

Article

Reflecting on the Development of a Digital Platform for the Analysis of Fairs for Modern and Contemporary Art—Approach, Challenges, and Future Perspectives Using the Project ART|GALLERY GIS|COLOGNE as an Example

Nadine Oberste-Hetbleck

Kunsthistorisches Institut, Universität zu Köln, 50923 Köln, Germany; noberste@uni-koeln.de

Received: 21 January 2019; Accepted: 3 July 2019; Published: 10 July 2019



Abstract: Founded in 1967 under the name *Kunstmarkt Köln*, today's *ART COLOGNE* was the first art fair worldwide to specialize in contemporary art. Its primary objectives were to further the art trade in Germany, promote German artists, and establish a new center for the art trade in post-war Germany. Since then, the model of a 'fair for modern and contemporary art' has become a globally prosperous format. The starting point of this article is a discussion of an approach to establishing a digital platform for the analysis of the development of the composition of exhibitors at *ART COLOGNE* during its first 30 years. Its aim is to provide a useful model platform for future research into other art fairs worldwide. The project entailed locations of the participating exhibitors during the first three decades being gathered from the fair's catalogues, georeferenced, and visualized in a digital, interactive online map named ART|GALLERY GIS|COLOGNE. Through a reactive environment, the online map with open access has, in a second phase, been embedded with further information (e.g., special exhibitions, square meter prices) from other sources. The paper considers what contextual information is required for an adequate analysis of maps, which parameters may exist (e.g., in terms of copyright laws), and what routes could be followed in terms of method (e.g., deep mapping) in contributing to the exploration of the structures of the art market through a primarily visual approach.

Keywords: art fair; ART COLOGNE; galleries; art market studies; spatial art history; digital art history; digital mapping; deep mapping

1. Introduction: On the Potential and the Use of Digital Mapping in Art Market Studies

Digital mapping, present in everyday life in the form of navigation devices, is increasingly finding its way into art history research (Fletcher 2015; Drucker et al. 2015; Gagliardi and Gardner-Huggett 2017). Within the context of Art Market Studies, it is to date mainly English and French-speaking academics that have been using this method. The locations of, for example, artists, art dealers, gallerists,¹ and exhibitions, are mapped over time in longitudinal studies, visualizing the geographical structures pertaining to selected groups of protagonists and the changes relating to them.² In terms of

¹ For the linguistic distinction between gallery owner and art dealer in German, compare the explanations by Oberste-Hetbleck (2018b, p. 1).

² E.g., *Artl@s Exhibitions database* (Béatrice Joyeux-Prunel, Catherine Dossin, and Léa Saint-Raymond, "Artl@s Exhibitions database, The Artl@s Project," accessed 10 April 2019, <http://artlas.ens.fr/en/database-2>); *London Gallery Project* (Pamela Fletcher and David Israel, "London Gallery Project," 2007, revised September 2012, accessed 10 April 2019, <http://learn.bowdoin.edu/fletcher/london-gallery/>); *Géographie du Marché de l'Art à Paris* (Julien Caverio, Félicie Faizand de

methodology, digital, interactive mapping projects provide users primarily with a different cognitive approach than texts or statistics, as a result of the visualized combination of space, time, and movement. As early as 2010, Ayers—as Fletcher (2015) points out—was arguing, with regard to statements being made by cognitive neuroscientists, that time transferred to the motion of objects in space is essential to the cognitive process in the human brain, consequently enhancing the recognition of spatial patterns (Ayers 2010, pp. 10–11 with reference to Cindy Bukach). Movement also generates attention in humans (Ayers 2010, p. 10). In addition, a feature of maps, in contrast to diagrams, is their ability to capture multiple attributes of the locations simultaneously and visualize them synchronously. This enables the user to create connections between the assembled information more rapidly; the brain, being relieved of such work, liberates its capacity for pursuing further thought.

Used for a long time mostly for the visualization of results at the end of the research process, maps in terms of a geographic information system (GIS³) have become part of the research process in the sense of a spatial science (Gagliardi and Gardner-Huggett 2017). Patterns, connections, nodes, etc. that have been recognized in maps will then be examined in more detail during the next phase. The maps are sometimes supplemented by archival research, eyewitness interviews, etc., resulting in a combination of quantitative and qualitative approaches. Maps can also be used to essentially generate new research questions (Williams 2018). Dossin and Joyeux-Prunel (Dossin and Béatrice 2015), who expound on the possibilities of a so-called geopolitical approach, employ mapping, amongst other things, as one method of distant reading and show, using maps, the founding of modern art magazines during the 20th century's interwar period, a case study in the enhanced value of mapping in understanding the history of modern art—in this case, the significance and contributions of so-called peripheries compared to such art market centers as Paris. In the area of research on fairs for modern and contemporary art and their development, mapping within the framework of GIS has not as yet been used as a method, although a large number of authors are addressing issues of globalization with regard to art fairs—in other words perspectives with a geographic interest (Baia Curioni 2012; Quemin 2013; Velthuis 2014; Baia Curioni et al. 2015; Vermeulen 2015). This research, originating mainly from the social sciences, especially sociology, to a large extent uses a network theory approach, as explained in Section 2.

It is from such a point of departure that this paper sets out to demonstrate how digital methods, and in particular digital mapping, can be used to examine fairs for modern and contemporary art. Its observations focus on considerations of what contextualizing information is required for an adequate analysis of such maps, what parameters exist (e.g., in terms of privacy and copyright laws), and what further methodological routes could be followed (e.g., deep mapping) in contributing to the exploration of the structures of the art market through a primarily visual approach. To this purpose, the project ART|GALLERY GIS|COLOGNE⁴ (hereinafter abbreviated to AGGC, www.aggc.uni-koeln.de)—my current project, which I have been working on since March 2017, and which has been online since 22 June 2018 in conjunction with my symposium *Mapping the Art Market*⁵ at University of Cologne—is

Maupeou, and Léa Saint-Raymond, "Géographie du Marché de l'Art à Paris. GeoMAP," 2017, accessed 10 April 2019, <https://paris-art-market.huma-num.fr>; *Artists in Paris* (Hannah Williams and Chris Sparks, "Artists in Paris: Mapping the 18th-Century Art World," accessed 10 April 2019, www.artistsinparis.org).

³ "A geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. The key word to this technology is **Geography** [emphasis added]—this means that some portion of the data is spatial. In other words, data that is in some way referenced to locations on the earth. Coupled with this data is usually tabular data known as attribute data. Attribute data can be generally defined as additional information about each of the spatial features." (Definition of GIS following: Research Guides University of Wisconsin-Madison Libraries, "What is GIS? Information on Maps/Mapping & Geographic Information Systems (GIS)," accessed 10 April 2019, <https://researchguides.library.wisc.edu/GIS>).

⁴ The acronym GIS should already make it clear that this is a point of entry to a project that functions primarily through geographical locations (of the exhibitors).

⁵ For more information about the symposium, see: *Symposium | Mapping The Art Market*, accessed 10 January 2019, <https://amskoeln.hypotheses.org/1497>.

being used. It is a case study of the first 30 years of *Kunstmarkt Köln->ART COLOGNE*⁶, which, as the first fair for modern and contemporary art, had a pioneering role in this sector of art fairs, acting as a reference example for the establishment of subsequent fairs. Whilst the *Kunstmarkt* was, on the one hand, an inspiration for ensuing fairs, others deliberately distanced themselves from it in certain respects (for example, from its very exclusive invitation system and exhibitors being restricted to only one nationality during its early years). AGGC is centered on the exhibitors (gallery owners etc.) as one of the art fair's main groups of protagonists.

In employing AGGC to consider possible uses, challenges, sources, and parameters of digital mapping in the research of art fairs, this paper provides an insight into the development process of a project whose primary aim is not the digital presentation of completed research results, but rather the development of a platform for networked data that can be used as a research tool. It will therefore also be addressing the phases of work and development on AGGC that remain to be done in the future. To begin with, however, it is necessary to introduce the object of investigation, that is *Kunstmarkt Köln->ART COLOGNE* itself.

2. Introducing *Kunstmarkt Köln->ART COLOGNE* and Its Research Status

Initially, the primary objectives of *Kunstmarkt Köln->ART COLOGNE* as a temporary exhibition and platform for trade were to further the art trade in Germany during an era of economic recession, promote German artists, and establish a new center for the art trade in post-war Germany (cf. for example [Rombach 2008](#), pp. 9f; [Herzog 2016](#), p. 26). It was founded under the name *Kunstmarkt Köln* in 1967 as the first art fair worldwide to specialize in modern and contemporary art and has been known since 1984 as *ART COLOGNE*.

The concept behind *Kunstmarkt Köln->ART COLOGNE* was developed by the Cologne-based gallery owners Hein Stünke and Rudolf Zwirner. In 1966, together with sixteen other German gallery owners, they founded the *Verein progressiver deutscher Kunsthändler e.V.* (Association of Progressive German Art Dealers), the sole task of which was to organize the art fair. In 1974, the association was superseded as organizer of the fair by *European Art Dealers Association* (founded 1973) and, in 1976, by the *Bundesverband Deutscher Galerien e.V.* (Federal Association of German Galleries, today the *Bundesverband Deutscher Galerien und Kunsthaendler e.V. BVDG*, founded 1975). In addition to the practical organization of the art fair, the professional activities of these associations continued to be developed. In 1997, *Kunstmarkt Köln->ART COLOGNE* was taken over by *Koelnmesse*, the trade fair company based in Cologne. *BVDG* became, and remains to this day, the so-called 'ideal partner' of *Kunstmarkt Köln->ART COLOGNE*. This caesura also marks the preliminary end of the period under investigation by AGGC. Accordingly, it concerns an era (1967–1997) located in the pre-digital age, in which the number of art fairs worldwide was still relatively limited, since it was only at the end of the 1990s that the art fair boom really started (cf. [Baia Curioni 2012](#), pp. 138–39; [Morgner 2014b](#), p. 329).

Even before work on AGGC began, art historical and sociological research had both been addressing *Kunstmarkt Köln->ART COLOGNE*, even if extensive gaps in its research remain. The existing literature often focuses on the establishing, that is the beginnings, of this particular art fair, examining it in both depth and detail (e.g., [Zentralarchiv des internationalen Kunsthandels ZADIK 2003](#); [Baus 2008](#) provides an economic perspective; [Mehring 2008](#); [Genoni 2009](#)⁷). In addition, there are also those publications that, for the fair's anniversaries, look at the development of *Kunstmarkt Köln->ART*

⁶ The art fair best known under its current title *ART COLOGNE* has changed names several times over the course of its history: 1967–1969 *Kunstmarkt Köln*, 1970–1973 *Kölner Kunstmarkt*, 1974–1983 *Internationaler Kunstmarkt Köln/Düsseldorf*, and since 1984 *ART COLOGNE*. In the following, the term *Kunstmarkt Köln->ART COLOGNE* is used throughout for reasons of representability and better legibility. The arrow serves to visualize the development of the art fair's name from 1967 to today.

⁷ [Genoni \(2009\)](#) examines Art Basel in its development 1970–2008 and in this context also comparatively analyzes *Kunstmarkt Köln->ART COLOGNE* into the 1970s (especially its first three years), because she understands Art Basel primarily as a response to this first fair for modern and contemporary art, positioning itself in the subsequent years in opposition to it (id., p. 7).

COLOGNE over time, in an informative but more cursory manner that sometimes eschews directly referencing the relevant primary source material, since they are first and foremost aimed at a wide readership. These are the publications that were endorsed by the association for the 20th and 30th anniversaries (Rattemeyer 1986; Krüger 1996), and there is also the opulent bilingual publication by *Zentralarchiv für deutsche und internationale Kunstmarktforschung e.V. ZADIK*⁸ (*Central Archive for German and International Art Market Studies*) containing particularly generous source material in the form of quotations, photographs, and original documents, celebrating the fair's 50th anniversary (*Zentralarchiv des Internationalen Kunsthandels ZADIK* 2016). In keeping with the organization's goal of initiating new areas of research, the ZADIK publication offers a condensed overview of each edition of the fair, and in doing so provides a point of departure for future research. ZADIK also publishes the journal *sediment*, whose volume 25/26 from 2015 included a paradigmatic tracing of how *Kunstmarkt Köln->ART COLOGNE* helped to increase the profile of Pop Art in Germany (*Zentralarchiv des internationalen Kunsthandels ZADIK* 2015 as well as Link 2000, pp. 151–56). There has also been a shorter concise analysis in English by Christine Mehring in *Artforum*, addressing the early years of the fair, the circumstances of its founding and subsequent impact, as well as accompanying protests and other related initiatives in this context (Mehring 2008).

In general, essays on fairs for modern and contemporary art employ social-scientific approaches. It can, at this point, be observed that the research on specific fairs—predominantly Art Basel (Baia Curioni 2012; Battaglia 2014; Baia Curioni et al. 2015; Schultheis 2015) and subsequently Frieze (Kapferer 2010; Baia Curioni 2012; Lee and Lee 2016)—as well as specific periods, the time since 2005 being the prevailing one—provide analysis of the geographic distribution of artists and galleries as well as connections between them, amongst other matters. Other research focuses on developments in international art fair events in general, that is the number of art fairs worldwide or chronologies of the founding of trade fairs and exhibiting galleries by country, etc. (Yogev and Grund 2012; Quemin 2013; Morgner 2014a⁹). In terms of methodology, network analysis in particular is employed. Remarkably, the *Art Market Report* in its latest two issues likewise addresses the significance of art fairs very extensively (McAndrew 2018; McAndrew 2019). Results are visualized by diagrams, whilst none of the art-historical research, apart from Genoni (2009), ventures beyond tabular presentations.

A work that is already several years old, but should still be highlighted within the context of mapping in the present essay, is that of Kessler-Lehmann (Kessler-Lehmann 1993), which was based on a geographical perspective, focusing on Cologne in its spatial structuring as an art city, and examining the individual groups of protagonists in further detail, in particular locating galleries spatially on maps by city districts, for the years 1992/93, and which also included a short excursion to *Kunstmarkt Köln->ART COLOGNE* 1967–1992, but once again the data remained on a tabular level.

To summarize, it can be stated that no publication has ever examined the exhibitor development of a single fair for modern and contemporary art in detail as part of a longitudinal analysis over 30 years using a spatial-visual approach and direct reference to primary sources. There is also a lack of comprehensive discussions engaging critically with the source materials. For *Kunstmarkt Köln->ART COLOGNE*, the case study selected for AGGC, this means that none to date has provided a spatial-visual presentation of the quantitative ART COLOGNE data in detail, directly referencing primary sources, in order to make developments in the art fair available in a longitudinal section, rapidly, and customizable to differing geographical scales (country, region, city, districts, streets). This is an omission that the AGGC project seeks to fill.

⁸ As a specialized archive for the art market, ZADIK—based in Cologne—comprises approximately 160 individual archives and has been an associated institution and research archive of the *University of Cologne* since 2015. It is a very close collaborative partner in the Art Market Master module at the *Department of Art History* in Cologne.

⁹ According to Morgner (2014a, p. 34), fairs for modern and contemporary art developed in especially those locations lacking the density of galleries that were to be found in such art metropolises as New York and Paris, but which were geographically located close to such centers; id. 2014b.

3. ART[GALLERY GIS]COLOGNE—Aims, Previous Stages of Development, and Status Quo

In order to clarify the project's initial question concerning how the fair has developed in relation to regional, national, and international protagonists that have been involved since its founding, AGGC addresses central questions of how, when, and why the composition of the participating exhibitors has changed over the course of time.

The brief outline of the two previous stages of development is intended to highlight the project's methodological structure and approach.

In answering the first two questions of how, and when the composition of the participating exhibitors has changed over the course of time, a set of data was required in an initial stage that included all exhibitors—on the one hand galleries, art dealerships, and publishers of limited editions and on the other hand all other exhibitors—at *Kunstmarkt Köln->ART COLOGNE* between the years 1967 and 1997. For this, the names and addresses of the exhibitors were collected from the fair catalogues for *Kunstmarkt Köln->ART COLOGNE* as recorded in the index of exhibitors.¹⁰ For each edition of the fair up to and including 2017, a printed version of the catalogue was published by the organizer (in 2018, for the first time it only appeared in digital form). 5328 entries from the catalogues from the first thirty years of the art fair were entered into a database for AGGC.¹¹

The exhibitor data was processed and visualized in different ways to allow for various approaches. All the locations of *Kunstmarkt Köln->ART COLOGNE* exhibitors (name and location data of the exhibitors) worldwide between 1967 and 1997 were geo-referenced and visualized in a digital map (Figure 1).

The map is interactive, that is, the display can be customized by selecting the data set (galleries, including art dealerships, publishers of limited editions, and/or all other exhibitors), the zoom factor (ranging from a world map to street view), the display mode (individual locations or a cluster),¹² and the point in time according to the user's individual needs. Clusters of exhibitors from a particular continent, country, region, or even city can be rapidly identified—as well as changes over time, making the digital map particularly suitable for longitudinal studies. The number of exhibitors were, in addition, grouped in bar graphs and visualized in tabular form according to city and country. The development of the number of participants in individual cities and countries can also be tracked via line graphs (Figure 2).

¹⁰ In those cases where a tabular listing was not available, the individual entries for exhibitors were reviewed and evaluated. Where discrepancies arose between the address in the list of exhibitors and the one noted on the gallery's catalogue page, the address from the list of exhibitors was preferred.

¹¹ These entries are, however, not identical to the total number of exhibitors, since various exhibitors have participated in the fair several times. The addresses for some exhibitors had to be further researched, the reasons for which were various: 1. Missing addresses of the participating exhibitors in *Kunstmarkt Köln->ART COLOGNE* catalogues/in some cases only the PO box was noted. 2. Historical addresses that no longer exist as such/for several other addresses no clear coordinates could be determined. 3. In some cases, several locations for one and the same exhibitor were noted in the catalogue. The missing historical addresses were identified during intensive research using source materials (e.g., contemporary correspondence, gallery publications), works of reference (e.g., the International Art Directory, specialist publications), by computer, and through contact with those who owned a respective business at the time. To date, 16 addresses remain absent, that could not be discovered. Missing and hitherto unidentifiable historical addresses are listed in the left navigation bar of AGGC under *Annotations* for each year. There are no points for these on the map; they have, however, been taken into account statistically.

¹² In the latter display mode, the locations are bundled in accordance with the zoom factor, thus enabling more meaningful visualizations on the world map view.

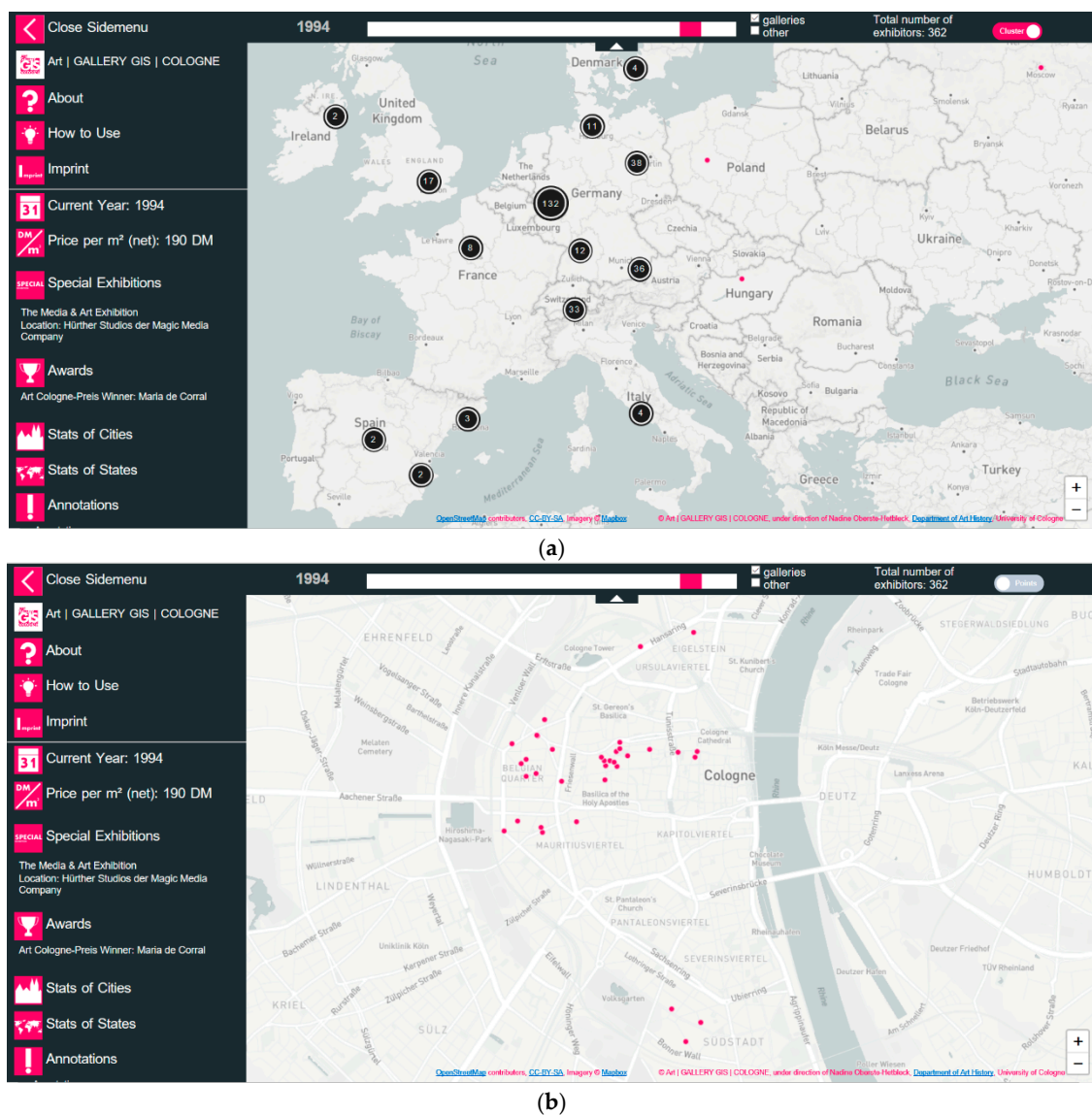


Figure 1. ART|GALLERY GIS|COLOGNE, 1994 **(a)** display mode: cluster, **(b)** display mode: individual locations. Used by permission. © ART|GALLERY GIS|COLOGNE.

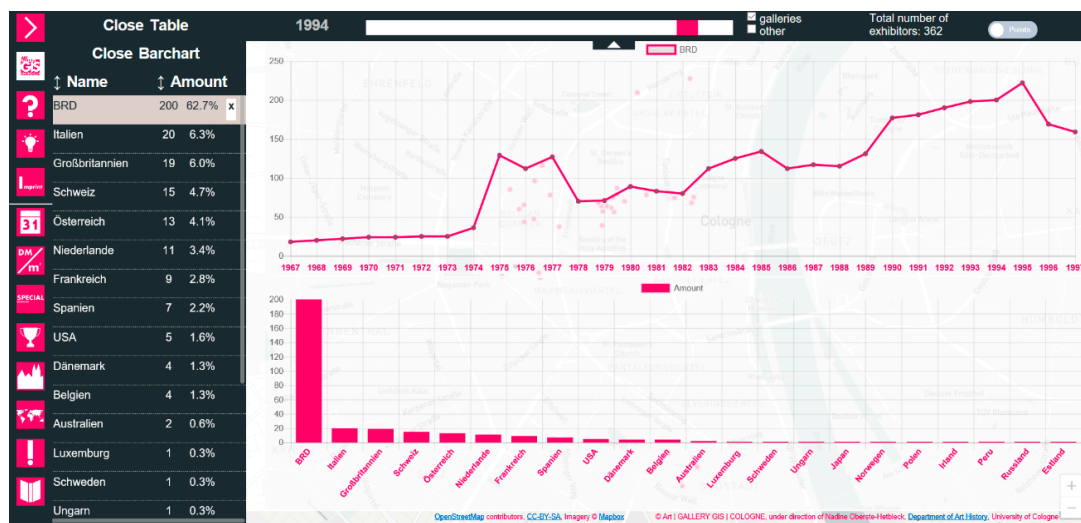


Figure 2. ART|GALLERY GIS|COLOGNE, 1994, number of galleries, art dealerships, and publishers of limited editions from Federal Republic of Germany who participated in Kunstmarkt Köln->ART COLOGNE 1994 sorted by country of origin by number and percentage. Three ways of visualization: tabular list, line diagram, and bar chart. Used by permission. © ART|GALLERY GIS|COLOGNE.

Users are provided with detailed information on the geographical origin of the individual exhibitors via pop-up windows, which open when clicking on the location points (Figure 3). This includes the address of the exhibitor and a reference to the source from which the location information originates, insofar as it is not from the art fair catalogues.

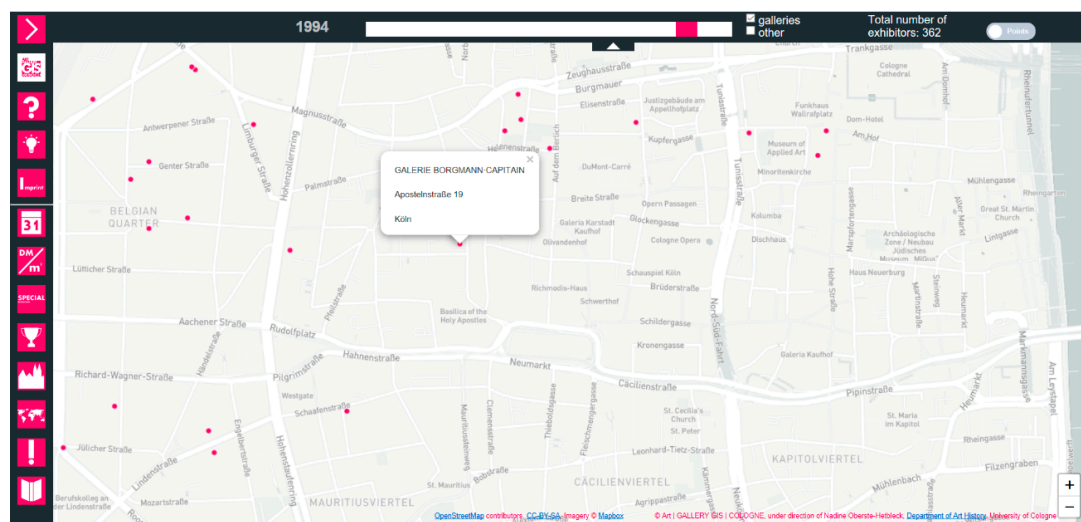


Figure 3. ART|GALLERY GIS|COLOGNE, 1994, pop-up window for the entry Galerie Borgmann Capitain, Cologne, including location information; left navigation bar hidden. Used by permission. © ART|GALLERY GIS|COLOGNE.

During the second phase, the quantitative location data was continuously supplemented by further contextual information. The net square meter price of stands per year, special exhibitions and auxiliary programs, and awards and awardees have already been entered into AGGC. They are all entered in the left navigation bar, which can be individually hidden or shown (Figure 2 versus Figure 3). What further contextual information should follow, the challenges and limits that exist, and what stages of development are being worked on, are explained in Section 4, Section 6, and Section 7.

4. Challenges of Digital Mapping and the Importance of Providing Contextual Information to Support Adequate Analysis of Digital Maps in the Example of AGGC

As already discussed in the literature, the analysis of the visualization of geographical relations in digital maps requires a studious visual literacy, posing enormous challenges to academics in various disciplines who are currently working with mapping (e.g., Joyeux-Prunel 2013; Dossin 2015). For AGGC, the ‘raw,’ so to speak contextless exhibitor data collected in phase 1, visualized in the map and in the tables of exhibitor numbers according to city and country, conceals greater risks. For example, it could be hastily deduced from the small number of exhibitors at the fair’s first editions that only a few gallerists and art dealers—which at first and at times were just German ones—showed any interest in participating in the fair (Figure 4). But this was not the case. Rather, it is clear that *Kunstmarkt Köln->ART COLOGNE* during its early days established an aim of becoming a deliberately exclusive, closed event, which strictly limited the participation of exhibitors, originally exclusively to selected German exhibitors—all essentially members of the *Verein progressiver deutscher Kunsthändler e.V.*

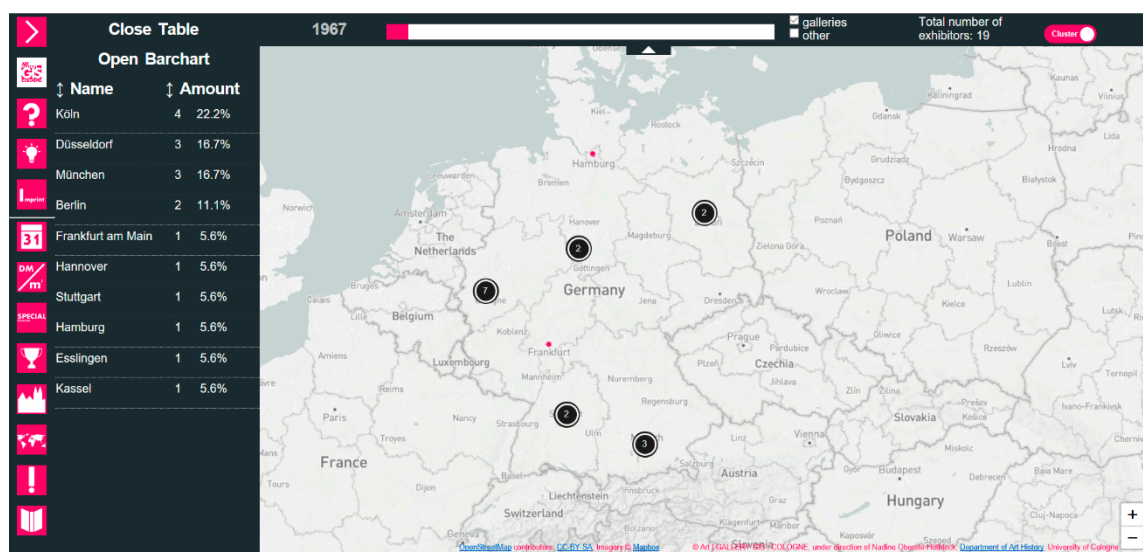


Figure 4. ART|GALLERY GIS|COLOGNE, 1967, number of galleries, art dealerships, and publishers of limited editions who participated in the first edition of *Kunstmarkt Köln->ART COLOGNE*. Used by permission. © ART|GALLERY GIS|COLOGNE.

It was only under pressure from emerging competitors in the Rhineland (e.g., *prospect* 1968, *Internationale Kunst- und Informationsmesse IKI* 1970), as well as internationally (e.g., *Art Basel* in 1970), that the association began permitting foreign exhibitors to participate, at first for a single year (1968), then in principle from 1971 onwards. Until 1996, the Verein was responsible for the process of admitting galleries to *Kunstmarkt Köln->ART COLOGNE*. The association defined and decided upon the conditions of admittance and coordinated the admission committees (and other juries), which came into being during the 30 years. In addition, the mergers of *Kunstmarkt Köln->ART COLOGNE* with other fairs, such as *IKI*, had an impact on the number of exhibitors (an increase in the number of exhibitors from 78 in 1974 to 203 in 1975, Figure 5), or with *Unfair* (in 1994 the integration of galleries that had exhibited at *Unfair* during the two previous years)¹³.

¹³ The minutes of the admissions meeting for the 1994 edition of *Kunstmarkt Köln->ART COLOGNE* note the cumulative admission as a result of the merger. Cf. minutes [Irene Saxinger] of the admissions meeting for *ART COLOGNE* 1994 on 25 and 26 April 1994, Cologne, 28 April 1994, ZADIK, no signature.

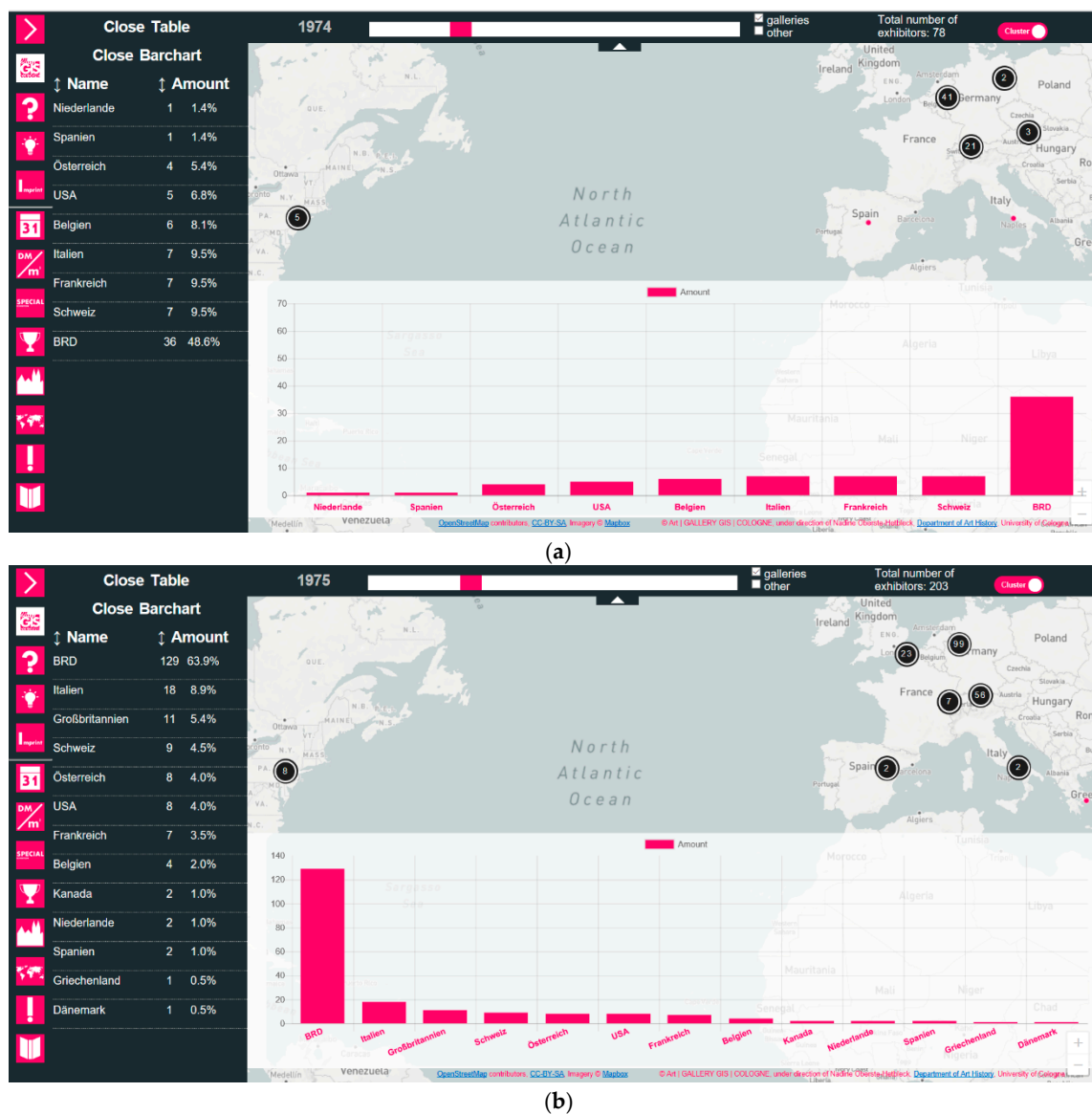


Figure 5. ART|GALLERY GIS|COLOGNE, number of galleries, art dealerships, and publishers of limited editions who participated in *Kunstmarkt Köln->ART COLOGNE*, three ways of visualization: tabular list, bar chart, and map (a) 1974, (b) 1975. Used by permission. © ART|GALLERY GIS|COLOGNE.

In order to be able to accommodate such a substantial increase in exhibitor numbers, the availability of space was decisive, which, following the use of the historic festival hall Gürzenich (1967) and Kunsthalle (1968–1973) as venues, was provided by the exhibition spaces at *Koelnmesse* (1974, 1975, 1977, 1979, 1981, 1983–present), as well as *NOWEA* in Düsseldorf (1976, 1978, 1980, 1982).¹⁴ In this context, the trade fair companies also took over the organizational side of *Kunstmarkt Köln->ART COLOGNE*, which led to trade fair practices being accordingly adapted—including the fair companies publishing the conditions of exhibiting and subsequently terms of participation as well as comprehensive indexes of artists and galleries in the art fair catalogues. Rombach (2008, p. 63) explains that here again the influence of Art Basel, the fair’s competitor, played a role. Whether a gallery or art dealer was even able to apply to participate also depended on their economic circumstances (which in turn were influenced

¹⁴ In the period 1975–1983, the location of the fair alternated annually between the trade fair exhibition spaces in Düsseldorf and Cologne.

by prevailing economic developments) and on the costs incurred (including the square meter prices for the stands) in relation to sales. One incentive for participating could also be special exhibitions, especially for exhibitors obliged to undertake transatlantic travel. For example, after two years without any galleries from the USA present at *Kunstmarkt Köln*->*ART COLOGNE*, in 1984—spurred by a special exhibition dedicated to the New York art scene—there were once again five US American galleries, all from New York (Figure 6). In 1986, six Canadian galleries also attended on the occasion of a special exhibition dedicated to the Canadian art scene.

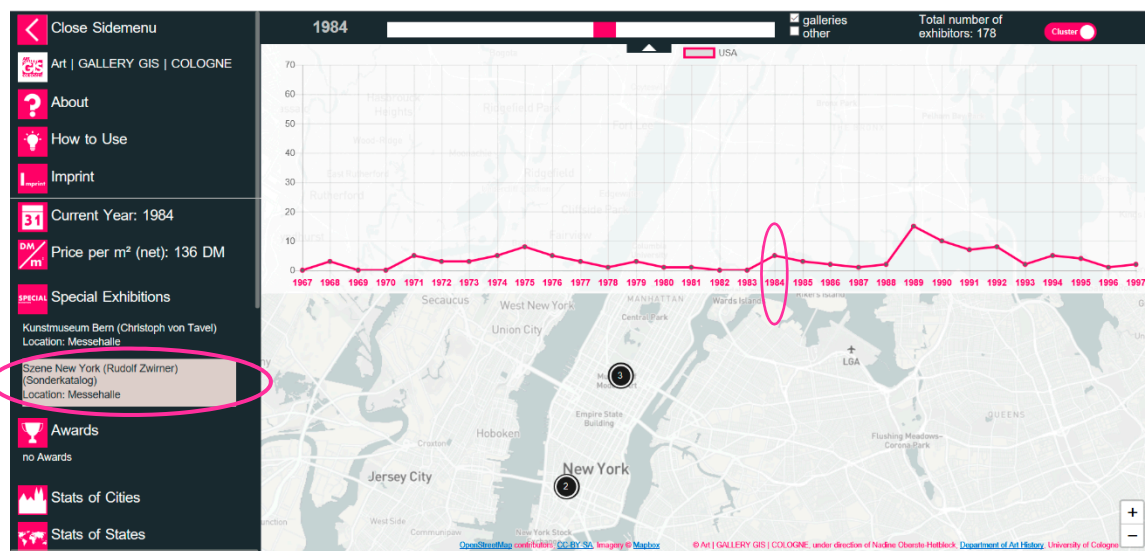


Figure 6. Line diagram for the number of galleries, art dealerships, and publishers of limited editions from the USA who participated in *Kunstmarkt Köln*->*ART COLOGNE* 1967–1997, combined with information about special exhibitions at *Kunstmarkt Köln*->*ART COLOGNE* in 1984. Used by permission. © ART|GALLERY GIS|COLOGNE [emphasis in the map added].

It became appropriately clear when working on AGGC that there was a risk of premature misinterpretation in mapping exhibitor locations alone.¹⁵ This is why the following factors, extracted from the literature,¹⁶ were identified that have already been addressed in the previous explication. As the history of *Kunstmarkt Köln*->*ART COLOGNE* makes paradigmatically apparent, these were factors that have had an impact on the composition of exhibitors (including the number and geographic distribution) and are therefore very useful in providing an adequate viewing of the AGGC digital map:

- Economic and political events,
- Competitor fairs and mergers of art fairs,
- The organizers of the fair,
- Conditions of admittance,
- Admission committees (and other juries) and the selection criteria they employ,

¹⁵ Ultimately, researchers who create and provide digital maps cannot be held responsible for misinterpretations by third parties, and such a warning in AGGC would make users accordingly aware.

¹⁶ In reviewing the research literature, certain contextual information has been considered by general consensus to be relevant and compiled. These include the venue, the number of exhibitors, and the number of visitors. Rombach (2008) collates the following contextual information in tabular form: Table 2: year, number of exhibitors in total, as well as national and international exhibitors, location, dates, number of visitors, entrance fees, and sales in deutschmarks; Table 12: artists represented at *Kunstmarkt* (categorized by specific styles); Tables 3–10: the most frequently represented artists; Table 11: galleries represented. ZADIK (*Zentralarchiv des Internationalen Kunsthandels* ZADIK 2016) in its yearly reviews systematically surveys the number of exhibitors, the number of visitors, the venue, and the accompanying program. In addition, extensive relevant contextual information is also included.

- The respective location and spatial configuration of the fair,
- Special exhibitions at *Kunstmarkt Köln*->ART COLOGNE (already included in AGGC)
- Awards and Awardees (already included in AGGC),
- Net square meter prices of the stands per year (already included in AGGC),
- Total turnover at the fair and the individual turnover of exhibitors,
- The exhibitors' artistic program,
- Contemporary assessments of the significance of *Kunstmarkt Köln*->ART COLOGNE.

Nevertheless, they should neither be understood as a hierarchical list nor as a conclusive one. Furthermore, the different factors occurred in different configurations and strengths over time. Measuring their exact level of influence and interaction, in turn, presents a challenge that can only be briefly indicated here. In addition to those factors that are particularly relevant for understanding the composition of exhibitors, further contextual information can also be identified that will form the densest, most comprehensive information network possible around *Kunstmarkt Köln*->ART COLOGNE. These include:

- Subsidies made available by city of Cologne authorities,
- Displays on the stands,
- Number of visits,
- Number of fair catalogues printed.

The previous explanations have clarified the relevance of including a range of information of differing origins in AGGC. Therefore, the initial digital map was, and will be, further developed in a direction that could be covered under the designation 'deep map,' which Bodenhamer, Corrigan, and Harris define as follows: "A deep map is simultaneously a platform, a process, and a product. It is an environment embedded with tools to bring data into an explicit and direct relationship with space and time" (Bodenhamer et al. 2015, p. 3). As a result, AGGC will become a special case: the origin of the exhibitors is visualized and not their location (=stand) at *Kunstmarkt Köln*->ART COLOGNE, that is their business premises (=gallery, art dealership, etc.) are indicated at the time of the event, when the exhibitors gather and meet in one place in Cologne. These two spatial points of reference to the exhibitors will in future be assembled virtually in AGGC with the assistance of photographic documentation from *Kunstmarkt Köln*->ART COLOGNE that is currently being assessed for use (see Section 5.3). It constitutes one of the sources relevant to AGGC and will be discussed in more detail in the 5th section that follows.

5. From Where? Or: A Critical Consideration of the Source Materials

Considerations of 'what should be included in AGGC?' were simultaneously closely related to decisions concerning which sources should be used, evaluated, and inserted. Where could the relevant information be found? And what critical challenges would emerge in the use of such source materials? What is the extent of their informational value with regard to the representation and reconstruction of historical reality? It is absolutely essential that such mapping projects as AGGC clearly identify their source materials, link the information presented with sources, consider them critically, and ensure they are prominently displayed.

ZADIK's holdings in combination with the photographic documentation in the *Rheinisches Bildarchiv*¹⁷ (Rhenish Photo Archive, RBA) provided anchoring points for AGGC. ZADIK possesses

¹⁷ In 2013, RBA received more than four million analogue photographs from *Koelnmesse*. See the press release from *Koelnmesse*. 2013. *Neue Bleibe für historische Koelnmesse-Fotos*, no. 11/Cologne, from May 2013, accessed 29 December 2018, www.koelnmesse.de/Koelnmesse/Presse/Pressemitteilungen/index.php?aktion=pfach&p1id=kmpresse_kmu&format=html&base=&tp=k3content&search=&pmid=kmeigen.km_pr08_1369306979&start=0&anzahl=10&channel=kmeigen&language=d&archiv=.

a complete set of catalogues covering each edition of *Kunstmarkt Köln->ART COLOGNE*, as well as photographs of some editions of the fair, and the archives of the abovementioned organizing associations, which include the minutes of the partner associations, most of the general and special conditions for participation (GCP + SCP), reviews in the press, and personal correspondence involving exhibitors, the fair organizer, rejected applicants, etc.¹⁸

5.1. Fair Catalogues

As already mentioned, the fair's catalogues can be identified as a central source of material, in which not only the location-related data of exhibitors can be determined, but also the floor plans of the fair, special exhibitions at *Kunstmarkt Köln->ART COLOGNE*, together with awards and awardees (e.g., Art Cologne Prize). A further fundamental set of data is the works of art exhibited at *Kunstmarkt Köln->ART COLOGNE*, and the artists who created them. They form, alongside the exhibitors, a further central group of protagonists at the fair. The compilation and adequate visualization of the exhibited works of art and their producers pose great challenges. It is not easy to generate data sets which reflect the actual situation at the time. Similarly to exhibitor data, the names of the artists whose works have been shown at the art fair could be taken from the fair catalogues. Until the beginning of the 1970s, the rather formal standardized catalogue entries of the galleries usually listed most of the exhibited works at *Kunstmarkt Köln->ART COLOGNE* individually. The gallery entries subsequently became more individual in their design, and only sometimes containing lists of artists. For the years 1974–1997, each catalogue provided an index of artists for the entire fair, a central list of the names of the artists including the galleries that had exhibited them. Nevertheless the fair catalogues are not an entirely reliable source for the construction of an adequate pool of data, since it cannot be assumed that, on the one hand, works by all the artists listed in the catalogue were actually shown at the respective stands and, on the other hand, all exhibited works were actually listed in the catalogue. In comparison to auction catalogues, art fair catalogues do not always list every single work of art exhibited, but often merely the names of the artists and a few reproductions of selected works of art. In 1989, for example, the catalogue pages for *American Fine Arts* were even empty, whilst the artist/exhibitor index likewise fails to list the required data (Figure 7).

It was obviously the case that gallery owners occasionally decided at short notice what to actually present, or works were replaced after they were sold. There were also the rounds of the so-called Exhibition Jury, which in some cases called for the removal of disputed works of art. It should also be remembered that considerable business is also generated from the storage spaces integrated into the stands, for which there is almost no information in the research to date.

In addition to the fair's catalogues, further sources were also required, individual examples of which are listed below, and the critical challenges the source materials entail are also identified.

¹⁸ For this, see the holdings C1 *Bundesverband Deutscher Galerien [und Kunsthändler] BVDG*, Cologne, and C2 *Kunstmessen Köln u. Düsseldorf* (submitted by BVDG). In addition, the archives of those galleries and art dealers who participated in *Kunstmarkt Köln->ART COLOGNE* or were even members of one of the fair's organizing bodies also contain relevant documents on *Kunstmarkt Köln->ART COLOGNE*.

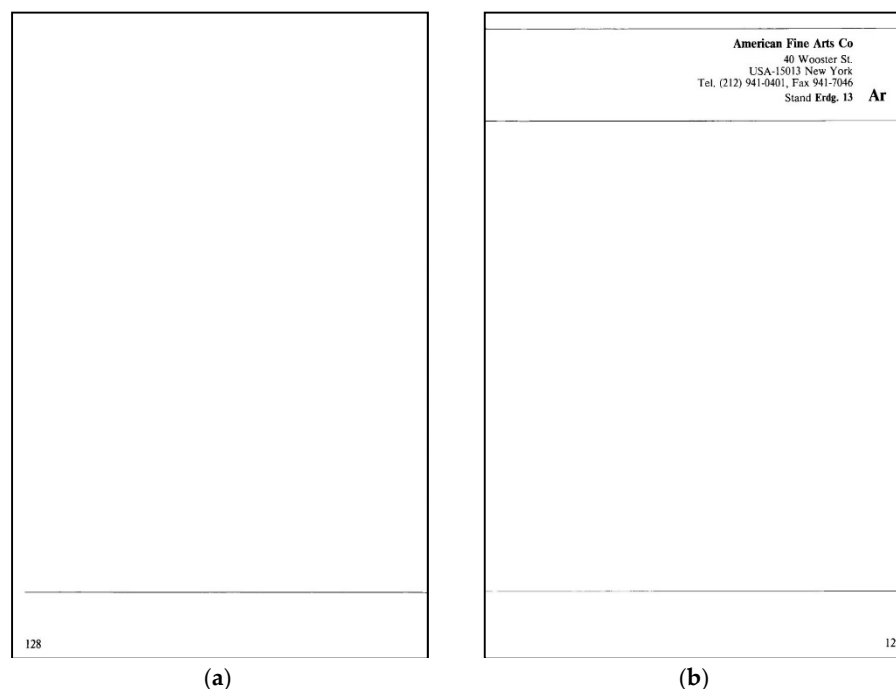


Figure 7. Catalogue entry from *American Fine Arts Co*, New York. (a) left side, (b) right side (Messe- und Ausstellungs-Ges.m.b.H. 1989, pp. 128f).

5.2. Press Releases

The number of visits, which are generally easier to determine in comparison to the number of visitors,¹⁹ were communicated by the organizers of *Kunstmarkt Köln->ART COLOGNE* in press releases. These are unlikely to be verifiable due to the type of source material. This means that relying on information supplied by the organizers in their press releases remains academically unsatisfactory, since it is not clear what system was being employed in determining the number of visits during the 30 years. In addition, a press release is basically a public relations item and as such part of an organization's communication policy. The situation is similar for total sales at *Kunstmarkt Köln->ART COLOGNE*, which are also communicated in the organizer's press releases and—probably adopted from them—appear in reports by the media.²⁰ Individual exhibitors' turnover at the fair is seldom communicated by the galleries themselves, who generally limit the information they publish to individual (spectacular) sales. However, within the history of the art market this is no surprise, as it is already known that such details remain largely opaque. As a result, figures concerning number of visits and turnover—if taken from press releases—should be regarded at most as merely indicative.

5.3. Photographic Documentation

For the period 1967–1973—as far as is presently known—the photographic record is very limited for *Kunstmarkt Köln->ART COLOGNE*.²¹ Since the beginning of the collaboration between BVDG and Koelnmesse in 1974, fair photographers have been photographing regularly at the art fair. Today, slides and negatives of photographs taken on behalf of *Koelnmesse* to document exhibitor stands, special

¹⁹ These concern the number of individual visitors to the fair, which means that statistically multiple visits should not be taken into account.

²⁰ Cf. Rombach (2008, p. 7), who states with regard to *Art Basel* that no reliable data is available concerning the turnover at the fair.

²¹ See for example the holdings of Wolf P. Prange, Berlin (ZADIK, H6), Johanna Schmitz-Fabri (ZADIK, H1), Anita Kloten, and Peter Fischer (Historisches Archiv der Stadt Köln/HASStK, inventory no. 1401). Angelika Platen, in particular, also took photographs at *Kunstmarkt Köln->ART COLOGNE*.

exhibitions, promotional programs, panel discussions, previews, award ceremonies, charity auctions, press conferences, and accompanying events, as well as the scene with visitors at the entrance to the respective trade fair buildings are—as already mentioned—included in the holdings of RBA in Cologne. The complex tagging of the stands,²² works of art, and people depicted is the greatest challenge accompanying the use of such photographs.²³ Furthermore, there is no claim to completeness; not all stands and special exhibitions were photographed by *Koelnmesse*. A prime example is the research conducted in the archive on photographs documenting the special exhibition *Förderprogramm Junge Galerien*²⁴ (Promotional Program for Young Galleries) in 1989, which proved to be unsuccessful.

Ideally, the photographs could be used to generate information about exhibited works of art (and their producers)—becoming a sort of cross-check for the artist names recorded in the fair catalogues—as well as for the design of the exhibition stands and special displays. As a result, AGGC can, in the future, make a contribution to the history of the curating of art fairs. Furthermore, the photographs will be used in the exhibitor map to create a spatial connection to the venue of *Kunstmarkt Köln->ART COLOGNE*, via, on the one hand, the pop-up window of exhibitors in the map (see Figure 3), in which a link forwards the user from AGGC to the entry on the RBA database, enabling the respective photograph that has been made available to be viewed along with the associated metadata. And on the other, all the photographs of each edition of *Kunstmarkt Köln->ART COLOGNE* will be merged to create a digital tour, which can be navigated on the basis of the floor plan for the stands. In principle, it is additionally possible to include the meta-data of the works of art (retrievable by clicking on a work in the photograph) OR to design a virtual space with placeholders for the works of art (here as well, the meta-data of the works of art would also be retrievable by clicking on them).

5.4. Minutes of the Board, Member, and General Meetings of the Associations and Admission Committees

The minutes enable deep insights into the work of the associations that have organized *Kunstmarkt Köln->ART COLOGNE*. They have been essential in the reconstruction of the genesis of the conditions for admittance and the composition of the admission committees. At the same time however, they entail one of the biggest challenges concerning data protection, as described in 6. below. The compiling of the minutes turned out to be especially time-consuming, because for this period of 30 years they were not housed in their entirety in archives about the fair and the organizing associations that have been under examination, but unsystematically scattered across various archives—including those of the exhibitors.

5.5. The Art Fair's General Conditions for Participation (GCP) and Special Conditions of Participation (SCP)

Since their first publication in 1974, the terms and conditions of participating at *Kunstmarkt Köln->ART COLOGNE* have included information concerning the prices per square meter for the stands²⁵, which have already been included in AGGC. It has, however, not been possible to take into account any special conditions that may have been agreed with individual exhibitors, to which the documentation frequently points. The GCP also contains official information on the admissions committee and the fair's jury—although no names are specified—and on the prerequisites for the

²² Since, according to current information, the stands' identification is rarely photographed, the exhibitors' stands can only be assigned to the photographs on the basis of the works of art in each stand, handwritten notes by the photographers, and the clues displayed on such identifiers as information signs that can be discerned in photographs of the fair's aisles. This requires use of the researcher's knowledge of *Kunstmarkt Köln->ART COLOGNE*, the art market, and art history.

²³ As a collaborative partner, the RBA is currently digitizing just one initial year, namely 1974. With the involvement of students at the *Department of Art History* at the *University of Cologne*, during a seminar by Johanna Gummlich and Nadine Oberste-Hetbleck in the 2019 summer semester, the digitized photographs in the *Art Publishing System* (APS) database of RBA are being formally inventoried and indexed, and in addition some are being more deeply examined for the research project. It is a trial run focusing on one year, to assess the effort that will be required in the subsequent years.

²⁴ For more information see Oberste-Hetbleck (2018a, pp. 9f).

²⁵ They were taken from the SCP for AGGC.

admission of applicants as exhibitors, as regularly referred to by the admissions committee during its work.

A systematic compilation and evaluation of both the minutes and the conditions for participation, covering a period of thirty years, has been carried out for the first time. However, they could not yet be included in AGGC, as explained in the following section.

5.6. First-Hand Reports from Protagonists Involved in *Kunstmarkt Köln->ART COLOGNE*²⁶

A highly valuable source in the study of the history of fairs for modern and contemporary art are eyewitness interviews. Although oral history poses some challenges as a scholarly source (Spuhler 2010), such as the reliability of remembering long past episodes (the brain's selective memory) and subjective perspectives on events, it at the same time offers a kind of counter narrative to information from documentary records, such as those archived by the organizers of *Kunstmarkt Köln->ART COLOGNE*. Their strength lies, moreover, in the investigating of circumstances that cannot be extracted from existing sources or are not addressed by them. Therefore, the focus here should lie in particular on gallery owners who participated in *Kunstmarkt Köln->ART COLOGNE*, members of the admissions committee or the vetting commission, Koelnmesse employees, rejected applicants, and contemporary observers. In any case, from an academic perspective the verifying of data and facts is indispensable, and that is why eyewitness interviews require a careful process of assessment.

6. The Parameters of Integrating Contextual Information

This section will be examining to what extent the information previously mentioned and considered essential can be integrated into AGGC. This is not just a technical issue, one that does not require discussion here,²⁷ but in many respects it is, above all, a legal one.

The integrating of further archival materials into AGGC, be it in the form of digital facsimiles or merely information generated from them, is not readily possible. In particular, there are restrictions relating to data protection (keyword: privacy rights) and copyright. Since this extends deeply into legal issues, only aspects concerning those archival materials which are considered essential to the history of *Kunstmarkt Köln->ART COLOGNE* and consequently ought to be included in AGGC are touched upon. It also becomes clear at this point that the legal situation differs, to an extent, from state to state and that the specific legislation of the state or of the group of member states in which such projects are published establishes the framework for data protection and copyright. The following remarks apply to AGGC in accordance to the conditions pertaining to publication in Germany as part of the European Union.

Much of the archival material that has been identified as relevant to AGGC, and ideally should be published there, names specific individuals. This is particularly the case for the process of admitting exhibitors to *Kunstmarkt Köln->ART COLOGNE*. It begins with the specific naming of members of the various bodies responsible for admission and scrutiny of the works on display and layout of the exhibition stands, the names of both applicants who have been admitted or rejected, and third persons also involved. In this case—especially as a consequence of the European General Data Protection Regulation (EU-DSGVO, exceptions for academic purposes are regulated under Art. 85 EU-DSGVO)—at the time of publication of this paper, the consent of all natural persons named is to be obtained for the processing of the relevant data, which means a great deal of effort, and with the assumption that some of them could withhold consent. In addition, under German law at both federal and state level, there is a general period of protection for documents held in public

²⁶ Especially gallery owners who participated in the art fair, members of the admissions committee or the Exhibition Jury, Koelnmesse employees, rejected applicants, and contemporary observers.

²⁷ At this point, the media-informatic aspect of AGGC should be briefly mentioned: The locations of the participating galleries during the first three decades were georeferenced (GeoJSON) and visualized in an online map (Leaflet.js). Through a reactive environment (Vue.js), the online map is embedded with further information.

archives. This dates from the creation of the documents and remains valid for 30 years thereafter (§11 Absatz 1 Bundesarchivgesetz (BarchG); §7 Absatz 1 Archivgesetz Nordrhein-Westfalen (ArchivG NRW)). Restrictions regarding personal documents are based on the date of death of the person concerned. Without appropriate permission, these may only be used ten years after the death of the respective person at the earliest (§11 Absatz 2 BarchG; §7 Absatz 1 ArchivG NRW). These regulations are often used as a guideline for private archives, whereby the use is specified by the respective owner (Hausmann 2016, p. 19).

Another major area concerns copyright, which covers works of art of various types. The starting point here is likewise the date of the artist's death (=copyright owner): according to §64 UrhG, copyright expires 70 years after the death of the author—as does the copyright of the artist with regard to both works of fine art and photographic works. This is particularly challenging with regard to photographs of exhibition views including people and works of art. In such cases, in Germany, insofar as the periods of protection have not yet expired, both the rights of the photographer as the author of the photograph and the rights of the authors of all works of art that are identifiable must be taken into account. In addition, usually all the people who have been photographed (the rights to one's own image §22 KunstUrhG) must also be asked for consent (exceptions are regulated under §23 KunstUrhG).

The reasons already mentioned make it clear that even though some documents researched and compiled for *Kunstmarkt Köln* → *ART COLOGNE*, such as the minutes, are indeed being evaluated,²⁸ they cannot currently be published, or only following much effort, whereby the chances of success are questionable. It remains to be considered whether these absences should be visibly included in AGGC in the course of its future development. One possibility would be to insert placeholders in AGGC for the signatures of the respective documents or for the inventory ID (for example, in the *ZADIK* archives), if the relevant holdings have not been developed in depth yet. Due to the modular structure of the Vue framework, which has been selected for the programming of AGGC, it is possible to both expand and scale the project, offering a variety of prospects for the future. Such placeholders could then be replaced, changed, and updated accordingly during future research.

7. Conclusions and Future Developments

Work on AGGC was initially begun in order to trace the historical development of the first fair for modern and contemporary art, systematically and source-related, employing primarily visual and timeline-based networked data. To this end, the emphasis has been on the exhibitors, as they form a central group of protagonists at the fair, and their composition in terms of numbers and geographic origin—as well as their artistic programs (that is the artists and their works of art)—is key to understanding the profile of the art fair. The focus of AGGC has been, and still is, on a digital map of the exhibitor's locations, which functions as a point of entry into the platform for AGGC users, as well as forming the center of the data organization. It enables the user to intuitively—being consistent with the human brain's search for patterns—recognize geographic clusters quickly in terms of the composition of exhibitors over time. These can be tracked for 30 years, depending on specific interests, at international, national, regional, city, or street levels, initially focusing on questions of **who**, **when** and **where** that are answerable in detail with regard to the composition of exhibitors. However, in order to support an adequate analysis of said composition and to approach the question of **why** the composition of exhibitors took a specific form each year, requires the contextual information, identified in this paper, relating to the factors that were of influence. The quantitative exhibitor data needs to be supplemented by qualitative information that AGGC would like to merge at the level of Open Access. AGGC pursues a direction towards a deep map, where the contextual information and data paths (tables, line graphs) that partially surround the map can be switched on and off. This is accompanied

²⁸ Making the data relating to the relevant persons anonymous would be one solution, which would at least make statistical evaluations feasible.

by a fundamental challenge in the further development and enhancing of AGGC, that is the issue of the layout and structuring in terms of the way in which the information is provided. Where exactly should contextual information be placed, in what manner should it be combinable, and what should be simultaneously visible? There are also additional challenges specifically relating to the previously mentioned issues relating to data protection and copyright restrictions.

However, in order to clarify existing relationships between protagonists (exhibitor's partner galleries, artists being represented by exhibitors, positions occupied by exhibitors on *Kunstmarkt Köln->ART COLOGNE* committees, etc.) in their various manifestations and intensities, it would be necessary to have a presentation and analysis of data which goes beyond those employed to date in AGGC. By using the data that has been collected as well as that from documents still currently being assessed and made accessible (photographs of the stands) and additional evaluations of existing sources (e.g., fair catalogues, minutes from the *Kunstmarkt Köln->ART COLOGNE*'s admission committee), another level of visualization and analysis could be added, with the assistance of network analysis. This remains a task for future stages of development.

In line with the visual-spatial approach pursued by AGGC, and to complement the locations of the exhibitors in their countries of origin and the views of their stands at the fair, a further spatial component will be added in the future. This will be a result of the analysis of the composition of exhibitors over the period under investigation. Despite fluctuations, during its first 30 years *Kunstmarkt Köln->ART COLOGNE* was characterized by a predominance of German galleries (caution: this says nothing about the origins of the works on view).²⁹ Except for two surges of over 40% in the years 1974 and 1989, the participation of foreign galleries over the course of these 30 years averaged 30%. Galleries from a total of 40 countries were represented in various constellations and frequencies. When we once again look specifically at the German galleries that participated during the 30 years, one can see that increasingly more galleries took part in *Kunstmarkt Köln->Art Cologne*, in some cases only for particular periods of time. It is notable that galleries from Cologne constantly formed the largest group from one city with large numbers of exhibitors. This remains so even after the addition of foreign cities. Therefore, the next stage of the project, which has already begun, will be focusing more on the situation in *Kunstmarkt Köln->ART COLOGNE*'s home region during the period under investigation. For this, the geo-referenced locations of all protagonists in Cologne are currently included who—according to the selected source, a consistent one over time—were dealing in art during the period under investigation.³⁰ This phase is intended to address questions around the impact of the art fair on the city itself and in particular the development of Cologne as a center for the art trade. It has also become clear that comparing data from various art fairs worldwide would be of great interest and could add a supra-regional focus. This too could become a future stage in the working process.

Funding: This research received no external funding.

Conflicts of Interest: The author declares no conflicts of interest.

²⁹ [Quemin \(2013\)](#), 166 assesses the composition of exhibitors with regard to countries of origin, in the context of an analysis of Art Basel 2008, stating: "The national diversity of exhibiting galleries is generally a good indication of the quality of an art fair, which should ideally resist the frequent pressure to favour domestic galleries and limit the number of places available to national exhibitors (unless it is organised by a leading art-market country with highly reputable galleries)." He also, with reference to his statements in [Quemin \(2006\)](#), includes Germany amongst the latter, so that a strong presence of German galleries at *Kunstmarkt Köln->ART COLOGNE* is not essentially surprising.

³⁰ For this purpose, a data set was created from the business telephone directory. This included all entries found under the categories of art dealers, paintings, galleries, even though not every category was to be found in every edition of the business telephone directory.

References

- Ayers, Edward L. 2010. Turning Toward Place, Space, and Time. In *The Spatial Humanities: GIS and the Future of the Humanities Scholarship*. Edited by David J. Bodenhamer, John Corrigan and Trevor M. Harris. Bloomington: Indiana University Press, pp. 1–13.
- Baia Curioni, Stefano. 2012. A Fairy Tale: The Art System, Globalization, and the Fair Movement. In *Contemporary Art and its Commercial Markets: A Report on Current Conditions and Future Scenarios*. Edited by Maria Lind and Olav Velthuis. Berlin: Sternberg Press, pp. 115–51.
- Baia Curioni, Stefano, Laura Forti, and Ludovica Leone. 2015. Making Visible: Artists and Galleries in the Global Art System. In *Cosmopolitan Canvases: The Globalization of Markets for Contemporary Art*. Edited by Olav Velthuis and Stefano Baia Curioni. Oxford: Oxford University Press, pp. 55–77.
- Battaglia, Filippo. 2014. *The Art Basel Effect*. A Research on the Relation between Young Artists and Art Fairs. Master Arts, Culture & Society. Rotterdam: Erasmus University Rotterdam, Available online: <http://hdl.handle.net/2105/17984> (accessed on 21 January 2019).
- Baus, Cathérine Dominique. 2008. Kunstmarkt 67: Von der Institution Kunst zur Organisation Kunstmesse. Ph.D. thesis, Cologne University, Cologne, Germany.
- Bodenhamer, David J., John Corrigan, and Trevor M. Harris. 2015. Introduction. Deep Maps and the Spatial Humanities. In *Deep Maps and Spatial Narratives*. Edited by David J. Bodenhamer, John Corrigan and Trevor M. Harris. Bloomington: Indiana University Press, pp. 1–6. [CrossRef]
- Dossin, Catherine. 2015. Towards a Spatial (Digital) Art History. *ARTL@S BULLETIN* 4: 4–6. Available online: <https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1070&context=artlas> (accessed on 10 January 2019).
- Dossin, Catherine, and Joyeux-Prunel Béatrice. 2015. The German Century? How a Geopolitical Approach Could Transform the History of Modernism. In *Circulations in the Global History of Art*. Edited by Thomas DaCosta Kaufmann, Catherine Dossin and Béatrice Joyeux-Prunel. Burlington: Ashgate, pp. 183–201.
- Drucker, Johanna, Anne Helmreich, Matthew Lincoln, and Francesca Rose. 2015. Digital art history: The American scene. *Perspective [En ligne]* 2. [CrossRef]
- Fletcher, Pamela. 2015. Reflections on Digital Art History. *CAA Reviews*. [CrossRef]
- Gagliardi, Susan Elizabeth, and Joanna Gardner-Huggett. 2017. Spatial Art History in the Digital Realm. *Historical Geography* 45: 17–36.
- Genoni, Ilona. 2009. Just What Is It That Makes It So Different, So Appealing? Art Basel-Von der Verkaufsmesse zum Kulturereignis. Ph.D. dissertation, University of Zurich, Zurich, Switzerland.
- Hausmann, Jost. 2016. *Archivrecht. Ein Leitfaden*. Frankfurt am Main: Verlag für Standesamtwesen.
- Herzog, Günter. 2016. Kunstmarkt Köln 67, Gürzenich und Kölnischer Kunstverein, 13. bis 17. September 1967. In *ART COLOGNE 1967–2016: Die Erste aller Kunstmesen/The First Art Fair*. Edited by Zentralarchiv des internationalen Kunsthandels e.V. ZADIK. Köln: Verlag der Buchhandlung Walther König, pp. 26–28.
- Joyeux-Prunel, Béatrice. 2013. Do Maps Lie? *ARTL@S BULLETIN* 2: 4–6. Available online: <https://docs.lib.purdue.edu/artlas/vol2/iss2/1/> (accessed on 10 January 2019).
- Kapferer, Judith. 2010. Twilight of the Enlightenment. The Art Fair, the Culture Industry, and the ‘Creative Class’. *Social Analysis* 54: 9–27. [CrossRef]
- Kessler-Lehmann, Margrit. 1993. *Die Kunststadt Köln: Von der Raumwirksamkeit der Kunst in einer Stadt*. Cologne: Selbstverlag im Wirtschafts- und Sozialgeographischen Institut der Universität zu Köln.
- Krüger, Werner. 1996. *Vom Kunstmarkt '67 zur Art Cologne '96*. Pulheim: ART COLOGNE.
- Lee, Soo Hee, and Jin Woo Lee. 2016. Art Fairs as a Medium for Branding Young and Emerging Artists: The Case of Frieze London. *The Journal of Arts Management, Law, and Society* 46: 95–106. [CrossRef]
- Link, Jochen. 2000. Pop Art in Deutschland. Die Rezeption der amerikanischen und englischen Pop Art durch deutsche Museen, Galerie, Sammler und ausgewählte Zeitungen in der Zeit von 1959 bis 1972. Ph.D. dissertation, Universität Stuttgart, Stuttgart, Germany.
- McAndrew, Clare. 2018. *The Art Market 2018*. An Art Basel & UBS Report. Basel and Zurich: Art Basel & UBS.
- McAndrew, Clare. 2019. *The Art Market 2019*. An Art Basel & UBS Report. Basel and Zurich: Art Basel & UBS.
- Mehring, Christine. 2008. Emerging Market: The Birth of the Contemporary Art Fair. *Artforum* 46: 322–28, 390.
- Messe- und Ausstellungs-Ges.m.b.H., ed. 1989. *ART COLOGNE*. 23. *Internationaler Kunstmarkt*, 16.–22.11.1989. Cologne: Messe- und Ausstellungs-Ges.m.b.H.

- Morgner, Christian. 2014a. The Art Fair as Network. *The Journal of Arts Management, Law, and Society* 44: 33–46. [CrossRef]
- Morgner, Christian. 2014b. The evolution of the art fair. *Historical Social Research* 39: 318–36. [CrossRef]
- Oberste-Hetbleck, Nadine. 2018a. Sonderprogramm Junge Galerien auf der Art Cologne. *sediment. Mitteilungen zur Geschichte des Kunsthandels* 28/29: 9–10.
- Oberste-Hetbleck, Nadine. 2018b. A Didactic Teaching and Learning Project in Art Market Research. Researching and Publishing the History of Commercial Art Dealing. *Art History Pedagogy & Practice* 3: 1–27. Available online: <https://academicworks.cuny.edu/ahpp/vol3/iss1/3> (accessed on 21 January 2019).
- Quemin, Alain. 2006. Globalization and mixing in the visual arts. An empirical survey of “high culture” and “globalization”. *International Sociology* 21: 522–50. [CrossRef]
- Quemin, Alain. 2013. International Contemporary Art Fairs in a ‘Globalized’ Art Market. *European Societies* 15: 162–77. [CrossRef]
- Rattemeyer, Volker. 1986. *20 Jahre Kunstmarkt*. Cologne: Bundesverband Deutscher Galerien e.V.
- Rombach, Corina. 2008. Art Basel—Entstehung und Erfolgsfaktoren einer Kunstmesse: Die Art Basel im Vergleich mit dem Kunstmarkt Köln. Master’s dissertation, Heidelberg University, Heidelberg, Germany.
- Schultheis, Franz. 2015. Economy of Symbolic Goods: Ethnographical Explorations at the Art Basel. Paper presented at a Workshop on “Documenta 2017”, Athenes, Greece, February 12; pp. 1–4. Available online: www.alexandria.unisg.ch/240447 (accessed on 21 January 2019).
- Spuhler, Gregor. 2010. Das Interview als Quelle historischer Erkenntnis. Methodische Bemerkungen zur Oral History. In *Interviews: Oral history in Kunstwissenschaft und Kunst*. Edited by Dora Imhof and Sibylle Omlin. Munich: Edition Metzler, pp. 15–28.
- Velthuis, Olav. 2014. The Impact of Globalisation on the Contemporary Art Market. In *Risk and Uncertainty in the Art World*. Edited by Anna M. Dempster. London: Bloomsbury, pp. 87–108.
- Vermeylen, Filip. 2015. The India Art Fair and the Market for Visual Arts in the Global South. In *Cosmopolitan Canvases: The Globalization of Markets for Contemporary Art*. Edited by Olav Velthuis. New York: Oxford University Press, pp. 31–54.
- Williams, Hannah. 2018. Artists in Paris: Mapping the 18th-Century Art World. *Journal18: A Journal of Eighteenth-Century Art and Culture* 5: Coordinates: Digital Mapping and 18th-Century Visual, Material, and Built Cultures. Edited by Nancy Um and Carrie Anderson. Available online: www.journal18.org/issue5_williams (accessed on 21 January 2019).
- Yogev, Tamar, and Thomas Grund. 2012. Network Dynamics and Market Structure: The Case of Art Fairs. *Sociological Focus* 45: 23–40. [CrossRef]
- Zentralarchiv des internationalen Kunsthandels ZADIK, ed. 2003. *Sediment—Mitteilungen zur Geschichte des Kunsthandels* 6. Cologne: Self-publishing.
- Zentralarchiv des internationalen Kunsthandels ZADIK, ed. 2015. *Sediment—Mitteilungen zur Geschichte des Kunsthandels* 25/26. Vienna: VfmK Verlag für moderne Kunst.
- Zentralarchiv des Internationalen Kunsthandels ZADIK, ed. 2016. *ART COLOGNE 1967–2016: Die Erste aller Kunstmessen/The First Art Fair*. Cologne: Verlag der Buchhandlung Walther König.



© 2019 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).