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CREATING A KNOWLEDGE SOCIETY
IN A GLOBALIZING WORLD
(1450-1800)

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The Making of a Knowledge Society (1450-1800)

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1. What is a knowledge society?

Present day knowledge society debates mostly agree on one fundamental characteristic: a knowledge society depends upon the large-scale collection and distribution of information on the basis of which knowledge is produced and multiplied and this process happens at a global level. Furthermore, today a knowledge society generates, processes, shares and makes knowledge available to all members of the society. Generally one attributes four features to such a society. First, knowledge is the critical engine of economic development. A knowledge society is not exclusively dependent on the introduction of labor saving knowledge. Second, a knowledge society can be said to emerge whenever members of professional groups and corporations who formerly kept information and knowledge specific to their trades to themselves, share such information and knowledge with other social and professional groups and corporations. A third characteristic of a knowledge society is the increase in number of people and members of social groups who partake in the knowledge-making processes and at the same time are recognized by society as producers of valid knowledge. A fourth characteristic is the establishment of systems of knowledge sharing (informal societies, schools, universities) to growing numbers of members of a society. However, facilitating knowledge and information transfer and exchange is almost invariably accompanied by fierce discussions about access, control and regulation of its distribution. These issues result from the tension between production and distribution of knowledge, and between confidentiality, trust and the interests of the public domain – a tension that is inherent to a global knowledge society.

While looking for the origins of phenomena the historian is always at risk. Research of the development of knowledge societies is not aloof of this hazard. Teleological and normative perspectives cloud our views, urging us to look for features that are familiar and ignore those elements of past knowledge societies that have not survived. Even if we fully try to appreciate the past on its own terms we tend to forget that past representations of knowledge societies are constructs. Most contemporary interpretations are texts chiefly produced by elites and often should be interpreted as highly politically motivated statements. In our research project about the early modern knowledge society we will try to avoid these pitfalls and refrain from a simplified modernity orientated account.

Even though in most historiography the roots of the present-day knowledge society are situated in the eighteenth century, we propose to look for other and different manifestations of knowledge societies. It would seem that from the end of the fifteenth century on knowledge was infused with a different meaning. It resulted from the exchange of different kinds of knowledge and the acquisition of varied literacies increased. Indeed, crucial to this early modern variety of a knowledge society was the acquisition of literacies by ‘professionals’ and laymen alike outside their own professional disciplines or areas of expertise. Fluid professional roles, and less clearly defined training and education standards
in some professions in the early modern period facilitated this process. The acquisition of more varied literacies enabled them to contribute in a novel way to scientific, cultural, economic, and social innovations. As traditionally understood, literacies are the skills to interpret and use textual and visual media. The acquisition of diverse ‘literacies’ by craftsmen and artists and of empirical skills by scholars made them into flexible and creative participants in the emergent knowledge society. This exchange entailed that artisans began to acquire skills and knowledge by reading texts. However, next to visual and textual ‘literacies’ the distribution of knowledge of materials of a great variety to a larger public than craftsmen and artists caused them to be considered experts in material knowledge and dispensers of a new ‘material literacy’. This appreciation of the larger public can be shown from the value consumers began to attribute to the knowledge invested in the production of objects.
2. Focus of the project

We thus argue that around 1500 a new fascinating type of knowledge society emerged. In late medieval society literacies were bound to specific social and professional groups. The early modern period saw the emergence of 'trading zones' allowing the exchange and distribution of literacies to other social and professional groups than the ones from which they originated. Multilingualism and the ability to translate between languages (Latin and the vernaculars) became the norm, and new languages were invented to facilitate the exchange of knowledge. The acquisition of literacies by more members of society, in combination with the production and distribution of knowledge in the vernaculars, allowed increasing numbers of members of society access to knowledge as well as to partake in the production of knowledge.

We make a distinction between four types of literacy (whose weight, relative relevance and distribution is historically contingent and differs from one knowledge society to another):

1. **Material Literacies**: skills to gain knowledge of materials. How did artisans learn their craft? What was the respective role of embodied knowledge and the oral tradition in this process of learning? What was the function of the growing number of artisanal writings published between 1500 and 1800 (recipe books, manuals, ...)? How did consumers and scholars acquire material literacies?

2. **Visual Literacies**: skills to interpret and use visual media. How did paintings and other visual aids help to develop literacies that enabled people to evaluate, structure and interpret information? What was the role of learning how to draw in education?

3. **Textual Literacies**: skills to organize textual information. What literacies were developed to cope with increasing amounts of information? How did this reflect on the material production of books and readers’ engagement with these texts? How were textual literacies acquired by people with no access to university education?

4. **Mathematical Literacies**: skills to use geometrical and arithmetical tools. How was numeracy acquired? How was mathematical education organized? How did the rise of practical mathematics and the introduction of textbooks on (commercial) arithmetic and double bookkeeping affect the acquisition of mathematical literacies by new groups of users and their appreciation of knowledge and material objects?
The early modern period witnessed an explosive growth in the number of exchanges and cross-overs in literacies and between professional groups and, consequently, of the production and distribution of information and knowledge. On top of this, global trade generated new information flows and global encounters contributed to the constitution (expansion) of literacies. As a consequence the treatment of sources and texts changed while simultaneously new mechanisms, languages and institutions were created to facilitate the production and distribution of knowledge. Through the invention of the printing press, its concomitant textualization of language and new media, the (re)organization of universities, the founding of academies, chambers of rhetoric, friendly societies and trade companies, the growth of state bureaucracies and the impact of the Reformation, knowledge production and distribution evolved into much broader, more interactive social processes, it would seem, than in previous centuries. These changes went together with the regulation of information and knowledge flows (e.g. through legislation concerning book privileges and censorship). When the process of state formation gathered pace, governments began to tighten their grip on society, trying to regulate access to information and knowledge.

In this process the definition of knowledge and its validation changed. How was knowledge defined and employed by various social groups in the early modern period? For instance, historically determined discussions arose as to what kind of knowledge was important, what purpose knowledge should serve, and who should have access to it. And finally, how did concepts of curiosity (and other concepts describing epistemic attitudes such as discernment, ingenuity, or inquisitiveness) transform in relation to the emergence of a knowledge society that increasingly relied on information from all over the globe? We explicitly do
not limit ourselves to knowledge that today is called 'science'. Nor do we anachronistically dissociate knowledge from its cultural context. Religion was a crucial factor in the early modern knowledge society.

In short, the central questions are: what are the roles of global trade and urbanization in the emergence of this knowledge society? How did people develop literacies that contribute to the flourishing of the knowledge society? How did educational institutions and practices respond to societal demands on the acquisition of these new literacies the early modern period? However, the movement towards the intensification of exchange characteristic for the emergence of a knowledge society in the early modern period is not linearly connected to the present day knowledge society. This leads to the following questions: did the new open mindedness about information and trade practices in the early modern period require the construction of new social boundaries (for instance, the Republic of Letters again excluding artisans)? Did the rise of professionalization in the nineteenth century created a new boundary hindering the distribution of literacies? How and to what extent did power structures and the ability to control access to knowledge influence the development of knowledge societies?

The project’s central aim is to develop a conceptual and methodological toolbox enabling the historian to analyse and compare the origins and formation of (early modern) knowledge societies. In current discussions of the knowledge society, dominated by educators and social scientists, the question of the definition of knowledge and its historical evolution is felt as the most important lacuna. It is here that the expertise of the history of knowledge will prove essential. Bringing together various strands of historians (economic, social, cultural) this project develops and test the historical toolbox to further the discussion of knowledge societies and to reach a better understanding of one early modern knowledge society.
3. Why the Low Countries?

Developing a conceptual and methodological toolbox of much wider applicability, the project investigates the making of an early type of knowledge society by focusing on the years between 1450-1800. It pays particular regard to the Low Countries. The reasons for this geographical focus are pragmatic as well historiographical.

As this project is a collaboration between the Max Planck Institute for the History of Science and the Descartes Centre for the History and Philosophy of the Sciences and the Humanities and a number of Dutch and Flemish universities, there is a dominance of expertise on the early modern Low Countries. However, this focus also opens opportunities to reconsider the role of the Netherlands in the current historiography of knowledge. Even though the Eurasian continent, with centres such as Goa, Istanbul, Rome, and Venice, had for centuries been familiar with the exchange of goods, people and knowledge, from 1500 (marked by the moment the Portuguese made Antwerp their hub of the spice trade north of the Alps) the Netherlands (especially the coastal regions of Holland, Zealand and Flanders) combined their urbanized and strongly commercialized hinterland with a firm global reach of their traders and commercial activities.

In terms of geographical space, the Low Countries are not considered as confined to the present-day boundaries of Belgium and the Netherlands, not even to those of the United Provinces. Recognizing the importance of a polycentred world for the circulation of knowledge and the development of a global knowledge society, the space of the ‘Netherlands’ includes the reach of Netherlandish traders around the globe (in China, Japan, Brazil) and the presence of Netherlandish communities of traders, craftsmen and scholars in cities from London and Lisbon to Goa and Gdansk, Batavia and New York.

One central claim of this project is that urbanised societies created the ‘trading zones’ where different cultures from all over the world and from divergent social and professional groups mixed to form communities of a new kind. This highly developed, commercialised and urbanised society was inconceivable without a high degree of practical tolerance, literacy, mobility and immigration. In the case of the Low Countries three characteristics stand out and, as part of the toolbox in the making, their role needs to be critically and comparatively investigated.

1. Decentralized structure of political power

It can be argued that the emergence of the Low Countries was the unintended result of the lack of a powerful central authority. The region was characterised by the absence of a coherent identity, clear borders or a political centre. There were no boundaries imposed by economic conditions, political traditions or cultural identity which may actually help to explain the flexibility of this area to adapt to
new circumstances, its responsiveness to external cultural influences, and its dynamics of renewal.

2. The role of the city

The urban dimensions required a flexible, tolerant treatment of cultural diversity, and stimulate a debate culture as an outlet for social, religious and political tension. A dynamic textual culture and new forms of information management played a crucial role here. In texts, and through the evolution of reading and writing abilities, the debate culture took on a form in which citizens became active participants in knowledge exchange and production. This development worked as a magnet for artisans, merchants and scholars from outside the Netherlands, especially in the period when the room for debate was far more constrictive in the rest of Europe. Bruges, Antwerp, Middelburg and Amsterdam for a while were ‘world cities’ where different cultures mixed. However, in the seventeenth century the changing political and religious situation in the Southern Low Countries began to affect its role as a knowledge hub. After 1715, as cultures elsewhere became more tolerant and developed their own varieties of early modern knowledge cultures, the attraction of the Northern Low Countries equally waned considerably.

3. Knowledge of the exotic

Contact with distant countries led to an enormous increase in knowledge of exotic flora and fauna and of materials such as precious stones, china and lacquer, including much materia medica previously hardly in circulation. Moreover, new information about other societies and divergent religious ceremonies became available on a large scale. In combination, these things questioned traditional knowledge based in particular on written Biblical and classical sources. The formation of a global knowledge society in the Low Countries coincided with endemic religious and political strife, originating in the Reformation and the Dutch Revolt. Together, these issues set a complicated intellectual agenda for local artisans and philosophers, professionals and laymen alike, who were prepared to engage in vernacular philosophizing without taking recourse to ancient learning or ecclesiastical reasoning. The region became one of the major centres of the European Republic of Letters, due to the fame of its universities, and its international book trade which flourished as a result of technological innovations, a highly developed credit system and an extensive shipping network.

The emerging boundaries between the Northern and the Southern Netherlands from the seventeenth century on, as a result of the Dutch Revolt, make the Low Countries an interesting laboratory of comparative history on at least three counts. In the first place the massive emigration of scientists and skilled workers
after 1585 has been interpreted as an economic and intellectual disaster, a fatal brain drain, or a flight from religious oppression. However, as we know now, the emigration had a less spectacular impact with regard to science and technology. Not only the émigrés but also those who decided to stay in the Spanish Netherlands maintained broad networks, thus falsifying the view that turned the Spanish Netherlands in a provincial backwater, closed off from the rest of the world, after the fall of Antwerp.

Moreover, insistence on the effects of the emigration and the ensuing negative comparison with the Northern Netherlands has obscured the essentially different features of the Spanish Netherlands, such as the effects of its belonging to the Spanish empire and its access through Spain to the Atlantic world. Most narratives on the Spanish Netherlands have been written from a national perspective, i.e. retracing the roots of ‘Belgian’ science. This has tended to overlook the presence of foreign merchants, craftsmen, scholars in the Spanish Netherlands, who played important roles in practices of knowledge production and circulation. It has also obscured the international outlook of commercial companies or religious orders and the Atlantic connection through Spain – all factors important to knowledge circulation. A focus on the global knowledge society changes the national perspective – with a strong focus on 1585 and the Separation - for a transnational, Atlantic perspective on science and knowledge in the Spanish Netherlands.

Finally, in the eighteenth and nineteenth centuries the Southern Netherlands developed into one of the earliest industrialized regions of Western Europe while the North established a different trajectory, focusing on trade and agriculture instead.

A comparative perspective is essential in order to be able to understand the historical specificity of the Low Countries and even more, to test the conceptual and methodological toolbox we develop.

However intellectually creative the Low Countries might have been, it would seem that many of the solutions for the issues facing this variety of the early modern knowledge society were only fit for domestic consumption. After all, many issues originated in religious, political, and economic affairs that were typical of a highly urbanized society, trading all over the globe and oriented towards the vernacular. Low Countries ideas were exported on a large scale to other European regions throughout the period but it would seem that the period after 1650 deserves special attention.

The transformation of much of the Netherlandish religious political, economic and cultural ideas and practices into easily exportable ideas and concepts was the unexpected result of the wars Louis XIV’s expansionist aspirations imposed on Europe after 1672. It made the Dutch Republic into the heart of a European-wide coalition against France’s imperial adventures and The Hague into the centre of European diplomatic intelligence. As a result in the period between 1670 and 1730, the Republic would become a world leader on
the intellectual market. Intellectual exiles from all over Europe convened here for shorter or longer periods in informal societies and developed a new medium, the intellectual journal, that gave their ideas, books, quarrels and solutions to a wide array of practical issues a large and rapid circulation, unimaginable before. In this cosmopolitan milieu Low Countries urban thought, so intimately connected with the early modern global knowledge society, found its European reception. Huguenot refugees from absolutist France, frustrated courtiers from Italy, disillusioned intellectuals from the German lands and radical republicans from England, hosted by disenchanted theologians and political philosophers from the Dutch Republic readily accepted the ideas, vocabulary and languages current in the Low Countries, but they transformed them, and applied them to their own local problems. Information on these groups, their plans and their ideas is still limited as research on them has only just begun. We need to know much more about contacts between the representatives of the various national projects that were taking shape on Dutch soil, about their activities in bookshops, in printing ventures, in informal circles, libraries and secret societies.

A full understanding of the European knowledge society and the regions that contributed to it, is utterly dependent upon a renewed analysis of the complicated adaptation, transformation and appropriation processes that accompanied the transfer of urban ideas over space and between cultures.
4. Four Working Groups

Each working group tackles one aspect that has been considered central to the history of the early modern knowledge society in the Low Countries. This aspect is critically investigated and placed in a comparative perspective to test the conceptual toolbox. Therefore, the results of the working group will be relevant to the study of the knowledge society in general. A working group consists of members of the Descartes Centre and the Max Planck Institute for the History of Science, and a number of Flemish and Dutch universities, and invited scholars from institutions across the world. The meetings of the working groups are hosted in the Max Planck Institute for History of Science and the Netherlands Institute for Advanced Study.

Working Group I: Knowledge and the City

It is generally accepted that knowledge production is to a large degree an urban phenomenon. While a range of sociologists and economics propound that cities accommodate the creative classes and that urban spaces are conducive to innovation, the origin of the modern knowledge society would have to be sought for in large, early modern cities such as Antwerp, Amsterdam, Paris and, in particular, London.

Current debates within both urban history and the history of knowledge however qualify the idea that the production of knowledge is necessarily grounded in a specific mind, institution or city. It is rather stressed now that scientific and technological innovations emerge in networks and result from the circulation of knowledge in both abstract and embodied form. In this vein, other scales, environments and contexts have attracted attention, often referred to as either ‘networks’ or ‘trading zones’. Conceptually, knowledge is considered to have been embodied in either human minds and hands or in such ‘immutable mobiles’ as products, prints, books, plans, schemes etcetera, which circulate through time and space. The knowledge contained in them is appropriated adapted to local circumstances. Neither a city nor knowledge can be reified or be seen as ‘bounded’ entities. Urban historians currently refrain from reducing cities to a political body or community (as in a communitarian political perspective) or to the ‘absence of distance’ (as economist would be tempted to do). Nor can a city be reduced to either a set of institutions or a spatial and material reality.
Under the strong influence of Science and Technology Studies and Actor Network Theory, cities are now seen as ‘assemblages’ of human and non-humans ‘actants’ including material objects, matter and techniques; human bodies, thought and feelings; institutions, discourses and practices; and – last but not least – knowledge.

Simultaneously, and to a large extent under the influence of similar theories and concepts, knowledge has been de-naturalized and unpacked. Rather than resulting from the cerebral thinking of a limited set of intellectuals, knowledge is now considered to emerge from networks involving such different actors as instrument makers, surgeons, mathematicians, engineers, alchemists up to and including merchants, gardeners, and collectors. The networks in which these people operated were multifaceted and asymmetric and they materialized on different scales – from very local and place-bound to global. Moreover, they involved different types of practices, which in turn were predicated on different types of instruments and other immutable mobiles involved.

Last but not least, knowledge and the city are mutually implicated. Firstly, the city as an assemblage and the contexts, networks, institutions and infrastructures from which knowledge emerges partly overlap. Not coincidentally, historians of science have addressed cities as centers of accumulation and exchange, in which knowledge in both immaterial and embodied form clustered and was exchanged. Secondly, knowledge and the city are intimately entangled owing to their mutual need for justification. The alleged superiority of certain forms of knowledge is often legitimized with reference to the context in which it is formed and used. This context can range from a certain institution (a university, an academy, a guild etc) up to the European or Western context as a whole, but the city as well is relevant here. After all, urban actors themselves will often refer to the city as a superior context when it comes to the justification of innovation and knowledge formation.

In all, the city and knowledge often co-emerge and are co-produced in a range of hybrid networks involving a range of complex and entangled practices. Our project sets out to examine this co-production and these practices through a range of case-studies and via different conceptual approaches. We concentrate on the early modern Low Countries, in the full knowledge that the concerned cities were, of course, implicated in networks stretching across this region.

Locating the practices related to knowledge and the fabrication of knowledge in the highly urbanized region of the Low Countries helps to critically address the connection between the urban context and knowledge formation for several reasons.

1. The Low Countries were not dominated by one large metropolis like London or Paris, but rather by networks of small and middle-range cities which were themselves moreover interlocked and shot through by networks of migrants, travelers and goods. Such typical urban phenomena as chambers of rhetoric had often even penetrated the countryside too. Antwerp in the sixteenth century and Amsterdam in the seventeenth of
course obtained a dominant position, but even then differences with the large metropolises elsewhere in Europe (and beyond) remained important.

2. A related specific feature is the functional diversity between cities, with Antwerp for instance harboring an innovating economy and an important book printing industry but neither a university nor important political institutions. In the Northern Netherlands as well, such important characteristics as book printing, art industries, universities, academies, political institutions, etcetera, were not concentrated in one and the same city. In both the north and the south, universities were hosted in secondary cities without a court. This enables to assess the role of these institutions from a comparative angle.

3. Intense competition between the cities should enable to better understand the field of tension between the city as a place in which knowledge is produced and a place which attracts knowledge produced elsewhere. In addition, this enables to adequately understand the way cities learned to pride themselves at being centers of ‘useful and reliable knowledge’ or innovation. As earlier research has shown, both the municipalities and a range of institutions within the cities justified their privileged position with reference to the superior nature of their products and the knowledge they embodied.

This harks back to the discussion about the ‘nature’ of a city. Cities being assemblages and hybrid networks of humans and non-humans, does not exclude the possibility that they were imagined as political bodies in the name of which claims were uttered and justified. However hybrid and compositional, towns could perfectly well be represented as bounded entities and as places with specific forms of agency, including being able to foster innovation and creativity. Our project however sets out to unpack such strategies and to understand the power games involved.

**Working Group II: Epistemic objects**

This working group explores what exactly constitutes knowledge and how this changed in the early modern period. To answer these questions it aims at dissecting the smallest units of analysis: objects that functioned as nodes in networks of information. Our main interest goes to objects as repositories of the exchange of different kinds of practical, theoretical, and cultural knowledge. Each member of the
working group will take as its point of departure a ‘boundary object’. We use the term ‘boundary object’ for these artefacts that we see as markers of fault lines, transitions, exchange, innovation, conflict, and failure of communication within the larger context of ‘trading zones’. As Pamela Long has recently argued, zones of exchange of different ways of knowing flourished in the fifteenth and sixteenth centuries. Defenders of different ways of knowing came to acquire material, visual, textual, cultural, and technological literacies not directly connected with their own profession or trade. We propose that a truly qualitative analysis of these interactions needs to be directed at a range of objects from household goods to works of applied art, paintings, prints, model books, dictionaries, translations, art cabinets, apothecary’s cabinets, and technical and scientific instruments. Individual artefacts not only document the exchange of information. They were often powerful agents in networks of exchange, crossing linguistic and cultural gaps, breaking traditional boundaries, galvanizing process innovation, or indexing misunderstanding. As such they are repositories of the changes in knowledge exchange that are the subject of the Early Modern Knowledge Society project at large.

Epistemic objects document interactions of people with different backgrounds – some of them as ‘invisible’ as scribes, amanuenses, operators and technicians – in artisanal workshops, arsenals, print shops, anatomical theatres, ports, apothecaries’ shops, professors’ dining tables, and merchants’ homes. These trading zones often developed in the context of cities, and there seems a direct connection with urban culture. The social and political context of the emergence of ‘trading zones’ is subject of working group 1 on the city as ‘trading zone’.

Material culture studies often highlight the ‘hybrid’ nature of Epistemic objects, especially in regard to material, formal, and thematic imitations and appropriations. Yet this term is contaminated by contemporary associations alien to early modern reflections on the interaction between groups. We will try to develop a more adequate historical vocabulary that reflects how linguistic borders themselves were redrawn. Peter Galison has described ‘trading zones’ as characterized by the invention of pidgin and creole languages facilitating the communication between different cultures. The new languages developed in trading zones are characterized by multilinguism, the invention of new vocabulary, and translation (between languages, but also between practice and codification, or between the verbal and the visual).

Objects of investigation are, for example, manuals and dictionaries, two genres of writing exploding in the early modern period. Through the investigation of translations and Epistemic objects the working group will get grip on the new ways of knowing emerging in the trading zones. The objects and languages created in the trading zones employ new concepts of knowledge (skill, ars, technê, ‘konst’, ‘wetenschap’), or use old concepts in new ways, as well as testify to the significance and movement of epistemic attitudes between different groups of people (inquisitiveness, curiosity, but also the importance of repetitive practice to foster intuition and improvisation, etc.).
Epistemic objects and translations can show traces of failure of exchange and communication between different cultures of knowledge as much as innovative success. Moreover, the working group critically engages with the claims for innovation and novelty languages and objects created in trading zones promote and distribute. While the working group uses the Low Countries first and foremost as a ‘laboratory’ (trading zones are far from unique to the Low Countries), the rhetoric of newness associated with ‘Epistemic objects’ (for example, the specific form of Antwerp art cabinets, or the invention of genres in painting) might be a particular emphasis of the people of newly emerging Netherlandish cities (versus Rome).

Using the Low Countries as a laboratory, the group will work from a comparative perspective, focusing on different political and religious cultures in the Northern and Southern Netherlands as much as the undividedness (before 1585) and continued interconnectedness (after the Separation) of the Netherlandish space through mercantile and other networks. Moreover, the focus on translations and Epistemic objects in the working group encourages a transnational approach stressing global interconnectedness.

**Working Group III: Knowledge and the Market: Affective Economies**

Through the concept of ‘affective economies’ WG3 will research the interconnectedness of knowledge and market practices in the early modern markets of the Southern and Northern Netherlands, from a global and local perspective. We will work with two interpretations of what markets are and do in relation to knowledge:

1. **knowledge commodification** - the market as a method of distributing (new) knowledge.
2. **market knowledge** - (embodied) knowledge present in markets that consumers and producers use for production, distribution and consumption

In our general research question these two levels are connected through the concept of ‘affective economies’:
Research Question: What affective strategies were employed in the process of knowledge commodification in the early modern markets of the Northern and Southern Netherlands? How did the actors involved in this process make use of (knowledge about) affects and the embodied knowledge present in the market.

The early modern knowledge market of the Northern and Southern Netherlands is an interesting case study for research into knowledge societies since it witnessed an early development of a consumer society in which knowledge itself became a commodity: a reproducible good. Similarly, this knowledge market experienced an impressive expansion, both in scope and in scale: new knowledge consumers such as youngsters or people without academic education were attracted while new types of knowledge were marketed in new visual and textual forms. How did the early modern market succeed in bringing these processes together? How did producers learn to cater to the needs and expectations of traditional and new publics? How did they make use of the (embodied) knowledge present in the market? Workgroup 3 will stress the importance of affects in this process, thus introducing a new method of analysis for (early modern) knowledge societies.

Through the concept of ‘affective economies’ we will research the role of affects in knowledge commodification processes. We project to do this on various levels:

1. Affects in supply-demand: operating between the possibilities and restrictions in the existing knowledge culture, new knowledge desires were created. Producers and sellers tried to influence the ‘wants of the minds’ of the consumers, creating products that eventually were felt as ‘needs of the body’.

2. Knowledge about affects: these market strategies were informed by, and did inform contemporary ideas about man and society, consumption practices, the functioning of the body and mind, and man’s passions. WG3 will test the hypothesis that in order to commodify (new types of) knowledge for (new) groups of consumers, producers needed knowledge of the desires and sensitivities of possible customers. We will research connections between these market developments and the booming production of studies on the passions, and on mind-body relations.

3. Heated passions: the concept of emotional knowledge economies will also provide a background for looking at violence and conflict in early modern knowledge societies. Knowledge society historiography tends towards an inherent idealization: applauding the innovative success of knowledge societies, and praising the cosmopolitan qualities of trade zones as melting pots of various ethnic, religious and cultural groups, historians tend to overlook the fact that these urban markets were also highly passionate, explosive contact zones. WG3 aims to research how traders, merchants, scientists, stock traders, etc. dealt with these inherent tensions.

4. Valuation, communication, and performativity: the concept of affective economies will help to highlight the importance of communication and performativity in knowledge commodification processes. Commodification
and communication are interrelated. In order to be recognized as true and appealing, ideas are in need of commodification. The truth of ideas, phrased in terms of their evidence, is relative to its support by others: to its being commodified. And being commodified is a way of articulating its evidence, and answering the question ‘does it sell’, metaphorically speaking. Knowledge commodification is depended on performance. One example may help to clarify this: as stated above, in the early modern Netherlands the market for knowledge about the (human) body exploded. Anatomy and anatomical theatres transformed the human body into an unknown terrain, to be explored and commercialized. In order to understand the commodification of knowledge about the body, we can’t just turn to the book market, but we must also analyse how dissection as a performative and spectacular activity reorganized the cultural ‘map’ of knowledge, while at the same time functioning as a commodity on a rapidly expanding market of spectacular activities.

Highlighting the communicative and performative aspects of commodification, already indicates that the approach of WG3 will be very process-oriented. Rather than work with one concept of ‘the market’ and compartmentalizing the market in specific domains and groups of actors, we see the market both as a specific place for supply-demand regulation, but also as complex and dynamic network, as an interplay of various actors employing multiple knowledge strategies. With concepts like ‘prosumers’ we will challenge strict distinctions between consumers and producers, e.g. investigating the inherent knowledge in consumer groups, such as young readers, and the ways in which this knowledge helps to shape knowledge intensive products such as books. Researching intermediaries in historical cultural industries we will map different functions (e.g. co-production, matching, taste making or selection).

Our aim is thus to develop a complex analytical framework with which the affective dynamics of knowledge and the market can be studied, and the specific and highly interesting position of the Northern and Southern Netherlands in the early modern period can be analyzed.

Working Group IV: Borders and the Transfer of Knowledge.

In the early modern period knowledge could travel very fast throughout Europe. In 1608 the news of the telescope spread quickly from the Low Countries to be appropriated in such diverse places as Frankfurt, Padua, London. Such open structures of knowledge transfer are considered crucial to what is nowadays called a knowledge society. In that respect it is interesting to see if early moderns recognized and valued such transfers in the same way as we do. The
success of the early modern Low Countries is often attributed to the openness of knowledge exchange and the attraction to people and ideas from elsewhere.

The historical understanding of knowledge transfer is hampered by modern borders. History is dominantly written from the perspective of the modern nation states and categories of art, science, and technology. These borders did not exist in the early modern period. The mental and geographical borders we see now were crossed in all kinds of ways. This does not mean, however, that there were no borders. WG4 studies the diverse mental and geographical borders in the early modern period from the perspective of the transfer of knowledge. It investigates the ways knowledge traveled and made exchanges possible at the same time. The interlocal movements of people, goods, ideas, and practices – as well as the obstacles to such movements – make visible borders and transgressions thereof. How were borders handled and maintained? How did political, social, economic, religious, linguistic borders develop and interact over the early modern period?

Transfers of knowledge required connections over which people and products can travel. Existing and developing networks need to be mapped, and analyzed to see what kinds of knowledge traveled, and what made it move. Openness is not a goal in itself in a knowledge society, transfer of knowledge is generally regulated. When knowledge becomes valuable, the acquisition and possession of knowledge becomes important. A clear tension exists between accessibility and self-interest. Regulation determines who and what has access to knowledge. How and where these borders are set makes clear how interests are understood and distinctions between ‘us’ and ‘them’ are drawn. Besides such imposed strictures on knowledge transfer there are also natural impediments: knowledge cannot always be translated and appropriated in other places. As a result the possibilities to adopt examples from elsewhere are limited; what works in one place does not have to work in others. Regulation of knowledge exchange makes clear that value is attributed to knowledge, which is a central feature of the very idea of a knowledge society: the advancement of learning becomes foundational for society. What value and meaning is given, how and how is this enhanced? By whom and for whom knowledge is cultivated - what commonweal is advanced - makes clear how knowledge is employed to establish social and cultural identities. What borders are drawn, and how, is the main interest of this working group, in particular the historical shifts and transformations of such borders and its corresponding communities.

The very idea that a community can distinguish and praise itself by the learning, skills, ingenuity and talents is typical of a knowledge society. Moreover,
it is historically situated. The idea that creativity and innovation are crucial to prosperity is markedly modern, and connected to the definition of the nation as the commonweal. It contains a rhetoric of progress, of contributing to science, technology, and arts understood as universal entities, in which nations mutually measure their status. This raises the question how the idea of knowledge as a cultural asset and how a rhetoric of advance and innovation became to be used to draw borders. We suspect that early traces can be seen in the urban cultures of the Low Countries.

The early modern city was a junction of trade, power, and culture. Until the 18th century – if not until the present day – it was considered the heart of society and the driving force of prosperity. On the North-Sea shores of the Low Countries, in Flanders, Zeeland, and Holland, a conglomerate of distinctly urban cultures developed in the 16th century. With the revolt the settings of this cultures began to deviate between the Northern and Southern Netherlands. The cities of Flanders were part of state in which early modern centralizing tendencies gained a firm foothold, whereas the Republic in the north sprang from a response to these developments. The Dutch Republic restored the city as a societal hub. As a result it was oddly out of step with the general European trend that the center of power and identity shifted to the nation state, and the role of the sovereign transformed. Only in the 18th century the Republic aligned again with the processes of centralization (and monarchicalization). This makes it extremely interesting to investigate and compare the structures and dynamics of these knowledge systems. Despite these different trajectories a border between the north and south Low Countries is hardly visible in the daily affairs of travel, trade and knowledge transfers. This raises the question when and how distinctions between the Northern and Southern Netherlands eventually were created.

Transfer of knowledge was made possible by the movements of people and goods over established networks of trade, affinities and alliances. The urban centers all had active connections around the globe and prominent foreign presence, but the towns of the north and south were part of different networks, geographically as well as structurally. Until the early 18th century, Flanders was a prominent hub in the Spanish empire, in which power, religion, and learning were relatively formally institutionalized in monarchy, monastary, and universities. Zeeland and Holland were central hubs of the various corparative networks, in which wealth, power, and authority were distributed. In both cases the cities were central nodes of knowledge production and exchange in these networks, and in their Low Countries interactions they constituted links between these different networks. How did the different features of these networks affect the flow of people, goods, and ideas? How did it promote the transfers of knowledge; how were foreign elements handled?

It is often assumed that the Dutch Republic was particularly open for the religiously, linguistically, politically, economically, geographically other. Was such tolerance purely calculating because it was considered useful and profitable, or
did identities simply work differently and does the whole idea of ‘foreign’ needs to be re-gauged? And was the situation in the south actually much different? In what way did these transfers contribute to innovation, prosperity and prestige? The routes of exchanges probably were a network of cities of a different nature than the international relationships that developed later. We suspect that over the early modern period the make-up of urban centres changed and with it the way cities functioned as trading zones. What constituted the commonweal to which one belonged and conducted his efforts: the kin, the trade, the faith, the faction, the city, the land? Adam Smith on the one hand articulated the notion that prosperity is a common good that transcends the personal interests; on the other hand he reflected in his model of the nation the old situation of the city as its driving force and the state as a unity (with an ambiguous role for the English king). In this cross-section cultivation of knowledge provides an outlook on the early modern development of political and cultural identity.

Early modern innovation has its roots in the secrets of nature, knowledge and competence that was regarded a valuable asset. In general knowledge was not shared with everyone and everywhere. This raises the question what was shared with whom, and how this was controlled, who were the outsiders. Did language, religion, status, citizenship constitute limits for knowledge exchange, and if so, how? In the course of the early modern period the state began to play a role in the control and regulation of knowledge and a gradual distancing from courtly institutions. As the Republic lacked a centre of authority the question is if and how knowledge was regulated. At the same time the same question can be asked for Flanders, despite its more centralized structure. In well-organized institutions like the VOC knowledge was indeed tightly regulated, but it remains to be seen how this was done on the level of the cities. Furthermore, was knowledge valued and controlled as secrets, or were other values attributed as well? In other words, was (distinctive) expertise considered an asset, whose advancement and transfer could be regulated?
5. Deliverables (preliminary list)

- Publication of working group volumes

- History of Science Society Conference in Utrecht in 2019. A key theme of the conference will be devoted to ‘The Global Knowledge Society’, while sessions on this theme will be held at the Annual Meeting of the HSS in the years up to 2019.

- In 2019 exhibitions in several museums are organized in conjunction with the ‘early modern knowledge society’ as part of a more broadly conceived public program.

- Public outreach program in close cooperation with the KNAW (2016-2019)

- Student textbook on the emergence of the early modern knowledge society
6. Composition of Working Groups

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