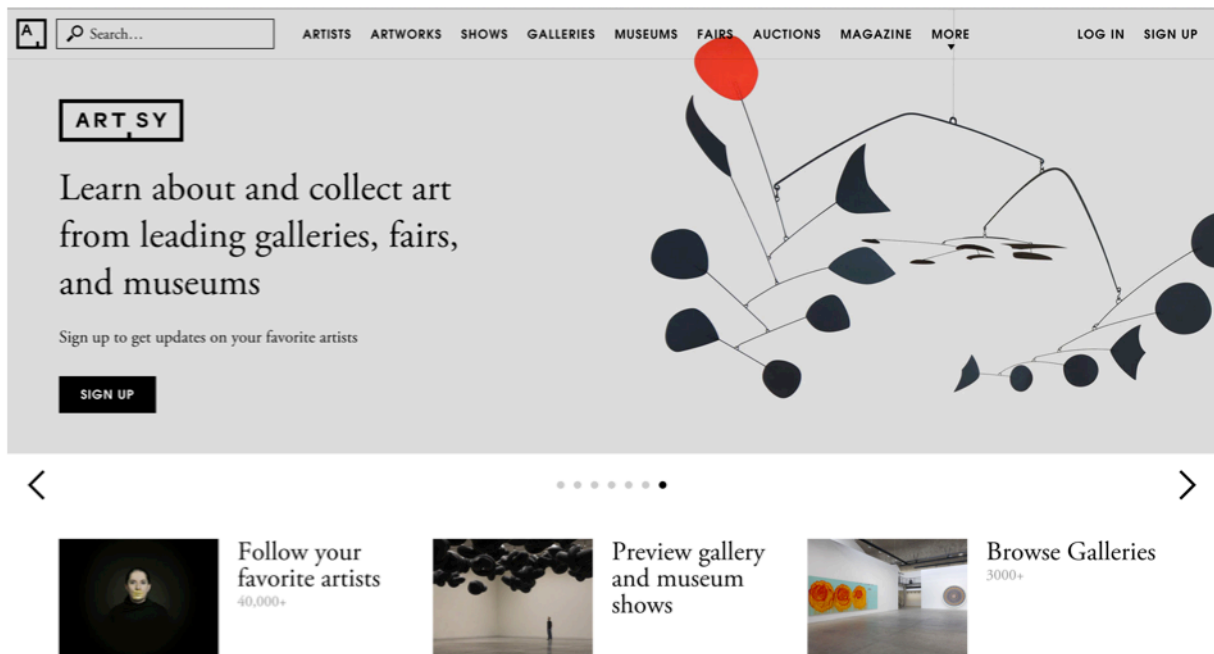**The impact of the digital age on knowledge formation**

A case study of Artsy.net

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Abstract

This thesis analyses the impact of the digital world, specifically of recent developments in the field of metadata, on art knowledge formation. After defining knowledge formation as "any activity by which someone learns something *he* or *she* has not known before, even if others have", the currently on-going debate surrounding metadata was addressed. From this, the conclusion was drawn that metadata, both human readable and computer-readable, makes data easier to find and thus easier to cluster, which could assist (art) knowledge formation.

To test if this theoretical conclusion held itself in the real world, a case study was conducted into Artsy, a platform with artworks that says to be using weighed tags called genes to create new and innovative linkages in its dataset, hence aiding art knowledge formation.

From content analysis of a variety of materials and manual analysis of a number of networks it was found that Artsy is still presenting artists and artworks in ways relatively close to classical art history texts, albeit with a focus on the visual contextualisation of artworks. The networks found in the sample do not present any really innovative linkages.

Answering the research questions then, it was firstly concluded that the Artsy algorithm does, in theory, facilitate new knowledge associations and art clusters, but that Artsy does not yet employ this possibility because the company only adds a small amount of metadata to each artist and allows the system to only depict a very limited number of related artists and related genes. Secondly, addressing the second sub question on how expertise was valued at Artsy, it was concluded that expertise was being valued in association with accredited, high-quality sources and institutions, rather then through training and formal education. Expertise, in short, played a role in Artsy that it was valued as a craft rather then a lesson learned.

With this, the main research question 'how the digital age has impacted art knowledge formation' was answered saying that, on the one hand the digital age has created new, more efficient IT infrastructures, thus allowing for more versatile access to different forms of expertise and, on the other hand, that metadata allows for more diverse and innovative ways of knowledge formation. Artsy however has only taken a few hesitant steps down this path, adding only a minimum layer of information to content as it is already available in classical scources. Other institutions (or Artsy itself) might in the future make more use of the possibilities available, though future research will have to look into that.

KEYWORDS: *Artsy, Digital age, Knowledge formation, Metadata*

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Preface

Throughout the process of making this thesis, a lot of bits and pieces have fallen into place. From topics discussed in both my bachelor and master, methodology courses, practice papers and endless argumentation structures to the practical, hands on experience of doing a research of this size. It would not have been possible without my supervisor, mrs. Payal Arora, to whom I can only say, thank you. I would also like to thank my parents, for your support, for your trust, for everything, *dank jullie wel*.

Chapter 1 Introduction

The impact of information technology, the Internet and the World Wide Web on today's Western society can hardly be underestimated. Today, these technologies have become an integral part of our day-to-day activities, impacting both private lives and professional environments. But development didn't stop at the creation of these technologies. In the last decade, the concept of metadata has been the subject of constant development and re-development in the information technology (IT) sector. The most recent of these developments began life at the later half of the 2000s with for, amongst others, Tim O'Reilly's 2007 publication on the properties of Web 2.0 and work by Tim Berners-Lee (as described in Bizer, Heath & Berners-Lee, n.d.) on Linked Open Data and RDF technologies. It is the idea that metadata can provide easy and innovative ways for data and datasets to be linked to each other, for data to be made accessible and for existing material to be clustered.

Parallel to this development, institutions in the cultural industries are also making a move towards the World Wide Web. Digitization of collections and making extensive material accessible online has been done for a myriad of reasons, including for collection accessibility, institutional visibility and educational functions. Here too, recent developments in information technology such as those briefly discussed above will have an impact on the sector, but how? Can these new developments allow people to learn things about arts and culture that they did not know before, even if others have? In other words, how do these technological impacts on the cultural industries influence knowledge formation?

This question is relevant for a number of reasons. For the users of the platforms and projects resulting form these developments, it might mean increased access to material for personal or educational purposes or just to look at 'pretty pictures'. For the makers of these projects it might help (re-)consider and (re-)design projects they are working on, or to re-evaluate their workflow to become more efficient in the long run. On an institutional level, knowing more of these impacts will help with decision-making and designing collaboration projects with multiple actors.

With these technologies and the theoretical debates around them still being relatively recent and partially still in progress, there aren't many cases of practical applications to be found yet. One exemplary case however is Artsy (Boucher, 2012; Empson, 2012; Robehmed, 2013), an online platform on art, which profiles itself as a database that extensively employs metadata to allow for new and interesting linkages and networks to be created within their data.

This research's aim is to answer the central research question "How has the digital age impacted art knowledge formation?" In order to do this two sub questions are asked: "How is the Artsy algorithm facilitating new knowledge associations and art clusters?" and "What role does expertise play on Artsy?"

As pointed out, the subject, debates and developments of this research are all either very recent or still under continuous development. For this reason the decision was made to format the

research as a qualitative, exploratory case study. This case study will on the one hand look at how Artsy has organised its' data through 'genes' or weighed tags, and which linkages and networks result from this, and on the other hand look at the people, called genomers, who fill the Artsy database and assign these genes, thus addressing the first and the second sub-question respectively. This will be done through content analysis of artists' biographies as provided on Artsy, as well as found in accredited classical art history sources and of genomers' profile texts. In addition, networks and cluster will be explored manually to form a proper image of the linkages these genes allow for. The coding schemes (sf. Saldana, 2015), used can be found in appendix D.

This is done by first exploring the theoretical debates surrounding these developments mentioned in chapter two, before going more in-depth on the methodological decisions made in chapter three. Chapter four will then present the results of the analysis, which will be used to answer the research questions in chapter five. All transcripts and datasets used are included in appendices B, C, E and F at the end of this thesis.

A small side-note needs to be made here about an issue that has arisen during this thesis. Due to unfortunate circumstances, the finalizing of this thesis was delayed for several months. The research has therefore been done around May 2015, with most of the initial writing process taking place between late 2014 and early 2015. Around October 2015, new information has emerged from Artsy itself, giving the user an in-depth insight in the company's inner workings. Though the exact workings of the Artsy algorithm in relation to the weight attached to genes remains unclear, the new information revealed that one of the key presumptions in this research was wrong. The authors of the Artsy editorial content are not, as thought, the genomers (with one exception). A separate team, presented on the platform as the 'Art Genome Project' team fulfils this function. Because of this information coming to light so late in the thesis writing process, it was deemed impossible to re-do the research with the correct dataset. This is of course one of the key risks of doing research on a subject that is still developing using a case that has only just entered the playing field. Hopefully future research can turn its attention to this case once more.

Chapter 2 Theoretical framework

§2.1 Knowledge formation

The question 'what is knowledge' has been asked since the existence of the written word. Over the centuries, many different voices in many different tongues have chimed in to have their say in the debate. What this has resulted in is a vast field of discussion with many, strongly varying opinions, but no consensual answer.

Looking at the core of the term, 'know', we find this already has ten different meanings in the Oxford dictionary, ranging from 'have information' to 'be familiar' to 'recognize' of 'skill'. (Know, 2010) The term 'knowledge' itself is accredited with three different meanings in the same dictionary. Though less then 'know', these definitions are if possible even wider spread than the meanings accredited to 'know'.

> "Know•ledge 1 the information, understanding and skills that you gain
>
> through education or experience: *practical/medical/scientific knowledge* 2
>
> the state of knowing about a particular fact or situation 3
>
> **economy/industry/worker** working with information rather than producing
>
> goods." (Knowledge, 2010)

These diverse definitions are necessary, some authors say, because the question 'what is knowledge' is nearly impossible to answer. (Burke, 2008; Siemens, 2006; Machlub, 1980) Your best option, Siemens writes, is to describe the term. He says that knowledge can be described by two key factors: "[First,] it describes / explains some part of the world. [Second,] we can use it in some type of action." (Siemens, 2006: iv) Burke (2008) goes for a slightly different approach, juxtaposing the concepts 'information' and 'knowledge', writing: "For convenience [I] will use the term 'information' to refer to what is relatively 'raw', specific and practical, while 'knowledge' denotes what has been 'cooked', processed or systematized by thought." (p. 11) Both authors then continue to list the plurality of 'knowledge's' they distinguish between, ranging from "local knowledge, everyday knowledge, non-textual information carriers (images, maps, material objects), oral cultures, non-verbal practices, etc." (Burke, 2008: 13) to "Knowing *about*, Knowing *to do*, Knowing *to be*, Knowing *where* and Knowing *to transform*". (Siemens, 2006: 10) Machlub (1980) goes for a slightly more practical route instead. Acknowledging that 'knowledge' cannot be exactly defined, he proposed the definition "knowledge [is] that which is known [as well] as the state of knowing." (p. 27) To clarify this definition, he juxtaposes 'socially new knowledge', "that which no one has had before" with 'subjectively new knowledge', which he describes as "old knowledge in new minds". (p. 7) Continuing in the vein of Machlub's writing, so interpreting knowledge as "anything that is known by somebody" (p. 7), it is possible to turn to the issue of 'knowledge formation'.

Amin and Cohendet (2005) describe 'knowledge formation' as a twofold process. On the one hand, they say, knowledge formation is about the process of learning something (acquiring new

knowledge). On the other hand, knowledge formation refers to the process of interaction as being the driving force behind increasing knowledge. Rephrasing this, their idea can be understood so that 'knowledge formation' is learning something that is new *to you* through interaction with other individuals. This then comes home to the Machlub's writing, which defines the production of knowledge as "any activity by which someone learns something *he* or *she* has not known before, even if others have". (Machlub, 1980: 7) Comparing these two concepts and their very similar definitions, an argument can be made for 'knowledge formation' and 'the production of knowledge' covering the same ground, and therefore can be used interchangeably.

This means that though the question 'what is knowledge' seemed to be un-answerable *exactly*, and is deemed so by the contemporary academic discourse on the subject, a working definition of the concept has emerged. Understanding knowledge, as said, as "anything that is known by somebody", knowledge formation can, again, as said, be understood as "any activity by which someone learns something *he* or *she* has not known before, even if others have".

§2.2 Digital age

Possibly one of the greatest influencers of contemporary society is the World Wide Web. Since its introduction in the 1990s, it has become increasingly integrated in both the daily life of individuals and the day-to-day activities of organisations. Initially best described as static content on web pages, the Internet has slowly developed to what, since the early 2000s, is called "web 2.0" (Arora, 2014; O'Reilly, 2005; O'Reilly, 2007) and which in itself is continuously developing to a "web 3.0". The design and technical, 'under the hood' organisation of the Internet have been modified over time to make collaboration and interaction easier. (Berners-Lee, Fielding and Masinter, 2005) Though a specific and detailed description of these technicalities is outside the scope of this thesis, an attempt to an explanation can help understanding of the rest of the topics that will be addressed in this thesis.

The initial idea behind the World Wide Web was that content could, through 'hypertext link' and 'text search', be connected with other texts. (Berners-Lee, Cailliau, Groff and Pollermann, 2010) At the most basic level, this meant that through elements of a text other texts could be found that related to the first text: going from a name to a phone number for instance, or if a concept appeared in a text, to a definition of this concept. Initially, this was primarily done on a text-only level, meaning that a word had to be in both texts for the link to be made. As time progressed, technology developed and the usage of the Internet as well as of the World Wide Web increased, data that describes other data or "metadata" became more and more important.

There are many different types of metadata (Bizer, Heath and Berners-Lee, 2009) and numerous authors have contributed to the on-going discussion about what metadata is, which distinctions are to be made and how to define them (Duval, Hodgins, Sutton and Weibel, 2014; Sowa, 2000; Greenhow, Robelia, and Hughes, 2009), but at a minimal level a distinction can be made

between metadata to make data easier to find and metadata that describes the data. The first of these two types of metadata are for instance key words describing the content of the data, while the second is of a more practical nature and would for instance give information on when and by whom the data was created, it's data format, etc. Content versus technical specifics so to say.

What metadata in both these forms is facilitating is the evolvement of the web to "a global information space of linked documents to one where both documents and data are linked". (Bizer, Heath and Berners-Lee, n.d.: 2) Specifically, metadata in both of its previously described forms plays a role in 'linked open data', the 'semantic web' and clustering.

Linked open data is (1) machine-readable data that is (2) published on the World Wide Web and (3) openly available. It is (4) explicitly defined, so that it can easily be (5) linked to external datasets. This is made possible by the data having (6) Uniform Resource Identifiers (URIs), which basically is a notation system to note the location of something on the World Wide Web. Linked open data is (7) described by using existing standard methods for describing metadata such as RDF (http://www.w3.org/standards/techs/rdf#w3c_all) or Dublin Core (http://dublincore.org/). (sf. Bizer, Heath and Berners-Lee, n.d.; Duval et al., 2002)

What linked open data makes possible is twofold: first of all it allows computers to understand the data better and 'preform increasingly sophisticated tasks on our behalf' and secondly, to link 'data from a source to any other source'. (http://www.cambridgesemantics.com/semantic-university/introduction-semantic-web) The resulting possibilities on the World Wide Web are called many different things in contemporary discussions, one such descriptor being the 'semantic web'. The World Wide Web consortium defines the semantic web as "W3C's vision of the Web of linked data. Semantic Web technologies enable people to create data stores on the Web, build vocabularies, and write rules for handling data. Linked data are empowered by technologies such as RDF, SPARQL, OWL, and SKOS." (http://www.w3.org/standards/semanticweb/)

Pausing momentarily to note that like most continuous developments, the idea of linked open data and the semantic web are not immediately the worldwide standard, it has to be acknowledge that since its inception in 2008 the ideas have been discussed and implemented extensively, both in- and outside the cultural sector. Besides the general examples that Tim Berners-Lee, one of the propelling forces of the Linked Open Data movement, gave (TED, 2010), more and more research in the arts and cultural field on the subject are being conducted. A number of cultural institutions have for instance made (parts of) their collection available as linked open data, of which the case studies on MuseumFinland (Hyvonen et al, 2005) and the Amsterdam Museum (de Boer et al., 2012; de Boer et al., 2013) are good illustrations. Parallel, the idea of using linked open data to cater to visitor needs is explored from different angels, for example by Chou, Hsieh, Gandon and Sadeh (2015) who discuss the idea of instantly generating a tour based on personal preferences, or van Aart, Wielinga and van Hage (2010) who focus on the idea how geo-locations and the semantic web can be combined to give a user instant cultural information about his or her surroundings.

Accompanying this body of work on case studies and executed applications exists an even larger body of work of technical discussions on how the ideas of linked open data and the semantic web can make datasets more accessible. While some authors such as Hollink, Schreiber, Wielemaker and Wielinga (2003), Russel, Torralba, Murphy and Freeman (2005) and Halaschek-Wiener et al. (2006) tried to tackle the issue of semantic annotation and image collections, others, such as Christophides et al. (2004), Kakali et al. (2007) and Uddin and Janecek (2006) focused on how metadata should be structured.

Following this last line of discussion, so of the idea that (meta)data can be organized and grouped in order to facilitate usage and derive new or alternate meanings, the idea of 'clustering' emerges. The Oxford Learners Dictionary defines a cluster as follows:

"Cluster (1) a group of things of the same type that grow or appear close, (2) a group of people, animals or things close together (3) (*phonetics*) a group of consonants which come together in a word or phrase" (Clustering, 2010)

Working from this definition, it can be said that "[clustering] is the organization of a collection of patterns […] into clusters based on similarity." (Jain, Murty and Flynn, 1999: 265)

In the many debates and sub-debates currently existing on linked open data and the semantic web, the concept of clustering is discussed in different contexts (specifically as a mathematical theory). An example of research addressing the concept from another angle is the work of Hayes and Avesani (2007). They looked into the question how tags could be used to make specific data easier to find. Specifically, they wrote: "Using extensive empirical evaluation we demonstrate how tag cloud information within each cluster allows us to identify the most topic-relevant blogs in the cluster. We conclude that tags have a key auxiliary role in refining and confirming the information produced using typical knowledge discovery techniques." (2007: 2) Though tags and linked open data are not the same, we can elongate their argument and say that additional descriptive data, both human readable data (such as tags or metadata) and computer-readable data, make information easier to find and thereby easier to cluster, in both traditional as well as non-traditional ways. This idea will be explored further in the next chapter.

§2.3 Knowledge formation in the digital world

The digital world has impacted many industries and disciplines, if not all, and (art) knowledge formation is no exception. The question is, how has the digital world impacted (art) knowledge formation? There currently is rather a lack of existing scientific research on this question, so in which these two sectors are *explicitly* combined. But, based on what is available, an initial answer can be formulated: the digital world has impacted (art) knowledge formation in two distinct ways, namely by creating new possibilities for both people working in and on (art) knowledge formation as well as for the systems and technology they are working with. Both will be addressed below.

§2.3.1 Possibilities in terms of users

The digital world has created new possibilities for people working in and on (art) knowledge formation, but who are these people then, and what are these new possibilities? In her book "Sociology of the arts", Victoria D. Alexander (2003) discusses the 'cultural diamond' model. This model, which analyses the cultural industries through the lens of cultural sociology, classically shows that in the cultural industries 'art' is created through the interaction between five elements or actors, namely 'creators', 'society', 'consumers', 'art' and, as intermediary in the hart of the model, 'distributors'. In her perception, the cultural diamond suggests that links between art and society can never be direct, 'as they are mediated by the creators of art on the one hand and the receivers of it on the other'. What these different interacting elements to a certain extent, and these distributors especially do, is acting as 'gatekeepers'. They are mediating what information is transferred and in which form this is done. Simultaneously, through the interactions between them, gatekeepers form new and shape existing knowledge because they influence what and in what form people learn something they might not have known before, even if others have.

Gatekeepers can then be understood as the people "who make decisions about the selection, shaping, display, timing, withholding, or repetition of messages." (Donohue, Tichenor and Olien as cited in Bien, 1997: 154) Gatekeeping in art has been common practice for centuries. As Bien (1997: 151) writes: "In historic times, religious and secular patrons governed art production, consumption and distribution previously controlled by guilds. Before that, rulers and shamans had been the gatekeepers of ritual art and symbolic representations." Within the concept of 'gatekeeping', expertise, a 'temporally stable outstanding performance in a particular domain' (Ericsson and Smith, 1991) based on 'extensive specialized knowledge' (Augustin and Leder, 2006) is tacitly implied.

This definition of expertise is worth exploring further. According to Shanteau, Weiss, Thomas and Pounds (2002) an expert is somebody with 'experience and certification, a degree of social acclamation and a grasp of consensus, who is consistent, has the ability to discriminate and has proven his or her expertise through knowledge tests'. Arora and Vermeylen (2012) focus on the last bit of this definition, in adding, "Through certification, many professionals receive recognition. Art historians who obtained a doctorate have a greater credibility than an art aficionado without a degree." This definition might have held true in earlier times but doesn't necessarily do so to this day.

Classically, as for instance described by Bien (1997), there where not that many channels of communication, information and/or access to art forms, and those that did exist where often institutionalized. This is why gatekeepers where nearly always professionals. Linking this back to the discussion above, it can then be said that professionals are tacitly expected to be experts, causing non-professionals to be deemed non-experts.

Which is why the definition of expertise as portrayed by Shanteau et al. (2002) and Arora and Vermeylen (2012) does not holds up unscratched *in contemporary society*. With the advent of the digital age new channels where created that where not necessarily institutionalized, hence opening up

the floor to non-professionals, or, a preferable term: laypeople. With the continuing development of the World Wide Web and information technologies, the increasing embeddedness of the Internet and technology in our day-to-day lives and the continuously increasing accessibility of it all, we find non-professionals who *are* experts on a myriad of digital platforms, as well as in roles that where previously executed solely by professionals. (Kammer, 2015) A layperson might have just as much, if not more, expertise, then a professional.

Having acknowledged that non-professionals can be experts as much as professionals can, it is interesting to see how the digital age has impacted these sources of expertise. One of the ways in which that is done, that has been discussed in quite an extensive body of literature, is the idea of 'the wisdom of crowds'. This concept refers to the phenomenon in which "the collective knowledge of a community is greater than the knowledge of any individual." (Surowiecki, 2004 as quoted in Marbach et al., 2012: 796) Numerous examples of the application of this idea can be found, with Wikipedia being the most well known example (König, 2013; Kittur and Kraut, 2008), where 'the crowd' supplies and edits content in a vast online encyclopaedia. Here, the 'wisdom of crowds' refers directly back to the idea for which the term was originally coined: "with enough eyeballs, all bugs are shallow" (Raymond, as cited in O'Reilly, 2007: 23). Another application of the idea was touched upon in the MA thesis research of Jessica Verboom (2012), who looked into blogs in the museum world. Though some blogs are institutional, there are also a number of influential blogs that are either by one author, who can be a professional or layperson, or even by a community of (lay)people. These, and many other examples, are illustrations of how the development of IT and the World Wide Web, as well as increased integration of these technologies in day-to-day life, have created new platforms for experts, professionals and laypeople alike to reach an audience.

Another application of the concept is in the form of 'crowdsourcing'. Crowdsourcing, or "outsourcing to the crowd […] represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call [… to a] wide network of potential labourers." (Howe, 2006 as cited in Schenck and Guittard, 2011: 94). The consensus mode of operation with crowdsourcing is to prepare part of a set of tasks and/or project, then ask the public to fulfil a specific prepared task and, when the output has come in, to test the quality of the output in a number of possible ways, for instance by means of algorithms that test majority voting. (Oosterman et al., 2014) In the cultural sector a number of examples can be found of crowdsourcing, or at least where crowdsourcing was a substantial part of the project. The Rijksmuseum for instance had a crowdsourcing sub-project in its mass-digitization project (sf. Oosterman et al., 2014), where people could play a game to help label recently digitized artworks.

The problem the 'wisdom of crowds' in any of these applications raises is that a majority vote does not always lead to the correct answer, though such a crowd might be composed of lay-people as well as experts. (Barocas, Hood and Ziewitz, 2013) This is where, in more recent writings, the idea of

multiple levels of knowledge in crowds is proposed. Blaauboer (2014) makes the distinction between knowledge of crowds, knowledge of communities and knowledge of niches. He writes that if you show the public an artwork, the crowd will be able to attach general concepts, while a community can attach more specific concepts, for instance recognizing a vegetable that is portrayed, and a niche would be capable of providing you with the exact species and genus of said vegetable.

This idea of different levels of knowledge is beginning to find a practical translation in existing writing in the form of 'nichesourcing', "the finding and engaging of people with the right domain expertise [for a task]". (Oosterman, Nottamkandath and Dijkshoorn, 2014: 267) An example is another sub-project of the Rijksmuseums' mass-digitization efforts, a semantic annotation project. Here, people who considered themselves experts on either birds or biblical history could help annotating digitized artworks and books after indicating their level of expertise through a number of questions. (Bozon, n.d.; Blaauboer, 2014)

Having determined that a) professionals and laypeople alike can be experts, but being a professional does not automatically entail being an expert, b) the digital age has opened up new channels through which people can act as gatekeepers, and thereby has given more people, again professionals and laypeople alike the platform and opportunity to do so, c) that the digital age has, in the same vein, created new infrastructure through which more people can be reached with a task or question and through which these people can more easily respond to such a call, it can be concluded that anybody with a degree of expertise can now provide and shape (art) knowledge formation, thanks to the impact of the digital age.

§2.3.2 Possibilities in terms of technology

The digital world did not, as said, only impact people working on (art) knowledge formation, but also the systems and technology they work with. With the introduction of the computer and later of the Internet and World Wide Web, organisations went from working analogue to partially digital, to almost entirely digitally, though obviously not everywhere at the same time, in the same way and at same pace. (Navarrete, 2014) In the art sector this shift was mostly seen in terms of communication (e.g. adoption of email, websites), administration, collection management and, though this is true for only part of the sector, in terms of the artworks and presentation of these artworks (e.g. online exhibits, digital art, etc.) More common in terms of the artworks and collections however, was the action of making (parts of) a collection available online.

In order to be able to make a collection available online, and to make some the other functions mentioned possible, objects first needed to be digitized. The first digital content management systems where the old analogue index cards typed into a collection or database management programme. As technology progressed and people became more accustomed to the day-to-day use of computers and similar technology, these digital records slowly evolved. More information was added, such as for instance an image of the object and different museological functions where combined in one (digital)

place by linking the factual information on the object with restoration and conservation reports about it or of the exhibits and loans in which the object had featured. As the focus of museological interest shifted over time towards the view that an object was not only interesting in itself, but even more so in the history and stories behind it, digital systems where put to use to add descriptors, back-ground stories and link objects to publications and such. (G. Borghuis, personal communication, September 21, 2015; G. Borghuis, personal communication, September 23, 2015) With this last shift of attention especially, the importance for metadata becomes more explicit, as do the technical applications in which they can be used.

Algorithms are "a set list of instructions and processes required to complete a task." (Granka, 2010: 372) When it comes to (online) information, the algorithms in a search engine act as gatekeepers, in that they 'select' which information is considered most relevant to the user. (Gillespie, 2012: 1) Such a 'recommendation algorithm' uses three cues: linguistic, popularity and user behaviour cues. Linguistic cues are the frequency with which a term appears on a page (the more, the higher the result will be in the ranking of the search engine), and web metadata, which is used to determine how the result should be presented and how important certain words on the page are. Popularity cues interpret the number of views a page has as an indication of its popularity, and user behaviour cues, in simplified terms, mean that a users activity online is tracked, and that this data is then interpreted to see how the search algorithms in question could be optimized. (Granka, 2010) Using these cues, data can be optimized for algorithms, thereby being privileged (to a small extend) over other data. (Arora and Vermeylen, 2013)

The user behaviour cue that is found in recommendation algorithms on the Internet can also be found in databases, such as art databases, as discussed by Arora and Vermeylen (2013). Often, art databases employ these cues to 'modulate future visits' to their sites, and thereby steering the user in certain directions. This is not the only way in which the protocols of algorithms in databases are biased, however. The authors continue to explain that the processes of inclusion and exclusion, or what is allowed in the database and what is not, is at play when constructing a database, as is the coding of data in the form of metadata. As is explained by Granka (2010), Arora and Vermeylen (2013) and Gillespie (2012) amongst others, metadata can be optimized so as to make recommendation algorithms pick up data easier, making the data it's linked to turn up higher in the recommendation the algorithm formulates. In other words, there is a politics of algorithms in the sense that content producers, through the usage of metadata, can influence algorithms.

Metadata can, however, not only help make data easier to find, but also make data easier to use and access. Through RDF protocols (a technical procedure enabeling linked open data, sf. Berners-Lee, 2005) for instance, data can be found even if descriptors and terms are used that deviate from consensual practice (a risk when multiple people assign metadata or if the organizations' policy in respect to metadata has changed over time), as well as when non-experts are using other terms then those used in the dataset. Beside these benefits for use of one institutions data, RDF protocols can

make it easier to link datasets. Though quite a few institutions adhere to the same standard vocabularies and systems such as, for example, the arts and architecture thesaurus (http://www.getty.edu/research/tools/vocabularies/aat/index.html) and the Dublin Core standard for metadata organization (http://dublincore.org/) in the cultural sector. These are agreements, however, not laws. Institutions that whish to collaborate might have used different vocabulary standards. Through these new technological possibilities they can collaborate without having to change the data in the set of either institution. In other words: technology in general, but especially through recent developments in metadata related to open data specifically, made it easier for data to be made available as well as compatible.

§2.4 Conclusion

So, having first defined knowledge as 'anything that is known by somebody' and knowledge formation as 'any activity by which someone learns something he or she has not known before, even if others have', this chapter turned its attention on some of the debates surrounding the 'digital age'. Here, the conclusion was drawn that the World Wide Web, which in itself had quite an impact factor already, has caused technology to focus some of its attention on metadata. In the sub-discussion addressed, two types of metadata where distinguished, namely those describing the content of data and those describing the data itself 'an sich'. Following that, the argument was made that one of the recent developments on the World Wide Web, linked open data, which lays the foundation for the semantic web, can be a critical factor in the practice of clustering. This is, as said, the organizing of a collection of patterns into clusters (groups) based on similarity. Additional descriptive data, both human readable data and computer-readable data, make information more accessible, easier to find and, through tricks such as RDFs more compatible. Thereby, the data becomes easier to cluster which allows for easier knowledge formation.

The human factor facilitating this is also impacted by the digital age, as the discussion on gatekeeping showed. Through technological functions as well as increased integration of IT in day-to-day lives and thereby increased accustomedness to IT, more experts, professional and non-professional have more infrastructure to act as gatekeepers of knowledge formation. At the same time others, both experts and non-experts, have more ways to interact amongst each other and among themselves, thereby furthering knowledge formation even more.

Chapter 3 Method

§3.1 Research design

In contemporary scientific tradition, research methods are valued on a scale between qualitative and quantitative research. Traditionally, these two extremities on the scale are distinguished on the basis that quantitative research works through a mathematical process of interpretation, while qualitative research works through a non-mathematical process of interpretation. (Strauss and Corbin, 1998) Others, amongst whom Hennie Boeije, 't Hart and Hox (2009) don't put the emphasis in their definitions on the mathematical versus non-mathematical distinction, but instead stress that qualitative research studies something in context. This can be done by studying data for recurring patterns, which, through coding, can be grouped in a number of 'themes' or 'categories'. (Sadana, 2015)

Within each area of the scale, numerous variations of either extremity are distinguished (sf. Boeije et al, 2009). One of those forms is interpretive qualitative research, which main objective is to explore a specific situation within its own context and interpret findings in the larger context of existing scientific debate. This is as opposed to for instance analysing the effectiveness of healthcare interventions or other uses to which qualitative research is more frequently put.

When discussing qualitative research, there is no one preferred or standard method, but a myriad of methods that are each more or maybe less fitting to specific cases. (Strauss and Corbin, 1998) This research attempts to address a case in which a theoretical idea sprung forth from recent scientific debate, from which the results of real-world implementation are not easily predicted. Simultaneously, because implementation of this theoretical debate has only started recently, there aren't many cases available, let alone suitable enough for one-on-one comparisons. Therefore, an exploratory qualitative single holistic case study is found to be the most fitting option for a research design. (Yin, 2013; Baxter and Jack, 2008)

The reason Artsy was chosen as case is that, though it is not the only company combining the digital age and knowledge formation, it is the first to explicitly pay attention to metadata. The Artsy website is supported by a database that is structured through the 'Art Genome Project'. What sets this project apart, already at first glance, is the fact that the Art Genome Project does not employ binary labels or tags (where something is something, or it is not), but instead assigns a weight between 0 and 100 to each descriptive tag, to show how much something does or doesn't apply. (Israel, 2012) Artsy can therefore be, and is being, called a forerunner (Cairns, 2012; Empson, 2012), making it a suitable case for an exploratory qualitative single holistic case study research.

The central research question this thesis aims to answer is 'How has the digital age impacted art knowledge formation?' In order to answer this question Artsy will, as said, serve as a case study. Within this case, two sub-questions are asked: first, 'How is the Artsy algorithm facilitating new knowledge associations and art clusters?' and second, 'What role does expertise play on Artsy?'

§3.2 Data collection process and datasets

§3.2.1 The problem with doing a case study

When Artsy was being researched (late 2014 to early 2015) for this thesis, the platform had only relatively recently come out of its beta-phase and was still in the midst of establishing a brand identity and stable market position. Therefore, barely any concrete information was made available on the platforms' trade secret: the Art Genome Project. In addition to this, it was unfortunately not possible to personally work with the Art Genome Project 'from the back'. An exploratory qualitative case study relies in equal shares on primary and secondary research. Because of the constraints mentioned, the decision was taken to give the primary research form as a user of the platform, deciphering the necessary information based on what was available 'at the front', while simultaneously aiming at building an elaborate database of secondary research and media-coverage of Artsy to aid the primary research and ameliorate understanding of the case.

In addition to this, in one of the final stages of writing this thesis in late October 2015, it became apparent that Artsy itself has also released more information on their behind the scenes processes through the publication of a series of articles on the topic. (sf. https://www.artsy.net/theartgenomeproject) Albeit the date-stamp of these publications ranging from 2012 to October 2015, this content could not be found earlier, either through the site itself or by searching for the articles contents. A possible explanation for this is the changes in infrastructures made on the platform, one example of which being the move from http://art.sy as URL to https://www.artsy.net/. Based on the newly made available information, one of the assumptions this thesis has been based on is proved false: the team working on the Artsy editorial content (https://www.artsy.net/articles) does not necessarily work on the Art Genome Project (https://www.artsy.net/theartgenomeproject) as well.

Given the discovery of this new information this late in the process, it was not possible to rectify this mistake and do the same research with the correct data. The content of this thesis has therefore remained based on the presumption that the people working on the Artsy editorial content are the people who also supplied the genome data. This mistake is not explicitly stressed in the rest of the text itself, having been addressed shortly in both the summary and introduction as well as elaborately in this paragraph.

§3.2.2 Genomers dataset

In different journalistic coverings of Artsy (for example in Gambion, 2012 and in Enxuto and Love, 2015) it is described how Artsy uses a team of part-time employees they call 'genomers' to write the metadata for the artists' and artwork entries in the sites' database, as well as to produce part of the journalistic content on the site. An example of this on-site journalistic content is the editorial section, a sort of weblog section of the site (https://www.artsy.net/editorial). Here articles where posted that ranged from in depth analysis of artists to articles about the depiction of a particular

subject matter throughout space, time and styles. At the end of these articles the name of its author was included, which linked back to their profile page on Artsy if available. By going through the articles in the editorial section as far as the system allowed it (which, due to continuous technical failures was not all the way back to a first publication), a list of authors (so of genomers) was compiled. Please refer to appendix E for this dataset. This compilation was constructed by repeatedly accessing the page discussed between March 29th, 2015 and May 10th, 2015.
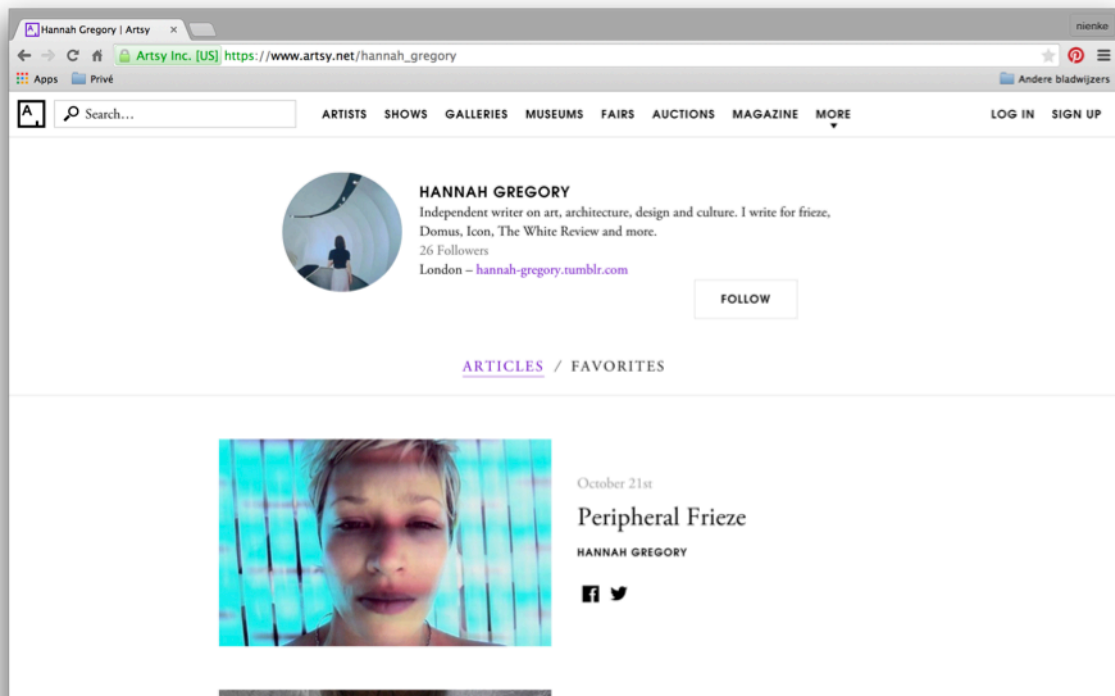
Fig. 1: Screenshot of a genomers' profile page.

Of the twenty-nine names found this way, nineteen had a profile with biography on Artsy, and where therefore considered usable. Of these nineteen people, the factual information their profiles provided was collected. This information included their names and a short autobiography they had written for the site. These short texts, ranging from 56 to 278 signs (excluding spaces) where analysed using content analysis as method. Through repeated analysis, going from open to axial coding, a coding scheme was formed that included the genomers' gender, location, profession, educational background and 'other information provided'. This coding scheme is included in appendix D.

Initially, mentioned social networking sites where also recorded, but since only a very small percentage of genomers linked their Artsy profile to a social networking account the idea of analysing this was dropped.

§3.2.3 Genes' dataset

From journalistic coverage of Artsy, the image comes forth that the website was created with the objective of being a 'art database' in mind. (sf. Boucher, 2012; Cairns, 2012; Empson, 2012; Enxuto and Love, 2015; Gambino, 2012 and others) The companies' mission, "to make all the world's art accessible to anyone with an Internet connection. We are a resource for art collecting and education" (http://www.artsy.net/about) supports this. Upon browsing through the platform's content, it became clear that its databases contain 'old' art such as 12th century carvings, as well as modern artists the likes of Andy Warhol, up to art that was only produced several weeks ago by not yet established artists. In order to for this research to be representative, it was therefore necessary to not do a completely random sampling of artists, but to set a number of perimeters.

Based on methodological advice from the thesis supervisor and university rules, a sample of twelve artists was deemed appropriate. Of these, a fifty/fifty division between established and emerging artists, and a similar division between western and non-western artists was considered appropriate. These two divisions where made for two reasons. First, Artsy claims in its mission statement to "make *all the world's art* accessible" (https://www.artsy.net/about, emphasis added). Traditionally however, the study of art history in the west has focused primarily on western art. (Jenks, 1995: 1 – 25; Harris, 2001) With the increased possibilities of metadata, it is interesting to test if Artsy does indeed fully utilise the potential options this creates, not just looking at ways to employ metadata that alternate from common practice in the sector, but also to not just put focus on western art, but shift this focus to more balanced levels of attention. As Empson (2012), Enxuto and Love (2015), Gambino (2012), Rothfeldtoct (2014) and Ryzik (2012) write, Artsy claims to be doing so.

The next step was to decide the artists for these countries through a representative sampling. During the preparatory browsing of the Artsy site, it became apparent that not all artists' pages where completely filled out. Specifically, not all artists' pages included a biography, a feature that would be crucial for analysis. In order to ensure analysis was possible, a number of criteria where first set to ensure that the representative sampling was done of artists whose pages contained all necessary information. Only artists' (1) whose artwork displayed on Artsy included paintings, (2) who used oil paint for these paintings and whose Artsy page included (3) a biography, (4) a related genes section and (5) a related artists section, where deemed suitable for analysis.
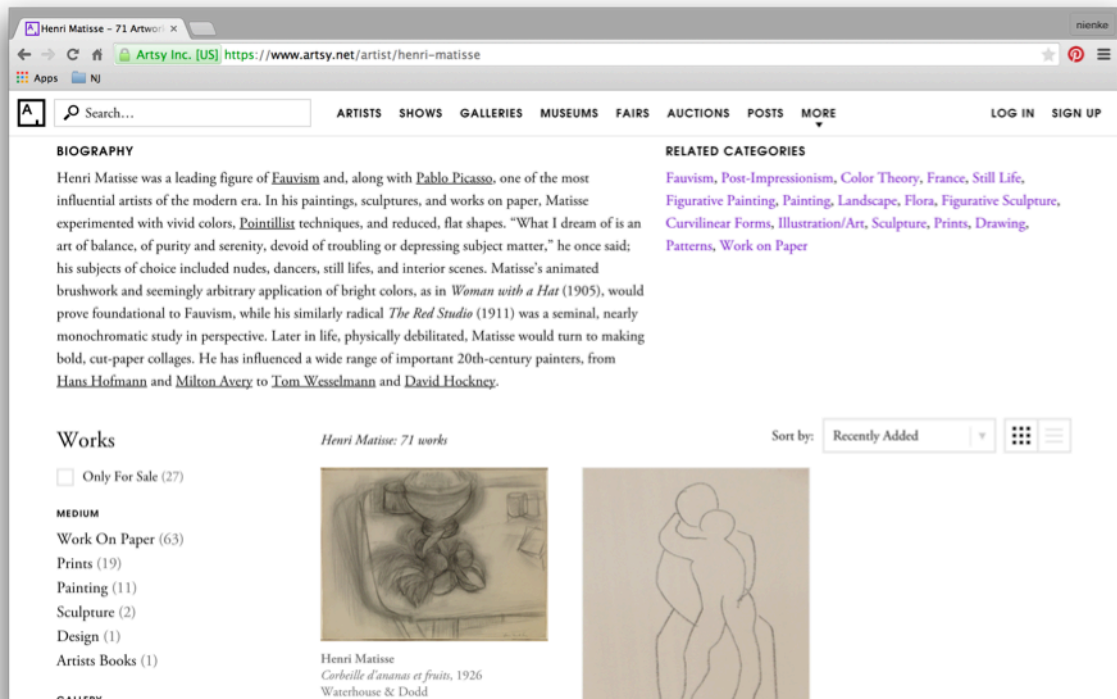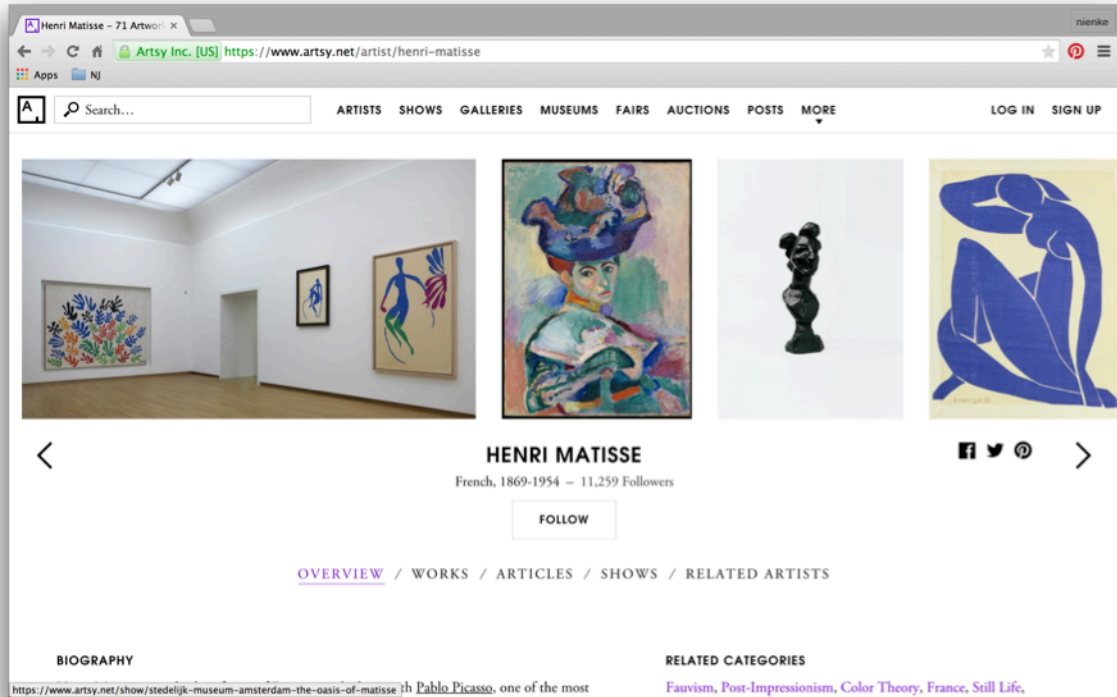
Fig. 2: Screenshots of an artists' page as found on Artsy.

This let to the following steps to be taken: First, per randomly selected country, a lists of artists who where attributed with that country as a gene on artsy was made. For example, China's gene on the site can be found through https://www.artsy.net/gene/china. When following this URL, all

artists in the sites' database who have been attributed with "China" as a gene are listed. The second step was then to manually go through the six resulting lists with the five previously explained criteria, and remove all artists from the lists who did not meet all five of them. Third, the remaining artists where coded as either established or emerging artists. The last step was then to take the list of established artists in a particular country and, by random selection, come to one artists considered representative for this category, then doing the same for the emerging artists in that country, and in this fashion going through the lists of all six countries in the sample. The resulting random sample of artists is depicted in the third and fourth columns of table 1 below.

Country	Western or non-western	Established artists	Emerging artists
China	Non-western	Chu The-Chun	Xue Song
India	Non-western	Syed Haider Raza	Alexis Kersey
Mexico	Non-western	Frida Kahlo	Claudia Baez
France	Western	Henri Matisse	Bernard Aubertin
The Netherlands	Western	Jan van Eyck	Jan van der Ploeg
United States of America	Western	James Abott McNeill Whistler	Kehinde Wiley

Table 1. Sample of artists.

In March 2015 the texts for each of these artists as available on Artsy where collected. Simultaneously, continuing until May 10th, 2015, these texts where repeatedly analysed through content analysis, which resulted in an initial coding scheme. This scheme encompassed, per artist, the biography, related categories, related artists and suggested contemporary artists. During the continuous abstraction process and consequent modifications of the coding schemes, a number of errors and misinterpretations sneaked into the coding scheme and findings. Therefore, between May 10th and June 10th, the old analysis was let go off, and the process was started anew.

The coding scheme, as can be found in appendix D, based on which the eventual dataset (which can be found in appendix F) was formed included, per artist, the biography, related categories, related artists (encompassing both the 'related artists' and 'suggested contemporary artists' sections of the artists' pages). This last section, in which all the artists the Artsy system linked to the artists in the sample where listed, was elaborated upon with the nationality, status (emerging or established), gender and status of each artist in the sample *as well as* the same information for each artists to which they where related in the system (both as 'related artists' as well as 'suggested contemporary artists'). The final version of the coding scheme can be found in appendix D.

§3.2.3 Classical texts dataset

In order to be able to compare how the digital age impacted art knowledge formation on Artsy, it was necessary to create a textual database of 'classical texts' as a benchmark. The body of art historical literature is however enormous to say the least, with varying levels of quality and expertise, that are difficult to measure for somebody who is not part of this particular field. In the Netherlands, the Stedelijk Museum in Amsterdam is *the* knowledge centre on modern art. Information in its' library can therefore be taken as trustworthy, correct information of quality. In early June 2015, using the at-hand library, the extensive library catalogue and personal help from the head librarian during a visit to the museum, classic art history texts on the artists in the sample where collected, so as to provide information with which to juxtapose the information as made available by Artsy. Transcripts of these classical texts can be found in appendix C, the transcripts on the information as made available on Artsy in appendix B.

It has to be mentioned that these classical art history texts are from a different length and sometimes written with a different purpose in mind than the Artsy biographies where. A suggestion could be for further research to collect multiple articles on each artist in the sample, compare the labels assigned in each of these and find a way to weigh these labels to each texts and come to an 'average' of the labels assigned to a particular artist in classical art history texts. For this research, this idea cannot be executed due to lack of access to multiple suitable texts on each of the artists in the sample. Though unfortunate, this is an issue that cannot be overcome within the boundaries set for this thesis, and has therefore been accepted as a given.

These classic art history texts where also used for a last focus point in the overall analysis, namely on the network of artists as presented by Artsy. For each artists in the network of one of the artists in the sample the same information was recorded as was done for the artists in the sample, namely, nationality, gender, status and century in which the artist was active. This information was used to compare the artists from the sample with the artists in their networks, to see what the Artsy algorithm links different artists with, and if the 'scores' of the artists in the sample on for instance nationality or status appear to impact who they are linked with.

§3.3 Methods of analysis

The primary method of analysis in this research is content analysis. Data will be collected through journalistic content about Artsy, genomers' and artists' biographies on Artsy, through articles, books and other publications about artists and by looking at textual descriptors used on Artsy to create networks between artists.

Content analysis is a method that interprets texts 'in order to make sense of the ways in which, in particular cultures at particular times, people make sense of the world around them.' (McKee, 2003) The method can be used with either qualitative or quantitative data, and can be employed in an inductive or deductive way. It's core objective is to 'distil words into fewer content-related categories'

as Elo and Kyngäs (2007) put it. Because a case is explored in this qualitative research, the data is leading. From specific patterns found in the data, more generalised categories will be developed, thus going from open to axial codes, with the objective of comparing the forces at work in this case to the overall forces described in the theoretical framework. This means that for this research the content analysis will be used in an inductive way.

In an inductive content analysis, qualitative data is 'organised, using a process of open coding, creating categories and abstractions'. (Elo and Kyngäs, 2007) In practice this means that the texts are first read repeatedly to see if any patterns emerge through an abstraction process (sf. Elo and Kyngäs, 2007: 110-112). Based on these patterns, a coding scheme is developed, which is adjusted and expanded as analysis progresses, so as to take new findings into account. The coding scheme for this research will be included in appendix D.

Chapter 4 Results

§4.1 Artists biographies': a comparison

In order to analyse if Artsy is allowing for new knowledge formation an accredited source on an artists and that artists' biographical information on Artsy where compared. As explained in the method chapter, a content analysis was conducted by first repeatedly open coding the texts at hand, which where then distilled into a handful of labels through axial coding. Here, the texts about one of the artists in the sample, James McNeill Whistler, are being compared as an example of how this analysis was conducted. The assigned codes are shown in orange below the corresponding parts in the text. First, the coding of the accredited text on this artist is shown in example 1, which is followed by the coding of the Artsy biography on this artist in example 2.

James McNeill Whistler participated in the artistic ferment of <u>Paris and London</u> in the late

Location

nineteenth century, crafted a <u>distinctive style from diverse sources</u>, and arrived at a version of <u>Post-</u>

Eclectic style

<u>Impressionism</u> in the mid-1860s, a time when most of <u>his contemporaries in the avant-garde were still</u>

Style   Situating in context (differentiate)

<u>exploring Realism and Impressionism</u>. Born in <u>Lowell, Massachusetts</u>, Whistler spent part of his

Location

youth in <u>Saint Petersburg, Russia</u>, where his father, a civil engineer, advised on the construction of the

Location

railroad to Moscow and Whistler took drawing classes at the Imperial Academy of Sciences. Upon his

return home, <u>Whistler entered the United States Military Academy at West Point. He studied drawing</u>

<u>with Robert W. Weir but had less success in other subjects;; his failure in chemistry led to his</u>

Educational background / training

<u>dismissal from the academy in 1854. After working in the drawings division of the United States</u>

<u>Coast and Geodetic Survey, where he received his first training in etching</u>, Whistler—already fluent in

French from his childhood years in Russia— decided to pursue a career as an artist by going to <u>Paris</u>

Location

to study.

Whistler arrived in the French capital late in 1855, <u>at least a decade ahead of the great wave of</u>

his compatriots who would seek art instruction there. He enrolled in the école Imperial et Spéciale de

Dessin (the "petite école") and in Charles Gleyre's independent teaching atelier, where Beaux-Arts

principles prevailed (and where the future Impressionists, including Claude Monet and Pierre-

Auguste Renoir, would study a few years later). Then and thereafter, Whistler's artistic development

would owe less to his formal lessons than to influences outside the academic world. He responded to

paintings by Dutch and Spanish Baroque masters, especially Rembrandt, Johannes Vermeer, Pieter

de Hooch, Gabriël Metsu, and Diego Velázquez, and by contemporary French painters who admired

the same traditions, notably Gustave Courbet, Henri Fantin-Latour, and Alphonse Legros. In

1858, Fantin-Latour, Legros, and Whistler proclaimed their allied interests by organizing themselves

as the Société des Trois. Whistler also became friendly with Carolus-Duran, Zacharie Astruc, and

Félix Bracquemond and was attracted to the innovative art of Édouard Manet, two years his senior,

whom he met in the summer of 1861. The writings of Charles Baudelaire and Théophile Thoré

(pseudonym for Willem Bürger), which stressed the importance of harmonious picture surfaces, and

French painters' growing interest in Japanese aesthetics would also inform Whistler's style and

philosophy of art.

Whistler had established a connection with London in the late 1840s when he went to live for

a year with his half-sister Deborah and her husband, the English physician and etcher Seymour

Haden. In May 1859, he decided to settle in London and to work at a distance from his avant-garde

French colleagues, although he remained a conduit of ideas between them and his English artist friends. The latter included Dante Gabriel Rossetti, John Everett Millais, and other Pre-Raphaelites, whose paintings influenced Whistler's and who shared his enthusiasm for Japanese prints and blue-and-white porcelain. Initially, Whistler merely included Asian costumes and accessories as props in

Subject matter

his works but, by the mid-1860s, he adopted Japanese principles of composition and spatial

Method/technique

organization. His landscapes of those years reveal that he had rejected his earlier commitment to

Situating in context

transcribing nature in the manner of Courbet, and was responding instead to formalist imperatives, including flat, decorative surfaces, subtle tonal harmonies, and allusive, rather than literal, subjects.

Taking a cue from a critic who had referred to his early portrait of his mistress, The White Girl (1862;; National Gallery of Art, Washington, D.C.), as a "symphony in white," Whistler began to envision and entitle his works with the abstract language of music, calling them symphonies, compositions, harmonies, nocturnes, arrangements, and so forth.

During the late 1860s, Whistler struggled to create harmonious multifigured arrangements that

Method / technique

would recapitulate his successful experiments with landscapes. By 1871, he had decided to pull back from that ambitious initiative and to concentrate on single-figure subjects. His seminal canvas in this

Method/technique

vein was Arrangement in Gray and Black, No. 1: The Artist's Mother (1871;; Musée d'Orsay, Paris). In portraits that followed, including Harmony in Yellow and Gold: The Gold Girl—Connie Gilchrist (11.32) and Arrangement in Flesh Colour and Black: Portrait of Theodore Duret (13.20), Whistler continued to emphasize strong silhouettes, elegant contours, and beautiful surface patterns;; calibrate

the placement of the figure in relation to the edges of the canvas;; investigate delicate variations on

one subdued hue or a pair of neighboring or contrasting hues;; and balance description of appearances

with what he perceived to be pictorial necessities.

Whistler invented a monogram signature—a stylized butterfly based on his initials—and

always placed it deliberately as a compositional element, not just a maker's mark. His devotion to

overall harmony extended to interior decoration, furniture, and the design of frames and even entire

Motivation

exhibitions. He became a central figure in the Aesthetic movement, which was founded on the

philosophy of "art for art's sake" and emphasized artistic principles, elevated taste, and creative

eclecticism in the conception and production of furniture, metalwork, ceramics and glass, textiles and

wallpaper, and other objects. He was also an influential printmaker. Whistler's innovative paintings

Situating in context

and pronouncements invited controversy. He famously filed and won a libel suit in 1878 against the

aging English art critic John Ruskin, who had accused him of "flinging a pot of paint in the public's

face" when he showed an almost abstract city scene—Nocturne in Black and Gold: The Falling Rocket

(1875;; Detroit Institute of Art)—in an exhibition at London's Grosvenor Gallery in 1877. Whistler

was instrumental in establishing the credo of modern art. In 1885— a year before George Seurat's

Situating in context

emblematic Post-Impressionist canvas, Sunday Afternoon on the Island of La Grande Jatte (1884–86;;

Art Institute of Chicago), appeared in the French Impressionists' final group exhibition and announced

the end of naturalistic transcription as an avant-garde goal—Whistler proclaimed in his famous "Ten

O'Clock" lecture:

"Nature contains the elements, in colour and form, of all pictures, as the keyboard contains the

notes of all music. But the artist is born to pick, and choose, and group with science, these elements,
Artistic philosophy
that the result may be beautiful —as the musician gathers his notes, and forms his chords, until he

bring forth from chaos glorious harmony."

To say to the painter, that Nature is to be taken as she is, is to say to the player, that he may sit

on the piano. That Nature is always right, is an assertion, artistically, as untrue, as it is one whose truth

is universally taken for granted. Nature is very rarely right, to such an extent even, that it might almost

be said that Nature is usually wrong: that is to say, the condition of things that shall bring about the

perfection of harmony worthy a picture is rare, and not common at all.

Example 1. Coding of Whistler's biography as found in an accredited source, here: the Metropolitan Museum of Art, 2010.

James Abbott McNeill Whistler changed the course of art history with his radical techniques
Situating in context; methods/technique
and adoption of Asian design principles, which emphasized a two-dimensional flattening of

painted forms and their arrangement into abstract patterns. A London-based expatriate,
Location
Whistler embraced and promoted the doctrine that art should not serve narrative, but rather
Key to drive artist
project the artist's subjective feelings through the handling of the medium. His revolutionary

methods changed existing approaches to oil paint, pastel, watercolor, etching—even interior
Situating in context; methods/technique
design and the decorative arts. The flat, expressive, and radically simplified forms in his

Venice pastels, and his use of fluid blue and grey pigments in his abstract nocturnes, altered

how his contemporaries like Édouard Manet and Edgar Degas saw and understood art. He

scandalously named one of his most famous paintings Arrangement in Grey and Black, No. 1

(1871), suggesting the reduction of a portrait of his mother to an arrangement of formal elements.

Example 2. Coding of Whistler's biography on Artsy.

Comparing the labels assigned to both texts, as is depicted in table 2 below, the results show first that the labels assigned in the two texts are relatively the same, and second that both texts put emphasis on situating the artists in the broader context of art history.

Labels assigned in the classical text on Whistler	Labels assigned in the Artsy biography of Whistler
Location	Location
Style	-
Education and training	-
Method/technique	Method/technique
Subject matter	-
Motivation / Philosophy of the artist	Motivation to work
Placement in context art history	Placement in context art history

Table 2. A comparison of labels assigned in the two texts discussed

Whistler was, however, coded as an established, Western artist. The question thus arose if these findings would hold up when compared with representatives of the other coding combinations. The texts about Jan van der Ploeg (a Western, emerging artist), Frida Kahlo (a non-Western, established artist) and Xue Song (a non-Western, emerging artist) where therefore compared in the same fashion as explained above by Whistlers' examples. The texts, accompanied by assigned labels, are included in appendix A. These four (including Whistler) where deemed representative of the entire dataset and of the accredited sources used. In table 3, the frequencies of the codes recurring in these texts are presented, with Whistler included to enable a fully representative comparison of the dataset.

	Whistler		v/d Ploeg		Kahlo		Song	
	Artsy	Other	Artsy	Other	Artsy	Other	Artsy	Other
Placement in context art history	2	7	1	-	2	14	2	2
Method / Technique	2	5	3	4	-	-	-	2
Location	1	5	1	-	-	6	-	-
Motivation / Philosophy of the artist	1	3	1	-	1	5	-	-
Style	-	2	1	-	4	1	1	-
Education and training	-	3	-	-	-	2	-	4
Subject matter	-	3	1	5	2	5	1	-

Table 3. Frequencies of codes recurring in texts for the four artists used to illustrate the execution of the content analysis for this section.

This table shows a number of things. First, it shows that the frequency of codes is distinctly less in the Artsy texts then it is in the other texts. To a certain extend this can be explained by the Artsy text having all on average the same, rather short length, while some of the other texts ran into several pages. This does not fully explain however that the Artsy texts also showed a lower variation in topics covered. The 'placement in context art history' code appears in all Artsy texts, with the 'motivation / philosophy of the artists', 'style' and 'subject matter' codes appearing in three of the four Artsy texts. Only two Artsy texts discuss 'method / technique' and 'location', while none mention an artists' 'education and training'. If we look at the high frequency ones, so codes that appear in at least three of the Artsy text above, we find that Artsy's main focus for their biographies is (1) the positioning of the artists in a wider art historical context, (2) to discuss the artist's motivation or artistic philosophy, (3) their style and (4) the subject matter of their works.

If we then look at the other texts, using the same requirements, we find that no label appears in all four of the example texts, but that three codes appear in at least three of the texts: (1) 'placement in context art history', (2) method / technique, (3) education and training and (4) subject matter. Also, in these texts one code appears that does not appear in any of the Artsy texts, namely 'education and training'.

What can we deduce if we then compare these two groups of findings? First, the Artsy texts are relatively steadily in the topics that are discussed for each artist, which gives the impression of a template or at least a checklist being followed by the writers. Though this of course increases comparability for users of the Artsy information, it constraints the agency of the genomers writing the text. Second, in line with the first point, the Artsy text are less diverse then the other texts. As previously hinted at this can partially be explained by the constraint in size for the Artsy texts, but this

is not an entirely satisfactory explanation. The other accredited texts are, due to the greater diversity in topics discussed, more insightful for the reader then the Artsy texts. Third, the topics discussed in the Artsy texts are not one-on-one correlated with the topics discussed in the other accredited texts. Going through the initial coding process, my impression was that Artsy has opted to go for the safe route and stick to the kind of topics regular accredited sources discussed. The most interesting difference between the most frequent codes here, in my eyes, is that Artsy texts spend their limited word count on discussing the motivation of artists, rather then their methods and techniques or education and training, like the other accredited sources do.

This suggests that Artsy values artworks and artists on the platform more in a 'what you see is what you get' level, rather than a 'expertise' level. To explain this statement: if you take a guided tour in a museum, what you often get is a story that focuses primarily on the work you see in front of you, giving some snippets of background information to provide extra depth to what you see, but the focus of it all is *that which is in front of you*. During a course on art history or a particular genre or artist, the centre of gravity of the story is different, namely on the *how* and *why* an artwork or artists is given attention, and *how* and *why* its valued. Which often, as well as here, means going into somebody's education and training, highlighting the well valued, positively accredited institutions, people and locations the artist or artwork under discussion can be associated with, thereby providing it credentials, giving it value.

In other words, what Artsy does here is framing artists in a visual context, focusing on helping the user of the site to understand what he or she is seeing when looking at an artists' page or artwork, rather then focus on understanding the work involved on a worldly level, in terms of skillsets, techniques and where somebody is coming from, like the other texts are doing. Based on this analysis we can therefore say that in terms of the biography Artsy is not really facilitating new forms of knowledge formations but just focussing on part of a story that is already being told about someone or something in other texts. In the next paragraph, attention will therefore be turned to another feature of Artsy pages on artists: the related categories.

§4.2 Clusters

A key feature of Artsy is the 'related category' section. This section constitutes of a number of descriptive terms or tags that have been assigned to an artist from the around 400-term vocabulary drawn up by the team of genomers. The Artsy team calls these tags 'genes'. This term conveys their intention better then the term tags. What genes in theory do on the website is allow users to find new artwork and artists that share a gene. What Artsy claims to do is attach a weight to each gene between 0 and 100, to allow for new, more innovative connections between works and pathways through the artworks presented on Artsy. (Cairns, 2012; Enxuto and Love, 2015; Gambino, 2012; Gamerman and Crow, 2011; Scutts, n.d.) Because the company was still a start-up at the time of, it was very secretive

about any practical aspects, so the exact workings of this process can unfortunately not be elaborated upon. Maybe future research will have more access and/or more will have been made available.

A first thing that is worth some attention is to see which of these 400-ish genes actually appear in the sample used for this research. After collecting all the related genes that are attributed to the artists in this dataset and removing any double genes, a hundred-and-eleven unique genes remained. These genes where then coded, again first open coding the material before processing them through axial coding. The resulting links and accompanying codes are presented in table 4 below, with the coding scheme included in appendix D.

Genes	Code
19th Century American Art	Genre
Abstract Landscape	Subject matter
Abstract Painting	Technique
American Prints 1880 - 1950	Genre
American Works on Paper 1880 - 1950	Genre
Appropriation	Technique
Architecture's Effects	Subject matter
Art in Art	Subject matter
Art of the 1960s	Genre
Art That Plays With Scale	Subject matter
Assemblage	Technique
Atmospheric Landscapes	Subject matter
Blurred	Technique
California Art	Subject matter
Calligraphic	Technique
Chiaroscuro	Technique
Childhood	Subject matter
China	Country

Christian Art and Architecture	Subject matter
City Life	Subject matter
Cityscape	Subject matter
Collage	Technique
Collective History	Subject matter
Color Theory	Subject matter
Contemporary Graphic Realism	Genre
Contemporary Pop	Genre
Contemporary Portrait Painting	Genre
Cross-Cultural Dialogue	Subject matter
Cultural Commentary	Subject matter
Curvilinear Forms	Subject matter
Drawing	Technique
East Asian Calligraphy	Technique
Etching/Engraving	Technique
Figurative Painting	Technique
Figurative Sculpture	Technique
Flora	Subject matter

Focus on Materials	Technique		matter
Form and Color	Subject matter	Maps/Networks	Subject matter
Found Objects	Subject matter	Medial/Health	Subject matter
France	Country	Mexico	Country
From and Color	Subject matter	Mixed-Media	Technique
Geometric	Subject matter	Modernizing of Traditional Technique	Technique
Gestural	Subject matter	Mortality	Subject matter
Glamour	Subject matter	Nature	Subject matter
Group Zero	Genre	Northern Renaissance	Subject matter
Haze	Subject matter	Oil Painting	Technique
Hyperrealism	Genre	Outdoor Art	Subject matter
Illustration/Art	Technique	Painting	Technique
India	Country	Patterns	Subject matter
Ink-and-Wash Painting	Technique	Photographic Source	Technique
Installation	Technique	Political	Subject matter
Intaglio	Technique	Political Pop	Genre
Interiors	Subject matter	Popular Culture	Subject matter
Japonisme	Genre	Post-Impressionism	Genre
Landscape	Subject matter	Post-War European Art	Genre
Large Brushstrokes/Loose Brushwork	Technique	Primary Abstraction	Genre
Light as Subject	Subject matter	Prints	Technique
		Progressive Artists' Movement	Genre
Line	Subject matter	Psychedelic	Subject matter
Lithograph	Technique	Race	Subject matter
Love	Subject		

Related to Literature	Subject matter	The Body	Subject matter
Related to Music	Subject matter	The Fantastic	Subject matter
Renaissance	Genre	The Netherlands	Country
Sculpture	Technique	Times of Day	Subject matter
Self as Subject	Subject matter	Tonalism	Genre
Sexual Identity	Subject matter	United Kingdom and Ireland	Country
		United States	Country
South Asia	Subject matter	Unsettling	Subject matter
Stains/Washes	Technique	Use of Common Materials	Technique
Still Life	Genre	Use of Ephermaral Materials	Technique
Striped	Subject matter	Visual Perception	Subject matter
Surrealism	Genre	Watercolor	Technique
Symbolic Composition	Subject matter	Waterscape	Subject matter
Text	Subject matter	Work on Paper	Technique
The Aesthetic Movement	Subject matter		

Table 4. Unique genes in the dataset and their coding.

The labels found in the dataset (as presented in table 4 above) could be grouped into four categories: technique, genre, subject matter and country. Of these hundred and eleven labels, eight where countries, which interestingly enough did not just link the artists in the duo's for the countries in the sample, but also showed some additional linkages, as depicted in figure 3 below. It is interesting to see that four of the twelve artists have extensive linkages (four or up) within the network, while others have only a link with their 'partner' from the sampling. If we focus on those with more then four links, we find Chun (non-Western, established), Raza, (non-Western, established), Matisse (Western, established) and Whistler (Western, established). Because all artists have about the same number of genes linked to them, there are a number of possibilities here. It might be that emerging artists are as of yet operating on a local level while established artists have gotten the opportunity to work and study abroad. This proposition does however not hold ground when you go back to the

profiles themselves: quite a few of these countries are 'attributed' to these artists because of multi-national heritage or because people have travelled while growing up. It could therefore be argued that, based on this finding, Artsy appears to be favouring established artists over emerging artists, which appears quite biased given their goal to be an educational resource.
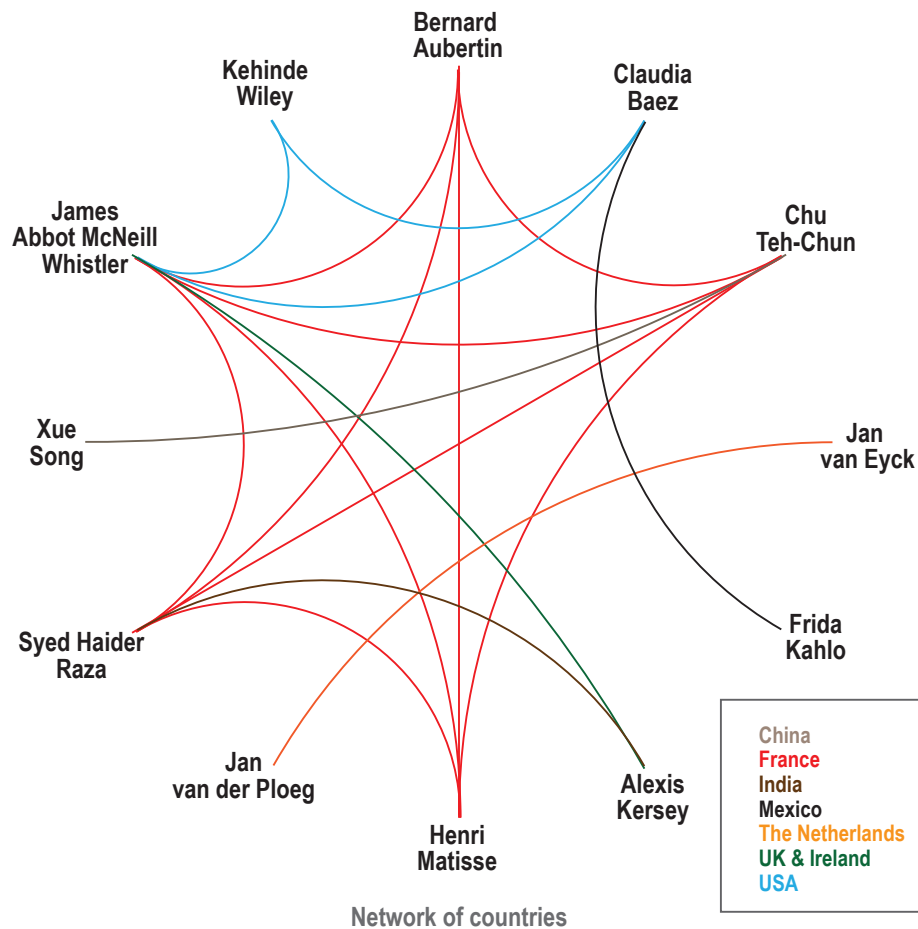
Fig. 3. Network showing how the country-category labels connected the artists in the dataset.

Looking at the rest of the labels, 19 of them fall in the 'genre'-category, 54 in 'subject matter' and 31 in 'technique'. This appears to be in line with the Artsy's tendency to focus on the visual orientation on its platform (sf. paragraph 4.1).

There are of course other ways to group these labels. Considering the labels mentioned in table 4 above as raw data, the material was clustered around its shared genes with the intention to see how data is linked on Artsy through these tags. Again, it needs to be noted here that no clarity is as of yet given about the workings of the weighing factor Artsy reportedly assigns to its metadata, so for the analysis this factor is left out, but might hopefully be taken in to account properly in future research.

From the raw data a number of linkages emerge. Most are very small, only between two or three artists, as is depicted in the figures 4 to 19 below.
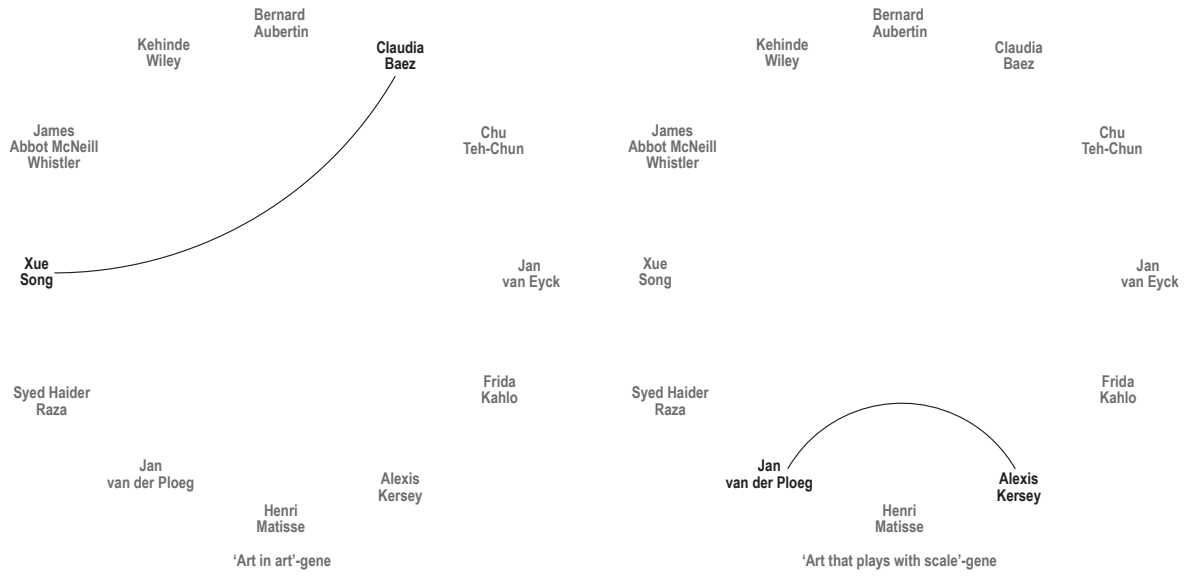
Fig. 4 and 5. 'Art-in-art-gene and 'art that plays with scale'-gene clusters
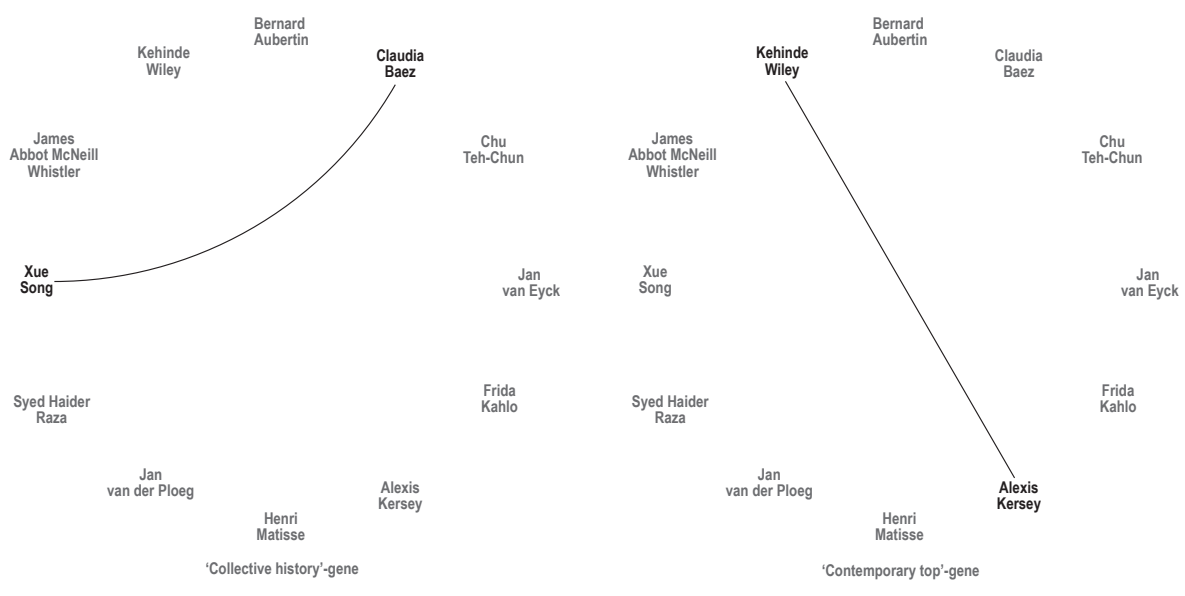
Fig. 6 and 7. 'Collective history-gene and 'contemporary top'-gene clusters
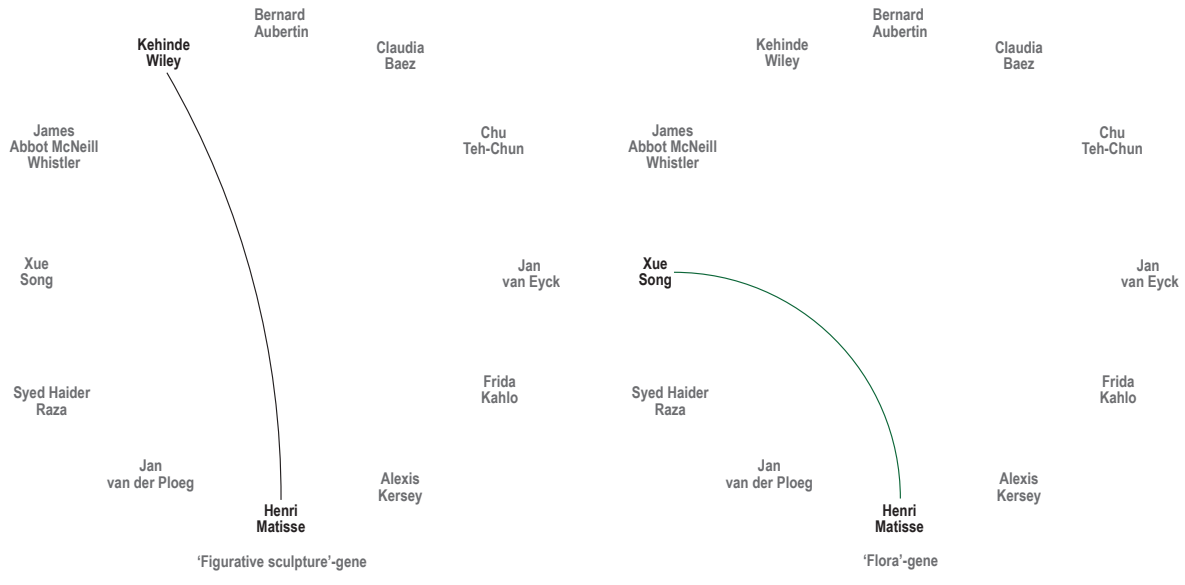
Fig. 8 and 9. 'Figurative sculpture'-gene and 'flora'-gene clusters
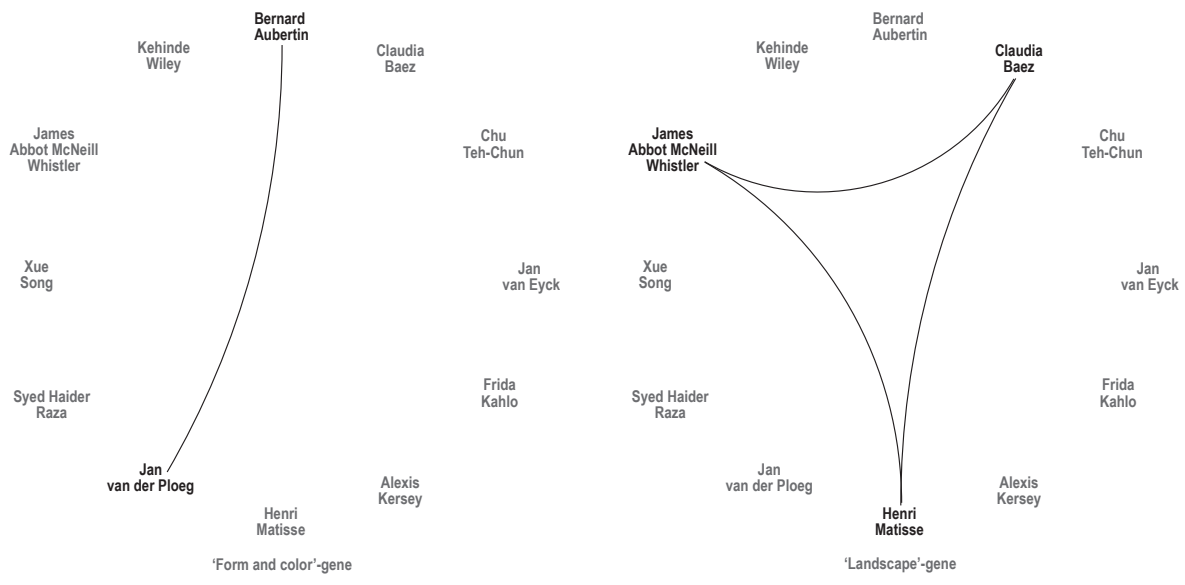
Fig. 10 and 11. 'Form and color'-gene and 'landscape'-gene clusters
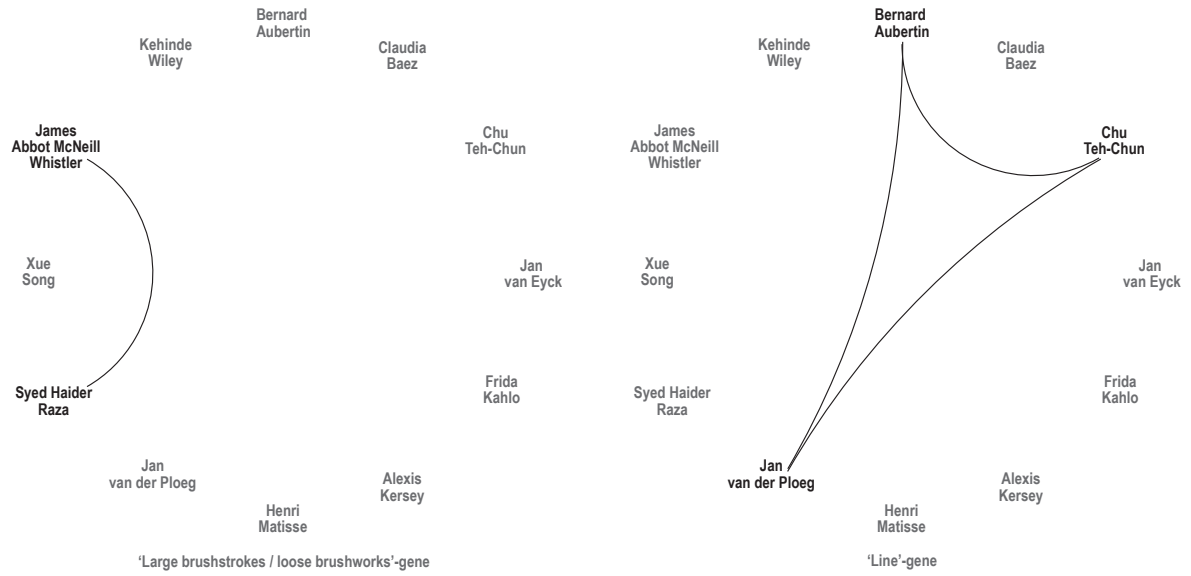
Fig. 12 and 13. 'Large brushstrokes / loose brushworks'-gene and 'line'-gene clusters
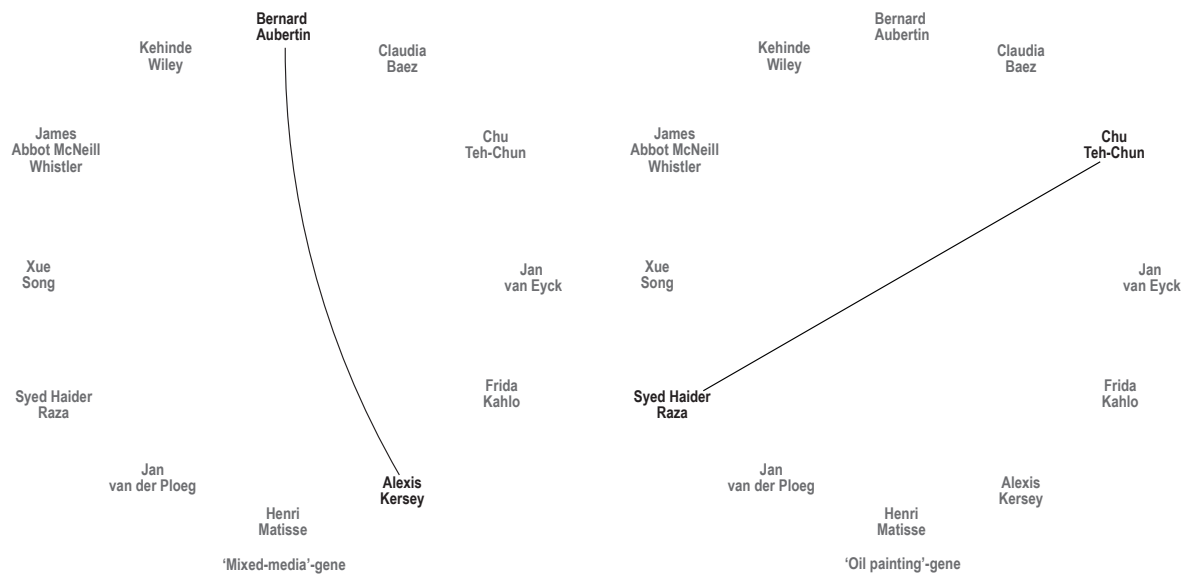
Fig. 14 and 15. 'Mixed-media'-gene and 'oil painting'-gene clusters
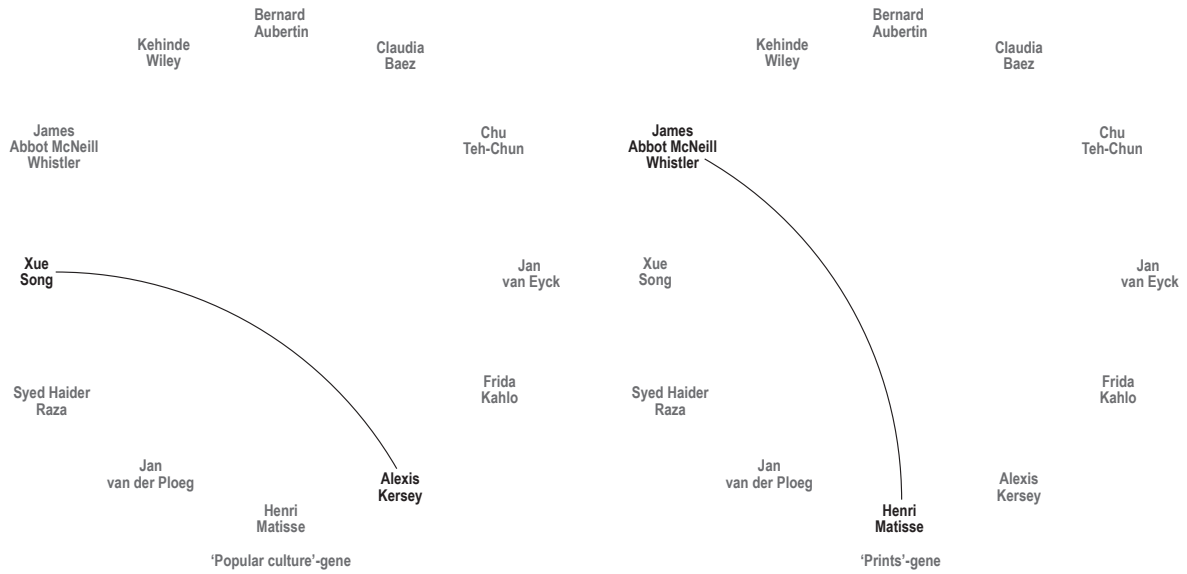
Fig. 16 and 17. 'Popular culture'-gene and 'prints'-gene clusters

Fig. 18 and 19. 'Sculpture'-gene and 'works on paper'-gene clusters

A small number of genes appear form bigger clusters. One is formed around the 'patterns' gene, which links four artists, as depicted in figure 20 below. What is interesting here is that this gene links two Western and emerging artists (van der Ploeg and Aubertin), a non-Western emerging artist (Song) with a Western and established artist (Matisse). Here, Artsy's idea of using metadata to create new and interesting linkages, and thereby facilitating new knowledge associations and art clusters appears to be working. Apart from their different backgrounds, the styles these artists work in are quite radically different, with Matisse being considered a fauvist artist, Aubertin being part of the Zero

Group, Song being hailed for his pop-art like work and van der Ploeg being inspired by the De Stijl-movement.
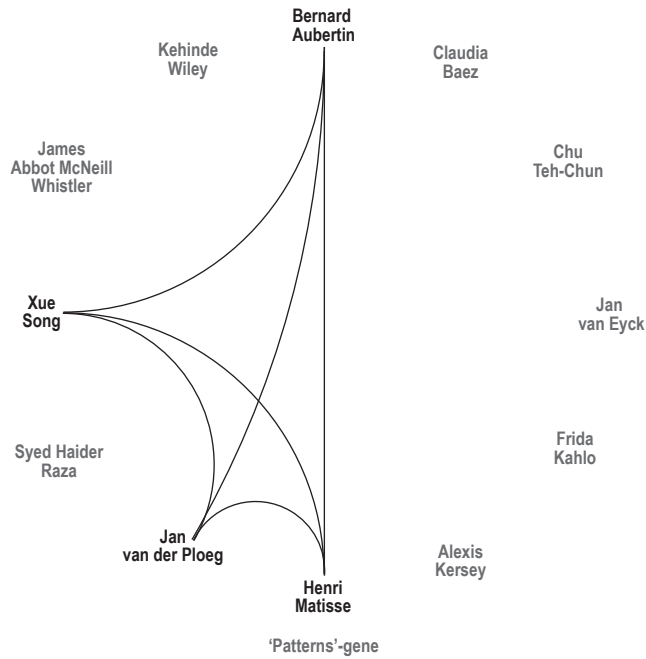
Fig. 20. Depiction of the 'patterns'-gene based cluster.

Another bigger cluster emerging from the dataset is around the figurative painting gene, shown below in figure 21, which connects six of the twelve artists in the sample. What is of interest in this cluster is that, apart from two non-Western countries, all the artists that are linked in this cluster are established artists. What might influence this is that non-figurative painting is a relatively new style in art history if you look at the time the artists in this dataset span (14th century till present day), with the two Chinese artists falling outside this cluster. As to reasons why this is I cannot give a definite answer due to not being an art historian myself.
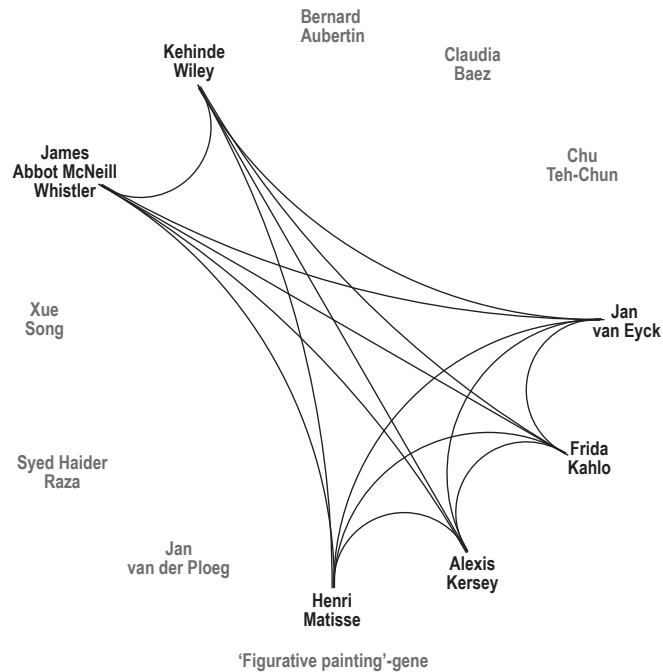
Fig. 21. Depiction of the 'figurative painting'-gene based cluster.

What this thus leaves us with is the conclusion that there aren't really a lot of linkages between the artists in the sample, there being only two bigger clusters apart from the fact that all artists in the sample share the 'painting' gene, which was one of the sampling criteria. A key explanation for this is of course the fact that this research is working with a random sample, and that the sampling might therefore cause this issue. On the other hand however, the research has shown that Artsy is assigning only a really small amount of genes to the artists in the sample, and given the fact it was a random sample, we can therefore realistically expect this to be the default of mode of working throughout the entire dataset, it can be reasonably assumed that in order for weighted tags to create proper linkages, more metadata (here: these weighted tags) should be assigned. Given the fact that so much more is possible, this seems quite a shame. Also, in line with that last comment, Artsy initially branded itself by saying it used new and innovative ways to create these connections, but in the sample barely any linkages are used that are not already made in classical texts (through styles, through nationality, through genre). The opportunity, in short, seems to be there, but it looks like Artsy is (currently), not using it to its fullest extend.

§4.3 Networks

The third and last interesting feature of Artsy's artist pages that will be addressed is the 'recommended artists' feature. Through this feature, the artist is placed in connection to other, both contemporary and non-contemporary, artists in the Artsy dataset. Though is not explicitly stated (again: Artsy is to this day very secretive about its 'inner workings') the linkages made between artists

through these recommended feature are most likely based on the assigned genes discussed in paragraph 4.2. What is unclear is how the weigh factor that is according to Artsy accredited to each 'gene' impacts these linkages. Notwithstanding this, it is interesting to see if Artsy is employing metadata in a way to create new knowledge associations and art clusters through this feature.

The first finding of going through the related artists and related contemporary artists sections of the datasets was that none of the artists in the sample are recommended to each other on Artsy. This is surprising given, as shown in the previous paragraph, the existing ties between some artists in the sample in terms of the genomes they're linked with. This results seems to suggest that the weight factor is indeed more important than Artsy is willing to show just now, with two artists linked through multiple genes, apparently having relatively low weight factors, explaining why they do not to pop-up in each other's top five related artists with the strongest degree of relation. Again, more knowledge on the inner workings is required to concrete formulate how these factors are then weighted.

Second, through multiple rounds of open coding three focus points became apparent: nationality of the artist in relation to the nationality of recommended artists, the status (emerging/established) of the artist in relation to the status of the recommended artists and lastly the gender of the artist in relation to the gender of the recommended artists. Attention will be turned to each of these individually in the following sub-paragraphs.

§4.3.1 Nationality

Table 5 below outlines the country of the artists in the dataset on the left, and shows the countries the artist they are recommended to on the right.

Country artist	Country recommended artists
India	India; England
France	Italy; Germany; Belgium; Norway; England; United States
China	China; United States; Kroatia
Mexico	United States; Taiwan; England; Venezuela; Peru; Chile; Belgium; Canada; Colombia
United States	United States; France; England; Germany
The Netherlands	Austria; United States; Belgium

Table 5. Countries artists recommended to the artists in the sample are associated with.

The first issue that became apparent is that historical ties and geographic vicinity seem to play an important role, especially so in the cases of artists from the sample that came from India, France and the Netherlands. Though it can be argued that areas that are geographically near will naturally have forms of cross-fertilization, this is far from being a rule. Art history is full of examples of

geographically close areas deliberately trying to distinguish themselves from each other. Another thing that keeps popping up again and again in Western art history is the idea of an established centre or 'school of thought' dictating regulations on what is 'done' and 'not done', with these rules being held in awe by people working and originating from areas far away of the location of these centres. Also, historical ties between countries where often ties of colonialism. Though areas and individuals on both sides of these ties dealt with colonialism and later post-colonialism in many different ways, a large share of artists can be found in art history to actively try to rebuff the (remnants of) influence of this history and these ties. It therefore seems strange and wrong that this factor of historical ties and geographic vicinity appears so strong in the data resulting from this sample, a point where Artsy seems to have let some stiches drop off the hook.

§4.3.2 Status

In terms of the status of the recommended artists, another pattern seems to emerge. Of the thirty-five artists recommended to the emerging artists from the sample, twenty-six are themselves emerging. Or, in other words, 74,29% of the emerging artists in the sample had an 'emerging'-artist as recommendation. For the established artists this was twenty-two established artists recommended to fifty-one established artists, so only 43,13% 'established recommendations'. This means that for this dataset, Artsy puts a bit more attention into contemporary art. This is in line with the general experience of the site, where the exhibits covered and journalistic content does indeed primarily cover things where modern and contemporary art is at least involved in, if not the main focus. It has to be said however that it is not entirely clear how the Artsy metadata has caused this, because the exact algorithms are kept secret. Looking at the genes assigned to this dataset however we find that quite a few genes are what we call 'distinctly modern'. Modernizing of traditional technique, photographic source and political pop for instance. In other words, Artsy shows a slight bias in their focus on modern in favour of non-modern art, but doesn't really allow for new knowledge formation through interesting links.

§4.3.3 Gender

The last thing to look at is then the gender of the recommended artists. At first there appeared to be a discrepancy in the number of male and female artists that where recommended. Going slightly further in the analysis by actually going through each of the recommended artists' Artsy pages revealed however that this was incorrect. In the sample itself, twenty percent of the artists are female (two on ten male artists). The gender division of the artists Artsy recommend however is 32,81% female artists versus 61,19%. This imbalance is in line with general western art history, and therefore rather a missed chance for Artsy. Through their usage of metadata, interesting links could have been made, positively discriminating female artists.

§4.3.4 Networks again

The results in this section show that in the recommended artists section, it is primarily Artsy's focus on contemporary art that takes front row. As stressed before, the weight division of genes on Artsy is unclear, meaning that it can't really be said how and why the networks are formed as they currently are. But what it does show is that Artsy is not allowing for new knowledge formation and art clusters through its recommended artists gene, which is rather a shame and can be considered a missed opportunity.

§4.4 Genomers

The dataset as described in chapter three underwent a small number of additional modification in the process of analysing the data. Through multiple more rounds of coding, this scheme was elaborated upon specifically in the 'profession' section. The end result did not only include a category about the genomers' profession (their current function so to say), but also at the other professional roles they mentioned. Example 3 below illustrates this. The first two columns contain the factual information as provided by the genomers' profile page. Gender is coded based on the name and words ('he', 'she') used in the biography provided. Location is taken from the biographical information, as is the information in the other categories. The first professional function or role mentioned in the biography is coded as the genomers' profession. This is done because the first professional function mentioned is probably the role the genomer in question considers of prime importance or key role, otherwise they probably would have put another denominator first. The descriptions in the other columns are then also added in the order in which they appear in the text, and the coding scheme is included in appendix D. Based on this example and logic, we conclude that the genomer in this example considers herself first and foremost an editor-in-chief, who also takes up the roles of arts and travel writer. So, in simplified terms, Heather Corcoran considers herself to be an editor first, and a writer second.

Name	Biography	Gender	Location	Profession	Professional function I	Professional function II
Corcoran, Heather	Heather Corcoran is the editor-in-chief of the Museyon Guides series of travel books. In addition she contributes to a number of publications including Flaunt, Art in America, Flash Art, and	F	United States, New York area	Editor in chief	Arts writer	travel writer

Hintmag.com. New York – www.thisisheatherc.com. https://www.artsy.net/thisisheatherc					

Example 3. Example of the data entry for 'Corcoran, Heather' using the genomers' coding scheme. Here, only the open coding section of the entry is depicted, for the full entry, please refer to appendix E.

Data was then collected on nineteen genomers that work on the Artsy database. Genomers have a dual role on Artsy. On the one hand they are the authors of articles and various editorial content covering topics such as recent art fairs or major exhibits, discussing particular art historical topics or content of more journalistic nature. On the other hand they attach metadata to art and artists. (Enxuto and Love, 2015: 9) What do we know about these genomers?

§4.4.1 Gender

Fourteen of the genomers are female, in comparison to five male. At first glance this seems division seems odd. Like in so many other disciplines, male professionals have historically dominated art history, as authors like Griselda Pollock (1987) and Judy Wajcman (2000) have discussed extensively. Looking further into research on gender divisions in a number of disciplines such as the work of Craig, Powell and Cortis (2012) who reserached gender division of labour in Australia, the research of Gillard, Howcroft, Mitev and Richardson (2008) on the role of women in ICT-related jobs as well as Diane Perrons' 2003 and 2004 works on the gender division in new media and the digital divide respectively tells a consisted tale. Though opportunities have on the whole increased and options have diversified, all these studies show that the gender division in the work place still is in favour of men rather then women. This leaves us to wonder how to explain the situation found at Artsy. The answer can be found in the work of authors such as Perrons, Fagan, McDowell, Ray and Ward (2005), Craig, Powell and Cortis (2012) and Epstein, Seron, Oglensky and Sauté (2014). In their research these authors have found that women do part-time work more often then men. With free-lance and part-time work becoming more common over the last decade, including in the art market and technological development making working from other locations than the office increasingly easier, the initially odd gender division can be explained.

§4.4.2 Geographic location

Has location indeed become a secondary factor? As could be seen in example 3 above, genomers usually provide in their short biography slash profile-page a location description. In this case six of the nineteen actors in the dataset did not provide any geographic location. Of the others, eight genomers said to live within the greater New York area, one genomer lived in Buenos Aires, Argentine, one in Mexico City, one in Hong Kong, one in London, England and one professed to

divide his time between London, England, Berlin, Germany and Dubai, United Arab Emirates. Given that the Artsy headquarters are located in New York, this means that of those that gave information on the subject, eight live within traveling distance of work while five do not. Though it could be argued that the five genomers not in the New York area appear as digital labourers, not bound by geographic boundaries, the fact that of the nineteen people in the dataset eight live in the greater New York area is actually rather more surprising. With New York being a rather expensive location to live, it would make more sense for people who don't have to live in the area for their work to live elsewhere since they should be able to work through for instance digital means. The fact that this data does not show this, suggests that geographical vicinity is of importance in this job. Location then still matters. How about expertise?

§4.4.3 Expertise

Looking at the material collected from the texts provided (the biographies) through repeated open- and axial coding reveals that only two of the people in the dataset refer to their official training, their education, in their short biographies:

> "Art Historian; Contributor to The Art Genome Project at Artsy and doctoral candidate at Stanford University. https://www.artsy.net/ellen-tani" - *Ellen Tani*

> "Art historian, administrator, and writer focused on the contemporary period, grounded in the past. New York, NY. https://www.artsy.net/karenkedmey" - *Karen Kedmey*

As can be seen from these two biographies, both women have been trained (slash are training) as art historians. Neither, however specify what their speciality or focus point of study was in their education, so if they have focused on modern or classic art, on a particular area or material, etc. Working *only* from the information that is provided on the Artsy 'profile pages' of the genomers, the consequence of only two people explicitly saying that they have studied art history (with the side note that was just made in mind though) is that it can not be said of the others that they are experts in the field of art history, since they don't report having any qualification on the subject, whether official training or not.

This is not to say that they are not professionals in the field of art however. A number of the genomers in the dataset professed to identify as artists. Though this is a very broad term, to which a myriad of personal interpretations and meanings can be attached, the descriptor carries some value. An artists' eye for technique or subject matter might still be as legitimate as an art historians' expertise in analysing an artworks' position in the broader context of art history. Presuming of course that these artists work in the same or at least a similar technique and discipline as those they are scrutinising.

This then leaves a large section of the genomers in the dataset, who describe themselves as editors and writers. For this group, an issue needs to be addressed: though it is possible to obtain an official education in writing and/or editing (though what such an education entails and the valuation of it differs immensely throughout the world), having such an education is not a prerequisite to getting a job as an editor or writer. It is perfectly possible to get the job simply by learning while doing. In order words, because these two job descriptions are used generically to cover such a variety in quality, background, experience and education, it is not possible to make assumptions about the level of expertise and professionalism of the people in question solely on the descriptions 'editor' or 'writer'.

What can be done however is look at the publications in which these genomers say to have been published. In any industry there are a number of publications or institutions that are deemed high quality by those active in the sector, while others are considered of lesser or even inferior quality. Though this is a social construct, it is upheld *by* the people in the sector, and therefore has value to them. In the example below for instance, a genomer lists a number of publications that are socially considered to be of high quality either in their respective fields (the Art Newspaper and Art Forum for example) or in terms of journalistic content in general (the Wall Street Journal). By referencing these sources, this genomer gives the reader the impression of quality and therefore of expertise. As argued before, being a professional does not automatically mean being an expert, and expertise might very well come from non-professionals.

> "Artsy contributor Payal Uttam is an editor and writer based in Hong Kong.
> She covers art and culture for publications including The Art Newspaper,
> Artforum and The Wall Street Journal. twitter.com/_payaluttam.
> https://www.artsy.net/payal-uttam" - *Payal Uttam*

§4.4.4 Genomers and expertise

Expertise is, is short, valued, but not in the sense of formal education, but rather in the sense of knowing the field from experience. Experts from other fields and disciplines, who should theoretically be considered amateurs in the field of art history, are valued exactly because of that: their experience and skillset obtained elsewhere. One possible answer would then be that non-professional experts gain ground in favour of professional experts based on additional and diversified skillsets, while at the same time we can say that the definition of a professional might be shifting from defined solely on their official education to including their other education (e.g. experience in the field etc.) as well. And, as the literature discussed in chapter two goes to show, this is not necessarily a bad thing.

§4.5 Conclusion

In this chapter, attention was first given to artist biographies on Artsy and in accredited classical sources, before looking into the related category function of the platform to analyse how artists are clustered through the usage of metadata and addressing the networks resulting from the

recommended artists feature the platform also provides. In the last section, the focus shifted to the people 'building' the Artsy platform through assigning metadata, from a 400-entry vocabulary which was designed for the platform (the Art Genome Project, sf. Israel, 2012).

What these analysis resulted in was the conclusion that Artsy is focused on the visual aspect of artworks and why artists are motivated in making them, rather then in interpretation of those works. This is a lack of information as compared to classical texts that do usually cover this. Though this lack can partially be explained by the difference in average length between both types of text, it does present a missed opportunity for Artsy. Even with the constraints created by the length of the text, more usage could be made of the linking of words in the text to terms, other artists, styles, etc. on the side. Though this is done sporadically with names of other artists in the biographical texts, this feature is currently very underused, and would greatly enhance the degree of interlinkages between data and the platform.

In terms of clusters and networks the same general issues come to light. Though Artsy does use the available opportunities to a certain extent, chances are still missed in for instance the continuous under-representation of women in art, with Artsy, like classical texts only marginally linking them in networks. Aside from this, some bias even becomes apparent, for instance in the finding that geographical vicinity and historical ties disproportionately influence the networks artists are situated in.

The last section of the chapter turned its attention to the people who actually fill the database with content, the so-called genomers, and found that women where here overrepresented in comparison to men, possibly because women on average work more in remote-working and part-time jobs. A stranger finding however was the continuous importance of location, with a majority share of the genomers stating the New York area as their current location. For such an online company, it is interesting to see that employees are still primarily living close to work in such an expensive area. Though how and why this is remains difficult to say. The most interesting however is that, of these genomers, only two where formally trained art historians, while the majority of the other genomers showed their expertise by listing the publications and functions in which they had been professionally active. Thinking back of the discussion in chapter two, this does suggest the valuation of expertise over formal education.

Chapter 5 Conclusion

Before this chapter can turn to the answering of the research questions, it is necessary to pause for a moment, and consider the limitations of this research. The most important limitation that needs to be noted is that this research is a qualitative exploratory case study. Along side this limitation there was the issue of Artsy being very secretive about its behind-the-scenes workings. This behaviour can be partially explained by the company being, at the time of research, still a start-up in the process of establishing its brand and market share. Hopefully, Artsy will in the future give more insight on its inner workings, allowing future research more certainty and options for research.

The first question this research asked was "How is the Artsy algorithm facilitating new knowledge associations and art clusters?" The answer to this question, based on the results as discussed in paragraphs 4.1 to 4.3, is both yes and no. On the one hand, Artsy's artists' biographies are not really different from classical texts available, nor did these texts fully employ the possibilities metadata and properly annotated data have today, instead remaining on the level of small, static texts that focussed on the visual context of the artworks. On the other hand, their related categories' function, as well as the related artists' function are, to an extend, allowing for new knowledge associations, simply because they allow for a different, more dynamic way in which artists can be linked that cannot be used in static texts. Artsy is an online platform. Its format allows for more linkages to be made simply because it means more space and tools are available to do so. The linkages that are made however, either appear quite biased, for instance in the importance the Artsy algorithm seems to put in the geographic location and historical ties of nations, or stay very close to clustering in classical texts. Female artists are still strongly under re-presented as opposed to male artists, while Artsy could have adapted its algorithm to this. It appears from the results too that artists are actually only tagged with a small number of genes, and provided with almost no metadata. Any artist from the sample is only linked to a small number of other artists, and with these he or she shares a number of explicit genes (amongst which country) to account for these links made. This creates a sort of bubble, leading the user down a quite narrow branch in Artsy's network of artists. For a platform that whishes to be both an innovative educator and an encyclopaedia of the arts, leading users to new and unexpected finds, this seems rather a missed chance. As said, because of its structure Artsy has the ability to add almost unlimited metadata en genes, especially with its factoring of each gene on an impact value. Though, again, the how of this practice is as of yet unclear, what *is* said gives the impression that adding more metadata behind the scenes would allow for non-classical pathways? In short, the Artsy algorithm does in theory facilitate new knowledge associations and art clusters, but Artsy does not yet employ this possibility because the company only adds a small amount of metadata to each artist and allows the system to only depict a very limited number of related artists and related genes.

The second question asked: "What role does expertise play on Artsy?" and was addressed in paragraph 4.4. As discussed elaborately in the theoretical framework, the reader needed to keep in mind the difference between professional and non-professional as a scale on the one hand, and expertise and non-expert on the other. In the discussion of this distinction, the emphasis was put on the fact that being a professional does not necessarily mean being an expert, and vice versa. Though this clarification was necessary, this of course complicated matters, because how can one be called an expert then? As the discussion showed, the classical answer of formal education did not necessarily uphold. The Artsy staff gave their own answer through the way the genomers wrote their little biographies for their personal pages. Almost without exception, every genomer stressed where their work had previously been published and with which institutions they had been affiliated. Though some stressed the nature of these relationships ('worked for', 'interned at'), not all did. This was interpreted as expertise being valued to association with accredited, high-quality sources and institutions, rather then through training and formal education. Expertise, in short, played a role in Artsy in that it was valued as a craft rather then a lesson learned by heart.

How then did Artsy as a case study turn out to fit to the theoretical research question asked? Artsy is, to this day, one of the forerunners in the usage of to the digital age related technology and possibilities in the sector. After the research this assessment remains, though it has to be concluded that, with all the possibilities available, Artsy does not fully employ them yet. What the case did do was illustrate the real world application of the possible impacts of the digital age on art knowledge formation as discussed in the theoretical framework.

Asking the research question then, "How has the digital age impacted art knowledge formation?" the answer is that the digital age has impacted art knowledge formation in two ways. First, it has created new and more efficient ways to attract knowledge by means of expanded IT infrastructures that allow both for people to work externally of the companies physical location as well as allow for knowledge acquisition through crowd- or (preferably) nichesourcing. Second, and most importantly, the key way in which the digital age has impacted art knowledge formation is through metadata. In a digital environment like the Artsy platform, sufficient, properly formatted (preferably as LOD) metadata can allow for datasets to be connected in previously impossible ways. It makes testing of new potential linkages easier, allows for faster and more diverse clustering, makes linkages with other datasets and –sources possible (and easy) and, in short allows for a myriad of new ways of art knowledge formation.

Though Artsy shows to have only taken a few, hesitant steps down this road, the digital age has created a far-reaching network of possibilities for art knowledge formation. It will be the task of future development and research to explore the rest of these possibilities, as well as branch off in many new directions. Knowledge formation will only become easier in the process.

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Appendices

Appendix A Three examples of content analysis

Coding of Jan van der Ploeg's biography as found on Artsy

<u>Inspired by the philosophy of neoplasticism and the De Stijl movement</u>, which was developed

Positioning in context

and led by his <u>fellow Dutchman</u> Piet Mondrian, Jan van der Ploeg is <u>known for his abstract</u>

Location

paintings rendered on canvas and walls. Stripping down painting to its essences of color and

Method/technique; subject matter; style

form, Van der Ploeg works in black, white, and a rainbow of brightly hued colors, and with a

<u>vocabulary of bold, geometric patterns and shapes.</u> He covers canvases with these forms,

creating compositions that seem to move. <u>He began working on walls in the mid-1990s, and</u>

Other techniques

<u>has since completed hundreds of murals worldwide</u>. Though Van der Ploeg operates within

the parameters he sets for himself<u>, he finds freedom within structure and allows intuition to</u>

Method of working / artistic theory

<u>guide his color choices.</u> "It sounds as if it's very restricted, but . . . a lot is possible," he has

said, a statement supported by his endlessly varied works.

Coding of Jan van der Ploeg's biography as found in Straathof (1993)

In his present <u>work Jan van der Ploeg paints cages</u> on canvas, consistently using the same

Subject matter; method/technique

<u>system varying the colours in the background and size</u>. Besides painting, this theme has found a

continuation in <u>sculptural works</u> and on <u>a large monumental banner</u>.

Other methods/techniques employed

<u>When in the middle ages a bird was pictured in a cage</u>, this could signify the soul of the

Subject matter; Iconography

human body. <u>The cage represented a cover, the temporary shelter confining the soul.</u> Nowadays artists

are in a similar position: a limitless soul in a limited existence. The iconography remains the same.

The decent image of nightclubs and rockconcerts, the loud music with its addictive rhythm,

tempt men and women to dance seductively in cages. Trapped as birds, challenging and teasing each

other, they're 'cage-dancing'. Here one sees the liberties of life, not the limited existence.

'Vögeln', the previous project of Jan van der Ploeg, birds and especially peacocks signified

Subject matter; Iconography

the sensual, erotic but also the narcistic feelings of mankind; emotions meaning desire, vanity and

pride. The latest paintings seem to be showing the exterior or a stage where a mating-dance is being

preformed. However, the image is serene and sacred. Van der Ploeg's works are rich in contrast,

pointed in transparent layers. These layers and the exact reproduction of the cages are essential to

Method/technique   Method/technique

portray the cage as an icon of the soul.

[The transcript in the appendix continues, but since this is about another artist, it is not included in this analysis.]

Coding of Frida Kahlo's biography as found on Artsy

Frida Kahlo's life has become as iconic as her work, in no small part because she was her

[Mêh, does it have to be put like this?]

own most popular subject: roughly one third of her entire oeuvre is self-portraits. Her works

were intensely personal and political, often reflecting her turbulent personal life, her illness,

Subject matter

and her relationship with the revolutionary muralist Diego Rivera. Kahlo dedicated her life

Subject matter

and her art to the Mexican Revolution and the simultaneous artistic renaissance it engendered.

Positioning in context

Her style of painting has been widely categorized; Rivera considered her a realist, while

Difficulty of classification; style   style

André Breton considered her a <u>Surrealist</u>, and Kahlo eschewed labels entirely. "I paint my

style

own reality," she wrote. <u>"The only thing I know is that I paint because I need to, and I paint</u>

Artist philosopy; motivation

<u>whatever passes through my head without any other consideration."</u> She <u>identified most</u>

<u>strongly with Mexican popular and folk art, also evidenced in her habit of dressing</u>

Context; Style

<u>elaborately in Tehuana costumes</u>.

Coding of Frida Kahlo's biography as found in Lucie-Smith (1999)

Toen Frida Kahlo in 1953 haar eerste overzichtstentoonstelling Mexico had (de enige die

gedurende haar leven in haar geboorteland werd gehouden), schreef een plaatselijke criticus: 'Het is

onmogelijk om leven en werk van deze bijzondere vrouw te scheiden. Haar schilderijen zijn haar

autobiografie.' Deze observatie toont enerzijds aan waarom haar werk zo anders is dan dat van haar

tijdgenoten, de <u>Mexicaanse muralisten</u>, en aan de andere kant waarom ze sindsdien een symbool van

Positioning in context

het feminisme in.

Kahlo werd in 1901 in <u>Mexico-Stad</u> geboren als derde dochter van Guillermo en Mathilda

Location

Kahlo. Haar vader was een in Duitsland geboren fotograaf van Hongaars-joodse afkomst, en haar

moeder was Spaans-Indiaans. <u>Haar leven zou worden getekend door een lange reeks lichamelijke</u>

Positioning in context

<u>trauma's</u>, waarvan de eerste haar al op zeer jonge leeftijd trof. Toen zij zes jaar oud was, kreeg ze

polio, waar ze een mank been aan overhield. Ondanks dat was zij een waaghals en een wildebras,

waardoor ze het lievelingetje van haar vader was. Hij had ambitieuze plannen voor haar opleiding, en

in 1922 ging ze daarom naar het <u>Preparatoria (nationale voorbereidingsschool),</u> het meest prestigieuze

Education

onderwijsinstituut in Mexico, waar meisjes nog maar sinds kort werden toegelaten. Ze was een van de

slechts vijfendertig meisjes op tweeduizend leerlingen.

Daar ontmoette ze haar toekomstige echtgenoot, Diego Rivera, die kort daarvoor vanuit

Frankrijk naar Mexico was teruggekeerd en die de opdracht had gekregen een muurschildering voor

het Preparatoria te maken. Kahlo voelde zicht tot hem aangetrokken, en niet precies wetend hoe zij

met die gevoelens om moest gaan, plaagde ze hem, haalde grapjes met hem uit en probeerde ze zijn

vrouw, Lupe Marín, jaloers te maken.

In 1925 kreeg Kahlo het ernstige ongeluk dat de rest van haar leven zou beïnvloeden. Ze zat in

een bus die in botsing kwam met een tram en raakte ernstig gewond aan haar rechterbeen en bekken.

Door het ongeluk kon ze geen kinderen meer krijgen, hoewel zij dit pas na vele jaren zou accepteren.

Het betekende ook dat ze een levenslange strijd zou moeten voeren met de pijn. In 1926 schilderde ze

tijdens haar herstelperiode haar eerste zelfportret, het begin van een lange reeks waarin ze de
Education; positioning in context
gebeurtenissen in haar leven en de daarbij behorende emoties vastlegde.
Subject matter
In 1928 ontmoette ze Rivera opnieuw, via haar vriendin, de fotografe en revolutionaire Tina

Modotti. Rivera's huwelijk was net op de klippen gelopen, en ze kwamen er achter dat ze zeer veel

gemeen hadden, niet in de laatste plaats wat politieke ideeën betreft. Beiden waren nu militante
Context; subject matter
communisten. Ze trouwden in augustus 1929. Kahlo zou later zeggen: 'Ik heb twee ernstige

ongelukken gehad in mijn leven. Een waarbij ik werd omvergereden door een voertuig […] Het andere

ongeluk is Diego.'

Het <u>politieke klimaat in Mexico werd, dankzij het reactionaire bewind van Calles, steeds</u>

Context

<u>slechter voor degenen met linkse sympathieën</u>, en het muurschilderingprogramma dat door de minister

van Onderwijs, José Vasconselos, was opgezet, werd stopgezet. Maar Rivera's artistieke reputatie

verbreidde zich snel in de Verenigde Staten. In 1930 vertrok het echtpaar naar <u>San Francisco</u>, en

Location

vervolgens, na een kort verblijf in Mexico, in 1931 naar <u>New York</u> voor een overzichtstentoonstelling

Location

van Rivera in het Museum of Modern Art. <u>Kahlo werd in die tijd voornamelijk gezien als een</u>

Public perception artist

<u>charmant aanhangsel van een beroemde echtgenoot</u>, maar deze situatie zou al snel veranderen. In 1932

kreeg Rivera de opdracht een grote reeks muurschilderingen te maken voor het <u>Detroit</u> Museum, en

Location

hier kreeg Kahlo een miskraam. Terwijl zij hiervan herstelde, schilderde ze *Miskraam in Detroit*, de

eerste van <u>heer zeer doordringende zelfportretten</u>. De stijl die ze ontwikkelde, leek op geen enkele

(Shift in) style; subject matter

manier op die van haar echtgenoot, en was gebaseerd op <u>Mexicaanse volkskunst</u>, in het bijzonder op

Inspiration; subject matter

de kleine <u>votiefplaatjes, *retablos*</u> genaamd, die de gelovigen in Mexico aan de kerk schonken. Rivera's

Inspriation; subject matter

reactie op het werk van zijn vrouw was zowel scherpzinnig als grootmoedig:

‘Frida begon te werken aan een reeks van meesterwerken die in de kunstgeschiedenis

ongekend waren; schilderijen die de vrouwelijke eigenschappen van waarheid, werkelijkheid,

gruwelijkheid en lijden uitademden. Nooit eerder had een vrouw zoveel gekwelde poëzie op het linnen

vastgelegd als Frida in die tijd in Detroit deed.’

Kahlo vond haar eigen werk echter niet van groot belang. In de woorden van haar autobiograaf

Hayden Herrera: 'Ze gaf er eerder de voorkeur aan te worden gezien als een bekoorlijke

persoonlijkheid dan als een schilderes.'

Van Detoroit gingen ze naar New York, waar Rivera de opdracht had gekregen om een
Location
muurschildering te maken voor het Rockefeller Center. De opdracht liep uit op een enorm schandaal

toen de opdrachtgever bevel gaf het halfvoltooide werk te vernietigen vanwege de politieke beelden
Positioning in context
die Rivera er per se in wilde hebben. Maar Rivera bleef in de Verenigde Staten hangen, een land waar

hij veel van hield en dat Kahlo nu haatte.

Toen ze in 1935 eindelijk naar Mexico terugkeerden, ging Rivera een relatie aan met Kahlo's
Location   Context
jongere zuster Cristina. Hoewel ze hun onenigheid uiteindelijk bijlegden, betekende dit incident een

keerpunt in hun relatie. Rivera was nog nooit trouw geweest aan een vrouw, en nu begon Kahlo tot

aan het eind van haar leven een aantal affaires met zowel mannen als vrouwen. Rivera verdroeg haar

lesbische relaties beter dan haar heteroseksuele, die hem hevig jaloers maakten. Een van Kahlo's

serieuzere liefdesrelaties was met de Russische revolutionaire leider Leon Trotski, die nu werd
Positioning in context
achtervolgd door zijn triomferende rivaal Stalin en die op initiatief van Rivera in 1937 in Mexico asiel

had gekregen.

Een andere bezoeker aan Mexico in die tijd, die maar al te graag een liefdesaffaire met Kahlo

had willen hebben, ware het dat Kahlo zich niet tot hem aangetrokken voelde, was de leidende figuur

van de surrealisten, André Breton. Breton arriveerde in 1938 en was verrukt van Mexico, dat hij een

'van nature surrealistisch' land vond, en van Kahlo's schilderkunst. Deels op zijn initiatief kreeg ze

later in 1938 een tentoonstelling in de modieuze Julian Levy Gallery in New York. Breton zelf schreef

een retorisch voorwoord in de catalogus. De tentoonstelling was een groot succes, en ongeveer de helft

van de schilderijen werd verkocht. In 1939 stelde hij voor een tentoonstelling in Parijs te houden en

bood hij aan deze te organiseren. Toen Kahlo, die geen woord Frans sprak, echter in Frankrijk

aankwam, bleek dat Breton niet eens de moeite genomen had om haar werk bij de douane op te halen.

De onderneming werd uiteindelijk gered door Marchel Duchamp, en de tentoonstelling werd,

ongeveer zes weken te laat, toch nog geopend. Het was geen financieel succes, maar de kritieken

waren goed, en het Louvre kocht een schilderij aan voor het jeu de Paume. Kahlo oogstte ook

bewondering van Kandinsky en Picasso. Ze had echter een sterke afkeer opgevat voor wat zij

noemde 'dit zootje halve gare idioten van surrealisten'.

Ze verwierp het surrealisme echter niet meteen. In januari 1940 nam ze bijvoorbeeld (samen

met Rivera) nog deel aan de internationale tentoonstelling van surrealisten in Mexico-Stad. Later zou

ze heftig ontkennen dat ze ooit een ware surrealist was geweest. 'Ze dachten dat ik een surrealist was,'

zei ze, 'maar dat was ik niet. Ik heb nooit dromen geschilderd. Ik schilderde mijn eigen werkelijkheid.'

Begin 1940 scheidden Kahlo en Rivera, om redenen die nog steeds enigszins geheimzinnig

zijn, maar ze bleven zich wel samen in het openbaar vertonen. In mei, na de eerste aanslag op Trotski

onder aanvoering van de schilder Siqueiros, leek het Rivera verstandig om naar San Francisco te

vertrekken. Na de tweede en succesvolle aanslag werd Kahlo, die bevriend was geweest met Trotski's

moordenaar, door de politie verhoord. Ze besloot Mexico een tijdje te verlaten en voegde zich in

september bij haar ex-echtgenoot. Nog geen twee maanden later trouwden ze in de Verenigde Staten

opnieuw. Een van de reden schijnt te zijn geweest dat Rivera inzag dat Kahlo's gezondheid snel

achteruit zou gaan en dat zij iemand nodig had die voor haar zorgde.

Haar gezondheid, die nooit echt sterk geweest was, ging vanaf 1944 zienderogen achteruit.

Positioning in context

Kahlo onderging de eerste van vele operaties aan haar ruggengraat en verlamde voet. Deskundigen die

zich met haar leven en werk bezighielden, hebben zich afgevraagd of al deze operaties werkelijk nodig

waren, of dat deze voor haar eigenlijk een manier waren om aandacht van Rivera vast te blijven

houden, die vele affaires met andere vrouwen beleefde. Kahlo's fysieke en psychische lijden waren

altijd onverbrekelijk met elkaar verbonden. Begin 1950 bereikte haar lichamelijke gesteldheid een

dieptepunt en werd ze opgenomen in het ziekenhuis in Mexico-Stad, waar ze een jaar verbleef.

In de periode na hun hertrouwen bleef haar artistieke reputatie groeien, zij het in eerste

Recognition

instantie sneller in de Verenigde Staten dan in Mexico zelf. Haar schilderijen werden opgenomen in

prestigieuze groepstentoonstellingen in het Museum of Modern Art, het Boston Institute of

Recognition

Contemporary Arts en het Philadelphia Museum of Art. In 1946 ontving ze tijdens de jaarlijkse

nationale tentoonstelling een officiële prijs. Ze begon ook met lesgeven aan een nieuwe experimentele

kunstschool 'La Esmerelda' en vormde daar ondanks haar onconventionele methoden een

Context

inspiratiebron voor haar studenten.

Nadat ze uit het ziekenhuis was ontslagen, werd ze een steeds ferventere en gepassioneerde

communiste. Rivera was uit de partij gezet, die weigerde hem weer op te nemen, zowel vanwege zijn

connecties met de huidige Mexicaanse regering als vanwege zijn vriendschap met Trotski. Kahlo

schepte op: 'Ik was al lid van de partij voordat ik Diego leerde kennen, en ik dank dat ik een betere

communist ben dan hij is of ooit zal zijn.'

Had ze in de jaren veertig nog haar mooiste werk geschilderd, in de jaren die volgden werden

haar schilderijen door de combinatie van pijn, medicijnen en drank steeds onhandiger en chaotischer.

Desondanks werd in 1955 in Mexico de eerste overzichtstentoonstelling aan haar gewijd, de enige

Recognition

tentoonstelling van die aard gedurende haar leven. Deze vond plaats in de modieuze Galería de Arte

Contemporáneo in de Zona Rosa van Mexico-Stad. In eerste instantie leek het er op dat Kahlo te ziek

zou zijn om de tentoonstelling bij te wonen, maar zij stuurde haar rijkversierde hemelbed vooruit,

kwam zelf per ambulance en werd op een stretcher de galerie in gedragen. De aan haar gewijde

expositie was een triomfantelijke gebeurtenis.

In datzelfde jaar werd Kahlo's rechterbeen, dat was aangetast door koudvuur, tot onder de knie

Context

geamputeerd. Het was een enorme schok voor de vrouw die zoveel had geïnvesteerd in de verfijning

van haar eigen zelfbeeld. Ze leerde opnieuw lopen met een kunstbeen en danste zelfs op feestjes met

vrienden (zij het kortstondig en met behulp van pijnstillers). Maar het einde was nabij. In juli 1954

trad zij voor het laatste in de openbaarheid, toen ze deelnam aan een communistische demonstratie

tegen het omverwerpen van de linkse Guatemalteekse president Jacobo Arbenz. Kort daarna stierf ze

in haar slaap, naar het schijnt door een embolie, hoewel men in haar directe omgeving dacht dat ze een

manier had gevonden om zelfmoord te plegen. Haar laatste <u>dagboekaantekening</u> luidt als volgt: 'Ik

hoop dat het einde vreugdevol is, en ik hoop nooit meer terug te komen. Frida.'

[Translation of marked fragments in order of appearance, with exemptions of (place) names]
Mexican muralists - Her whole life was impacted by a long succession of physical traumas. - Preparatoria (national preparatory school) - In 1926, during her recovery period, she painted her first self-portrait. - ...events in her life and the accompanying emotions... - political ideas - The political climate in Mexico changed thanks to the reactionary politics of Calles, and became increasingly worse for those with leftish sympathies. - Kahlo was at the time seen primarily as a charming attachment to her famous husband. - ... her piercing self-portraits - Mexican folk art - (religious pictures, 'retablos' in Spanish) - The assignment resulted in a massive scandal when the person who commissioned it decreed to have the half-finished work destroyed on account of the political imagery Rivera insisted on adding. But Rivera remained in the United States, a land he loved and that Kahlo now hated. - ... Rivera started a relation with Kahlo's younger sister, Christina. - Russian revolutionary leader, Leon Trotski - ... exhibition in the fashionable Jullian Levy Gallery in New York. - exhibition in Paris - the Louvre acquired a painting – surrealists - After the second, successful attack Kahlo, who had been friends with Trotski's murderer, was interrogated by the police. She decided to leave Mexico for a little while and joined her ex-husband in September. - Her health, which had never been strong, steadily declined from 1944 onwards. - her artistic reputation kept growing - Her paintings where part of prestigious group exhibits in the Museum of Modern Art, the Boston Institute of Contemporary Arts and the Philadelphia Museum of Art. In 1946 she received an official price during the annual national exhibition. - ('la Esmeralda' was a local art school where Kahlo thought) - Notwithstanding, a overview exhibit was held about Kahlo in Mexico in 1955, the only exhibit of that nature during her life. - In the same year Kahlo's right leg, affected by gangrene, was amputated until just below the knee. - diary entries

Coding of Xue Song's biography as found on Artsy
Xue Song began his initial experiments with collage after being inspired by an encounter with

works by Robert Rauschenberg. Still, he struggled to find his artistic voice, explaining, "I

wanted to break Chinese tradition and surpass western modernism. It is easy to say, but very

difficult to realize." In a twist of fate, his <u>Pop art-meets-classical style</u> began to crystallize

after a fire burned down his studio, leading Xue to incorporate charred remnants of past work,

books, and other belongings. He became known for colorful collages referencing political and

popular icons and Chinese and Western art history, with burnt debris serving as a constant

reminder of the past. Additionally, he picked up painting and experimented with styles

ranging from traditional landscapes to Pop art. Through his series "Conversations with the

Masters," he engaged with the likes of Piet Mondrian, Pablo Picasso, Qi Baishi, and Xu

Beihong.

Coding of Xue Song's biography as found on Chinese Contemporary (2015)

Xue Song's works are made of collages of torn pieces of paper, some with their edges burnt, others

not. In the early 1990s Xue Song's studio burned down destroying all his works and in a cathartic

process he took the ashes of his old works and used them to create new works. He has continued using

burnt paper in his work ever since. Many interpretations have thereafter been linked to this burning

such as a rebirth not only of Xue Song's art but of a civilisation. Born in 1965, Xue Song would have

been old enough to remember life in China well before the opening to the West. As a young adult in

the 1980s he would have been aware of many Chinese artists?desire to contribute to the regeneration

of their culture. His works form a continually evolving body of observation and assessment of his

country's adjustments in the post-Mao era. Xue Song carefully chooses the material of his collages

from newspapers, magazines and books. He uses both images and text, western and Chinese, selecting

the fragments depending on the subject of his work. Usually a work consists of an outline of a

recognisable figure from the recent past or present: a political figure, an image made famous through

the press, a culturally charged icon, a commercial product etc. This figure in outline contains the

collage while outside the figure is usually a collage made of fragments different from those inside.

Each fragment of the collage carries in itself a message and the fact that each fragment is restricted to

one image or piece of text highlights its message and concentrates the viewer's attention. The burning

of the edges of the fragments adds the aura of history as though segments of information have been

found among destruction and pieced together in an attempt to recreate a reality. At the same time each

fragment contributes to the interpretation of the work as a whole through its relationship to the

outlined figure. The outline and the collage may be of the same subject and therefore reinforce each

other such as in the work not Allowed?of 1998, or they may come from different realms and together

create a new interpretation as in Xue Song's Political Pop works such as the Coca-Cola in

China?series. These latter works in particular are characterised by their ironic approach and their

capacity for biting social comment.

Appendix B Transcripts of biographies of artists on Artsy

Alexis Kersey

A consummate global citizen (part-English, part-Australian, born and raised in India), Alexis Kersey samples from high and low culture, the sacred and the profane, East and West, and the traditional and the avant-garde to produce his sumptuous, lurid, mixed-media paintings. "To me, the art of the sign board painters and the pictorial language of Indian street advertising hold as much value as, say, abstract art, in terms of poignancy," he says. With this democratic approach, Kersey combines abstraction and representation in works like Im Speak Di Trut (2008) where two seemingly holy figures, one resembling a Buddhist monk, the other a South Asian priest, glare at each other across a fiery lake and sun-burnt sky filled with skull-shaped balloons—a sardonic commentary on the guru figure in both Eastern and Western culture. https://www.artsy.net/artist/alexis-kersey

Bernard Aubertin

Bernard Aubertin is known for his monochromatic red paintings. For Aubertin, the red paint-ings create a depersonalized, mediated experience: they symbolize fire and blood, while at the same time allowing him the space for anonymity. A member of the experimental Dusseldorf Zero Group—founded by Heinz Mack, Otto Piene, and Günther Uecker in 1963—Aubertin reacted against Art Informel and Neo-Expressionism and was interested in developing a new art rooted in international collaborations, concepts, and ideas. https://www.artsy.net/artist/bernard-aubertin

Chu The-Chun

A mid-century émigré to France, Chu Teh-Chun left an important mark on abstract painting and Chinese art with his synthesis of the two traditions. A student of Lin Fengmian, Chu stud-ied traditional Chinese painting but was also exposed to Western art early in his life. After settling in Paris in the 1950s, he abandoned figuration, employing a gestural, abstract style that exhibits elements of Chinese calligraphy and landscape painting. Although his work demonstrates the stylistic freedom of mid-century movements such as art informel and ab-stract expressionism, Chu always retained the rigorous technical brushwork he learned as a student in mainland China. https://www.artsy.net/artist/chu-teh-chun

Claudia Baez

Claudia Baez's paintings are steeped in the history of art and literature, referencing everything from German Expressionism to Marcel Proust's In Search of Lost Time. Baez's series "PAINTINGS after PROUST" (2013–14) portrays six centuries of artists mentioned in Proust's book, offering interpretations twice removed from their original sources. She renders the artists in styles ranging from the rich renditions of Titian to abstracted versions of the work of Fra Angelico and Johannes Vermeer. Her inspirations also include more contemporary artists—a work appropriating Cindy Sherman's

"Untitled Film Stills" series (1977–80) appeared in an issue of the magazine ARTnews.
https://www.artsy.net/artist/claudia-baez

Frida Kahlo

Frida Kahlo's life has become as iconic as her work, in no small part because she was her own most popular subject: roughly one third of her entire oeuvre is self-portraits. Her works were intensely personal and political, often reflecting her turbulent personal life, her illness, and her relationship with the revolutionary muralist Diego Rivera. Kahlo dedicated her life and her art to the Mexican Revolution and the simultaneous artistic renaissance it engendered. Her style of painting has been widely categorized; Rivera considered her a realist, while André Breton considered her a Surrealist, and Kahlo eschewed labels entirely. "I paint my own reality," she wrote. "The only thing I know is that I paint because I need to, and I paint what-ever passes through my head without any other consideration." She identified most strongly with Mexican popular and folk art, also evidenced in her habit of dressing elaborately in Te-huana costumes. https://www.artsy.net/artist/frida-kahlo

Henri Matisse

Henri Matisse was a leading figure of Fauvism and, along with Pablo Picasso, one of the most influential artists of the modern era. In his paintings, sculptures, and works on paper, Matisse experimented with vivid colors, Pointillist techniques, and reduced, flat shapes. "What I dream of is an art of balance, of purity and serenity, devoid of troubling or depressing subject matter," he once said; his subjects of choice included nudes, dancers, still lifes, and interior scenes. Matisse's animated brushwork and seemingly arbitrary application of bright colors, as in Woman with a Hat (1905), would prove foundational to Fauvism, while his similarly radical The Red Studio (1911) was a seminal, nearly monochromatic study in perspective. Later in life, physically debilitated, Matisse would turn to making bold, cut-paper collages. He has influenced a wide range of important 20th-century painters, from Hans Hofmann and Milton Avery to Tom Wesselmann and David Hockney. https://www.artsy.net/artist/henri-matisse

James Abbott McNeill Whistler

James Abbott McNeill Whistler changed the course of art history with his radical techniques and adoption of Asian design principles, which emphasized a two-dimensional flattening of painted forms and their arrangement into abstract patterns. A London-based expatriate, Whistler embraced and promoted the doctrine that art should not serve narrative, but rather project the artist's subjective feelings through the handling of the medium. His revolutionary methods changed existing approaches to oil paint, pastel, watercolor, etching—even interior de-sign and the decorative arts. The flat, expressive, and radically simplified forms in his Venice pastels, and his use of fluid blue and grey pigments in his abstract nocturnes, altered how his contemporaries like Édouard Manet and Edgar

Degas saw and understood art. He scandalously named one of his most famous paintings Arrangement in Grey and Black, No. 1 (1871), suggesting the reduction of a portrait of his mother to an arrangement of formal elements. https://www.artsy.net/artist/james-abbott-mcneill-whistler

Jan van der Ploeg

Inspired by the philosophy of neoplasticism and the De Stijl movement, which was developed and led by his fellow Dutchman Piet Mondrian, Jan van der Ploeg is known for his abstract paintings rendered on canvas and walls. Stripping down painting to its essences of color and form, Van der Ploeg works in black, white, and a rainbow of brightly hued colors, and with a vocabulary of bold, geometric patterns and shapes. He covers canvases with these forms, cre-ating compositions that seem to move. He began working on walls in the mid-1990s, and has since completed hundreds of murals worldwide. Though Van der Ploeg operates within the parameters he sets for himself, he finds freedom within structure and allows intuition to guide his color choices. "It sounds as if it's very restricted, but . . . a lot is possible," he has said, a statement supported by his endlessly varied works.
https://www.artsy.net/artist/jan-van-der-ploeg

Jan van Eyck

The most famous of the van Eyck family of painters, Jan van Eyck brought a heightened de-gree of realism to the traditional themes and figures of late Medieval art. Among the earliest Dutch painters to use oil paint, the van Eycks developed glazing and wet-on-wet techniques that gave their pictures a greater sense of light and depth. The family is best known for creat-ing the Ghent Altarpiece. Although unusual for the period, van Eyck signed his pictures, in-cluding his personal motto Als ich kan (As well as I can). https://www.artsy.net/artist/jan-van-eyck

Kehinde Wiley

Working exclusively in portraiture, Kehinde Wiley fuses traditional formats and motifs with modern modes of representation. Selecting works from old masters like Peter Paul Rubens or Jacques-Louis David, Wiley replaces the historical figures with handsome young black men. In his related, ongoing "World Stage" series, Wiley's heroic figures are depicted in front of colorful background patterns that make specific reference to textiles and decorative patterns of various cultures, from 19th-century Judaica paper cutouts to Martha Stewart's interior col-or swatches. Wiley's penchant for jarring juxtapositions stems from his desire to complicate notions of group identity. "How do we…go beyond the media stereotypes about national identity?" he has said. "I don't really think about myself as a young gay black American, nor do I interface with my Brazilian or Mexican or Jewish friends that way." https://www.artsy.net/artist/kehinde-wiley

Syed Haider Raza

Sayed Haider Raza is one of the most prominent and groundbreaking Indian painters of his generation. During his training in France, Raza experimented with a variety of Modernist styles through landscape painting—first inspired by Expressionism, and later by geometric abstraction. In 1970, Raza began to paint purely geometric forms, particularly the circle and the dot, which he likened to the idea of the bindu. Though his style changed drastically over the course of his career, Raza's works were all united in their emphasis on color, and their references to memory and mood. Raza was also responsible for founding the Bombay Pro-gressive Artists' Group (PAG) with Krishna Hawlaji Ara and Francis Newton Souza, with the purpose of turning away from the European realist styles taught in Indian art schools, and establishing a modernist vocabulary relevant to India. https://www.artsy.net/artist/syed-haider-raza

Xue Song

Xue Song began his initial experiments with collage after being inspired by an encounter with works by Robert Rauschenberg. Still, he struggled to find his artistic voice, explaining, "I wanted to break Chinese tradition and surpass western modernism. It is easy to say, but very difficult to realize." In a twist of fate, his Pop art-meets-classical style began to crystallize after a fire burned down his studio, leading Xue to incorporate charred remnants of past work, books, and other belongings. He became known for colorful collages referencing political and popular icons and Chinese and Western art history, with burnt debris serving as a constant reminder of the past. Additionally, he picked up painting and experimented with styles rang-ing from traditional landscapes to Pop art. Through his series "Conversations with the Mas-ters," he engaged with the likes of Piet Mondrian, Pablo Picasso, Qi Baishi, and Xu Beihong. https://www.artsy.net/artist/xue-song-xie-song

Abadie (1994)

Bernard Aubertin et la nature des choses

Que savons-nous de la nature des choses, sinon qu'elles nous échappent ? Que chaque nouvelle approche – si forte, si évidente dans l'instant – que tente le philosophe, l'historien, l'artiste ne tarde pas à montrer sa limite, ses points occultés, et bientôt à cesser d'être pour devenir fantôme.

Peintre, Bernard Aubertin ne pouvait échapper à ce dilemme, celui des artistes de sa génération. Il s'agissait pour eux d'établir l'art sur de nouvelles bases, plus immédiates et, espéraient-ils, définitives. Les uns s'en remettaient à l'objet : après longtemps considéré les calligraphies abstraites que traçaient sur des feuilles de papier le parcours hasardeux d'objets préalablement encrés, Arman avait fini – avec ses premières accumulations de 1959 – par considérer que l'objet même était l'œuvre. Hains et Villeglé, pour leur part, trouvaient au hasard des rues leur bonheur : des affiches lacérées par des passants anonymes qui, en faisant surgir des hasards de formes, d'images rencontraient les dilemmes qui étaient ceux de Matisse, de Léger ou de Dewasne. L'art ainsi n'était plus le fait de la volonté d'un créateur, il était celui, au sens étymologique du terme, des *inventeurs*. Avec ses voitures compressées découvertes à la casse, César ouvrait les voies du minimal art er des volumes de Donald Judd ou de Robert Morris, les empaquetages de Christo étaient si naturellement plausibles qu'un douanier à Vintimille en exigea l'ouverture. Les choses devenaient art et l'art devenait naturel. Qu'en était-il alors de la nature des choses…

Fin limier, Pierre Restany regroupa tous ces artistes sous le nom de *Nouveaux réalistes*. L'idée n'était pas mauvaise puisqu'elle pouvait convenir, malgré la différence de leurs travaux, à presque tous. Son problème était sa vedette. Comment justifier ce terme pour des monochromes alors le plus souvent uniformément bleus qui ne se distinguaient que par l'application de la couleur (aux yeux des spécialistes), par leur charge émotionnelle (selon l'artiste). De toutes façon, il ne s'agissait dès lors plus de penser à la nature des choses, mais à celle de la peinture. Klein envisageait le monochrome non comme un acte s'inscrivant dans l'histoire de la peinture mais comme un état premier, le point de départ d'une aventure métaphysique : il est à cet égard significatif que dans le tapuscrit de l'*Aventure monochrome*, il ait finalement rayé la phrase où il déniait que son œuvre s'inscrivait dans la suite de Mondrian et de Malevitch. À l'instant de leur apparition les monochromes de Klein ne pouvaient rencontrer que l'adhésion ou le rejet. Pour le jeune peintre de 23 ans qu'est Aubertin lorsqu'il fait la connaissance de Klein (de six ans son ainé) l'adhésion est immédiate mais ne l'empêche pas de marquer ses réserves. La plus évidente – le choix du rouge – délimite moins les territoires des deux artistes que leurs attitudes face à l'œuvre: lors que Klein tend vers le bleu du ciel, L'éthéré et l'immatériel, Auberin (qui témoignait avoir une baisse de pression sanguine devant les monochromes de Klein) utilise la couleur qui, depuis les Égyptiens, associe le sang et al vie.

La distance à laquelle Restany maintint toujours l'œuvre d'Aubertin peut donc être considérée comme une ultime défense contre cette intrusion qui mettait à mal l'argument spécieux développé par

le critique selon lequel l'immatériel n'était en fait qu'un autre état de la réalité extérieure. En donnant au monochrome des ressources inattendues, un caractère vital, en montrant que loin d'être une attitude il était une manière de peindre (dans une matière épaisse travaillée au couteau), Aubertin, sans penser, rendait encore plus problématique les liens théoriques par lesquels Restany avait chercé à unir Klein avec les autres membres de son mouvement.

Il y a chez Aubertin quelque chose d'absolument incompatible avec la discipline de groupe : un reste d'enfance, de curiosité permanente qui tient à la fois du doigt trempé dans le pot de confitures et du besoin de savoir. Insoluble dans le Nouveau Réalisme, il n'allait pas tarder à montrer qu'il l'était tout autant dans le milieu du Groupe Zéro. Dans ces formations, chaque artiste devenait, comme l'avait finement remarqué Raymond Hains, une façon de porte-enseigne auquel il s'identifiait : le bleu pour Klein, l'affiche pour Hains et Villegleé, le chiffon pour Deschamps… tout comme le Groupe ZERO pouvait revendiquer la fente pour Fontana ou le clou pour Uecker.

C'est justement de clous que se servit aussi Aubertin pour une série de tableaux monochromes. Mais loin des pointes d'acier de Uecker esthétiquement fichées à la surface du tableau, les siens, assumant pleinement leur statut de clous, traversaient la planche de bois pour ressortir de l'autre côté et retenir, de l'extrémité de leurs pointes, telle une sorte de charpie sanglante, l'épaisse texture des monochromes rouges.

Cette manière de voir le dessous des choses, de ne pas s'arrêter au premier regard a conduit Aubertin du rouge au feu, les allumettes et leurs pointes rouges ayant, dans un premier temps, joué les simulacres de clous aux pointes peintes. En 1961, Aubertin cède un jour à la tentation: le tableau feu succède à feu le tableau. Mais cet attentat hypomaniaque contre la peinture suscite, au-delà de la fascination de son embrasement, de nouvelles questions : à quel moment le tableau-feu est-il le tableau ? Paré de toutes ses allumettes ? À l'instant de l'incandescence ? Dans le champ de torsions des allumettes calcinées ? Car à l'inverse d'Yves Kleine proclamant : « mes tableaux ne sons que les cendres de mon art », Aubertin trouve jusque dans les cendres les raisons de nouveaux tableaux tels ces *Avalanches*, longs sabliers de cendres dont la rotation propose un *perpetuum mobile*.

Il arrive plus souvent qu'on ne pense que le tableau prenne le peintre au piège. Il ne reste alors à celui-ci qu'à se répéter, à chercher la variante qui fera illusion de nouveauté… L'artiste, sans le savoir, prend alors la pose pour ce qu'il croit devoir être l'éternité. C'est ainsi que les dernières quarante années ont vue des invasions de monochromes, de tons sur tons, d'outre-noirs, sans compter les innombrables *petit-gris*… Aubertin aurait ainsi pu être facilement le *peintre du rouge*. Ce qui l'en a sauvé, c'est que pour lui les questions comptent plus que les réponses, qu'il faut toujours chercer ce que pourrait *finalement* être le tableau. De cette question garantie ses reeponse, ses monochromes noirs sont une parfaite illustration. Recouverts d'une couche univerme de peinture noire, un monochrome antérieurement rouge appartient-il à la manière du « peintre du rouge » ou alors à qui ?

Art 3Gallery (2015)

Claudia Baez (American, b. 1960 in Mexico City, lives and works in New York, NY). Claudia Baez's paintings are animated by reverence for the history of Western art, rendered in a contemporary expressionistic vocabulary. In her most recent series *Paintings after Proust* (2013 – 2014), Baez engages in a conversation in paint with the work of some of the greatest artists from the past six centuries. She selects, re-creates, and adopts details from images catalogued by Eric Karpeles (himself a painter) in his book *Paintings in Proust: A Visual Companion to "In Search of Lost Time"* (New York, 2008). The monumental literary work, *In Search of Lost Time,* written by the French novelist Marcel Proust in 1909-1922, is one of the most profoundly visual works in Western literature. Proust mentions more than one hundred artists – from Bellini to Whistler – in the novel, referencing a great many of their works. Karpeles' *Paintings in Proust* is a magnificently illustrated compilation of all the pictorial references that Proust made throughout his opus.

Baez, a longtime admirer of Proust, was inspired to create her own Proust-related series. The result of this thrice-sifted reimagining of culture references through layers that engage the text and the image is very personal. Sometimes her compositions are richly developed and nuanced (Titan's *Portrait of Isabella d'Este*); others are highly abstract and pared down, their forms rendered with daubs of color (Fra Angelico's *Cornoation of the Virigin*). Baez's interpretation of Vermeer's *View of Delft* is severely distilled compared to the highly detailed original; her rendition of Monet's *Rouen Cathedral* is more Cubist than impressionist. At times she merely suggests the essence of the original, as in her version of Velázquez's *La Infanta Maria Teresa*.

In one of her earlier series, Claudia Baez has gone all out win her appreciation of Cindy Sherman's work, appropriating her *Film Stills*. Baez' work *Untitled Film Still #7 (where is my pension fund?)* was reproduced in *ARTnews* (Feb. 2012, p. 85).

Baxter (2010)

Born and raised in Mysore by British parents, Alexis Kersey grew up immersed in both Indian and British culture. Inspired by his experiences, Kersey's work often melds traditional Indian subjects with westernized aesthetics. In an effort to immerse himself in the culture surrounding Indian pictorials, Kersey often chose to observe and interact with commercial sign painters, squatting on the pavements of Chennai. The rich, sensual quality of the artist's work juxtaposes its almost cartoon-like vulgarity. This introduction of figurative iconography creates a style unique to Kersey's work, often termed 'Indian Pop'. In western terms, the artist adopts the eye-catching iconography of Warhol while maintaining a strong alignment to Hackney's playful, pop art commentary. Although many of his pieces convey a spiritual purity, Kersey reforms them into modern terms. When portraying intimate, ancient Indian postures, he incorporates modern objects (such as English weaponry) in an effort to express concern over the deterioration of Indian pictography at the hands of globalization. In particular, the artist revisits the traditional styles of the Nineteenth Century Company School

Paintings, insuring that his pieces maintain cultural and historical value. In 1990, Kersey, who had been living in Britain for some years, chose to return to Mysore to continue his work.

The artist has been exhibiting since 1988 in galleries throughout India as well as London, and New York. In the last 18 months, Alexis Kersey's work has seen a meteoric rise: there has been considerable interest from dealers and auction houses alike. With the current boom in Indian art expanding rapidly, this artist is one to watch out for.

Chinese Contemporary (2015)

Xue Song's works are made of collages of torn pieces of paper, some with their edges burnt, others not. In the early 1990s Xue Song's studio burned down destroying all his works and in a cathartic process he took the ashes of his old works and used them to create new works. He has continued using burnt paper in his work ever since. Many interpretations have thereafter been linked to this burning such as a rebirth not only of Xue Song's art but of a civilisation. Born in 1965, Xue Song would have been old enough to remember life in China well before the opening to the West. As a young adult in the 1980s he would have been aware of many Chinese artists?desire to contribute to the regeneration of their culture. His works form a continually evolving body of observation and assessment of his country's adjustments in the post-Mao era. Xue Song carefully chooses the material of his collages from newspapers, magazines and books. He uses both images and text, western and Chinese, selecting the fragments depending on the subject of his work. Usually a work consists of an outline of a recognisable figure from the recent past or present: a political figure, an image made famous through the press, a culturally charged icon, a commercial product etc. This figure in outline contains the collage while outside the figure is usually a collage made of fragments different from those inside. Each fragment of the collage carries in itself a message and the fact that each fragment is restricted to one image or piece of text highlights its message and concentrates the viewer's attention. The burning of the edges of the fragments adds the aura of history as though segments of information have been found among destruction and pieced together in an attempt to recreate a reality. At the same time each fragment contributes to the interpretation of the work as a whole through its relationship to the outlined figure. The outline and the collage may be of the same subject and therefore reinforce each other such as in the work not Allowed?of 1998, or they may come from different realms and together create a new interpretation as in Xue Song's Political Pop works such as the Coca-Cola in China?series. These latter works in particular are characterised by their ironic approach and their capacity for biting social comment.

Christies (2010)

One of India's leading modern masters, Syed Haider Raza was a founder member of the revolutionary Bombay Progressive Artist's group formed in the year of India's Independence in 1947. He first came to worldwide prominence in Paris in the late 1950s and 60s after moving to France in

1950. Painted in 1983, Saurashtra is a seminal work that belongs to a key period in Raza's career when, after many years working within the styles of the Ecole de Paris and Abstract Expressionism, his artistic path brought him full circle and he began to integrate vital elements of his Indian childhood and cultural heritage into his paintings. At the root of Raza's paintings lies a strong tie to nature and to the forests of Madhya Pradesh where he was born. Though his works from the 1980s and 90s are far from representational, the concept of nature remains pervasive and integral to their composition. Adopting a codified and symbolic language, Raza uses specific shapes and colours to represent different aspects of the natural world making the works intrinsically representative. In this particular work, the elements are depicted with a powerfully expressive brushstroke that at once combines the beauty of the Gujarati coastal landscape with the unabashed appreciation of its arts. Raza's extensive travels within the region have influenced this mature body of work, as mementoes of his journeys from the mirror-work embroideries to the remnants of Rajput miniatures and Jain manuscripts, are often seen strewn across his studio.

"I have never left India. I love my country and I am proud of it, and it's not sentimental my friend. Don't think that it's only emotional. I have been linked with the profound spiritual, religious message that India has to give to Indians and to the world of which we are forgetful at times, even in India."

"I needed ten years in Bombay and I needed thirty years here (in Paris) to understand what is 'plastic art' what the fundamental requirements of a 'vital painted work' were so that it could be called important', Raza has said. 'I did this in France, in Paris, and I am grateful...that I could come to a certain recognition in the art world in France and the rest of the world. But I was still unhappy. I said to myself: Yes, it is all right to be an important painter of the Ecole de Paris, but where is your Indian background Raza? I asked myself and I started coming more and more regularly to India - for two to three months every year to study again what Indian culture was, what Indian sculpture was. I went to Ellora and Ajanta, I went to Benares, I went to Gujarat and Rajasthan. I looked at the sculptures and paintings, I read books and still I needed another twenty years to arrive where I am today. You know it's not very easy to give fifty years of one's life to the fundamental research of painting. It was a long period, a long wait, but I did it.'" (Raza cited in 'A Conversation with Raza', Raza: A Retrospective exhibition catalogue, New York, 2007, unpaginated)

Saurashtra is thus an amalgamation of the numerous themes Raza embarked upon throughout his decades-long career and serves as a transitional bridge into his structured geometric works characteristic of his most recent body of painting. Located at the far right is the Bindu-seed motif in its germinating stage. Conjuring at once landscape and nature, gesture and expression, and geometry and spiritualism altogether in one canvas, Saurashtra epitomises one of Raza's largest and most ambitious canvases to date.

Although Chu Teh-Chun's abstract painting seeks to metamorphosize form into the formless, its inspiration ultimately comes from nature and the invisible power which lies therein. The thought process behind this artwork is intimately tied to the view of the universe described in the Book of Changes or "I Ching" in which the manifold elements of nature regenerate their life cycles external to their own volition. Chu's formless landscapes are filled with the energy of life; drawing from his observation, meditation and clear understanding of the alternating passage of the four seasons. These abstract landscapes can also also be seen as the artist's tangible manifestations of traditional Chinese philosophical thinking. Untitled (Lot 13), a diptych produced in 1963, resembles the massive horizontal landscape scrolls of the Song and Yuan dynasties: myriad lines of ink move across its length and breadth; sometimes thick and rugged, or sometimes delicate and subtle, with a vigour and vitality to their density that harnesses the eye of the viewer. Chu follows a distributed composition of multiple axes, adopting the perspectives of modern painting and the medium of oil in order to spur the rebirth of the "splashed colour" technique from Chinese landscape painting, which consequentially appears both graceful and powerful.

His brushwork begins with broad, horizontal strokes delivered with a sense of speed, leaving behind row after row of black marks in order to establish the subject of the composition - the profound sense of traversing a mountain. Between the fluid marks of black ink there is a stone-green toned wash that blooms forth brilliantly as winding ribbons of colour, suggesting emerald vegetation covering a mountain. Across the light swathe of hilltops there are two strokes of yellow ochre faintly covered by gray which forms the vision of a mountain peak just touched by the first light of dawn - cleverly indicating that the artist has set his scene at the precise moment of the growing light in the east. Within the mid-ground and foreground, dense areas of of warm, khaki pigment represent the hollow, white negative spaces found in traditional painting. This characteristic retains the rich brushwork at which Chu has always excelled. Black lines, as thin as needles, dance freely up and down and side to side, continuing without end and forming an axis that traverses the centre of the composition horizontally until it reaches the corners. They appear subtle, but affect the vitality of the entire painting like a pulse. The beginning, continuity, undulations, and conclusion of each brushstroke reveal the deep foundations in calligraphy which Chu accumulated since childhood; the surging process of writing, outlining, and washing in ink reveals exuberant layers, which results in a richly exquisite visual experience.

The structure of brushwork is executed through exercising the full energy of the arm, in combination with the thin translucence that comes from flowing, diluted ink and colour washes. This alternates with the thicker and darker calligraphic-style painting and washing that is tempered and refined over the course of the composition, which forms the substance of the landscape. It is these alternating and converging aspects that reflect the character of the piece, bringing forth a momentary atmosphere of disillusionment which recalls the painting Zhang Daqian created in Brazil in 1967,

Contemplating upon an Autumn Landscape. In the late 1960s Zhang's sight was failing, which spurred him to leave behind his meticulous gongbi style and reach new heights with his unique reinvention of "splashed ink" and "splashed colour" practices. Within Zhang's autumn landscape, dazzling red maple trees appear indistinctly out of a deep blue and gray fog over an emerald Wuting Lake, a perfect reference point for Chu Teh-Chun's peerless expression of colour and deployment of space in Untitled. Zhang has completely eliminated any anchor points, such as human traces or small structures, leaving only azurite blue, malachite green, bright red, and a few strokes of white against deep field of black, a magnificent, agitated surge of colour. Untitled was created four years prior to this painting but already it is evident that Chu selected a similar palette in order to express the lush green of vegetation in a mountain valley at the arrival of early fall, a beautiful landscape in which a few maples have just begun to turn red in the midst of a hillside forest. This echoes Chu's subtle shift between 1962 and 1963; from his use of low-key blacks and browns within his palette of the early 1960s to his gradual inclination towards large amounts of riotous colour.

This key transition establishes the important role that colour would play in Chu's work over the ensuing decades. Untitled employs a palette that is both extremely warm and extremely cool to dazzling visual effect, marking with deep historical import the artist's powerful expression of colour at an early stage. His mastery and awareness of the elements of colour can be traced back to his time at the Hangzhou National College of Art, where the pioneering breakthroughs of his mentor Lin Fengmian within the integration of rich colour into ink painting left a deep and lasting impression on Chu and his schoolmate, Wu Guanzhong. From this point on Chu would dedicate his efforts to the advancement of a western system of colour and eastern calligraphic line; melding the strengths of both in an effort to express in his art what ancient poetry could not express in word - an abstract realm which can only be sensed. This pursuit of essence in the vocabulary of painting would allow Chu to stand out from other abstract expressionist painters of his era with a unique and personal style.

In terms of painting and form, Chu Teh-Chun intertwines many different techniques in the use of the brush in Untitled, weaving together a rich sense of layers what are appropriately diluted through the application of oil in order to express the translucence of hazy mist over distant mountains, which can only be found within traditional Chinese ink painting. The profound charm of the brush exhibited here is wondrous. Untitled demonstrates the exuberance of Chu's work from the early 1960s. When the artist's son, Yvon Chu, reminded him of this piece in his later years, he was delighted with the full maturity of its expression, which became a point of pride in his recollection of his early work. If the sense of beauty attained in Zhang Daqian's Contemplating upon an Autumn Landscape could be said to extend the magnificence of Li Sixun's bright green school of landscape from the early Tang dynasty, then the expression of colour and concept achieved in Chu Teh-Chun's 1963 Untitled is certainly a strong rival. Indeed, Chu's painting even asserts its superiority in terms of the ink techniques of the outline and wash demonstrated in its negative space; a restrained and introverted grace dimly visible beyond its sumptuous grandeur.

Toen Frida Kahlo in 1953 haar eerste overzichtstentoonstelling Mexico had (de enige die gedurende haar leven in haar geboorteland werd gehouden), schreef een plaatselijke criticus: 'Het is onmogelijk om leven en werk van deze bijzondere vrouw te scheiden. Haar schilderijen zijn haar autobiografie.' Deze observatie toont enerzijds aan waarom haar werk zo anders is dan dat van haar tijdgenoten, de Mexicaanse muralisten, en aan de andere kant waarom ze sindsdien een symbool van het feminisme in.

Kahlo werd in 19010 in Mexico-Stad geboren als derde dochter van Guillermo en Mathilda Kahlo. Haar vader was een in Duitsland geboren fotograaf van Hongaars-joodse afkomst, en haar moeder was Spaans-Indiaans. Haar leven zou worden getekend door een lange reeks lichamelijke trauma's, waarvan de eerste haar al op zeer jonge leeftijd trof. Toen zij zes jaar oud was, kreeg ze polio, waar ze een mank been aan overhield. Ondanks dat was zij een waaghals en een wildebras, waardoor ze het lievelingetje van haar vader was. Hij had ambitieuze plannen voor haar opleiding, en in 1922 ging ze daarom naar het Preparatoria (nationale voorbereidingsschool), het meest prestigieuze onderwijsinstituut in Mexico, waar meisjes nog maar sinds kort werden toegelaten. Ze was een van de slechts vijfendertig meisjes op tweeduizend leerlingen.

Daar ontmoette ze haar toekomstige echtgenoot, Diego Rivera, die kort daarvoor vanuit Frankrijk naar Mexico was teruggekeerd en die de opdracht had gekregen een muurschildering voor het Preparatoria te maken. Kahlo voelde zicht tot hem aangetrokken, en niet precies wetend hoe zij met die gevoelens om moest gaan, plaagde ze hem, haalde grapjes met hem uit en probeerde ze zijn vrouw, Lupe Marín, jaloers te maken.

In 1925 kreeg Kahlo het ernstige ongeluk dat de rest van haar leven zou beïnvloeden. Ze zat in een bus die in botsing kwam met een tram en raakte ernstig gewond aan haar rechterbeen en bekken. Door het ongeluk kon ze geen kinderen meer krijgen, hoewel zij dit pas na vele jaren zou accepteren. Het betekende ook dat ze een levenslange strijd zou moeten voeren met de pijn. In 1926 schilderde ze tijdens haar herstelperiode haar eerste zelfportret, het begin van een lange reeks waarin ze de gebeurtenissen in haar leven en de daarbij behorende emoties vastlegde.

In 1928 ontmoette ze Rivera opnieuw, via haar vriendin, de fotografe en revolutionaire Tina Modotti. Rivera's huwelijk was net op de klippen gelopen, en ze kwamen er achter dat ze zeer veel gemeen hadden, niet in de laatste plaats wat politieke ideeën betreft. Beiden waren nu militante communisten. Ze trouwden in augustus 1929. Kahlo zou later zeggen: 'Ik heb twee ernstige ongelukken gehad in mijn leven. Een waarbij ik werd omvergereden door een voertuig […] Het andere ongeluk is Diego.'

Het politieke klimaat in Mexico werd, dankzij het reactionaire bewind van Calles, steeds slechter voor degenen met linkse sympathieën, en het muurschilderingprogramma dat door de minister van Onderwijs, José Vasconselos, was opgezet, werd stopgezet. Maar Rivera's artistieke reputatie

verbreidde zich snel in de Verenigde Staten. In 1930 vertrok het echtpaar naar San Francisco, en vervolgens, na een kort verblijf in Mexico, in 1931 naar New York voor een overzichtstentoonstelling van Rivera in het Museum of Modern Art. Kahlo werd in die tijd voornamelijk gezien als een charmant aanhangsel van een beroemde echtgenoot, maar deze situatie zou al snel veranderen. In 1932 kreeg Rivera de opdracht een grote reeks muurschilderingen te maken voor het Detroit Museum, en hier kreeg Kahlo een miskraam. Terwijl zij hiervan herstelde, schilderde ze *Miskraam in Detroit*, de eerste van heer zeer doordringende zelfportretten. De stijl die ze ontwikkelde, leek op geen enkele manier op die van haar echtgenoot, en was gebaseerd op Mexicaanse volkskunst, in het bijzonder op de kleine votiefplaatjes, *retablos* genaamd, die de gelovigen in Mexico aan de kerk schonken. Rivera's reactie op het werk van zijn vrouw was zowel scherpzinnig als grootmoedig:

'Frida begon te werken aan een reeks van meesterwerken die in de kunstgeschiedenis ongekend waren; schilderijen die de vrouwelijke eigenschappen van waarheid, werkelijkheid, gruwelijkheid en lijden uitademden. Nooit eerder had een vrouw zoveel gekwelde poëzie op het linnen vastgelegd als Frida in die tijd in Detroit deed.'

Kahlo vond haar eigen werk echter niet van groot belang. In de woorden van haar autobiograaf Hayden Herrera: 'Ze gaf er eerder de voorkeur aan te worden gezien als een bekoorlijke persoonlijkheid dan als een schilderes.'

Van Detoroit gingen ze naar New York, waar Rivera de opdracht had gekregen om een muurschildering te maken voor het Rockefeller Center. De opdracht liep uit op een enorm schandaal toen de opdrachtgever bevel gaf het halfvoltooide werk te vernietigen vanwege de politieke beelden die Rivera er per se in wilde hebben. Maar Rivera bleef in de Verenigde Staten hangen, een land waar hij veel van hield en dat Kahlo nu haatte.

Toen ze in 1935 eindelijk naar Mexico terugkeerden, ging Rivera een relatie aan met Kahlo's jongere zuster Cristina. Hoewel ze hun onenigheid uitenidelijk bijlegden, betekende dit incident een keerpunt in hun relatie. Rivera was nog nooit trouw geweest aan een vrouw, en nu begon Kahlo tot aan het eind van haar leven een aantal affaires met zowel mannen als vrouwen. Rivera verdroeg haar lesbische relaties beter dan haar hetroseksuele, die hem hevig jaloers maakten. Een van Kahlo's serieuzere liefdesrelaties was met de Russische revolutionaire leider Leon Trotski, die nu werd achtervolgd door zijn triomferende rivaal Stalin en die op initiatief van Rivera in 1937 in Mexico asiel had gekregen.

Een andere bezoeker aan Mexico in die tijd, die maar al te graag een liefdesaffaire met Kahlo had willen hebben, ware het dat Kahlo zich niet tot hem aangetrokken voelde, was de leidende figuur van de surrealisten, André Breton. Breton arriveerde in 1938 en was verrukt van Mexico, dat hij een 'van nature surrealistisch' land vond, en van Kahlo's schilderkunst. Deels op zijn initiatief kreeg ze later in 1938 een tentoonstelling in de modieuze Julian Levy Gallery in New York. Breton zelf schreef een retorisch voorwoord in de catalogus. De tentoonstelling was een groot succes, en ongeveer de helft van de schilderijen werd verkocht. In 1939 stelde hij voor een tentoonstelling Parijs te houden en bood

hij aan deze te organiseren. Toen Kahlo, die geen woord Frans sprak, echter in Frankrijk aankwam, bleek dat Breton niet eens de moeite genomen had om haar werk bij de douane op te halen. De onderneming werd uiteindelijk gered door Marchel Duchamp, en de tentoonstelling werd, ongeveer zes weken te laat, toch nog geopend. Het was geen financieel succes, maar de kritieken waren goed, en het Louvre kocht een schilderij aan voor het jeu de Paume. Kahlo oogstte ook bewondering van Kandinsky en Picasso. Ze had echter een sterke afkeer opgevat voor wat zij noemde 'dit zootje halve gare idioten van surrealisten'.

Ze verwierp het surrealisme echter niet meteen. In januari 1940 nam ze bijvoorbeeld (samen met Rivera) nog deel aan de internationale tentoonstelling van surrealisten in Mexico-Stad. Later zou ze heftig ontkennen dat ze ooit een ware surrealist was geweest. 'Ze dachten dat ik een surrealist was,' zei ze, 'maar dat was ik niet. Ik heb nooit dromen geschilderd. Ik schilderde mijn eigen werkelijkheid.'

Begin 1940 scheidden Kahlo en Rivera, om redenen die nog steeds enigszins geheimzinnig zijn, maar ze bleven zich wel samen in het openbaar vertonen. In mei, na de eerste aanslag op Trotski onder aanvoering van de schilder Siqueiros, leek het Rivera verstandig om naar San Francisco te vertrekken. Na de tweede en succesvolle aanslag werd Kahlo, die bevriend was geweest met Trotski's moordenaar, door de politie verhoord. Ze besloot Mexico een tijdje te verlaten en voegde zich in september bij haar ex-echtgenoot. Nog geen twee maanden later trouwden ze in de Verenigde Staten opnieuw. Een van de reden schijnt te zijn geweest dat Rivera inzag dat Kahlo's gezondheid snel achteruit zou gaan en dat zij iemand nodig had die voor haar zorgde.

Haar gezondheid, die nooit echt sterk geweest was, ging vanaf 1944 zienderogen achteruit. Kahlo onderging de eerste van vele operaties aan haar ruggengraat en verlamde voet. Deskundigen die zich met haar leven en werk bezighielden, hebben zich afgevraagd of al deze operaties werkelijk nodig waren, of dat deze voor haar eigenlijk een manier waren om aandacht van Rivera vast te blijven houden, die vele affaires met andere vrouwen beleefde. Kahlo's fysieke en psychische lijden waren altijd onverbrekelijk met elkaar verbonden. Begin 1950 bereikte haar lichamelijke gesteldheid een dieptepunt en werd ze opgenomen in het ziekenhuis in Mexico-Stad, waar ze een jaar verbleef.

In de periode na hun hertrouwen bleef haar artistieke reputatie groeien, zij het in eerste instantie sneller in de Verenigde Staten dan in Mexico zelf. Haar schilderijen werden opgenomen in prestigieuze groepstentoonstellingen in het Museum of Modern Art, het Boston Institute of Contemporary Arts en het Philadelphia Museum of Art. In 1946 ontving ze tijdens de jaarlijkse nationale tentoonstelling een officiële prijs. Ze begon ook met lesgeven aan een nieuwe experimentele kunstschool 'La Esmerelda' en vormde daar ondanks haar onconventionele methoden een inspiratiebron voor haar studenten.

Nadat ze uit het ziekenhuis was ontslagen, werd ze een steeds ferventere en gepassioneerde communiste. Rivera was uit de partij gezet, die weigerde hem weer op te nemen, zowel vanwege zijn connecties met de huidige Mexicaanse regering als vanwege zijn vriendschap met Trotski. Kahlo

schepte op: 'Ik was al lid van de partij voordat ik Diego leerde kennen, en ik dank dat ik een betere communist ben dan hij is of ooit zal zijn.'

Had ze in de jaren veertig nog haar mooiste werk geschilderd, in de jaren die volgden werden haar schilderijen door de combinatie van pijn, medicijnen en drank steeds onhandiger en chaotischer. Desondanks werd in 1955 in Mexico de eerste overzichtstentoonstelling aan haar gewijd, de enige tentoonstelling van die aard gedurende haar leven. Deze vond plaats in de modieuze Galería de Arte Contemporáneo in de Zona Rosa van Mexico-Stad. In eerste instantie leek het er op dat Kahlo te ziek zou zijn om de tentoonstelling bij te wonen, maar zij stuurde haar rijkversierde hemelbed vooruit, kwam zelf per ambulance en werd op een stretcher de galerie in gedragen. De aan haar gewijde expositie was een triomfantelijke gebeurtenis.

In datzelfde jaar werd Kahlo's rechterbeen, dat was aangetast door koudvuur, tot onder de knie geamputeerd. Het was een enorme schok voor de vrouw die zoveel had geïnvesteerd in de verfijning van haar eigen zelfbeeld. Ze leerde opnieuw lopen met een kunstbeen en danste zelfs op feestjes met vrienden (zij het kortstondig en met behulp van pijnstillers). Maar het einde was nabij. In juli 1954 trad zij voor het laatste in de openbaarheid, toen ze deelnam aan een communistische demonstratie tegen het omverwerpen van de linkse Guatemalteekse president Jacobo Arbenz. Kort daarna stierf ze in haar slaap, naar het schijnt door een embolie, hoewel men in haar directe omgeving dacht dat ze een manier had gevonden om zelfmoord te plegen. Haar laatste dagboekaantekening luidt als volgt: 'Ik hoop dat het einde vreugdevol is, en ik hoop nooit meer terug te komen. Frida.'

Lucie-Smith (1999: 16-19)

Matisse was de onwaarschijnlijke leider van het legertje stoottroepers dat het modernisme in de schilderkunst teweegbracht. Ondanks zijn koele karakter maakte hij schilderijen in felle kleuren die de perceptie op slag veranderden. In latere jaren werd Matisse beschouwd als iemand die zijn oorspronkelijk avant-gardistische principes had verraden, totdat zijn wonderbaarlijke late fase tot bloei kwam. Zijn afstandelijkheid werd tegengesproken door de vriendschap die hij met veel van zijn medekunstenaars onderhield, waaronder mannen die voor het overige totaal van elkaar verschilden, zoals Pierre Bonnard en André Masson.

Hij werd geboren op 31 december 1869, als zoon van een graanhandelaar die in de buurt van Saint Quentin woonde. Na zijn schooltijd in Saint Quentin studeerde hij rechten in Parijs, een opleiding die uitliep op een uitzichtloze baan als klerk van een advocaat in zijn geboorteplaats. Zijn voornaamste bezigheid bestond uit het kopiëren van de *Fables* van La Fontaine, om zo het vereiste aantal gewaarmerkt gerechtelijk papier op te maken. In die tijd volgde hij 's ochtends vroeg ook tekenlessen op de plaatselijke kunstschool.

In 1890, toen hij herstellende was van een blindedarmontsteking, gaf zijn moeder hem een doosje olieverf en begon hij te schilderen. Het koste hem bijna twee jaar om de bezwaren van zijn vader tegen zijn opleiding tot professioneel kunstenaar te overwinnen. Hij schreef zich in bij de

Académie Julian in Parijs, bij Bouguerau, en kwam tot de ontdekking dat diens aanwijzingen niet veel beter waren dan het kopiëren van La Fontaine. De symbolistische schilder Gustave Moreau, de beste docent van zijn tijd, redde Matisse door hem in 1895 officieus toe te laten tot zijn eigen studio in de École des Beaux-Arts. Hier ontmoette hij Georges Rouault, Moreaus favoriete volgeling, en Albert Marquet, die een goede vriend van hem werd. In die tijd maakte hij veel kopieën in het Louvre, niet alleen om ervan te leren, maar ook om ze ter aanvulling op zijn vaders toelage te verkopen. De meeste schilderijen die hij uitkoos waren Frans en achttiende-eeuws; hierin liet Matisse's kenmerkende hedonisme zich al vroeg zien.

In 1896 maakte hij zijn verlate debuut als professioneel schilder, en zond hij vier schilderijen in voor de zogenaamd 'liberale' Salon de la Société Nationale des Beaux-Arts. Hij oogstte een bescheiden succes, verkocht twee werken, waarvan één aan de Franse staat, en werd gekozen tot medelid van de groep die de Salon leidde, op voorspraak van de president, Pubis de Chavannes. Dit betekende dat hij er in de toekomst kon exposeren zonder dat hij zijn werk aan een jury hoefde voor te leggen. In 1898 trouwde hij met Amélie Parayre, een vrouw met een sterk karakter, die een grote steun voor hem was in de eerste, moeilijke jaren van zijn carrière. Om het huishouden draaiende te houden verdiende ze een aantal jaren bij door een hoedenwinkel te runnen.

Haar inkomsten waren welkom, aangezien Matisse's zaken in 1899 bergafwaarts gingen. Moreau was inmiddels overleden, en zijn opvolger, Cromon, zette Matisse uit het atelier. Hij volgde daarna lessen aan de Acadé mie Carrière (waar hij Derain ontmoette), maar in feite was zijn studietijd voorbij. Kunstenaars die jonger waren dan hij waren hem al gaan zien als leider, en geïmponeerd door zijn sobere gedrag en rode baard, stonden ze erop hem 'de dokter' te noemen.

De jaren daarna waren moeilijk. In 1900 stond Matisse er financieel zo slecht voor dat hij genoodzaakt was zich bij de groep schilders te voegen die het pasgebouwde Grand Palais voorbereidden voor de Wereldtentoonstelling van 1900. In 1901 zette zijn vader zijn toelage stop. Hij werd echter geleidelijk aan bekender. In 1903 was hij een van de oprichters van de nieuwe Salon d'Automne, en het jaar daarop had een solo-expositie bij Ambroise Vollard. De zomer van 1904 bracht hij door met Signac in St. Tropez. Het jaar 1905 was zijn *annus mirabilis*. Hij mocht met zijn vrienden als groep exposeren in de Salon d'Automne, en het sloeg in als een bom. De criticus Louis Vauxcelles doopte hen De Fauves, of 'wilde beesten', en Matisse, hun leider, werd *le roi des fauves* – 'de koning der wilde beesten' genoemd. Voor iemand als Fernande Olivier, destijds de maîtresse van Picasso, werd Matisse een man met een 'ontzagwekkende uitstraling'. Belangrijke verzamelaars begonnen zijn werk te kopen: eerst het verzamelaarsechtpaar Stein, toen de Russische miljonair Sergei Sjtsjoekin. In 1907 richtte hij een school op die veel leerlingen trok, vooral Scandinavische en Duitse, en veel van zijn finaniciële lasten werden weggenomen door een contract dat hij in 1909 sloot met de Bernheim-Jeune galerie, die zijn gehele productie in handen kreeg. Hij reisde naar München om een tentoonstelling over islamtische kunst te bezoeken, bezocht Spanje, Moskou (waar hij de iconen bestudeerde) en Tanger.

Tijdens deze periode van zijn eerste grote succes schreef Matisse een soort geloofsbelijdenis. Onder de titel 'Aantekeningen van een schilder' verscheen deze eind 1908 in *La Grande Revue*:

> 'Wat ik bovenal nastreef is expressie […] Voor mij bestaat expressie niet uit de hartstocht die wordt weerspiegeld op een menselijk gelaat of zich laat zien in een heftig gebaar. De hele compositie van mijn schilderijen is expressief […] Compositie is de kunst van het op een decoratieve manier arrangeren van de diverse elementen die een schilder ter beschikking staan om zijn gevoelens uit te drukken.'

Matisse's leidende positie onder de jongere schilders werd echter al snel overschaduwd door de opkomst van het kubisme en de groeiende reputatie van Picasso. Toen de Eerste Wereldoorlog uitbrak was hij de dienstplichtige leeftijd al voorbij. Hij bleef tot 1916 in Parijs en schilderde enkele van zijn grootste werken, maar de kou tijdens de oorlog brak hem op. Hij trok zich, aanvankelijk tijdelijk, terug in Nice, waar zijn familie hem bezocht, maar niet bleef; een reden hiervoor is misschien het overbekende feit dat hij sliep met zijn modellen. Hij ontwikkelde nu geleidelijk een leven dat in dienst stond van het schilderen. Wellicht was hij hiertoe aangemoedigd door een aantal bezoeken die hij aan Renoir bracht, die toen mank liep door zijn artritis en aan het einde van een lang leven. Er schuilt onmiskenbaar iets Renoiresks in de vele odalisken en vurige interieurs die Matisse in de eerste helft van de jaren twintig maakte.

In de jaren dertig was Matisse rustelozer: hij reisde en nam nieuwe uitdagingen aan. Hij ging zelfs naar Tahiti, en nam een opdracht aan om een muurschildering op het thema dansen te schilderen voor de Barnes Foundation in Merion, Pennsylvania. Omdat de verkeerde maten waren opgegeven schilderde hij de enorme compositie tweemaal, een praktijkvoorbeeld van zijn overtuiging dat de geringste verandering in proportie de compositie fundamenteel aantastte.

De Tweede Wereldoorlog kwam en Matisse maakte zich op om naar Brazilië te emigreren. Maar toen hij op weg van Parijs naar Bordeaux het allegaartje van vluchtelingen zag dat probeerde weg te komen, besloot hij niet te gaan. 'Als iedereen die ook maar iets betekent Frankrijk verlaat,' schreef hij aan zijn zoon Pierre, die handelaar was in Amerika, 'wat blijft er dan over van Frankrijk?' Zijn daadkrachtige vrouw lijkt zijn houding echter te passief te hebben gevonden, en eiste een officiële scheiding. Zowel zij als haar dochter Marguerite gingen later bij het verzet, en beiden werden uiteindelijk gearresteerd. Marguerite werd gemarteld, maar wist dankzij een luchtaanval te ontsnappen uit de trein die haar naar Ravensbrück zou brengen.

Intussen kreeg Matisse te maken met de ongemakken van de oude dag. In 1941 onderging hij een operatie voor een vaatverstopping. Hij liep een infectie op en er volgde een tweede operatie, waarbij de spieren aan één kant van zijn maag blijvend werden beschadigd, en vanaf dat moment kon hij maar kort achter elkaar overeind blijven. De ironische beschrijving die hij van zichzelf gaf was dat hij niet *malade*, oftewel ziek was, maar *mutilé* (invalide), waarmee hij refereerde aan de Franse bureaucratische uitdrukking *mutilé de guerre* (oorlogsinvalide). Door zijn slechte gezondheid en zijn

verblijf in de onbezette zone kon hij zich afzijdig houden van de politiek, hoewel hij twee niet politieke uitzendingen maakte voor de radio van Vichy. De tweede hiervan bevatte kritiek op het academische Beaux-Arts systeem voor het opleiden van kunstenaars, waaronder hij in zijn jeugd te lijden had gehad. Hij werd niet voor een derde maal gevraagd.

De belangrijkste onderneming van zijn laatste jaren kwam voor velen als een verrassing. Tussen 1948 en 1951 beschilderde hij in Vence de kapel van een klooster voor Dominicanessen, van wie er een hem tijdens zijn herstel van de operatie had verzorgd. Matisse behoorde tot een generatie die ofwel bestond uit strijdlustige gelovigen, zoals de schrijver Paul Claudel, ofwel uit sceptici; bij het aannemen van de opdracht van de kapel deed hij alles om te voorkomen dat hij de indruk werkte dat hij enigerlei bekering had ondergaan. In zijn brief aan de bisschop die de inwijding verrichtte zei hij enkel: 'Ik heb altijd Gods lof en zijn schepping op mijn eigen manier verkondigd.' Hij woonde de inwijdingsceremonie niet bij vanwege zijn slechte gezondheid en zag er op toe dat de ontwerpen werden geëxposeerd bij een organisatie die algemeen bekend stond als Communistisch front. Matisse lijkt de kapel vooral te hebben beschouwd als een monument ter ere van zichzelf, een compleet statement van zijn geloofsbelijdenis. Hij zorgde ervoor dat, mocht de nonnen hun bezit worden ontnomen, het gebouw als historisch monument zou worden beschermd.

Met uitzondering van de glas-in-loodramen zijn de schilderingen uitgevoerd in sober zwart-wit. Door hun uitgesproken lijnenspel doen ze echter absoluut niet onder voor de heldergekleurde, grootschalige papieren knipsels waarin Matisse zich in zijn laatste jaren grotendeels wijdde, en die enkele van zijn fraaiste werken vormden. De methode was oorspronkelijk gebruikt om de juiste compositie te vinden voor de figuren in *La Danse*, maar werd alter een concessie aan een voortschrijdende fysieke zwakte; het ontwikkelde zich in de gedachtewereld van de kunstenaar tot een zelfstandig principe. Vanuit zijn bed knipte Matisse uitgesproken vormen uit papier dat hij zelf had gekleurd: hij vergeleek het proces met de manier waarop een beeldhouwer een vorm uithakt uit het blok dat voor hem is geprepareerd. Deze vormen werden door een assistent op aanwijzingen van de schilder heen en weer bewogen op een doek totdat hij de compositie had die hij wilde. Kleur was altijd het centrale thema van Matisse's kunst geweest, en met deze techniek kon hij enkele van zijn sterkste kleureneffecten bereiken. Zijn artsen bevolen hem zelfs een zonnebril te dragen in de studio als hij niet echt aan het werk was, uit angst dat de optische trillingen zijn reeds tranende gezichtsvermogen zouden aantasten. Matisse was nog steeds actief bezig met zijn knipsels toen hij in 1954 overleed.

Solomon (2015)

Kehinde Wiley began thinking about the stereotypes that shadow black men long before events in Ferguson, Mo., pushed the phrase "unarmed black man" back into the headlines and inaugurated a new wave of the civil rights movement.

"I know how young black men are seen," he said on a recent winter afternoon in his studio in the Williamsburg section of Brooklyn. "They're boys, scared little boys oftentimes. I was one of them.

I was completely afraid of the Los Angeles Police Department." He grew up in South-Central Los Angeles and was 14 when four white police officers were acquitted in the videotaped beating of Rodney King; riots flared in the neighborhood.

Now 37, Mr. Wiley is one of the most celebrated painters of his generation. He is known for vibrant, photo-based portraits of young black men (and occasionally women) who are the opposite of scared — they gaze out at us coolly, their images mashed up with rococo-style frills and empowering poses culled from art history. He maintains studios in China and Senegal in addition to New York. As a self-described gay man and the son of an African-American mother and a Nigerian father, he offers a model of the artist as multicultural itinerant.

At the moment, Mr. Wiley's work seems to be everywhere, from the set of the Fox drama "Empire" to all of the right institutions. His first museum retrospective opens at the Brooklyn Museum on Feb. 20, before traveling to museums in Fort Worth, Seattle and Richmond, Va. In January, he was summoned to Washington to receive a Medal of Arts from the State Department. ("I brought my mother as my date," he said.)

A Wiley painting is easy to recognize. More often than not, it shows a solitary figure, an attractive man in his 20s, enacting a scene from an old- master painting. Dressed in contemporary garb — a hooded sweatshirt, perhaps, or a Denver Broncos jersey — the man might be crossing the Swiss Alps on horseback with the brio of Napoleon or glancing upward, prophet- style, golden light encircling his head. Typically the man has a lean frame, and his clear skin gives off a coppery sheen. His posture is regal: shoulders rolled back, head turned slightly to reveal the elegant sweep of a jawline.

Every Wiley painting is a two-punch affair — the masculine figures contrast sharply with the ornately patterned, Skittles-bright backdrops unfurling behind them. Based on design sources as varied as Victorian wallpaper and Renaissance tapestries, the backgrounds can look as if thousands of curling petals had somehow been blown into geometric formations across the canvas. For the moment depicted in the painting, the men are protected and invincible, inhabiting an Arcadian realm far removed from the grit of the artist's childhood.

Mr. Wiley's champions tend to view his work in overt political terms. He redresses the absence of nonwhite faces in museum masterpieces, "using the power of images to remedy the historical invisibility of black men and women," as Eugenie Tsai, the curator of the Brooklyn Museum show, observes in the accompanying catalog.

But you can also read his work in psychological terms, and Mr. Wiley himself emphasizes the never-ending tension in the paintings between their male and female aspects. "It's about a figure in the landscape," he said of his output, adding that the backdrops symbolize the land. "For me the landscape is the irrational. Nature is the woman. Nature is the black, the brown, the other." He added, "That's the logic behind it, but everyone has their own sort of reading."

Mr. Wiley, who attended graduate art school at Yale, has a taste for academic language. During our conversation he used the words "slippage" and "surd," the last of which sent me to the dictionary. It's a math term for irrational numbers with no square root.

Surd, in truth, seems to capture something essential about Mr. Wiley, his distrust of reductive explanations. Although he has a warm manner and a winning gap-tooth smile, there is an aloofness about him, too, especially when he does not care for a question. I asked him whether he felt an affinity with the work of Chuck Close, who similarly paints portraits that disclose next to nothing about their subjects.

"He fetishizes the material process instead of an external story," he said. What about John Currin, his fellow Yalie and devotee of brazen pastiche? "We have different projects," was Mr. Wiley's businesslike reply.

Even his sexuality, by his description, defies categorization. "My sexuality is not black and white," he said. "I'm a gay man who has occasionally drifted. I am not bi. I've had perfectly pleasant romances with women, but they weren't sustainable. My passion wasn't there. I would always be looking at guys."

Before meeting Mr. Wiley, I had seen a photograph of him in a magazine and was struck by his stylishness. He was wearing a suit whose jazzy stripes matched the background of one of his paintings. Jeffrey Deitch, the art dealer who gave Mr. Wiley his first one-man show in New York and represented him for a decade, had urged me, only half-jokingly, to try to look in the artist's bedroom closet if I wanted to understand him. It contains, Mr. Deitch said, dozens of custom-made suits, many of them by Ron & Ron, a tony label founded by Haitian twins.

Mr. Wiley's studio does not look like the haunt of a dandy. You enter the building by buzzing past a steel-frame security door that opens onto a long, sunless courtyard. The heat wasn't working on the day of my visit, and the artist met me at the door bundled in layers of paint-stained work clothes. He proposed that we talk in a small front office warmed by a space heater, and night was already falling.

A fish tank glowed with blue light. Above it hung what appeared to be a Basquiat from the '80s, a smattering of cryptic words ("teeth," for instance) scratched into its brushy surface. When I complimented the painting, Mr. Wiley replied mischievously, "I painted it myself."

Clearly, he has a gift for mimicry. He can do a Velázquez. He can do a Jacques-Louis David. He can do a Basquiat. His devotion to pastiche has kept him operating on a meta level, and perhaps at a deliberate remove from his past. "The stuff I do is a type of long-form autobiography," he said, with his usual attention to paradox, "but the starting place is not me."

The artist said he never met his father during his childhood, or even saw a photograph of him. Isaiah D. Obot — a Nigerian citizen who came to the United States as a scholarship student — returned to Africa after finishing his studies. He went on to have a second family in Nigeria and a substantial career in city planning.

The artist's mother, Freddie Mae Wiley, a Texas native, studied linguistics and eventually became a teacher. Kehinde was the fifth of her six children, and a twin. For most of his childhood, he said, the family subsisted on welfare checks and whatever spare change came in from his mother's thrift shop. The store didn't have a sign or a retail space, other than a patch of sidewalk in front of the house on West Jefferson Avenue. But everyone in the neighborhood thought of it as Freddie's Store. Mr. Wiley recalls the mounds of merchandise: used books, windup Victrolas, tarnished gold-leaf picture frames, porcelain figurines of rosy-cheeked lovers.

"It was like 'Sanford and Son,' " he said, referring to the '70s sitcom about two men with a salvage shop, "junk everywhere."

The children would help their mother scout for new inventory, driving around in a Dodge van that backfired noisily. "That was the more embarrassing part," he recalled. He added, "You're 11, and you don't want to be seen jumping out to go through your neighbor's garbage. That's social death!"

At 11, everything changed. His mom enrolled him in a free art course at a state college. Suddenly, he knew how he wanted to spend his life; his career unfolded with remarkable velocity. He attended college at the San Francisco Art Institute, before winning a scholarship to Yale. He arrived in New York in 2001 as an artist-in-residence at the Studio Museum in Harlem.

Since then, Mr. Wiley has "street-cast" his paintings, heading out to scout for models — initially along the jammed sidewalks on 125th Street in Harlem and later, when he had enough money, overseas, in China, Israel and elsewhere.

His paintings all begin with an exchange of glances between artist and subject. Mr. Wiley describes the process as "this serendipitous thing where I am in the streets running into people who resonate with me, whether for cultural or sexual reasons. My type is rooted in my own sexual desire." He added, with amusement, "Most people turn me down." The willing few are instructed to come to his studio to pose for photographs that serve as source material for the portraits.

Mr. Wiley delegates much of his production to a bevy of assistants, so much so that he has been accused of outsourcing his entire output. "Wiley's paintings are created by teams of assistants in China," the critic Ben Davis observed in an ulcerous review at BlouinArtinfo.com in 2012.

At the time, Mr. Wiley had declined to say much about his process, but during our meeting, he was candid about the division of labor. In general, he said, his assistants are responsible for painting the super-busy, detail-packed backgrounds. "Let's face it," he said, "I'm not doing all that."

After a background is laid in place, he starts in on the figure, the gently lit face and body, which he seems to view as the heart of his work. Rendering skin tones, especially black and brown ones, is a subtle process, and, if you look closely at a patch of cheek or forehead in his paintings, you are likely to notice an array of indigo blues and alizarin reds.

Even so, his surfaces are thinly painted, and he speaks with distaste for the Expressionist tradition of visible brush strokes. "My work is not about paint," he told me. "It's about paint at the service of something else. It is not about gooey, chest-beating, macho '50s abstraction that allows p

Mr. Wiley has his share of critics who say his work is formulaic and repetitive. Whether he's working in oil or watercolor, he deploys the same strategy of inserting dark-skinned figures into very white masterpieces of the past.

To be fair, he has varied his subjects over the years. In 2012, for his debut show at the Sean Kelly Gallery, he added women to his roster of models. ("It was my idea," Mr. Kelly said, explaining that he was pushing Mr. Wiley to branch out.) Mr. Wiley has also ventured into sculpture, and his coming show at the Brooklyn Museum will include six stained-glass windows as well as a few bronze heads that can put you in mind of the portrait busts of Jean- Antoine Houdon, who flourished during the French Enlightenment.

"I am interested in evolution within my thinking," he said. "I am not interested in the evolution of my paint. If I made buttery, thick paintings, there would be critics of that. You just have to proceed."

In all fairness, he is only 37, which is still young for an artist. It would make more sense to talk about his evolution when he is 60 or 70. See you back here then.

Correction: February 8, 2015

An article last Sunday about the painter Kehinde Wiley, using outdated information from the Brooklyn Museum, misstated the number of stained-glass works in his coming exhibition at the museum. There will be six, not two.

Stokstad & Cothren (2014)

PAINTING IN FLANDERS

A strong economy based on the textile industry and international trade provided stability and money for a Flemish efflorescence in the arts. Civic groups, town councils, and wealthy merchants were important patrons in the Netherlands, where the cities were self-governing and largely independent of landed nobility. Guild oversaw nearly every aspect of their members' lives, and high-ranking guild members served on town councils and helped run city governments. Even experienced artists who moved from one city to another usually had to work as assistants in a local workshop until they met the requirements for guild membership.

Throughout most of the fifteenth century, Flemish art and artists were greatly admired across Europe. Artists from abroad studied Flemish works, and their influence spread even to Italy. Only at the end of the fifteenth century did a pervasive preference for Netherlandish painting give way to a taste for the new styles of art and architecture developing in Italy.

THE FOUNDERS OF THE FLEMISH SCHOOL

Flemish panel painters preferred using an oil medium rather than the tempera paint that was standard in the works of Italian artists. Since it was slow to dry, oil paint provided flexibility, and it

had a luminous quality (see "Oil Painting," above). Like manuscript illuminations, Flemish panel paintings provded a window onto a scene rendered with keen attention to describing individual features – people, objects, or aspects of the natural world – with consummate skill.

THE MASTER OF FLÉMALLE Some of the earliest and most outstanding exponents of the new Flemish style were painters in the workshop of an artist known as the Master of Flémalle, identified by wome art historians as Robert Campin (active 1406-1444). About 1425-1430, these artists painted the triptych now known as the MÉRODE ALTARPIECE, after its later owners (fig. 19-10). Its relatively small size – slightly over 2 feet fall and about 4 feet wide with the wings open – suggests that it was probably made for a small private chapel.

The Annunciation of the central panel is set in a Flemish homer and incorporates common household objects, many invested with symbolic religious meaning. The lilies in the majolica (glazed earthenware) pitcher on the table, for example, often appear in Annunciations to symbolize Mary's virginity. The hanging water pot in the background niche refers to Mary's purity and her role as the vessel for the Incarnation of God. What seems at first to be a towel hung over the prominent, hinged rack next to the nice may be a tallis (Jewish prayer shawl). Some art historians have referred to these as "hidden" or "disguised" symbols because they are treated as a normal part of the setting, but their routine religious meanings would have been obvious to the intended audience.

Some have interpreted the narrative episode captured in the central panel as the moment immediately following Mary's acceptance of her destiny. A rush of wind riffles the book pages and snuffs the candle (the flame, symbolic of God's divinity, extinguished at the moment he takes human form) as a tiny figure of Christ carrying a cross descends on a ray of light. Having accepted the miracle of the Incarnation (God assuming human form), Mary reads her Bible while sitting humbly on the footrest of the long bench. Her position becomes a symbol of her submission to Gods' will. Other art historians have proposed that the scene represents the moment just prior to the Annunciation. In this view, Mary is not yet aware of Gabriel's presence, and the rushing wind is the result of the angel's rapid entry into the room, where he appears before her, half kneeling and raising his hand in salutation.

In the left wing of the triptych, the donors – presumably a married couple – kneel in an enclosed garden, another symbol of Mary's virgineity, before the open door of the house where the Annunciation is taking place, implying that the scene is a vision engendered by their faithful meditations, comparable to the vision we have already seen in the House of Mary of Burgundy (see FIG. 19-7). Such presentations, very popular with Flemish patrons, allowed those who commissioned a religious work to appear in the same space and time, and often on the same scale, as religious figures. The donor's eyes, which seem oddly unfocused, are directed not outward but inward, intent on the spiritual exercise of imagining their own presence within this sacred narrative.

On the right wing, Joseph is working in his carpentry workshop. A prosperous Flemish city is exquisitely detailed in the view though the shop window, with people going about their daily business (FIG. 19-11) Even here there is religious symbolism. On the windowsill of Joseph's shop is a mousetrap (another sits on the workbench next to him), which fifteenth-century viewers would understand as a reference to Christ as the bait in a trap set by God to catch Satan. Joseph is drilling holes in a small board used as a drainboard for making wine, calling to mind the Eucharist and Christ's Passion.

The complex and consistent treatment of light in the Mérode Altarpiece represents a major preoccupation of Flemish painters. The strongest illumination comes from an unseen source at the upper left in front of the picture plane (the picture's front surface) as if sunlight were entering through the opened fornt of the room. More light comes from the rear windows, and a few painted, linear rays come from the round window at left, a symbolic vehicle from the Christ Child's descent. Jesus seems to slide down the rays of light linking God with Mary, carrying the cross of human salvation over his shoulder. The light falling on the Virgin's lap emphasizes this connection, and the transmission of the symbolic light through a transparent panel of glass (which remains intact) recalls the virginal nature of Jesus' conception.

JAN VAN EYCK In 1425, Jan van Eyck (active 1420s – 1441) became court painter to Duke Philip the Good of Burgundy (r. 1419 - 1467), who was the uncle of the king of France and one of the most sophisticated men in Europe. Philip made Jan one of his confidential employees and even sent him on a diplomatic mission to Portugal, charged with painting a portrait of a prospective bride for himself. The duke alluded to Jan's remarkable technical skills in a latter of 1434 – 1435, saying that he could find no other painter equal to his taste or so excellent in art and science. So brilliant was Jan's use of oil glazes that he was mistakenly credited with the invention of oil painting (see "Oil Painting," page 573).

Jan's 1433 portrait of a MAN IN A RED TURBAN (FIG. 19-12) projects a particularly strong sense of personality, and the signed and dated frame also bears Jan's personal motto – "As I can, [but not as I would]" – in Greek letters at the top. Since these letters also form an anagram of his own name, most scholars see this painting as a self-portrait in which physical appearance seems recorded in a magnifying mirror. We see the stubble of a day's growth of beard on his chin and cheeks, and every carefully described wrinkle around the artist's eyes, reddened from the stain of his work, and reflecting light that seems to emanate from our own space. That same light source gives the inscriptions the *trompe l'oeil* sense of having been engraved into the frame, heightening the illusionistic wizardry of Jan's painting. Is Jan looking out directly at us, or are we seeing this reflection in a mirror?

In his lifetime, one of the most famous works of Jan van Eyck was a huge polyptych with a very complicated and learned theological program that he (perhaps in collaboration with his brother

Hubert) painted from a chapel in what is now the Cathedral of St. Bavo in Ghent (see "The Ghent Altarpiece," page 578). The three-dimensional mass of the figures, the voluminous draperies as well as their remarkable surface realism, and the scrupulous attention to the luminous details of textures as variable as jewels and human flesh, are magnificent examples of Jan's artistic wizardry. He has carefully controlled the lighting within this multi-panel ensemble to make it appears that the objects represented are illuminated by sunlight coming through the window of the very chapel where it was meant to be installed. Jan's painting is firmly grounded in the terrestrial world even when he is rendering a visionary subject.

The Ghent altarpiece may have been Jan's most famous painting during his lifetime, but his best-known painting today is a distinctive double portrait of a couple identified as a Giovanni Arnolfini and his wife (SEE FIG. 19-1). Early interpreters saw this fascinating work as a wedding or betrothal. Above the mirror on the back wall (FIG. 19-13), the artist inscribed the words: *Johannes de eyck fuit hic 1434* ("Jan van Eyck was here 1434"). More normal as a signature would have been, "Jan van Eyck made this," so the words "was here" might suggest that Jan served as witness to a matrimonial episode portrayed in the painting. Jan is not the only witness recorded in the painting. The convex mirror between the figures reflects not only the back of the couple but a front view of two visitors standing in the doorway, entering the room. Perhaps one of them is the artist himself.

New research has complicated the developing interpretation of this painting by revealing that the Giovanni Arnolfini traditionally identified as the man in this painting married his wife Giovanna Cenami only in 1447, long after the date on the wall and Jan van Eyck's own death. One scholar has propsed that the picture is actually a prospective portrait of Giovanni and Govianna's marriage in the future, painted in 1434 to secure the early transfer of the dowry from her father to her future husband. Others have more recently suggested the man portrayed here is a different Giovanni Arnolfini, accompanied either by this putative second wife or a memorial portrait of his first wife, Costanza Trenta, who died the year before this picture was painted, perhaps in childbirth. The true meaning of this fascinating masterpiece may remain a mystery, but it is doubtful that scholars will stop trying to solve it.

Straathof (1993)

In his present work Jan van der Ploeg paints cages on canvas, consistently using the same system varying the colours in the background and size. Besides painting, this theme has found a continuation in sculptural works and on a large monumental banner.

When in the middle ages a bird was pictured in a cage, this could signify the soul of the human body. The cage represented a cover, the temporary shelter confining the soul. Nowadays artists are in a similar position: a limitless soul in a limited existence. The iconography remains the same.

The decent image of nightclubs and rockconcerts, the loud music with it's addictive rhythm, tempt men and women to dance seductively in cages. Trapped as birds, challenging and teasing each other, they're 'cage-dancing'. Here on e sees the liberties of life, not the limited existence.

'Vögeln', the previous project of Jan van der Ploeg, birds and especially peacocks signified the sensual, erotic but also the narcistic feelings of mankind; emotions meaning desire, vanity and pride. The latest paintings seem to be showing the exterior or a stage where a mating-dance is being preformed. However, the image is serene and sacred. Van der Ploeg's works are rich in contrast, pointed in transparent layers. These layers and the exact reproduction of the cages are essential to portray the cage as an icon of the soul.

This cage-dance is a temptation through and via the soul to art!

New Zealand has evolved its own discourse of art with regional variants to international trends that, separately and dialectically, have come to constitute its post-European art history. Julian Dashper's work is a discussion with this history through the placement of objects-found and manufactured-within the gallery's white cube and its supportive architecture.

Just as knowledge of European and American art developments for New Zealanders has historically depended on reproductions for their reception, so, because of the country's geographical position, the question of what is transportable particularly occupies New Zealanders exhibiting overseas. Dashper combines these two0way processes as the subject and object of his exhibitions. The slide kit and the drum kit can both be seen to represent recording systems. The slide is an archival recording systems. The slide is an archival record for Western art, where its transportability and permanence is a measure of its success. The drum skin signifies another type of record, the audio recording. Amplifying the idea of the drum as a back-up for musical production, Dashper is giving the artworld some feedback of his own by showing how art processes need props, support and a context to operate properly.

Dashper previously exhibited a series of drum kits with text a prominent component. Now without language, the emptied circles of the drum skin on the wall, like the transparency of the slide, have a proximity to the immediate gallery space, which actually and symbolically collapses the distance between the artwork and its institutional framework. Taking archetypal geometries of the circle and the grid from High Modernist abstraction, he engages in an assimilation and a critique of its value construction. Dashper plays out their arbitrary character and explicates their points of origin and reception within specific regional and cultural conditions. The net results is similarly to collapse distance, in this case ideological, between the second-hand, delayed relationship of New Zealand to the presumed centrality of the Northern Hemisphere: the near and the far, New Zealand to Europe.

The following is an outline of his concerns: Institutional critique; conceptualism; abstraction and found objects becoming hybrid forms; regional specifity and internationalism; transaction and transportation; the original and its reproductions; complex language games and punning; modes of artistic codification and legitimation; the cultural and historical character of Western art history; the

gallery as frame for this power and knowledge; installation as an ongoing site of discourse, theatre and humour.

Weinberg (2010)

James McNeill Whistler participated in the artistic ferment of Paris and London in the late nineteenth century, crafted a distinctive style from diverse sources, and arrived at a version of Post-Impressionism in the mid-1860s, a time when most of his contemporaries in the avant-garde were still exploring Realism and Impressionism. Born in Lowell, Massachusetts, Whistler spent part of his youth in Saint Petersburg, Russia, where his father, a civil engineer, advised on the construction of the railroad to Moscow and Whistler took drawing classes at the Imperial Academy of Sciences. Upon his return home, Whistler entered the United States Military Academy at West Point. He studied drawing with Robert W. Weir but had less success in other subjects;; his failure in chemistry led to his dismissal from the academy in 1854. After working in the drawings division of the United States Coast and Geodetic Survey, where he received his first training in etching, Whistler—already fluent in French from his childhood years in Russia— decided to pursue a career as an artist by going to Paris to study.

Whistler arrived in the French capital late in 1855, at least a decade ahead of the great wave of his compatriots who would seek art instruction there. He enrolled in the école Imperial et Spéciale de Dessin (the "petite école") and in Charles Gleyre's independent teaching atelier, where Beaux-Arts principles prevailed (and where the future Impressionists, including Claude Monet and Pierre-Auguste Renoir, would study a few years later). Then and thereafter, Whistler's artistic development would owe less to his formal lessons than to influences outside the academic world. He responded to paintings by Dutch and Spanish Baroque masters, especially Rembrandt, Johannes Vermeer, Pieter de Hooch, Gabriël Metsu, and Diego Velázquez, and by contemporary French painters who admired the same traditions, notably Gustave Courbet, Henri Fantin-Latour, and Alphonse Legros. In 1858, Fantin-Latour, Legros, and Whistler proclaimed their allied interests by organizing themselves as the Société des Trois. Whistler also became friendly with Carolus-Duran, Zacharie Astruc, and Félix Bracquemond and was attracted to the innovative art of Édouard Manet, two years his senior, whom he met in the summer of 1861. The writings of Charles Baudelaire and Théophile Thoré (pseudonym for Willem Bürger), which stressed the importance of harmonious picture surfaces, and French painters' growing interest in Japanese aesthetics would also inform Whistler's style and philosophy of art.

Whistler had established a connection with London in the late 1840s when he went to live for a year with his half- sister Deborah and her husband, the English physician and etcher Seymour Haden. In May 1859, he decided to settle in London and to work at a distance from his avant-garde French colleagues, although he remained a conduit of ideas between them and his English artist friends. The latter included Dante Gabriel Rossetti, John Everett Millais, and other Pre-Raphaelites,

whose paintings influenced Whistler's and who shared his enthusiasm for Japanese prints and blue-and-white porcelain. Initially, Whistler merely included Asian costumes and accessories as props in his works but, by the mid-1860s, he adopted Japanese principles of composition and spatial organization. His landscapes of those years reveal that he had rejected his earlier commitment to transcribing nature in the manner of Courbet, and was responding instead to formalist imperatives, including flat, decorative surfaces, subtle tonal harmonies, and allusive, rather than literal, subjects. Taking a cue from a critic who had referred to his early portrait of his mistress, The White Girl (1862; National Gallery of Art, Washington, D.C.), as a "symphony in white," Whistler began to envision and entitle his works with the abstract language of music, calling them symphonies, compositions, harmonies, nocturnes, arrangements, and so forth.

During the late 1860s, Whistler struggled to create harmonious multifigured arrangements that would recapitulate his successful experiments with landscapes. By 1871, he had decided to pull back from that ambitious initiative and to concentrate on single-figure subjects. His seminal canvas in this vein was Arrangement in Gray and Black, No. 1: The Artist's Mother (1871;; Musée d'Orsay, Paris). In portraits that followed, including Harmony in Yellow and Gold: The Gold Girl—Connie Gilchrist (11.32) and Arrangement in Flesh Colour and Black: Portrait of Theodore Duret (13.20), Whistler continued to emphasize strong silhouettes, elegant contours, and beautiful surface patterns; calibrate the placement of the figure in relation to the edges of the canvas; investigate delicate variations on one subdued hue or a pair of neighboring or contrasting hues; and balance description of appearances with what he perceived to be pictorial necessities.

Whistler invented a monogram signature—a stylized butterfly based on his initials—and always placed it deliberately as a compositional element, not just a maker's mark. His devotion to overall harmony extended to interior decoration, furniture, and the design of frames and even entire exhibitions. He became a central figure in the Aesthetic movement, which was founded on the philosophy of "art for art's sake" and emphasized artistic principles, elevated taste, and creative eclecticism in the conception and production of furniture, metalwork, ceramics and glass, textiles and wallpaper, and other objects. He was also an influential printmaker. Whistler's innovative paintings and pronouncements invited controversy. He famously filed and won a libel suit in 1878 against the aging English art critic John Ruskin, who had accused him of "flinging a pot of paint in the public's face" when he showed an almost abstract city scene—Nocturne in Black and Gold: The Falling Rocket (1875;; Detroit Institute of Art)—in an exhibition at London's Grosvenor Gallery in 1877. Whistler was instrumental in establishing the credo of modern art. In 1885— a year before George Seurat's emblematic Post-Impressionist canvas, Sunday Afternoon on the Island of La Grande Jatte (1884–86; Art Institute of Chicago), appeared in the French Impressionists' final group exhibition and announced the end of naturalistic transcription as an avant-garde goal—Whistler proclaimed in his famous "Ten O'Clock" lecture:

>"Nature contains the elements, in colour and form, of all pictures, as the
>keyboard contains the notes of all music. But the artist is born to pick, and
>choose, and group with science, these elements, that the result may be
>beautiful —as the musician gathers his notes, and forms his chords, until he
>bring forth from chaos glorious harmony."

To say to the painter, that Nature is to be taken as she is, is to say to the player, that he may sit on the piano. That Nature is always right, is an assertion, artistically, as untrue, as it is one whose truth is universally taken for granted. Nature is very rarely right, to such an extent even, that it might almost be said that Nature is usually wrong: that is to say, the condition of things that shall bring about the perfection of harmony worthy a picture is rare, and not common at all.

Appendix D Coding schemes

Examples of raw data	Functions	Open code	Axial code
'fellow dutchman'	Signifies shared nationality, or at least native nationality	Nationality	Location
'Mexico-city'	Place of birth	"	"
'London-based'	Geographical location	"	"
'entered the [name school]'	Signify expertise through education received	Educational background	Education and training
'studied with [name famous artists]'	Signifying expertise through association with established entities/actors.	Training	"
'The only thing I know is that I paint because I need to, and I paint whatever passes through my head without any other consideration.'	Explanation of artist's motivation to work.	Motivation	Motivation / Philosophy of the artists
'To me, the art of the sign board painters and the pictorial language of Indian street advertising hold as much value as, say, abstract art, in terms of poignancy'	Perception of value	Philosophy of art	"
'[her work was known for] reflecting her turbulent personal life,	Describe what her work often was about	Content	Subject matter

her illness, and her relationship with the revolutionary muralist Diego Rivera'			
'strong silhouettes, elegant contours, and beautiful surface patterns'	Description of element of the artist's work / iconography	Elements of works	"
'[Rivera] considered her a realist, while André Breton considered her a Surrealist, and Kahlo eschewed labels entirely'	Naming different styles artist was associated with.	Association with styles and schools	Style
'his Pop art-meets-classical style'	Describing artist by referring to existing styles in art history	Description by comparison	"
'he finds freedom within structure and allows intuition to guide his color choices'	Shows insight in way the artist works	Thought processes artist behind choices of materials	Method / technique
'his collages from newspapers, magazines and books'	Mention of method of working	Technique	"
'a time when most of his contemporaries in the avant-garde were still exploring Realism and Impressionism'	Oppose artist to his/her contemporaries	Juxtaposition with other artists	Placement in context art history
'Through his series "Conversations with	Relating project artists to famous artists	"	"

the Masters," he engaged with the likes of Piet Mondrian, Pablo Picasso, Qi Baishi, and Xu Beihong.'	worldwide		

Table 4. Coding scheme for the artists' biographies, both on Artsy and in accredited sources. The first column depicts a number of examples from the raw data used in the research, that are then described in the function column before being open and than axial coded.

Examples of raw data	Functions	Open code	Axial code
'editor-in-chief'	Job title	Professional role	Profession
'Editorial at Artsy'	Function description	"	"
'Makes apps. Writes things. Lots of things. Talks.'	Describes common (professional) activities	"	"
'she'	Describes genomer as identifying with the female gender	Gender	Gender
'he'	Describes genomer as identifying with the male gender	"	"
'Manhattan'	Location denominator	Location [description = country or city]	Location

Table 5. Coding scheme for the genomers' biographies.

Examples of raw data	Functions	Open code	Axial code
'Japonisme'	Term for Western artworks inspired by the asthetic of Ukiyo-e art	Style	Genre
'19th Century American Art'	Umbrella term for works made in the USA between 1800	Clustering based on period	"

	and 1900.		
'Love'	Label to group all the artworks that have something to do with 'love'	What's the work about	Subject matter
'Times of day'	Interpretation of image related to the passage of time	Interpretation of artwork	"
'Mixed-media'	Description signalling that the artists employed different media to produce the artwork in question	Technique	Technique
'Use of Common Materials'	Signifier of the material used in producing the artwork.	How the artwork was made	"

Table 6. Coding scheme for the related genes. The assigning of axial codes was based on the information provided on Artsy (if possible) and on personal knowledge of art historical concepts.

Appendix E Genomers' dataset

Genomer	Biography	Gender	Location	Profession	Professional functions I	Professional functions II	Professional functions III	Background	Other relevant infromation	Open coding I	Open coding II	Open coding III	Axial coding Profession I	Axial coding Profession II	Axial coding style I	Axial coding SNS?
Uttam, Payal	Artsy contributor Payal Uttam is an editor and writer based in Hong Kong. She covers art and culture for publications including The Art Newspaper, Artforum and The Wall Street Journal. twitter.com/_payaluttam. https://www.artsy.net/payal-uttam	F	Hong Kong	Arts writer	Editor				List of publications to which author attributes; Social media	Official tone of voice			Writer	Editor	CV	SNS
Gregory, Hannah	Independent writer on art, architecture, design and culture. I write for frieze, Domus, Icon, The White Review and more. London – hannah-gregory.tumblr.com. https://www.artsy.net/hannah_gregory	F	United Kingdom, London area	Freelance writer	Arts writer	Culture writer		*List of publications to which author attributes*; Personal tumblr	Elevator pitch	Use personal social media		Writer		CV	SNS
Cashdan, Marina	Editorial Director at Artsy, arts writer, observer, traveler. Follow me on Twitter and Instagram. New York, NY, USA. https://www.artsy.net/marinakcashdan	F	United States, New York area	Editorial director Artsy	Editor	Arts writer			Observer; Traveler	Use personal social media			Editor	Writer	Elevator pitch	SNS
Gottschalk, Molly	Associate Editor at Artsy. Instagram and Twitter. New York, NY. https://www.artsy.net/mollygottschalk	F	United States, New York area	Associate editor Artsy					Social media	Plain, factual description	Use personal social media		Editor		Elevator pitch	SNS
Lesser, Casey	Associate Editor at Artsy. Twitter & Instagram: @caseyless. https://www.artsy.net/caseyless	F	United States, New York area	Associate editor Artsy					Social media	Use personal social media	Plain, factual description		Editor		One-liner	SNS
Furman, Anna	Anna Furman is a freelance writer and small metals maker. She has contributed writing to Artsy, Guernica Magazine, The Wild Magazine, and The Huffington Post. Twitter: @ayfurman. anna-furman.tumblr.com. https://www.artsy.net/anna-furman	F		Small metals maker	Writer	Small metals maker		*List of publications to which author attributes*; Personal tumblr; Social media	Use personal social media	Elevator pitch	Official tone of voice	Metals maker	Writer	CV	SNS
Thackara, Tess	Editorial Artsy. Brit Abroad. Twitter: @tessthackara. https://www.artsy.net/tess	F		Editorial Artsy					Brit abroad; Personal social media	Links idenity to nationality	Plain, factual description		Editor		One-liner	SNS
Gleeson, Bridget	Writer on travel and culture. Based in Buenos Aires. bridgetgleeson.com. https://www.artsy.net/bridget-gleeson	F	Argentine; Buenos Aires		Travel writer	Arts writer			Personal website	Plain, factual description			Writer		Elevator pitch	
Rappaport, Emily	Emily Rappaport is a writer based in Mexico City. https://www.artsy.net/emily-rappaport	F	Mexico, Mexico City area	Writer						Plain, factual description			Writer		One-liner	
Mohammad, Arsalan	Arsalan Mohammad is a freelance arts editor and writer based between London, Dubai, and Berlin. He edits Harper's Bazaar Art Arabia as well as contributing to publications worldwide on Middle Eastern and German art. https://www.artsy.net/arsalan-mohammad	M	United Kingdom, London area; Dubai; Germany, Berlin area	Freelance arts editor; freelance writer				List of publications to which author attributes	Recent cv	Official tone of voice		Editor	Writer	CV	
Corcoran, Heather	Heather Corcoran is the editor-in-chief of the Museyon Guides series of travel books. In addition she contributes to a number of publications including Flaunt, Art in America, Flash Art, and Hintmag.com. New York – www.thisisheather.com. https://www.artsy.net/thisisheatherc	F	United States, New York area	Editor-in-chief Museyon Guides	Editor in chief	Arts writer	travel writer	*List of publications to which author attributes*; Personal website	Elevator pitch	Official tone of voice		Editor	Writer	CV	
Gotthardt, Alexxa	Alexxa Gotthardt is a freelance writer and Director at The Suzanne Geiss Company. She recently served as project coordinator for Live the Art: 15 Years of Deitch Projects, published by Rizzoli. New York. https://www.artsy.net/alexxa_gotthardt	F	United States, New York area	Director 'The Suzanne Geiss Company'	Culture writer	Director	Project coordinator	*Selective list of recent activities.*	Recent cv	Official tone of voice		Writer	Management (director / project coordinator)	CV	
Haveles, Kate	Student + writer in NYC. NY, New York, United States. https://www.artsy.net/kate-haveles	F	United States, New York area	Student	Writer				Plain, factual description			Writer		One-liner	
Kedmey, Karen	Art historian, administrator, and writer focused on the contemporary period, grounded in the past. New York, NY. https://www.artsy.net/karenkedmey	F	United States, New York area		Art historian	Administrator	Writer	Art history	Focus on contemporary period, grounded in the past	Using big words / make it sound interesting			Art historian	Writer	Elevator pitch	
Dillon, Stephen	Stephen Dillon is a writer and artist living and working in New York. New York. https://www.artsy.net/stephen-dillon	M	United States, New York area	Artist	Writer	Artist			Official tone of voice			Artist	Writer	Elevator pitch	
Tani, Ellen	Art Historian; Contributor to The Art Genome Project at Artsy and doctoral candidate at Stanford University. https://www.artsy.net/ellen-tani	F		Doctoral candidate art history				Art history	Contributor to Art Genome Project	Elevator pitch			Art historian		Elevator pitch	
Forbes, Alexander	News editor at Artsy. https://www.artsy.net/alexander-forbes	M		News editor Artsy						Minimalist			Editor		One-liner	
O'Brien, Nicholas	Nicholas O'Brien is a net-based artist, curator, and writer. He has been the recipient of a Turbulence Commission funded by the NEA and has curated exhibitions at the Museum of Contemporary Art in Chicago, 319 Scholes, and Eyebeam Center for Art and Technology. doubleunderscore.net/. https://www.artsy.net/nicholas-obrien	M		Artist	Curator	Writer			Net-based; List of recent achievements; Personal website	Recent cv	Official tone of voice		Artist	Writer	CV	
Therox, Ortha	Makes apps. Writes things. Lots of things. Talks. The Internet, Earth. – orta.github.io. https://www.artsy.net/orta	M		IT specialist					Writes things, lots of things. Talks	Using big words / make it sound interesting			IT specialist		Elevator pitch	

Fig. 22. Screenshot of the genomers' dataset

Appendix F Gene dataset

Gene	Artist #1	Artist #2	Artist #3	Artist #4	Artist #5	Artist #6	Artist #7	Artist #8	Artist #9	Artist #10	Artist #11	Artist #12
China	Chu Teh-Chun	Xue Song										
India	Alexis Kersey	Syed Haider Raza										
Mexico	Claudia Baez	Frida Kahlo										
The Netherlands	Jan van der Ploeg	Jan van Eyck										
United Kingdom and Ireland	Alexis Kersey	James Abbot McNeill Whistler										
France	Bernard Aubertin	Chu Teh-Chun	Henri Matisse	James Abbot McNeill Whistler	Syed Haider Raza							
Abstract painting	Bernard Aubertin	Syed Haider Raza										
Art in art	Claudia Baez	Xue Song										
Art that plays with scale	Alexis Kersey	Jan van der Ploeg										
Collective History	Claudia Baez	Xue Song										
Contemporary Pop	Alexis Kersey	Kehinde Wiley										
Figurative painting	Alexis Kersey	Frida Kahlo	Henri Matisse	James Abbot McNeill Whistler	Jan van Eyck	Kehinde Wiley						
Figurative sculpture	Henri Matisse	Kehinde Wiley										
Flora	Henri Matisse	Xue Song										
Form and color	Bernard Aubertin	Jan van der Ploeg										
Landscape	Claudia Baez	Henri Matisse	James Abbot McNeill Whistler									
Large Brushstrokes / Loose Brushwork	James Abbot McNeill Whistler	Syed Haider Raza										
Line	Bernard Aubertin	Chu Teh-Chun	Jan van der Ploeg									
Mixed-Media	Alexis Kersey	Bernard Aubertin										
Oil Painting	Chu Teh-Chun	Syed Haider Raza										
Painting	Alexis Kersey	Bernard Aubertin	Chu Teh-Chun	Claudia Baez	Frida Kahlo	Henri Matisse	James Abbot McNeill Whistler	Jan van der Ploeg	Jan van Eyck	Kehinde Wiley	Syed Haider Raza	Xue Song
Patterns	Bernard Aubertin	Henri Matisse	Jan van der Ploeg	Xue Song								
Popular Culture	Alexis Kersey	Xue Song										
Prints	Henri Matisse	James Abbot McNeill Whistler										
Sculpture	Henri Matisse	Kehinde Wiley										
Work on Paper	Chu Teh-Chun	Henri Matisse	James Abbot McNeill Whistler									
United States	James Abbot McNeill Whistler	Kehinde Wiley	Claudia Baez									

Fig. 23. Worksheet from the gene dataset depicting the artists that had the labels shown in the first column assigned to them.

Artist	Nationality	Status	Gender	Century	Related artists	Nationality	Status	Gender	Century
Alexis Kersey	India	Emerging	Male	21st	Prabhavathi Meppayil	India	Emerging	Female	21st
Alexis Kersey	India	Emerging	Male	21st	Siri Devi Khandavilli	India	Emerging	Female	21st
Alexis Kersey	India	Emerging	Male	21st	Mekhala Bahl	India	Emerging	Female	21st
Alexis Kersey	India	Emerging	Male	21st	Paribartana Mohanty	India	Emerging	Male	21st
Alexis Kersey	India	Emerging	Male	21st	Goldie	England	Established	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Dadamaino	Italy	Established	Female	21st
Bernard Aubertin	France	Emerging	Male	20th	Otto Piene	Germany	Established	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Günther Uecker	Germany	Established	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Piero Manzoni	Italy	Established	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Walter Leblanc	Belgium	Established	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Fredrik Vaerslev	Norway	Emerging	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Douglas White	England	Emerging	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Hendrik Olai Kaarstein	Norway	Emerging	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Lionel Estève	France	Emerging	Male	21st
Bernard Aubertin	France	Emerging	Male	20th	Duncan Johnson	United States	Emerging	Male	21st
Claudia Baez	Mexico	Emerging	Female	20th	Su Meng-Hung	Taiwan	Emerging	Female	21st
Claudia Baez	Mexico	Emerging	Female	20th	Sophie Matisse	United States	Emerging	Female	21st
Claudia Baez	Mexico	Emerging	Female	20th	Timothy Woodman	United States	Emerging	Male	21st
Claudia Baez	Mexico	Emerging	Female	20th	Mike Bidlo	United States	Emerging	Male	21st
Claudia Baez	Mexico	Emerging	Female	20th	Armando Romero	Mexico	Emerging	Male	21st
Jan van der Ploeg	Netherlands	Emerging	Male	20th	Svenja Deininger	Austria	Emerging	Female	21st
Jan van der Ploeg	Netherlands	Emerging	Male	20th	Erick Johnson	United States	Emerging	Male	21st
Jan van der Ploeg	Netherlands	Emerging	Male	20th	Joshua Aster	United States	Emerging	Male	21st
Jan van der Ploeg	Netherlands	Emerging	Male	20th	Sasha Braunig	Belgium	Emerging	Male	21st
Jan van der Ploeg	Netherlands	Emerging	Male	20th	Alain Biltereyst	Belgium	Emerging	Male	21st
Kehinde Wiley	United States	Emerging	Male	21st	Ellen Gallagher	United States	Established	Female	20th
Kehinde Wiley	United States	Emerging	Male	21st	Lorna Simpson	United States	Emerging	Female	21st
Kehinde Wiley	United States	Emerging	Male	21st	Barkley L. Hendricks	United States	Emerging	Male	21st
Kehinde Wiley	United States	Emerging	Male	21st	Glenn Ligon	United States	Emerging	Male	21st
Kehinde Wiley	United States	Emerging	Male	21st	Eberhard Havekost	Germany	Emerging	Male	21st
Xue Song	China	Emerging	Male	21st	Hung Liu	China	Emerging	Female	21st
Xue Song	China	Emerging	Male	21st	Yu Youhan	China	Emerging	Male	21st
Xue Song	China	Emerging	Male	21st	Wei Guangqing	China	Established	Male	21st
Xue Song	China	Emerging	Male	21st	Jin Shan	China	Emerging	Male	21st
Xue Song	China	Emerging	Male	21st	Chen Wenling	China	Established	Male	21st
Chu The-Chun	China	Established	Male	20th	Elliott Puckette	United States	Emerging	Female	21st
Chu The-Chun	China	Established	Male	20th	Ana Zanic	Croatia	Emerging	Female	21st
Chu The-Chun	China	Established	Male	20th	Andrew Belschner	United States	Emerging	Male	21st
Chu The-Chun	China	Established	Male	20th	Guo Hongwei	China	Emerging	Male	21st
Chu The-Chun	China	Established	Male	20th	John Zurier	United States	Emerging	Male	21st
Chu The-Chun	China	Established	Male	20th	Patrick Keesey	United States	Emerging	Male	21st
Frida Kahlo	Mexico	Established	Female	20th	Leonora Carrington	England	Established	Female	20th
Frida Kahlo	Mexico	Established	Female	20th	Dorothea Tanning	United States	Established	Female	20th
Frida Kahlo	Mexico	Established	Female	20th	Lucía Pizzani	Venezuela	Emerging	Female	21st
Frida Kahlo	Mexico	Established	Female	20th	Cecila Paredes	Peru	Emerging	Female	21st
Frida Kahlo	Mexico	Established	Female	20th	Roberto Matta	Chile	Established	Male	20th
Frida Kahlo	Mexico	Established	Female	20th	René Magritte	Belgium	Established	Male	20th
Frida Kahlo	Mexico	Established	Female	20th	Paul Delvaux	Belgium	Established	Male	20th
Frida Kahlo	Mexico	Established	Female	20th	Richard Dupont	United States	Emerging	Male	21st
Frida Kahlo	Mexico	Established	Female	20th	Terence Koh	Canada	Emerging	Male	21st
Frida Kahlo	Mexico	Established	Female	20th	Daniel Esquivia-Zapata	Colombia	Emerging	Male	21st
Henri Matisse	France	Established	Male	20th	Sarah Picon	England	Emerging	Female	21st
Henri Matisse	France	Established	Male	20th	Roni Horn	United States	Emerging	Female	21st
Henri Matisse	France	Established	Male	20th	André Derain	France	Established	Male	20th
Henri Matisse	France	Established	Male	20th	Maurice de Vlaminck	France	Established	Male	20th
Henri Matisse	France	Established	Male	20th	Albert Marquet	France	Established	Male	20th
Henri Matisse	France	Established	Male	20th	Paul Cézanne	France	Established	Male	19th
Henri Matisse	France	Established	Male	20th	August Macke	Germany	Established	Male	19th
Henri Matisse	France	Established	Male	20th	Bernard Cathelin	Germany	Emerging	Male	21st
Henri Matisse	France	Established	Male	20th	Tobias Rehberger	France	Emerging	Male	21st
Henri Matisse	France	Established	Male	20th	Juliáo Sarmento	Belgium	Emerging	Male	21st
James Abbot McNeill Whistler	United States	Established	Male	19th	Roberta Allen	United States	Emerging	Female	21st
James Abbot McNeill Whistler	United States	Established	Male	19th	Robert Swain Gifford	United States	Established	Male	19th
James Abbot McNeill Whistler	United States	Established	Male	19th	Winslow Homer	United States	Established	Male	19th
James Abbot McNeill Whistler	United States	Established	Male	19th	Charles François Daubigny	France	Established	Male	19th
James Abbot McNeill Whistler	United States	Established	Male	19th	Thomas Moran	United States	Established	Male	19th
James Abbot McNeill Whistler	United States	Established	Male	19th	Pierre Bonnard	France	Established	Male	19th
James Abbot McNeill Whistler	United States	Established	Male	19th	Paul Winstanley	England	Emerging	Male	21st
James Abbot McNeill Whistler	United States	Established	Male	19th	Zachary Wollard	United States	Emerging	Male	21st
James Abbot McNeill Whistler	United States	Established	Male	19th	Edgar Bryan	United States	Emerging	Male	21st
James Abbot McNeill Whistler	United States	Established	Male	19th	Andersson/Nordström	Germany / Sweden	Emerging	Male / Female	21st
Jan van Eyck	Netherlands	Established	Male	14th	Petrus Christus	Belgium	Established	Male	14th
Jan van Eyck	Netherlands	Established	Male	14th	Hans Memling	Belgium	Established	Male	14th
Jan van Eyck	Netherlands	Established	Male	14th	Robert Campin	Netherlands	Established	Male	14th
Jan van Eyck	Netherlands	Established	Male	14th	Rogier van der Weyden	Belgium	Established	Male	15th
Jan van Eyck	Netherlands	Established	Male	14th	Jan Gossaert	Netherlands	Established	Male	15th
Syed Haider Raza	India	Established	Male	20th	Suhasini Kejriwal	India	Emerging	Female	21st
Syed Haider Raza	India	Established	Male	20th	Sakshi Gupta	India	Emerging	Female	21st
Syed Haider Raza	India	Established	Male	20th	V. S. Gaitonde	India	Emerging	Male	20th
Syed Haider Raza	India	Established	Male	20th	S. K. Bakre	India	Emerging	Male	20th
Syed Haider Raza	India	Established	Male	20th	Maqbool Fida Husain	India	Established	Male	20th
Syed Haider Raza	India	Established	Male	20th	Francis Newton Souza	India	Established	Male	20th
Syed Haider Raza	India	Established	Male	20th	Jagdish Swaminathan	India	Emerging	Male	20th
Syed Haider Raza	India	Established	Male	20th	Rajan Krishnan	India	Emerging	Male	20th
Syed Haider Raza	India	Established	Male	20th	Siddharth Parasnis	India	Emerging	Male	21st
Syed Haider Raza	India	Established	Male	20th	Paribartana Mohanty	India	Emerging	Male	21st

Fig. 24. Worksheet from the gene dataset depicting per artist from the sample (left column) their nationality, status (emerging or established), gender and time period in which they were active, as well as the artist mentioned in the 'related artists' and 'contemporary artists' sections, accompanied by the same information for these individuals.