasks and the authority of the CCA, its first director, Witold Bobiński, a former employee of Ministry of Culture and Art, pushed for the first variant, while Majewska-Tronowicz pragmatically pursued the other option. She was obviously aware of an important legal and administrative factor that made it impossible for the CCA to become the top institution in a centralised hierarchical structure of art documentation and information units in the country, as the other institutions running such units were subordinate to various ministries and operated under different legal regulations so that no top-down administrative order would force them to comply with the activities of the newly created centre.

In October and November 1985, the first project of the information system and the resulting tasks for the Documentation and Scientific Information Department were designed. Following the standards and conventions of library and information science, and drawing on her previous work experience, Majewska-Tronowicz initially planned to create a single, comprehensive "bio-

[19] The history of the Ujazdowski Castle in Warsaw dates back to the first decades of the seventeenth century, when a brick castle was built. After its destruction in the middle of the century, it was rebuilt and modernised in the late seventeenth and eighteenth century and changed its function several times up to 1939. During the Second World War the interior was burnt down, and in 1954 the walls were pulled down. In the 1970s, plans were drawn up to reconstruct the building and work began. See: https://u-jazdowski.pl/en/o-nas/the-history-of-ujazdowski-castle, accessed 10 December 2024.

bibliographical card file". It would contain biographical data on individual artists, a chronology of their art activities and achievements, notes on the sources of the data, a bibliography of texts on their art, and information on the places where folders with documentation of their art were kept. However, the idea soon evolved and three separate card files were proposed, containing information on individual artists and texts about their art, excerpts and summaries documenting the content of articles from foreign art magazines, and data on other art documentation units and their holdings.[20]

As the CIDCA´s statutory obligations included scientific research and publishing,[21] the databases were also linked to long-term research and publication projects. The card file on individual artists was to serve as a basis for editing and publishing a comprehensive dictionary of contemporary Polish visual artists. The documentation of foreign art articles and books was to become a source for a multilingual glossary of art terminology and an art thesaurus; work on their preparation should also lead to the creation of an Information Retrieval Language (IRL) that would be used to search all the databases. Finally, data on other documentation units and their archives was to be presented in a bulletin with "information about information". This type of ancillary scientific work and publication was seen as an aid to more complex research conducted by scholars and as a source of general information for other potential users. In the long term, all documentation and information processing was intended to also lead to the publication of an art magazine on contemporary Polish art.

In May 1986, at a meeting of the CCA´s Artistic Council and staff with a group of experts in art history, documentation, and information science representing institutions in Warsaw and Poznań,[22] an even more developed version of the project was discussed. It included a unique, expanded classification of thematic areas for the collected information, mentioned new databases on artworks and art events, and speculated on the possibility of combining several separate databases into an integrated, relational and cross-referencing system. The documents they were asked to consult and critically review still included both the centralist variant, in which the CIDCA would store all available information on contemporary art and manage other documentation units, and the moderate variant in which, in addition to building its own databases, it would serve only as a nationwide meta-database with information on the contents

[20] MAJEWSKA-TRONOWICZ, Jadwiga. Project of a bio-bibliographical file of visual and photographic artists, October 1985; Preliminary work plan of the Department for Scientific Information and Documentation, 15.10.1985. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988.

[21] The CIDCA was to carry out the tasks specified in two legal documents that defined the status, structure and objectives of the CCA. They included documentation and information on contemporary Polish art; research and publication on art practices, theory, criticism, and forms of distribution; and cooperation with contemporary art institutions and centres in Poland and abroad – Ordinance no. 25 of the Minister of Culture and Art of 18 July 1985 on the Establishment of the Centre for Contemporary Art, par. 3. In: AMCNH, Centre for Contemporary Art. Programme Council. Correspondance 1985, inv. no. 1401/39; Statute of the Centre for Contemporary Art granted by the Minister of Culture and Art on 28 May 1986, par. 5–6. In: AMCNH, Center for Contemporary Art in Ujazdowski Castle. Establishment of the institution. Historical documents 1981–1988, inv. no. 1959/39.

[22] Experts attending the meeting included Jerzy Malinowski, an art historian and Deputy Director of Institute of Art at the Polish Academy of Sciences in Warsaw; Barbara Bieńkowska, Director of the Institute of Library and Information Science at the University of Warsaw; Jacek Bańkowski, Director of the Institute of Scientific, Technical and Organisational Information; Katarzyna Zawiasa-Staniszewska, an art historian from the Institute of Art History at the Adam Mickiewicz University in Poznań – Minutes of the joint meeting of the Presidium of the Programme Council of the Centre for Contemporary Art and the Council Section for the Centre for Information and Documentation of Contemporary Art, 15.05.1986. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988.

of archival collections throughout the country. During the discussion, the first option was rejected, while the second was strongly supported. However, the criticism expressed by the experts was not only directed at the centralist and hierarchical vision, which some of them may have perceived as a threat to the autonomy of their own units. Other objections concerned the vagueness of the system, which seemed to lack a chronological and geographical scope, criteria for selecting the phenomena to be documented, and categories specific to Poland's artistic geography; the unique classification system proposed in the project as constructed from the top down and incompatible with accepted standards; and the research-oriented aspect of the project. The most comprehensive comments came from Katarzyna Zawiasa-Staniszewska, an art historian and specialist in the automated processing of art historical data and documents from the Institute of Art History at Adam Mickiewicz University in Poznań.[23] Taking a truly infrastructural approach, she called for realism in the very design and implementation of the project, pointing out that it should be conditioned by available financial and technical resources, computer hardware and software capabilities, the algorithmic feasibility of the topics to be included in the database, and the needs of different groups of potential users.

As a result of this meeting, not only was the centralist model of the CIDCA´s information system abandoned, some other assumptions and practical objectives were modified, which set the direction for the activities of the DDSI in 1986–1987. In March 1986, the library and reading room were opened to researchers and art professionals, and the department was ready to conduct queries. During this initial period, its team concentrated on documenting current art events; collecting, structuring, and entering information into the card files; placing the incoming printed material into folders; and contacting other art documentation units in the country and learning about their archival holdings and information systems. In the second half of 1986, plans were drawn up for the CIDCA to begin work on a further database covering works of art, and to concentrate on developing both detailed concepts for the four databases and the overall structure of the system. The team also planned to select suitable computer hardware and ready-made software for the databases by mid-1987, and to begin testing, implementing and using trial computer databases by early 1988.[24] However, the progress of the project was significantly slowed as strategic investments were delayed by the CCA´s inadequate subsidy and, possibly related to this, the resignation of Director Bobiński in October 1986.[25] The work was resumed and accelerated at the turn of 1986 and 1987, after Jan Karczewski, a painter who was also vice-president of the Union of Polish Painters and Graphic Artists and a former member of

[23] See ZAWIASA-STANISZEWSKA, Katarzyna. Technika automatycznego przetwarzania danych w badaniach nad kulturą artystyczną. In: *Artium Quaestiones*, vol. IV, 1990, pp. 153–156. The article, most probably written in 1986, briefly discusses computer systems used for art documentation in Western countries and provides information on the project of a card file and a computer database (on perforated cards) which was started at the Institute of Art History in Poznań in 1983. In November 1987, a broader discussion of the use of computers for art historical research in the West was given by the Polish art historian Jan K. Ostrowski at a conference of the Association of Art Historians *Art and Technology*. See: OSTROWSKI, Jan K. Historia sztuki i komputery. In: BIELSKA-ŁACH, Monika (ed.). *Sztuka a technika: materiały Sesji Stowarzyszenia Historyków Sztuki, Szczecin, listopad 1987*. Warszawa: Państwowe Wydawnictwo Naukowe, 1991, pp. 339–350.

[24] The hardware initially considered for purchase showed a lack of IT expertise, as it was the ZX Spectrum, a popular home microcomputer but definitely unsuitable for running a professional database – Descriptive part of the draft financial plan for the Centre for Contemporary Art in 1987 concerning investments. In: AMCNH, Center for Contemporary Art. Correspondence, studies, 1987, inv. no. 1401/41.

[25] Letter from Witold Bobiński, Director of the Centre for Contemporary Art to Andrzej Wasilewski, Secretary of the Central Committee of the Polish United Workers' Party, 28.08.1986. In: *AMR*, Central Committee of the Polish United Workers' Party, Department of Culture, 1986, inv. no. 2/1354/0/2.6.3/LVI-1683.

the CCA´s Artistic Committee, became the new director. By mid-1987, detailed concepts for three databases – on artists, documents and information centres – had been prepared, including thematic areas, chronological and geographical scope, user groups and their needs, modes of use and access, data types and metadata formats, information sources and data survey forms, information retrieval layouts, and a keyword dictionary as a preliminary version of IRL. Two other databases on artworks and art events were initiated but their development was suspended due to the difficulties in finding existing models on which to draw their concepts and structure.[26] Unfortunately, the purchase of computer hardware and software was once again postponed due to budget cuts by the Ministry of Culture and Art. Another investment plan, which included an IBM PC AT computer, was submitted to the Ministry and an urgent request was made to buy the hardware by early 1988 at the latest. However, the Ministry scheduled the investment for 1988–1989.[27]

In July 1987, another consultative meeting was organised with documentation experts representing the Institute of Art and several art centres and galleries in and around Warsaw. Apparently, Karczewski´s ambition as the CCA director was to restore and pursue the centralist model for the CIDCA, as the idea was reintroduced into the discussion, albeit in a reduced and modified form. The plan was to initiate a network of institutions that would be interested in working together to create an integrated and uniformly structured information system that could be designed, implemented and used by all of them. Their collaboration and partnership was key to ensuring common information standards, and a continuous flow and update of data. While declaring their interest in the project, the experts stressed that it would require additional funding and staff for the institutions involved, as they were unable to cover the investment and labour costs from their own budgets. Since there seemed to be no prospect of finding an external source of funding, they opted to concentrate on what was realistic and feasible and to adapt the system to actual financial conditions and organisational potential. This meant that the initiative to create a broader institutional network of cooperation for the CIDCA was once again stalled. The need to operate within the constraints of the existing infrastructures was reaffirmed, and the CIDCA team continued to develop their databases on their own.

Another unfavourable factor affecting their work was the attempts at structural reorganisation of the CCA that began after the institution was audited by the Supreme Audit Office in July and August 1987. The resulting negative report stated that the CCA was not fulfilling all the tasks broadly defined in the legal documents describing its responsibilities, and that no organisational regulations had been put in place to formally define its internal structure, the tasks of its constituent units, and the terms of reference of post holders.[28] In response to the report and its recommendations, the management of the CCA prepared organisational regulations but also

[26] There were plans to visit foreign art documentation centres and study their databases – SZCZEPANEK, Wiesław. Concept for the Centre for Contemporary Art delegation's trip to France, Spain, and Italy in 1987. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988. However, due to the low budget, the plans could not be realised – interview with Małgorzata Czyżewska, 27.06.2024; interviews with Andrzej Gontarz, 7.07.2024 and 11.07.2024, author's archive.

[27] Annex to the financial plan for 1987, 23.01.1987; Letter from the Department of Arts to the Department of Production of the Ministry of Culture and Art, 3.02.1988; Letter from Stefan Liszewski, Deputy Director of the Centre for Contemporary Art, to the Department of Production of the Ministry of Culture and Art, 31.03.1987 – AMCNH, Center for Contemporary Art. Correspondence, studies, 1987, inv. no. 1401/41.

[28] Letter from Stefan Lubiszewski, Director of the Education and Culture Section at the Supreme Audit Office, to Krystyna Marszałek-Młyńczyk, Undersecretary of State at the Ministry of Culture and Art, 7.09.1987. In: AMCNH, Center for Conemporary Art. Supreme Audit Office audition, 1987, inv. no. 1534/25.

took the opportunity to introduce changes that would dismantle the structure of the CIDCA, reducing its programme and limiting activities. They could even lead to the dismissal of some members of its team, who would be replaced by employees carrying out other statutory tasks of the CCA.[29] The Library and the Reading Room were separated from the CIDCA and the DDSI was to be replaced by two documentation studios with no reference to the scientific information approach. The unit team resisted and protested against these destructive decisions, calling for the long-term and integrated programme of art documentation and information system to be maintained, and demanding Majewska-Tronowicz to be promoted to the director of the CIDCA and given autonomy in the development of the system.[30] The efforts were partly successful: while the Library and the Reading Room were effectively separated from the CIDCA and Majewska-Tronowicz was not promoted, the DDSI was saved and she continued to act as its director.

To protect the CIDCA as a whole, Majewska-Tronowicz also sought the support of her professional circle of library and scientific information experts, asking them to review the project of analogue and computer databases. One particularly important opinion came in December 1987. Its author was Anna Sitarska, one of the leading specialists in the field of automation and computerisation of libraries and their information systems, who worked at the Institute of Library and Information Science at the University of Warsaw and the National Library in Warsaw.[31] In her positive assessment, she saw the CIDCA´s efforts to create art documentation collections and computer databases in Poland as pioneering, important and valuable, especially, as she put it, "in the absence of nationwide information infrastructures in the humanities and visual arts in particular."[32] She highly praised the methodical approach to the design of the information system and the planned interconnections between all its components. At the same time, she pointed out the lack of visual representations of works of art in conjunction with their textual descriptions as an element that was both necessary in an art database and possible to introduce in terms of computer hardware and software. Since her opinion was delivered as a kind of tactical gesture against the cuts and reduction plans and the pressure to speed up on the part of the CCA´s management, she also warned against "typical mistakes" in the development of information systems. These included making false savings by

[29] In March 1988, the management of the CCA attempted to employ a person in the DSID who was not qualified in the field of scientific information and/or art history but in art education and exhibition production – Letter from Jadwiga Majewska Tronowicz to Stefan Liszewski, Deputy Director of the Centre for Contemporary Art, 10.03.1988. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988. In May of that year, the art historian Barbara Majewska was effectively employed there, but she was not under Majewska-Tronowicz's authority and was supposed to conduct independent research in preparation for art exhibitions at the CCA – Letter from Jadwiga Majewska Tronowicz to Michal Matuszyn, Director of the Centre for Contemporary Art, 24.10.1988. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988.

[30] Statement by the CIDCA´s team, 25.11.1987. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988.

[31] Sitarska began her research into the automation of library systems in the late 1960s, and in 1973, she designed an automation development programme for the National Library which envisaged the use of the IBM 360 family computers or their compatible socialist counterparts, the RYAD family, manufactured in Council for Mutual Economic Assistance (Comecon) countries. See SITARSKA, Anna. *Program rozwoju automatyzacji w Bibliotece Narodowej*. Warszawa: Biblioteka Narodowa, 1973. Unfortunately, Sitarska´s project was not implemented at that time, and it was not until the late 1980s that the computerisation really began at the National Library in Warsaw.

[32] SITARSKA, Anna. Remarks on the information system at the Centre for Contemporary Art. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1985–1988.

neglecting the need to maintain the correct sequence in the design and implementation of the system, and introducing inappropriate organisational solutions for unfounded reasons.[33]

Failed implementation: from socialist to post-socialist research and information infrastructures

As a gesture of tactical support, Sitarska's review did not consider the feasibility of the project in relation to broader circumstances of late-1980s Poland. Nevertheless, the author must have been well aware of a broader configuration of complex and adverse factors that could prevent its realisation. Indeed, "the absence of nationwide information infrastructures", which she sought to turn into evidence of the desirability of the CIDCA project, alluded precisely to these factors and to a history of efforts to create automated information infrastructures in socialist Poland. An overview of this history and the broader conditions for the development of information systems in the 1980s can be useful here to show how they affected the local case of the CIDCA project and how they were reflected in it.

The first plans to modernise the country's information services and coordinate the organisation of scientific information were drawn up in the 1960s, in response to advances in the field in many countries around the world. The regulation of information activity was above all aimed at boosting the current and future economy, which became even more important in the following decade when Edward Gierek, First Secretary of the ruling Polish United Workers' Party, promised more liberal economic and social policies and stressed the need for technological modernisation and the improvement of domestic consumption. In 1971, the Centre for Scientific, Technical and Economic Information [Centrum Informacji Naukowej, Technicznej i Ekonomicznej] was established to manage research, design, funding and administration of information systems. Soon after, in 1974, a project for the development of the nationwide System for Scientific, Technical and Organisational Information [System Informacji, Naukowej, Technicznej i Organizacyjnej] was created, and officially approved four years later. It was based on the task division, interconnection, and functional integration of centres of information, archives, libraries, and museums, and it was planned to be gradually build, modernised, and computerised over the years, and connected to similar systems abroad.[34] It also consisted of sixteen smaller domain-specific components, including the System for Information on Social Sciences [System Informacji o Naukach Społecznych] – which in fact covered a wide range of social sciences and humanities, from sociology, economics, law and political science through philosophy, psychology and history to literary studies, culture and the arts.[35] Two institutions to coordinate this domain-specific subsystem and play the role of nationwide information and meta-information centres were appointed, and it was planned that

[33] Ibidem.

[34] ADAMUS-KOWALSKA, Justyna. *System informacji archiwalnej w Polsce. Historia, infrastruktury, standardy i metody*. Katowice: Wydawnictwo Uniwersytetu Śląskiego, 2011, pp. 29–33.

[35] See: LEMART, Jan, ŁUGOWSKI, Bronisław. Aktualne zagadnienia budowy systemu informacji o naukach społecznych. In: *Zagadnienia Informacji Naukowej*, nr 1, 1983, p. 17; DEMBOWSKA, Maria. Organizacja informacji naukowej w Polsce. In: MAZUROWA, Małgorzata. *Problemy informacji naukowej w Polsce*. Warszawa: Instytut Kultury 1988, p. 21.

the Jagiellonian Library in Cracow would deal with information on linguistics, literary studies, religious studies, culture and the arts.[36]

However, the organisation of the nationwide System for Scientific, Technical and Organisational Information in the 1970s and 1980s was limited to research and the fragmentary computerisation of a few important libraries and information centres, as the deep economic crisis that had begun in Poland in the mid-1970s did not allow for a wider development and implementation of the system. In 1987, a sobering report was published on the situation of libraries in the mid-1980s and the prospects for up to the year 2000, including a detailed analysis of what can be read as the infrastructural factors that had hampered this process. The main factor was the economic reforms introduced in response to the crisis, which deepened rapidly during the decade, and the resulting late socialist and proto-neoliberal austerity policy.[37] With regard to the nationwide information system, the report stated that its development had been hindered not only by financial and consequent technological constraints but also by a lack of research into the existing information culture and changing user needs. The chances of creating a centrally controlled information system were therefore seen as very slim. Instead, the authors of the report argued that the system should be built gradually, from the bottom up, in horizontal, disciplinary and regional networks. As these efforts could be complicated by ministerial, legal and budgetary divisions, an inter-ministerial team was postulated to take decisions on strategic issues, such as the creation of a single computer standard for all institutions to facilitate their future networking.

Meanwhile, at the end of 1986, the central government approved the Programme for the Development of Scientific and Technical Information in the National Economy Up to the Year 2000. The aim was not only to introduce common information standards but also to speed up the computerisation of all sixteen domain-specific subsystems of the System for Scientific, Technical and Organisational Information, and to intensify work on national databases by 1990.[38] Although this "reboot" of the system still seems to have remained blind to the adverse economic situation, and it oscillated between a top-down and a bottom-up approach, it did create some funding opportunities within the newly established Ministry Research and Development Programme[39] that the CIDCA could exploit.

However, the internal situation at the CCA remained difficult. Karczewski resigned at the beginning of 1988 and the institution operated in limbo between January and July without its main director. During this period, work on computer database was hampered by the protracted failure to acquire the necessary hardware.[40] In July, the Ministry of Culture and Art appointed Michał Matuszyn, a sinologist and a former diplomat who had worked for many years at the Polish Embassy in Bejing and had no professional links to the visual arts or the management

[36] DEMBOWSKA, Maria. Organizacja informacji naukowej w Polsce... p. 21. In fact, the Jagiellonian Library did not develop the subsystem and did not play the role of a nationwide centre.

[37] See: GRALA, Dariusz. *Reformy gospodarcze w PRL (1982–1989). Próby ratowania systemu*. Warszawa: Wydawnictwo TRIO, 2005.

[38] DEMBOWSKA, Maria. *Nauka o informacji naukowej (informatologia): organizacja i problematyka badań w Polsce*. Warszawa: Instytut Informacji Naukowej, Technicznej i Ekonomicznej, 1991, p. 60.

[39] Characteristics of the Ministry Research and Development Programme "Development of the System for Scientific and Technical Information in Poland," January 1987. In: AMR, Ministry Research and Development Programme. Development of the System for Scientific and Technical Information. Characteristics of the programme, inv. no. 2/1606/0/8/15/61.

[40] TRONOWICZ-MAJEWSKA, Jadwiga. Report on the main tasks carried out in 1988, 31.03.1989. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1989–1999.

of cultural institutions, as the new director. Fortunately, he delegated the substantive decision-making to newly employed art professionals. One of them, Alicja Kępińska, an art historian working at the State Higher School of Visual Arts in Poznań, became the director of the CIDCA, while Majewska-Tronowicz remained head of the DSID. Kępińska introduced two major changes: she shifted the focus of the documentation collection to the art of the 1980s, including not only artists but also art galleries, and she suspended work on the glossary of art terminology, which she thought was more appropriate for a research institute or a university. Instead, she created the Analysis Unit within the CIDCA, where the documentation collection and the databases would be used to conduct art critical research, write articles for a future CCA journal, and provide information for the purpose of making exhibition.

Finally, in December 1988, an IBM PC AT computer with the MS-DOS operating system was purchased and the development of the database began. As there was no off-the-shelf software to support its complex structure, a long-term collaboration began with the programmer Elżbieta Andrukiewicz, who chose Clipper, a then-popular programming language and compiler for databases, to write custom applications. In early 1989, in order to cover some of their costs, the CCA contacted the Centre for Scientific Information [Ośrodek Informacji Naukowej] at the Polish Academy of Sciences, which coordinated the System for Social Sciences Information, and through it applied for funding from the Ministry Research and Development Programme administered by the Centre for Scientific, Technical and Economic Information in Warsaw. The funding was awarded and the CCA was recognised as the operator of the "Contemporary Art Information System".[41] In fact, the money was allocated twice, in 1989 and 1990, which allowed work on the computer database to progress significantly.[42]

In 1989, four textual database applications were written and tested: "Artists", "Art Groups", "Institutions and Galleries" and "Thesaurus", which served as a database of art terminology and an information retrieval language for searching the other databases. The administrative programmes "Entry" and "Report" were also ready. The fifth database, "Works", containing textual descriptions of artworks was also added and a pioneering visual database program called "Art", containing images of artworks (and, potentially, art events), was created as a standalone application by another software development company.[43] For 1991, plans were made to integrate the visual database "Art" with the textual base "Artists", to add an English language translator to "Thesaurus", and to develop software for two more textual databases, "Art Events" and "Documents". The input of textual and visual data would also continue and,

[41] Letter from Jan Lenart, Deputy Director of the Centre for Scientific Information at the Polish Academy of Sciences, to Bohdan Skonieczny, Deputy Director of the Centre for Contemporary Art, 12.06.1989. In: AMCNH, Center for Contemporary Art. Correspondence, studies, 1989, inv. no. 1401/41.

[42] MATUSZYN, Michał. Information on the activities of the Centre for Contemporary Art between August 1988 and September 1989, 18.09.1989, p. 2. In: AMCNH, Centre for Contemporary Art. Correspondence, studies, 1989, inv. no. 1401/41; Letter from Wojciech Krukowski, Director of the Centre for Contemporary Art, to Jan Lenart, Deputy Director of the Centre for Scientific Information at the Polish Academy of Sciences, 11.06.1990. In: In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1989–1999.

[43] TRONOWICZ-MAJEWSKA, Jadwiga. Report on the main tasks carried out in 1990. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1989–1999. Digital images of artworks were created using "frame grabber" technology, which allows digital still frames to be captured from an analogue video signal – Preliminary design of an automated contemporary art retrieval system, 1990, p. 2. In: AMR, Centre for Scientific, Technical and Economic Information, Automated Contemporary Art Retrieval System, 1990, inv. no. 2/1606/0/12/14/314.

most importantly, the whole system would finally be implemented and used for information services and external queries.[44]

The years 1989–1990 were crucial in terms of Poland's political and economic transition, as the so-called first partially free parliamentary elections were won by the opposition linked to the Solidarity labour union, a non-communist government was formed, and the radical austerity reform known as the "shock therapy", or the Balcerowicz plan, began to be implemented. The consequences of these rapidly changing infrastructural conditions for the CCA were complex and spread over time. On the one hand, Wojciech Krukowski, an art historian, cultural organiser, artist associated with the neo-avant-garde group the Academy of Movement, and Solidarity activist, became its new director in January 1990 and focused its activities on the production of art exhibitions and events. On the other hand, the work on the computer databases at the CIDCA continued uninterrupted as the Centre for Scientific, Technical and Economic Information and its funding programmes operated until 1991, when the socialist-era institution was finally closed.

Under Krukowski, Majewska-Tronowicz was promoted to head of the entire CIDCA. The focus of the documentation collection was modified again in 1990–1991 when historical materials on the art of Socialist Realism were gathered. Ewa Mikina, an art historian and critic, worked part-time to reorganise the database of art terms and add new concepts linked to contemporary art practice and theory. In March 1991, Mikina also created the Document Gallery, a long-term programme within the CCA for exhibiting documentation of artists and alternative galleries of the 1970s and 1980s Polish.[45] Another important change concerned the production of knowledge. Plans for the CIDCA to undertake original art historical and critical research and to publish authored texts on behalf of the CCA were withdrawn, and it began to provide an auxiliary research and information service to the newly developed curatorial team, which became the official source of the institutional narrative on contemporary art. The analogue archive at the CIDCA began also to be used extensively to provide information to external academic and art professionals, journalists, students and the interested public.

In June 1991, the CCA organised a two-day conference entitled New Documentation Technologies and Art to present the database software already implemented and reboot the discussion on the possibilities of building a network of institutions that could use the system. The event brought together art historians, library and scientific information scientists, representatives of art documentation units of art museums and galleries, artists practising documentation as art, and IT experts and software developers. During the discussion, the idea that the computer system created by the CIDCA could become a common standard for a network of institutions, and that the CCA could play the role of a meta-informational central node in the network, storing and distributing data about the databases and archival holdings of the other institutions, was once again met with mixed reactions. The need for uniform data and metadata standards and a single computer system was countered by pointing to the benefits of the heterogeneity of data formats and information systems as being bottom-up and user-centred. Although a postulate for the formation of a nationwide art documentation committee to coordinate a grassroots multi-institutional network and a common system was eventually

[44] TRONOWICZ-MAJEWSKA, Jadwiga. General work plan of the CIDCA for 1991 with indicative financial requirements, 7.01.1990. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1989–1999.

[45] In 1992, after Mikina left the CCA, the Document Gallery was taken over by Grzegorz Borkowski. It continued to operate and produce exhibitions until 1998.

approved, it was immediately rendered null and void by the lack of funding. In the absence of financial resources, the prospects of using computer networks and multimedia optical discs for databases and information retrieval, or integrating a Polish nationwide contemporary art database with similar Western European information systems, also seemed slim and distant.

As regards the reception and evaluation of the CIDCA´s databases software, a particularly important report was given by a representative of the Zachęta Gallery in Warsaw. Zachęta, which under Barbara Majewska was trying to distance itself from its socialist past and had ceased to play the role of the Central Bureau of Artistic Exhibitions, was also attempting to computerise its card file of information on about 25,000 artists. In 1990, the gallery team examined the database developed and implemented by the CIDCA but decided not to use it on the advice of their IT consultants. The database was too complex and it required too much storage space, while Zachęta at the time only had an IBM PC AT with a 40 MB hard drive. Moreover, it was estimated that it would take six years to enter all the card file data, and even then searching for information would be time-consuming.[46] Instead, the gallery approached the National Library in Warsaw and began using a free modified version of its computer library catalogue and user service software called Small Automated Catalogues[47] [Małe Automatyczne Katalogi], which was tailored to the gallery's needs. It contained only basic biographical data about artists, which could be searched using a number of personal and professional categories, and it had references to traditional paper art catalogues on the shelves of the gallery's documentation department.[48]

In 1991–1992, work on the database at the CIDCA was suspended due to a lack of funding. As the ministerial subsidy to the CCA was gradually reduced in the first half of the 1990s and it could not cover the costs of all the necessary investments and staff,[49] the institution had to look again for external funding. Following the closure of the socialist-era Centre for Scientific, Technical and Economic Information in 1991, the State Committee for Scientific Research [Komitet Badań Naukowych] was established to replace it. Its tasks included funding academic research infrastructures and coordinating work on computer information services. The CIDCA received a grant from there in 1993 and probably also in 1994, which allowed it to resume work

[46] Contemporary Art Documentation at the Zachęta Gallery, 1991. In: ACCAUC, The Centre for Information and Documentation of Contemporary Art 1989–1999.

[47] The first version of the software was created by Jerzy Swianiewicz and Jan Wierzbowski in 1990. Its updated versions were distributed to libraries across the country and were in use until 2012.

[48] Contemporary Art Documentation at the Zachęta Gallery...

[49] While the economic hyperinflation of the early 1990s led to a significant increase in the cost of the CCA´s building maintenance and construction work, the institution received 60% less funding for this purpose in 1992 than in 1991 – The current state and potential for developing (and maintaining) a comprehensive programme at the Centre for Contemporary Art, 1994. In: AMCNH, Centre for Contemporary Art. Plans, factual and financial reports. Opinions, evaluations, balance sheets, inv. no. 1959/32. Furthermore, in 1992–1994, only 37%, 28% and 17% of its total subsidy, respectively, was allocated to its programme activities – General structure of budget of central institutions in the field of fine arts in 1992–1995. In: AMCNH, Centre for Contemporary Art. Plans, factual and financial reports. Opinions, evaluations, balance sheets, inv. no. 1959/32. To make matters worse, in January 1994, the incoming Minister of Culture and Art Kazimierz Dejmek decided to cut the CCA subsidy by 30% which, due to the 25% inflation rate and the introduction of the VAT for cultural institutions in Poland, was actually a 40% cut – The Department of Art. Summary of Activities. The Centre for Contemporary Art Ujazdowski Castle. Programme and financial situation, p. 5. In: AMCNH, The Zachęta State Gallery of Art. The Centre for Contemporary Art Ujazdowski Castle. The Orońsko Centre for Polish Sculpture, 1994–1996, inv. no. 1959/20. This economic deprivation was the result of a general policy of austerity in the field of culture, and contemporary art in particular, but it was also aimed at finally removing the CCA from the Ujazdowski Castle. Although the institution resisted and survived, its deep economic crisis continued into the early 2000s.

on its computer databases. When Majewska-Tronowicz retired in March 1992, continuing to work only part-time as a consultant, the CIDCA was taken over by Grzegorz Borkowski. As he was involved in other activities, such as curating and editing the CCA´s art journal "Obieg", he soon handed over the unit to Andrzej Gontarz, who became its director at the beginning of 1994.[50] Under his lead, work on the database software was intensified and completed. New computer hardware (an IBM PC 486) and a new licensed version of Clipper were purchased and the remaining two databases, "Art Events" and "Documents", were developed, tested and implemented. However, data input and retrieval still posed a challenge as there was only one computer available, which was mainly operated by Majewska-Tronowicz. Sometimes she was assisted by a person doing substitute military service at the CCA who entered data into the databases free of charge.[51]

Once the software implementation was over, the computer system proved to be highly problematic to use. The hardware was inadequate to the needs, the separate databases could not be integrated, errors occurred frequently – most probably due to the complexity of the data structure – and there was no ongoing software update, maintenance and support. As a result, the databases could only be operated by the CIDCA team and were rarely used for limited queries. They still remained a potential rather than an active and fully functional research and information service. Furthermore, by mid-1990s, advances in computer infrastructure, including the introduction of Windows 95 as the main operating system and the growing accessibility of the Internet in Poland, had rendered this MS-DOS-based software obsolete. Also, in March 1995, the CCA launched its website created as a grassroots initiative by Marta Dubrzyńska, a graphic design student, in collaboration with the CIDCA.[52] The CCA thus became the first cultural institution in Poland to present its current activities online. In 1996, the obsolescence of the software and the growing prospect of putting the contents of the database online led to a decision not to develop or maintain it. Instead, plans were made to create a new integrated database structure and to purchase or develop appropriate software to run it. The old system was soon abandoned, and apparently no effort was made to archive the software.

Unfinished infrastructures and their potentialities

The main factors that affected the development of the computer database were the deep economic crisis of the late socialist and early transition period in Poland; a lack of an ecology in the relations between the CCA and other art documentation centres; the absence of legal regulations on common standards for art documentation and information systems; discrepancies between the complex conventions of practice in the field of scientific information and the simpler needs and pragmatics of art documentation; and last but not least, rapid technological progress in the IT sector. Given these infrastructural conditions, the project appears to have been overambitious and unfeasible from the outset.

[50] Interview with Grzegorz Borkowski, 16.07.2024, author's archive.

[51] Interviews with Andrzej Gontarz...

[52] See: Pionierski portal sztuki, https://mediateka.u-jazdowski.pl/o-mediatece, accessed 10 December 2024. See also Dubrzyńska´s own documents on her long-term collaboration with the CCA Ujazdowski Castle: Marta Dubrzyńska-van der Hagen, https://fundacjachmura.pl/archiwum/marta-dubrzynska-van-der-haagen/, accessed 10 December 2024.

Does this mean that the ten years of work (1985–1995) should be considered a simple and total failure? Not at all. In addition to the creation of a rich analogue archive,[53] the development of the computer database also had a lasting impact. Although this infrastructure was never fully operational, it performed other functions and served other purposes, even in its "afterlife", as its temporal effects extended beyond the years of its development. Ways of understanding these functions and temporalities are to be found, once again, in infrastructure studies.

In recent years, researchers in this field have increasingly paid attention to infrastructures that remain unbuilt or unfinished, treating them not as exceptions, but as widespread phenomena. As Ashley Carse and David Kneas put it: "Planned, blocked, delayed, or abandoned, such projects are ubiquitous – the norm rather than the exception. […] Budgets evaporate, political winds shift, markets fluctuate, protests gain traction, and paradigms fall out of fashion. Archives overflow with unrealised plans and drawings of unbuilt structures".[54] Emphasising the need to analyse archives and other historical traces and testimonies in order to reconstruct what might generally be called the potential histories of unfinished infrastructures, Carse and Kneas offer a useful theoretical framework of mutually non-exclusive categories that reveal the complex temporalities of such infrastructures and help to identify the functions they can play. Three of these – "shadow histories", "present absences" and "zombies" – seem to be highly relevant to the afterlife of the computer database under discussion here. "Shadow histories" consider unfinished infrastructures as paths not (fully) taken, alternative courses of events that did not happen but continue to haunt the present state of affairs, casting it in a new light, and posing a challenge to be met.[55] "Present absences" focus precisely on these lasting effects of unaccomplished infrastructures as they persist in social imaginaries, continue to shape desires and hopes, and generate networks, knowledge, and forms of expertise that can later be used for new projects.[56] Finally, the figure of "zombies" refers to projects with multiple iterations – when one after another is proposed, implemented and finally abandoned, only to return again in a changed context and modified form.[57]

These three categories can also aptly describe the subsequent history of efforts to create a computer database on contemporary art at the CIDCA. In 1996, Gontarz and his team drew on their previous experience to begin work on a new integrated, textual multi-database called INFO-ART, which would have a complex data architecture to meet the needs of art institutional users, and would provide tools for data comparison and analysis. As off-the-shelf products were too expensive and could not accommodate the database structure, a custom application, written in Delphi and running on Windows 95, was eventually purchased. The software was developed, tested and implemented by early 1999, and was unveiled to the press in July of that year. It ran on the CCA´s internal client-server network, and was soon to be connected to the Internet.[58] However, only some of the content from the old databases could be transferred, and the software kept crashing due to reemerging bugs, thus requiring constant support and maintenance. For these reasons, in October 2000, Czyżewska, who had taken over

[53] The analogue archive continued to grow and was used for research throughout the 1990s and after 2000. To this day, it remains an important source of information on contemporary Polish and foreign art.
[54] CARSE, Ashley, KNEAS, David. Unbuilt and Unfinished. The Temporalities of Infrastructure..., pp. 9–10.
[55] Ibidem, pp. 15–17.
[56] Ibidem, pp. 17–18.
[57] Ibidem, p. 22.
[58] Interviews with Andrzej Gontarz...

the CIDCA, decided not to make the database available on the Internet and to limit data entry to selected modules.[59]

The data input process continued until 2012. By then, BI-ART, a new web application built with IIS technology and SQL Server, had been deployed. Like its two predecessors, it was a textual table database with a complex data architecture and was capable of linking different types of data and generating comprehensive reports. The addition of digitised images – photographic and video documentation of works of art and art events – was also planned, but when the CCA applied to the Culture+ programme for the digitisation of cultural heritage in 2011–2015 it did not receive any funding, most likely due to the copyright issues that limited the archival items it could legally put online. Although the database was only supposed to cover phenomena from 2012 onwards, the data entry process was very slow due to insufficient staff and recurring bugs. In 2019, input was stopped and the database was no longer expanded.[60]

Between 2015 and 2018, the director of the CCA, Małgorzata Ludwisiak, introduced significant organisational changes. The CIDCA was transformed into the Media Centre Department [Mediateka] and the development of Mediateka Multimedia Library – an online digital archive for sharing its rich collection of art documentation – began. With two earmarked grants in 2015–2016 and the CCA's own budget in the following years, digitisation could finally begin and Photostation software for managing digital images and adding metadata was purchased. In 2018, when Ewa Czuchaj was hired to take over the Media Centre Department, work on digitisation and metadata gained momentum. Her arrival marked a decisive shift, introducing a kind of discontinuity in the approach towards the art documentation archive and its digital infrastructure. Instead of developing yet another textual database of information extracted from documents, aimed primarily at art and academic professionals, a collection of digitised documents with metadata began to be created, aimed primarily at the general public users and for educational and social communication purposes.[61] In other words, there was a shift from digital humanities to digital heritage.[62] As a result, when the website of Mediateka Multimedia Library,[63] with its growing searchable archive of documents, went online in December 2020, Czuchaj and her team engaged in digital curation. They started selecting archival items and linking them into thematically oriented packages intended for the education and development of their target audience – young adults.[64]

As I write these words in December 2024, the digitisation process will soon be completed but adding metadata and making searchable materials available online is likely to take years. In addition, successful attempts have already been made to include the CCA´s archival materials

[59] Interview with Małgorzata Czyżewska...

[60] Ibidem. Unlike the first MS-DOS-based database software, which has not been archived, both the INFO-ART and BI-ART applications are still functional and are occasionally used for internal queries at the CCA.

[61] Interview with Ewa Czuchaj, 16.08.2024, author's archive.

62 BENARDOU, Agiatis, CHAMPION, Eric, DALLAS, Costis, HUGHES, Lorna M. Introduction: a critique of digital practices and research infrastructures.... p. 1. Online digital resources created by museums in Poland have generally been used for educational rather than research purposes – see: BAKA, Małgorzata. Potencjał wykorzystania zasobów cyfrowych w badaniu dziedzictwo kulturowego – kilka refleksji. In: FIRLEJ-BUZON, Aneta (ed.). *Big Data w humanistyce i naukach społecznych*. Warszawa: Wydawnictwo Naukowe i Edukacyjne Stowarzyszenia Bibliotekarzy Polskich, 2020, pp. 168–169. This has been part of a wider shift from an expert culture to an user culture. See: JANUS, Aleksandra. Humanistyka cyfrowa, muzea i historia ratownicza. In: BAKA, Małgorzata (ed.). *Muzeologia cyfrowa. Muzeum i narzędzia cyfrowe humanistyki*... pp. 84–86, 88–90.

[63] See: https://mediateka.u-jazdowski.pl/, accessed 10 December 2024.

[64] Interview with Ewa Czuchaj...

in large global cultural heritage content aggregators such as Google Arts & Culture. Finally, there are plans to introduce tools for automating the search and analysis of digital documents, which would facilitate the archive's use by professional researchers and bring it closer to the status of digital humanities infrastructure.[65] It would seem, therefore, that the current iteration of the CCA´s database building efforts has great potential to finally achieve high functionality and produce lasting results.

Conclusion: the promise of research infrastructure

The history of the original attempt to create a computer database at the CIDCA, 1985–1995, and its subsequent iterations shows that the infrastructure-building effort is not so much "unaccomplished" or "unfinished" as it is "ongoing", like many other infrastructure projects that usually take decades to develop and implement.[66] The databases may not have performed their techno-practical functions in the way and to the extent that they had been planned, but they did operate other, metapragmatic functions: they were spectacular, symbolic and affective.[67] And they did so quite effectively. When presented to the public, the community of art and scientific information professionals and the mainstream press, they served as spectacles of modernisation and development, symbols of the CCA´s institutional capacity, and affective tokens of imminent participation in the global society and its information circuits. In this respect, they can be seen in part as examples of the local "infrastructure fetishism" that links the late socialist, post-socialist, and contemporary periods.[68] But it is equally important to see them as "gestures of what might be", practices that maintain and reaffirm "the existence of productive potential", and transmit it "over extended periods of time and in situations where this potential may threaten to remain unrealised".[69] These gestures postpone failure and hold out the promise of the infrastructure.[70]

An important element of this promise was the vision of a single nationwide computer system that would provide access to all the art documentation held in institutional archives and supply tools for its research and analysis. This vision is a potential worth pursuing but it still remains a challenge for the present and, apparently, for the near future. Until the early 2020s, there was no nationwide, inter-institutional content aggregator or multi-search engine for digital archives made available by art museums, galleries and centres in Poland.[71] In May 2022, the National Repository of Scientific and Cultural Objects KRONIK@ [Krajowe Repozytorium Obiektów Nauki i Kultury] was launched. It is a multi-search engine that has been created to integrate scattered digital resources of Poland's national heritage in the fields of science, culture and administration. Most importantly, it introduces uniform data management standards for the first time. But this is also a source of major problems, as institutions wishing to make their digital content available there would have to adapt the metadata of their objects, which takes time and money. This – together with a clumsy, unfriendly user interface and poor user

[65] Ibidem.

[66] NAMBA, Miki. Becoming a city: Infrastructural fetishism and scattered urbanization in Vientiane, Laos, In: HARVEY, Penny, JENSEN, Casper B., MORITA, Atsuro (eds.). *Infrastructures and Social Complexity. A Companion*... p. 84.

[67] LARKIN, Brian. The Politics and Poetics of Infrastructure... pp. 334–337.

[68] NAMBA, Miki. Becoming a city: Infrastructural fetishism and scattered urbanization in Vientiane, Laos... pp. 78–84.

[69] WESZKALNYS, Gisa. Infrastructure as gesture. In: HARVEY, Penny, JENSEN, Casper B., MORITA, Atsuro (eds.). *Infrastructures and Social Complexity. A Companion*... p. 285.

[70] Ibidem, p. 285, 293.

[71] BAKA, Małgorzata. Standardy i schematy metadanych w digitalizacji muzealiów w Polsce – przegląd... p. 139–142.

experience – could halt or prevent the development of KRONIK@. It remains to be seen whether it will become a "lively infrastructure"[72] or end up as just another "zombie".

Further research should compare the early history of the CCA Ujazdowski Castle computer database with other institutional projects in Poland from the 1980s and 1990s. This should encompass the aforementioned computer databases at the Institute of Art History in Poznań and Zachęta Gallery in Warsaw, as well as those at the National Museum in Warsaw and several other local museums, libraries, archives and research institutes. Moreover, a broader comparative analysis set in the context of socialist and post-socialist East–Central Europe could shed more light on certain transnational and regional infrastructural factors that affected and shaped the Polish chapter of the history of computerisation in museums and other art institutions. Within the political and economic framework of the Council for Mutual Economic Assistance (Comecon), countries in the socialist block were already attempting to develop their nationwide information systems and plan their gradual automation in the 1970s and 1980s. For example, in Czechoslovakia, political decisions, legal acts and organisational and institutional developments occurred alongside those of their Polish counterparts.[73] Also, computerisation efforts faced similar financial and technological challenges in museums and other art institutions in Poland, Czechoslovakia, and Hungary at the turn of the 1980s and 1990s, and it was not until the early to mid-1990s that their first projects were implemented, albeit on a limited scale and with limited effectiveness.[74] Finally, it was only in the new millennium, when a number of former socialist states joined the EU, that their digitisation projects gained real momentum.[75] A comparative, transnational and regional history of computer database systems in museums and other art institutions in the East-Central Europe is yet to be written.

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[72] AMIN, Ash. Lively Infrastructure. In: *Theory, Culture & Society*, vol. 31, 2014, pp. 137–161.

[73] DÍTE, Tibor. Limity digitalizácie v ochrane kultúrneho dedičstva spravovaného múzeami. In: *Muzeológia a kultúrne dedičstvo - Museology and Cultural Heritage*, vol. 1, no. 2, 2013, pp. 89–96.

[74] Ibidem; HUTAŘ, Jan, MELICHAR, Marek. České paměťové instituce a digitální data – historický exkurz, současný stav a předpokládaný vývoj I. In: *Duha*, no. 4, 2013. https://duha.mzk.cz/clanky/ceske-pametove-instituce-digitalni-data-historicky-exkurz-soucasny-stav-predpokladany-vyvoj, accessed 9 October 2025; BERÉNYI, Marianna. Múzeumaink műtárgyai - gigabájtban mérve: A digitalizáció helyzete a hazai kiállítási intézményekben. In: *MúzeumCafé*, no. 27, 2012, pp. 52; BERÉNYI, Marianna. Áttört falak mögött: múzeumi digitalizáció. In: *MúzeumCafé*, no. 85, 2021, pp. 56–60.

[75] See, for instance: BERÉNYI, Marianna. Áttört falak mögött: múzeumi digitalizáció, pp. 54–88; HUTAŘ, Jan, MELICHAR, Marek. České paměťové instituce a digitální data – historický exkurz, současný stav a předpokládaný vývoj II. In: *Duha*, no. 1, 2014. https://duha.mzk.cz/clanky/ceske-pametove-instituce-digitalni-data-historicky-exkurz-soucasny-stav-predpokladany-0, accessed 9 October 2025; UZELAC, Aleksandra, PRIMORAC, Jaka, LOVRINIĆ HIGGIN, Barbara. Digital cultural policy in Croatia. Searching for a vision. In: HYLLAND, Ole Marius, PRIMORAC, Jaka (eds.). *Digital Transformation and Cultural Policies in Europe.* Abingdon and New York: Routledge, 2023, pp. 119–131; BURRI, Mira. The European Union as a digital policy actor. In: HYLLAND, Ole Marius, PRIMORAC, Jaka (eds.). *Digital Transformation...*, pp. 161–180.

Image attachment to the article

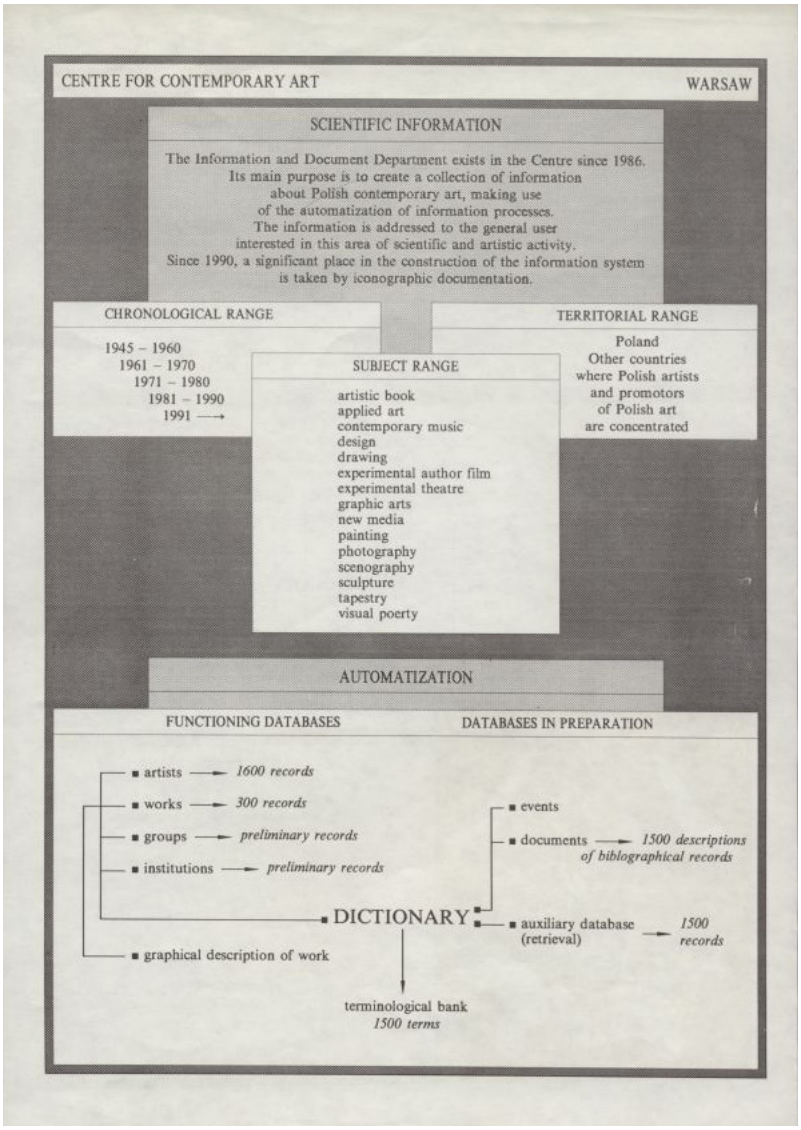

Fig. 1: *The concept and the structure of the analogue information system and the computer database on Polish post-war art, computer-designed printed leaflet, around 1991.* © the Centre for Contemporary Art Ujazdowski Castle.

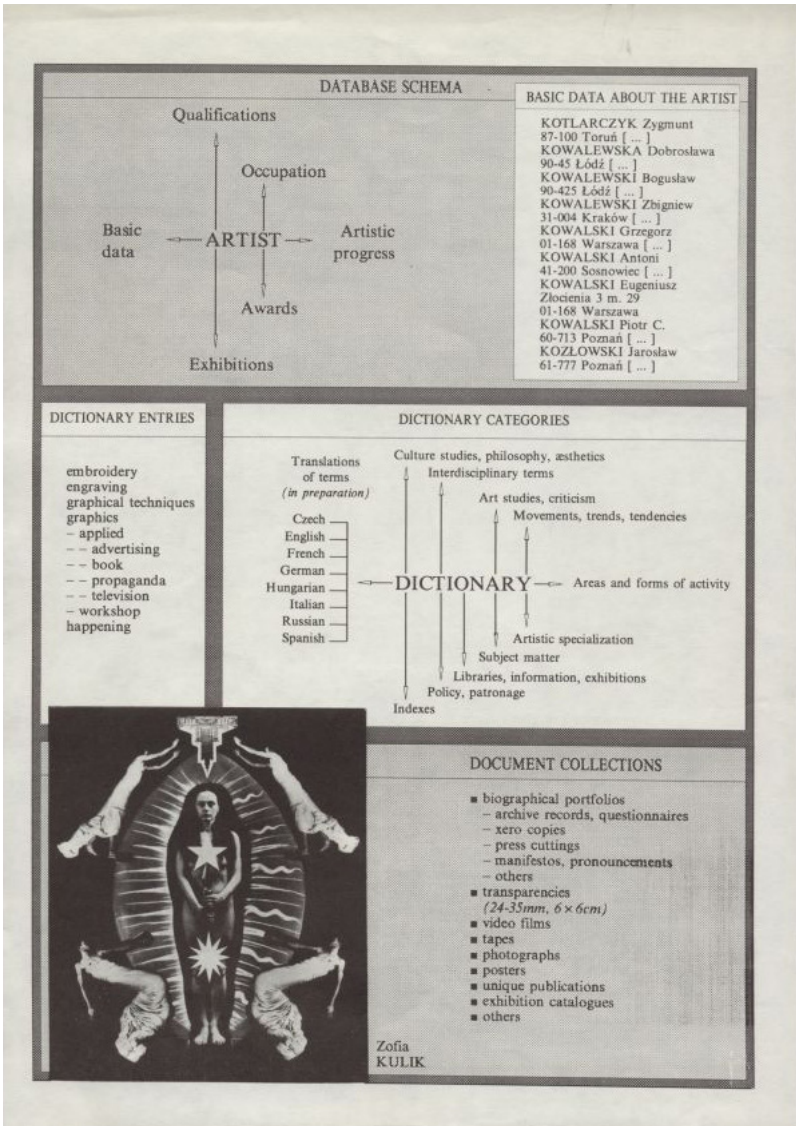

Fig. 2: *The structure of the databases and the document collections, computer-designed printed leaflet, around 1991.* © the Centre for Contemporary Art Ujazdowski Castle.

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