

©2010

ELVA KATHLEEN LYON

ALL RIGHTS RESERVED

THE DARLING STRANGERS AND ENGLISH APPETITES: TECHNOLOGY  
TRANSFER AND EUROPEAN CULTURAL BARRIERS IN THE EARLY MODERN  
ATLANTIC WORLD

By

ELVA KATHLEEN LYON

A Dissertation submitted to the  
Graduate School-New Brunswick  
Rutgers, The State University of New Jersey

In partial fulfillment of the requirements

For the degree of

Doctor of Philosophy

Graduate Program in History

Written under the direction of

Paul Israel

And approved by

---

---

---

---

New Brunswick, New Jersey

May, 2010

## ABSTRACT OF THE DISSERTATION

### THE DARLING STRANGERS AND ENGLISH APPETITES: TECHNOLOGY TRANSFER AND EUROPEAN CULTURAL BARRIERS IN THE EARLY MODERN ATLANTIC WORLD

By ELVA KATHLEEN LYON

Dissertation Director:

Paul Israel

The English had the opportunity to serve an apprenticeship for technologies they desired in the early modern period on both sides of the Atlantic. In places such as London or Norwich highly mobile stranger artisans from northern continental Europe created the items for which the English had an appetite, whether sugar or clothes, saw mills or city docks. In the colonies the “darlings” who possessed the skills that the English envied were principally in New Netherland, records showing that they were from the same cultural group of northern continental Europeans who resided as guild strangers in English cities. Family reconstitution revealed the mobility of these skilled artisans in the Atlantic World.

North American colonial documents provide a window through which to view when, how, or if, the English managed to acquire the skilled knowledge of cultural outsiders to produce what they coveted. Every examined case of an English appetite for a product or its means of production proved to possess features unique to the circumstances of the interaction between the English and those of another European culture practicing

the skill. In most cases deep cultural differences limited the colonial English to hiring foreign experts, buying their products, or finding culturally acceptable sources of information such as the Scots. Occasionally artisans were hired directly from the continent of Europe using colonial middlemen. English citizenship was easier to obtain in the colonies than in England, offering a colonial back door to foreign craft practice that could re-cross the Atlantic to an English town or city.

The problems that made England's apprenticeship so difficult became apparent when examining Atlantic World technology transfer and its barriers. There were distinct, deep cultural differences between the English and the northern continental Europeans in mobility, kinship systems, naming practices, family, language, inheritance patterns, views of women, craft practice and values, attitudes toward machines, and concepts of urban life. These acted as barriers to the transfer of technologies including higher craft skills, saw mills, and city building.

## ACKNOWLEDGEMENTS

As is probably always the case, there are more people to thank than can possibly be mentioned here. The most immediate helpful support has come from my advisor Paul Israel who obtained graduate assistantships for me at the Thomas Alva Edison Papers, and help has also come from the other members of my committee, James Delbourgo, Alastair Bellany, and Els Kloek. The cheerful encouragement and the gentle guidance in the direction of my dissertation argument have made the work easier both to write and to re-write, and I appreciate the efforts of Dr. Bellany to keep me honest and reasonable when discussing English foibles and short-comings. There are also those who have worked in the background, Harvey Waterman and Alexandra Bachman, who have helped with funding, guidelines, or advice, and who occasionally untangled procedural snarls.

The people who nudged me in the right direction years ago did so through the vehicle of the Rutgers Center for Historical Analysis, and Susan Schrepfer and Phil Scranton deserve special thanks for their support. The others at Rutgers who have provided those “magic moments” that made a difference, which I may not have realized at the time, include Jennifer Jones for her selected early modern readings and Belinda Davis for her enthusiasm for my work involving strangers of all northern European nationalities. At Princeton Theodore Rabb opened my eyes to the issue of rankings within guilds, and the members of the seminar broadened my thinking with the diversity of the topics they brought to the table.

Special thanks must be expressed for the willing contributions, insights, and testing of my theories that were offered by Henry Hoff, Harry Macy, and Nico Plomp, all

internationally recognized experts in genealogy who asked me to consider the obvious with such simple questions as “is your person on one side of the Atlantic the right age for the person you think he is on the other side?”

Years ago as a raw beginner I had assistance in family history from Alison Wall at Oxford, and I received writing advice and direction from Ray Stokes, Paul Hohenberg, and Andrea Rusnock in Science, Technology, and Society studies at Rensselaer Polytechnic Institute. They thought I belonged in the field of history and should be writing narratives, and their suggestions haunt my work to this day. In the same time period I met Martha Shattuck and Jaap Jacobs, two experts on New Netherland, and I received patient advice from Piet Boon at the Hoorn archives. All three helped me to develop a methodology that aided in my reading and interpretation of early modern archival records written in Dutch.

In the Netherlands I have enjoyed the warmth and welcome of Els Kloek, the Plomps, and the Jacobs family who helped me to understand how the Dutch see themselves today and the various paths they believe they have traveled to get to a sense of ethnic and national identity. Special thanks to the Jacobs who were very clever at talking a guard into letting me enter the functioning wind driven saw mill at the Zaanstreek Museum, something that had never been permitted to any other public person. There is no way to explain how much that influenced my perception of those massive early modern machines.

And I give to my daughter Suzanne, the mechanical engineer, my eternal gratitude for never flinching in her unaffected assumption that I could shift from a career teaching physics and somehow manage to accomplish a doctorate in the field of history. Just a

few months ago I spoke to her and her husband about spending time in Prague, to which my son-in-law responded that the language would be a problem. Suzanne's confident, unhesitating reaction was "not for Mom!"

## TABLE OF CONTENTS

Abstract.....	ii
Acknowledgements.....	iv
Abbreviations.....	viii
List of Tables.....	x
Illustrations.....	xi
INTRODUCTION.....	1
CHAPTER ONE: Invited Strangers, Contracts, and Members of the Guild.....	53
CHAPTER TWO: Marks of Difference in Kinship Styles and Family Customs....	106
CHAPTER THREE: Skilled Wives, Sisters, Mothers and Daughters.....	154
CHAPTER FOUR: The Saw Mill: Scale, Scope, and Middlemen .....	199
CHAPTER FIVE: Cities and Citizens in the Landscape.....	238
CONCLUSIONS.....	268
BIBLIOGRAPHY.....	276
Curriculum Vitae.....	298

## ABBREVIATIONS

See the bibliography for the source details.

- Alien Returns....Returns of aliens in London
- Austin Friars.....Dutch Church at Austin Friars in London
- BDC.....Baptisms in the Dutch Church in New Amsterdam/New York
- MDC.....Marriages in the Dutch Church in New Amsterdam/New York
- LDC.....Membership in the Dutch Church in New Amsterdam/New York
- CM or Coun. Min. with the year.....Council Minutes of New Amsterdam
- Corr..... Correspondence between New Netherland and the West India Company
- Docs. Rel..... *Documents Relative to the Colonial History of the State of New York*
- DRNN.....Huntington Documents
- DTB.....Dooop, Trouw, Begraven. Baptisms, Marriages, or Burials.
- ERA.....Pearson's *Early Records of Albany*
- GAA NA.....Gemeente Archief Amsterdam, Notarial Archives
- GAHaarlem.....Gemeente Archief Haarlem
- ONA.....Gemeente Archief Rotterdam
- LAW.....*Laws and Writs of Appeal, New Amsterdam*
- NAC.....Noort Amerika Chronologie abstracts of Amsterdam records
- NYG&B RECORD, or RECORD.....*New York Genealogical and Biographical Record*
- NY Hist. Mss.....New York Historical Manuscripts
- O'Cal. Cal.....O'Callaghan's Calendar of Historical Manuscripts
- OM.....Orphan Masters in New Amsterdam
- PRO.....Public Records Office, National Archives, Richmond, England

Reg. Prov. Sec.....*Register of the Provincial Secretary* in New Netherland

RNA.....*Fernow's Records of New Amsterdam*

SAW.....*Streeks Archief Westfriesland*

VRBM.....*Van Rensselaer Bowier Manuscripts*

#### Dictionaries

OED.....*Oxford English Dictionary*

Prisma.....*Two volumes, modern Dutch dictionary*

Sewell.....*1738 Dutch-English dictionary*

Webster's.....*Webster's Encyclopedic Dictionary of the English Language*

WNT.....*Woordenboek der Nederlandsche taal*

## LIST OF CHARTS AND TABLES

Chart I: Occupations of the London Strangers at Austin Friars Church, 1617.....	71
Chart II: New Netherland Occupations.....	72
Chart III: Dokkum Craft Occupations.....	73
Table I: New Amsterdam Marriages.....	190

## ILLUSTRATIONS

Sailors Teaching Merchants and Scholars.....	18
Map of Colonial North America Showing New Amsterdam.....	39
The Family Circle.....	117
Labor and Diligence.....	161
Hand Sawyers.....	223
Saw Frame with Log on a Carriage.....	224
Interior Works of a Wind Driven Saw Mill.....	225
Large Stone Mill.....	226
Fort Amsterdam as Planned.....	253

## INTRODUCTION

Charles Wilson has referred to the late sixteenth century, the entire seventeenth century, and more than half of the eighteenth century in England as the era of that country's apprenticeship to the skills of the continent, a very long nearly two-century span of time for any one culture to attempt to acquire the technologies of other cultures.<sup>1</sup> The talents the English lacked at home they also lacked on the Atlantic seas and in their American colonies, and, in every location, their desires for continental products were met by the creative labor of foreigners, aliens, and guild strangers, either at a distance across the seas or proximally within their own towns and cities.<sup>2</sup> The majority of those who possessed the products and the skills which the English desired were the "Duitse," northern continental Europeans from Germany, the Low Countries, Denmark, and those in other contiguous or near-by areas in Europe who spoke a Teutonic tongue.<sup>3</sup>

---

<sup>1</sup> Charles H. Wilson, *England's Apprenticeship 1603-1763* (London and New York: St. Martin's Press, 1965). Wilson's title date range from 1603-1763 spans over a century and a half but he discusses earlier circumstances as did many authors before and after him. The consensus is that it took England more than two centuries to become masters of certain skills already being practiced on the continent. George Unwin offers a particularly detailed view of problems from pin makers to joiners, *The Gilds and Companies of London* (London, 1908). See also Lien Bich Luu, *Immigrants and the Industries of London, 1500-1700* (Aldershot, England and Burlington, Vermont: Ashgate, 2005), especially her introductory chapter for an overview.

<sup>2</sup> There were four terms used for outsiders in early modern England; stranger, foreigner, alien and another race. The word stranger comes from the French *estranger* and referred specifically to someone not native to a particular city or guild, or forced out of a city or guild, as used in the expression "to be estranged" from one's family, guild, community, city, or country. The word foreigner derives from the Latin words *forus* meaning other and *regnum* meaning king. The term refers to the political allegiance of a person, where the expression *forus regnum* meant having duties toward a different ruler. Alien is from the Latin *alia* for other, meaning other than a citizen, originally referring to cities. The English also used the word race to refer to other Europeans, as in references to the Irish or Dutch race. The English used the four terms inconsistently, sometimes interchangeably, and often more decoratively or disparagingly than in an enlightening manner. The Dutch generally used the words *buiten* meaning outside, as in outside the guild, outside the city, or outside the country (*buitenlander*), or *vreemd* and *vreemdeling* meaning stranger or alien, also *onbekend* meaning unknown. The English words are used interchangeably here as was their custom. See OED, Websters, Prisma, Sewell, and WNT.

<sup>3</sup> The term "Duitse" was still being used as late as 1671 and there may be even later instances of the common usage of the term by the English; GAA NA 3772, fol. 326, 327, notary Adriaen van Santen, Sept.

How does one account for England's long apprenticeship, the two-century delay in transferring skilled knowledge from the continental northern Europeans into the hands of artisans in the English culture? The producing areas of the Low Countries that fed the English appetites in London were just across the channel, yet with such a small geography intervening and so much contact with the aliens, the English remained dependent upon foreign skills, jealously coveting the products of the continent but hiring others as guild strangers in English cities to produce what they desired.

The northern continental Europeans of every sort, Norwegians, Germans, Danes, Dutch, or Flemings, were called "the darlings of the English" on the northwestern shores of the Atlantic World where they kept the English colonists sheltered, provisioned, populated, and connected to the cities of London, Amsterdam, and Rotterdam.<sup>4</sup> The colonial English had an appetite for what the continental foreigners possessed and hired them to provide it, whether mills or houses, silver or sugar, barrels or jugs, clothes or shoes. The English at home and abroad in the colonies continued to perceive their essential "darlings" as outsiders, linked as they were not only to the European continent but also to the New Netherland colony wedged firmly between the Virginia, Maryland, and New England settlements on the Atlantic shore.

Because the Atlantic World was such an interdependent mix of cultures and special circumstances, the English should have been able to acquire the skills of aliens rapidly, making them their own, in the process experiencing a sudden surge of

---

22, 1671. Other common terms were Alymans (French for Germans), Douche, Vlaminges, Germans, and Walsche. By 1765 in the American colonies Sarah Franklin, daughter of Benjamin Franklin, calls all such non-English "the Dutch" when she reports their concern with what they referred to as the "stompt ack," mocking their pronunciation. 14 October 1765, American Philosophical Society.

<sup>4</sup> William Hand Browne, ed., *Proceedings of the Council of Maryland, 1636-1667* (Baltimore: Maryland Historical Society, 1885), Vol. 3, page 428; "...the Dutch trade being the Darling of the People of Virginea as well as this Province and indeed all other Plantacons of the English,..."

technology transfer and diffusion, not only in their colonies or on board ships, but also in England itself. Indeed, the same problem of acquiring the skills of those of other countries to produce desirable foreign products applied to imports from Asia, where the English copied them but “did not import the technologies on which they were based.”<sup>5</sup> Did the Atlantic World setting make a difference in the movement of skilled knowledge to the English, and why or why not?

The pattern of interaction between the English and the northern continental Europeans in the urban center of New Amsterdam, later New York, offers a unique window through which to view possible English attempts to acquire the skilled knowledge of others. The principal result of the view through that window is that certain specific cultural barriers affected the ability of the English to transfer desired technologies to their personal practice and control directly, limiting them to obtaining and utilizing certain technologies through middlemen or hiring foreign artisans, sometimes under circumstances that could permit the skilled knowledge to move to England through an Atlantic World colonial back door.

This study in social history proposes that deep cultural differences between the “English Race,” as the natives of England referred to themselves, and those of the northern areas of continental Europe is one reason for the two-century-long apprenticeship the English endured.<sup>6</sup> The most basic cultural distinctions between the English and other Europeans are difficult to sort out in the home setting of crowded

---

<sup>5</sup> Maxine Berg, “In Pursuit of Luxury: Global History and British Consumer Goods in the Eighteenth Century,” *Past & Present*, Number 182, February 2004, see particularly p. 86 and the entire article pp. 85-142.

<sup>6</sup> Carrol Pursell has said that whether or not technologies are transferred from one country to another is “the result of deeply held cultural perceptions,” often “in ways that we do not well understand.” See his Presidential Address for the Society of the History of Technology meeting in Uppsala, Sweden, on August 19, 1992, as published in *Technology and Culture*, July 1993, vol. 34, nr. 3, p. 637.

London in England and a thousand other cities on the continent, but the colonies on the northwestern Atlantic shoreline, with their smaller population and many documentary references, offer a view on the possible reasons why England suffered such a prolonged apprenticeship on either side of the Atlantic, or if it was an apprenticeship at all.

The geographical and cultural transfer of skilled knowledge from Europe into the North American colonies in the early years of settlement has never been addressed with the specifics of the movement of identified people, though the products of that knowledge have been recreated in structures and performances at sites such as Plymouth in Massachusetts and Williamsburg in Virginia.<sup>7</sup> Only rarely has the mobility of a skilled individual been discussed with documentary detail from both sides of the Atlantic Ocean other than by genealogists reassembling a family line. Significant exceptions are the movements of the leather working wife Jannetie Jans as discussed by Elizabeth Shaw in her dissertation, and the Atlantic World mercantile network of Jacob Leisler presented by Claudia Schnurmann.<sup>8</sup> Recently Simon Middleton examined the circumstances of the bakers as skilled labor in New Amsterdam/New York, but he observed the workers as firmly situated in the city without regard to their original relocation to the colony or their interactions with cultural others during their years of residency.<sup>9</sup> As a British historian,

---

<sup>7</sup> For recent global movement approaches in the history of science see James Delbourgo and Nicolas Dew, *Science and Empire in the Atlantic World* (New York: Routledge, 2008), and James Delbourgo, Simon Schaffer, Lissa Roberts, and Kapil Raj, *The Brokered World: Go-Betweens and Global Intelligence, 1770-1820*, Uppsala Studies in History of Science No. 35 (Sagamore Beach: Science History Publications, 2009).

<sup>8</sup> Susan Elizabeth Shaw, "Building New Netherland: Gender and Family Ties in a Frontier Society" (Ph. D. diss., Cornell University, 2000), also Claudia Schnurmann, "Representative Atlantic Entrepreneur: Jacob Leisler, 1640-1691," in *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585-1817*, (Leiden and Boston: Brill, 2003), and the forthcoming book by D. W. Voorhees, C. Schnurmann, and H. Wellenreuther, eds., *The Jacob Leisler Papers: Reconstructing Atlantic Networks, 1639-1691* (Philadelphia: University of Pennsylvania Press).

<sup>9</sup> Simon Middleton, "'How it came that the bakers bake no bread': a struggle for trade privileges in seventeenth-century New Amsterdam," *The William and Mary Quarterly*, (April, 2001), and his book *From*

Middleton looked for the politics leading to artisans backing the patriots in the American Revolution. In contrast, the work presented here lays a firmer foundation not only for what may have led to American revolutionary postures, but also what may have played a role in revolutions in general that concerned artisans on both sides of the Atlantic, whether political or industrial. It does so by looking at the deep cultural differences that served as barriers to knowledge transfer between the English and their darling strangers on either side of the Atlantic Ocean. This work is less about the politics of the moment than it is a study about the possible reasons for the politics of the next moment, or for the politics of the longer duration.

### Defining the Terms

When complicated by time and place, such as the early modern period and the Atlantic World, the task of assessing technology transfer involves intricate methodologies, multiple languages, complex paths of travel, and understandings beyond the usual problems. Unless delimited by selected but flexible definitions, the concepts of both technology and culture could remain ambiguous and unsettled.

In the examination of skilled knowledge and its movement, this study uses the definition of technology as presented recently by Karel Davids, who limited it to “the abilities of people to control or transform nature for productive ends,” omitting household technology and the control of people through military actions, through administration, or by financial manipulations.<sup>10</sup> Transforming nature for productive ends may be as simple

---

*Privileges to Rights: Work and Politics in Colonial New York City* (Philadelphia: University of Pennsylvania Press, 2006). Both deal with English language records.

<sup>10</sup> Karel Davids, *The Rise and Decline of Dutch Technological Leadership: Technology, Economy, and Culture in the Netherlands, 1350–1800* (Leiden: Brill, 2008)

as using woolen yarn or linen thread to knit or make lace, or it may be as complex as building a wind driven saw mill to produce boards from logs. Both are technologies, yet the gears of a simple grist mill would be easier for a child to grasp and to reproduce in model form than it would be for the child to learn the technique of knitting. The uninitiated may think that the machine trumps the knitting needles, but in terms of the difficulties involved in transmitting and training, the knitting is far more complex.<sup>11</sup> In this work, skilled knowledge is synonymous with technical knowledge, and all such manual efforts are discussed as technologies without regard to apparent levels of difficulty or whether or not they involve engines, machines, and sophisticated or unsophisticated terminology. Just what machines were developed when serves as a better measure of the problems presented: the Romans had water driven grist mills but the knitting machine did not make its appearance until the early modern period.

The focus of this study centers on the city of New Amsterdam/New York while referencing London, Norwich, Amsterdam, and certain other cities on the continent such as Cologne and Emden, and it concerns the artisans who had their feet on the ground practicing crafts. The study emphasizes the individual, his or her skilled knowledge, and its kinship and guild control in the context of an urban existence. This work rarely mentions seafaring skills, only briefly addresses the Amerindian modification of weapons, discusses timber and mills with reference to a single ship, and illuminates only one agrarian technology, all in keeping with Karel David's approach. The study does examine the city itself as a complex system, a technology that was the product of a

---

<sup>11</sup> In Piaget's stages in a child's ability to grasp techniques, gears would be appropriate for the Stage II child of about four or five, while for both manual dexterity and complexity, knitting would be Stage III, appropriate for well above the age of seven. No training is necessary to put a set of gears together, only observation, while considerable training is required for knitting or lace making.

particular cultural world view. Within that urban technology resided the artisans whose quite ordinary lives framed their personal and public environments.

In discussing deep cultural differences between the English and the northern continental Europeans, there must be an understanding of what constitutes a culture. John Staudemier, speaking for the historians of technology, defined culture as “more than the mere aggregate of institutional or individual behavior patterns.” He went on to say that “culture is a coherent world view, a universe of discourse giving meaning to institutions, rituals, and networks, and making it possible for members of the culture to interpret reality in terms of a shared set of values and meaningful categories.”<sup>12</sup>

Peter Burke, speaking for early modern historians, defined culture as “the system of shared meanings, attitudes and values, and the symbolic forms (performances, artifacts) in which they are expressed or embodied.”<sup>13</sup> There are more similarities than differences in the two definitions of culture by Staudemier and Burke without regard to the time period under study or subfield specializations, and nuances of both are used here.

In this study the principal differences between two cultures in the North Atlantic, the English and the northern continental Europeans, are centered in their respective guild, craft, and kinship systems, partly as evidenced in the family. Particularly considered are the place of individuals in the family, the family rituals and networks, the extension of those networks into craft practice and institutions, and the place of the family and its related artisan institutions in the organization and functions of a city. The cultural differences in the northern continental European family were what the English called the monopoly within the monopoly, one of the reasons it was so difficult for them to access

---

<sup>12</sup> John Staudenmaier, *Technology's Storytellers*, (Cambridge, MA: MIT Press, 1985), 122.

<sup>13</sup> Peter Burke, *Popular Culture in Early Modern Europe* (London and New York: Harper and Row, 1978), xi.

and to acquire the skilled knowledge of the foreigners.

Aside from the issue of what is technology and what is a culture, there is the question of what constitutes technology transfer. A proposed answer to the question appeared in 2003 in the *Journal of Comparative Technology Transfer*, a new publication in the field. Bruce Seeley defined it as “the processes and consequences of moving technological ideas, skills, processes, hardware, and systems across a variety of boundaries.”<sup>14</sup> This definition, offered to the specialty readership of scholarly colleagues, covers the cumulative thinking of half a century of technology transfer study and discussion and opens the field to comparative studies. The definition carries the weight both of the field’s historiography and the field’s future as foreseen by the introduction of the new journal.<sup>15</sup>

When Seeley presented the historiography of the development of the field of technology transfer, he pointed out that the understanding of the concept has never been singular and that the various interpretations have changed during the past fifty years as the number of studies in the subject has increased exponentially.<sup>16</sup> The niche occupied by history is small, and the reverse is also a problem: the field of the history of technology has an equally small niche for the transfer historians.

Seeley’s flexible phrase “processes and consequences” may be modified to read “social processes and historical consequences,” permitting an examination of the social processes and historical consequences of “moving technological ideas, skills, processes,

---

<sup>14</sup> Bruce E. Seely, “Historical Patterns in the Scholarship of Technology Transfer,” *Comparative Technology Transfer and Society*, 1(1), 2003, 7-48.

<sup>15</sup> The *Journal of Comparative Technology Transfer* first appeared in 2003.

<sup>16</sup> Bruce Seeley’s essay covers the period from 1950 to 2000, emphasizing the explosion of interest that developed after the 1960s and the widely disparate range of disciplines involved, in the process providing the historiography of the topic.

hardware, and systems across a variety of boundaries.” The “social process” of moving “processes” becomes clear in an example. A skilled worker practicing a craft in a guild was involved in a technological process, and the social processes and historical consequences of transferring that craft production process from Europe to the Americas is a study of technology transfer, one of the ways the transfer of the guild in an urban setting is approached in this study.

Beyond containing processes, a guild is also part of a system. The guild system itself is not the same as the daily process of production in the shop by a guild member. Seeley allows for both processes and systems in his definition of technology transfer, permitting the social historian to have more interpretive flexibility than is possible by using the standard economist’s definition of technology transfer as the complex social process that moves innovative technology from the bench to the market. In the early modern period guild members practiced their regulated crafts on a bench in the front room of their homes and the market came to the door, making the economist’s definition awkward at best. The problem is complicated by stranger artisans in early modern London being prohibited to operate an open shop.

Seeley’s definition of technology transfer allows for the movement of ideas, such as more advanced and deadly weapons, and the skills to use and recreate them. The Amerindians in the Americas quickly learned how to adapt European tools and weapons to their style of war, indicating preferences for weapon size, shape and balance.<sup>17</sup> In the

---

<sup>17</sup> The word “Amerindian” is used in this dissertation because of the problems encountered when referencing the native born children of settlers and immigrants. It is based on one of the words used by the early modern Dutch (*Indianen* or *Wilden*) and it is usually the word of choice for historians of New Netherland and the Dutch Atlantic World. See the term used particularly in Postma and Enthoven, eds., *Riches from Atlantic Commerce*.

process they changed a standard European tool into a weapon, modifying it to later European advantage, a circumstance discussed in this study.

No matter what variety of likely definitions of technology transfer are “out there” for scholars in various fields to use, the question “What do *you* mean by technology transfer” must be answered by each historian independently while carefully presenting his or her understanding of the concept. For the purposes of the study presented here, technology transfer in early modern northern Europe and northern colonial North America in the Atlantic World is understood as the social process of the movement of skilled knowledge both geographically and culturally by specific people, and the historical consequences of that movement. Additionally, it is understood that geographic movement without cultural exchange is not a transfer, but cultural transfer always involves the issue of geography, even if it is as small a physical distance as between husband and wife.

During the decades in which economic historians and historians of technology struggled to develop rigid parameters for considering and evaluating both technology transfer and technology diffusion, they often used the terms “transfer” and “diffusion” interchangeably.<sup>18</sup> In modern times many economists limit the idea of transfer to the movement of a research discovery into the general public, an impractical usage in the early modern period because research facilities in industry were not introduced into manufacturing until the late nineteenth century. In the case of diffusion, some scholars give it a geographic direction without regard to differing cultures, as in the idea of a

---

<sup>18</sup> See the works of Warren Scoville, Carlo Cipolla, and David Landes as cited by Luu, *Immigrants*, 6-11 for multiple inconsistencies. Some of the problems stem from efforts to introduce scientific definitions and classifications into social history, others from the emphasis on economic history.

technology moving outward from a city, while economists think of technology diffusion as a market-driven process by which innovations are adopted and implemented.

The concept of a transfer implies that there is an active process, while the term diffusion suggests more passive movement.<sup>19</sup> A transfer of skilled knowledge is the true active movement of that ephemeral commodity from the possessor to one who desires it, but without the loss of the skill by the original owner. Diffusion suggests the movement of the products of the skill, not the skill itself, and it is more passive and based on consumer desires and appetites in the marketplace. Simple skills may diffuse through learning by incidental observation, but more complex knowledge systems require the active process of skills transfer through explicit instruction. Both processes can transform a culture. Clearly the English had an appetite for what the northern continental Europeans could produce and the products diffused to them, but the English were unable or unwilling to obtain the skills to manufacture what they desired, thus the technologies of production did not transfer culturally.

All too often discussions of the movement of technologies and their products treats all Western Europeans as part of the same culture, whether English or Walloon, Scottish or Dutch, French or Frisian. The perception of all Western Europeans as sharing the same fundamental cultural values derives from attitudes developed during and after colonization, shifting the early modern perception of “other” from “other Europeans” to “other than Europeans” during the centuries following early contact with first Africa and

---

<sup>19</sup> Rod Coombs, Paolo Saviotti, and Vivien Walsh, *Economics and Technological Change* (New Jersey: Rowman and Littlefield, 1987), 5-6. They discuss how innovations may diffuse slowly or transfer abruptly. For another discussion, see George Basalla, *The Evolution of Technology* (Cambridge: Cambridge University Press, 1988).

then the Americas.<sup>20</sup> This perception affects the work of both Lien Bich Luu and Karel Davids who chose to use the term diffusion in discussing the movement of technologies, but each discussed them largely from within a specific culture, the English in one case and the Dutch in the other.<sup>21</sup> The occasional movement of skills across differing Western European cultures sometimes introduces confusion in each study because it is a much more active and interactive process than diffusion.

Since transfer occurs between cultures and diffusion occurs within a culture, the understandings of the distinction between transfer and diffusion require defining the limits of cultures. That is, do men and women live in the same culture? If a group of people speak different languages and practice different occupations, are they in the same culture if they are all Anabaptists? In this study, technology transfer occurs, or fails to occur, between two European cultures. There is little treatment of technology diffusion because it always takes place within a culture, but product diffusion is mentioned. The discussion here emphasizes the differences between two groups of Europeans who were culturally distinct in significant features such as mobility, kinship systems, family customs, naming patterns, inheritance practices, literacy, views of women, language, craft practice and values, attitudes toward machines, and concepts of urban life. The cultural differences affected technology transfer in a strongly negative manner.

The difference between technology transfer and technology diffusion and some of the associated problems may be demonstrated by the modern example of the transfer of the telephone from the inventive bench to the practical market in the United States. The

---

<sup>20</sup> For a discussion related to differences in the perceptions of technologies, see Michael Adas, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca and London: Cornell University Press, 1989).

<sup>21</sup> Lien Bich Luu, *Immigrants and Industires*, and Karel Davids, *Rise and Decline*.

first individuals to regularly use the telephone were upper level business men in an urban setting, and the economic expectation for the spread of the technology was that it would diffuse throughout the business community within one city and also diffuse to businessmen in other cities. But unexpectedly the telephone transferred again. It jumped cultures and moved to the isolated rural housewife where diffusion was much more rapid than among businessmen.<sup>22</sup> It is difficult to see this shift as bench-to-market or diffusion outward to the countryside, or as market driven. It is easier to understand this example as transfer between two distinct cultures, the urban businessman and the rural farm wife, with rapid diffusion occurring within the culture that had been most geographically isolated from interaction with others.<sup>23</sup>

The path of a technology transfer may be unexpected and it may involve alterations. By the beginning of the twentieth century Australia was the single greatest user of telegraph technology, the direct consequence of the “tyranny of distance.”<sup>24</sup> The telephone transferred rapidly there later, but not along expected paths. The pattern of movement was from the United States to Canada and from Canada to Australia. Britain was out of the loop due to high costs and model inflexibility. In addition, the poles could not be made of wood due to its scarcity and vulnerability, thus the Australians obtained metal poles from the German company Siemens and Oppenheimer. The circumstances of

---

<sup>22</sup> Claude S. Fischer, *America Calling: A Social History of the Telephone to 1940*, (Berkeley: University of California Press) 1992.

<sup>23</sup> The need to make contact, to reach a doctor, or to socialize could be seen as the market driving the technology diffusion within the rural setting, but at a later date the perceived need had political value and the federal government set up a program to see that telephones reached rural Americans everywhere without regard to their financial assets or personal needs, a form of social engineering and hardly market driven.

<sup>24</sup> Ann Moyal, “The History of Telecommunication in Australia: Aspects of the Technological Experience, 1854-1930,” in Nathan Reingold and Marc Rothenberg, eds., *Scientific Colonialism: A Cross-Cultural Comparison*. Papers From a Conference at Melbourne, Australia, 25-30 May 1981 (Melbourne: Smithsonian Institution Press, 1981), 35-54.

a technology transfer geographically may include adjustments and components not seen in the original products, creating a new structure of technological expertise and connections that had not existed previously.

The definitions of culture by John Staudemier and Peter Burke mesh nicely with Seeley's definition of technology transfer. Seeley's definition as modified and expanded for this study now reads that technology transfer involves "the social processes and historical consequences of moving technological ideas, skills, processes, hardware, and systems across a variety of cultural boundaries." To this should be added that some efforts at technology transfer encounter insurmountable barriers, and that what interferes with technology transfer may be as significant as that which facilitates it.

The word "technology" must be used cautiously to describe devices and events in early modern Europe.<sup>25</sup> A sixteenth century European scholar might recognize the word "technology" as derivative of the Greek *techne*, but certainly such a scholar would balk at the phrase "science and technology" because of the inappropriate juxtaposition of one word from a Latin root with another word from a Greek root. Properly, such an early modern learned individual might argue, there should be two phrases combining words of the same origin; the Greek *episteme* and *techne*, or the Latin *scientia* and *ars*, phrases that make a careful class distinction between scholarly knowledge and manual skills.<sup>26</sup>

For the Greeks using the words *episteme* and *techne*, the daily laborer was a disadvantaged person in society, lower than a household slave. The Romans had a more

---

<sup>25</sup> The term technology and a broader sense of its meanings are relatively new and originated with Lewis Mumford. See *Technics and Civilization* (New York: Harcourt Brace and Co., 1934).

<sup>26</sup> For other points of view, see Lissa L. Roberts, Simon Shaffer, and Peter Dear, eds., *The Mindful Hand: Inquiry and Invention from the Late Renaissance to Early Industrialization* (Chicago: University of Chicago press, 2008) and Pam H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago, University of Chicago Press, 2004).

generous view of the highly skilled craftsman, but still thought the slave in a privileged household was better off than the potter in the market square.<sup>27</sup>

While today we may understand “science” as referring to the acquisition of knowledge and “technology” as the practical application of that knowledge, there was no such understanding in early modern Europe. There was, instead, a simple set of class distinctions. Those who merely thought were a class above those who did, with the exception of warfare and privileged activities such as the hunt. Manual labors and the crafts were the province of ordinary people, while thought belonged to the elite, the aristocrat or the gentry, the university educated individual or the person of means. In the early modern period there was a class distinction between the guild trained barber surgeon and the university trained physician, or the barely educated village priest who was the son of a blacksmith and the carefully schooled bishop who was the second son of a duke.

This dissertation is not concerned with aristocrats, gentry, or high culture, and therefore not concerned with science except when it affected technology. Occasionally the wealthy invested in a technology and it became necessary to follow the actions of aristocrats or gentry to trace the money used to accomplish a technology transfer. Otherwise, the focus here is on the ordinary person, the skilled manual laborer, and the merchant who began life apprenticed to a guild or who was otherwise educated in a craft and then moved up both in financial comfort and in social standing. Those merchants who came from among the artisans are referred to here as “risen merchants.”

---

<sup>27</sup> Blackburn, Robin. *The Making of New World Slavery: From the Baroque to the Modern, 1492-1800* (London and New York: Verso), 34-40.

There has been a shift toward research into the ordinary, the quotidian, the domestic, and the vernacular in early modern history. The result has been studies ranging from sailors on the seas to servants in the households, enriching the sense of history with gritty details from life as it was actually lived, not as debated by scholarly religious leaders or as negotiated by feuding monarchs. With some notable exceptions, the studies of guilds are impoverished in this regard, a problem noted in a conference on the subject held over a decade ago.<sup>28</sup> The bulk of the material on guilds provides broad overviews and generalizations that do not hold up to close inspection in more detailed studies, and often the most thorough work does not cover the greatest period of overseas expansion and the development of successful colonies around the globe. There have been occasional detailed studies that have provided particular insights, but they are rare.<sup>29</sup>

The narratives presented here concern those who were members of the artisan and merchant class in the urban environment, what in Dutch was called the *brede middenstand*, the broad middle class.<sup>30</sup> These are old Anglo-Saxon terms that some scholars have translated as equivalent to the English “middling sort,” which is not correct.<sup>31</sup> In England the “middling sort” was made up of small farmers, independent

---

<sup>28</sup> Alberto Guenzi, Paolo Massa, and Fausto Piola Caselli, eds., *Guilds, Markets, and Work Regulations in Italy, 16<sup>th</sup>-19<sup>th</sup> Centuries* (Aldershot, England and Brookfield, Vermont: Ashgate, 1998). See the introduction and the articles for a sense of the depth of the topics, their possibilities, and how little has been done in the past.

<sup>29</sup> Sylvia Thrupp, *The Merchant Class of Medieval London, 1300-1500* (Chicago: University of Chicago Press, 1948) remains the definitive work. Natalie Davis has several scholarly works that deal with craftspersons but they are for France, usually in the sixteenth century, and address the role of Roman Catholicism, all not a part of this study. J. Michael Montias focused on artisans in Delft and their economy, but not their families or their places beside fellow artisans. Simon Middleton, S. R. Epstein, and Van Eeghen are cited appropriately later.

<sup>30</sup> Both Jannie Venema and Simon Middleton use the term “middling sort” for artisans in New Netherland, which is possibly more appropriate for the community setting of Beverwijck but not appropriate for New Amsterdam, later New York City. See further in this introduction for full citations.

<sup>31</sup> Compare the descriptions of the early modern Dutch and English social structures as presented respectively by G. Groenhuis, *De Predikanten. De sociale positie van de Gereformeerde Predikanten in de Republiek der Verenigde voor +/- 1700*, (Groningen 1977) pp 44-76, and Keith Wrightson in his chapter

craftsmen, and minor tradesmen, only marginally propertied, not urban artisans or risen merchants.<sup>32</sup>

The *brede middenstand* in northern continental Europe extended from the lowest level of urban artisans to merchants and city functionaries. In England the same broad group was broken into separate classes, where the merchants were in one group, those who had reasonable land holdings in another, and artisan citizens in and around urban centers in yet another category separate from the mundane craft worker anywhere else. Though the *brede middenstand* were all within the same “class,” when that class is deconstructed, the members prove to be part of a social hierarchy that influenced the movement of skills not only outward to other cultures but also upward and downward within their own social structure.

The northern continental Europeans toyed briefly with the notion of skilled manual labor flowing into the higher level of scientific knowledge and combining with it. The illustration provided here shows sea captains, navigators, and ordinary sailors instructing merchants and scholars in the new knowledge of the seas and skies beyond Europe. This was the world upside down compared to earlier understandings of who possessed what knowledge.

---

“Degrees of people” in *English Society, 1580-1680*, (London: Unwin Hyman, 1982), 17-38. Wrightson also discusses the “chain of being.”

<sup>32</sup> Wrightson, *English Society*, 93. This does not agree with Daniel Defoe’s 1709 hierarchy of seven classes where he lists “the middle sort” as being between the “working trades who feel no want” and the rich “who live very plentifully.” As quoted in Dorothy George, *England in Transition* (Baltimore: Penguin Books, 1962 reprint), 20.



### Sailors Teaching Merchants and Scholars

In the chapter on the city in this study, an individual is mentioned whose expertise was the product of the brief period of the confluence of science and technology at Leiden University. At one time Leiden incorporated a school of engineering, but that early effort at combining the two areas of science and technology had faded by the middle of the seventeenth century, with practical manual knowledge and training pushed aside in favor

of the persistence of a stronger set of cultural values in the class concept regarding *scientia* and *ars*, preserving the distinction between science and the practical arts as a divide between aristocrats or gentry and the common craftsman.

Historians of science for the early modern period have encountered the class based behavioral distinctions between individuals in the areas of science and technology in the dispute between Beeckman and Descartes. The brilliant Isaac Beeckman who schooled Rene Descartes was disdained by him and by other aristocrats because Beeckman practiced a manual craft, candle-making, and advocated a hands-on approach to technology. The disdain was in spite of Isaac's knowledge that may have descended from a grandfather who had lived in Italy, a Greek grandmother, a father who was born in London, and a relative who was in colonial New Netherland. What mattered to Descartes was that Beeckman was not an aristocrat and that he labored manually.<sup>33</sup> Even Robert Boyle's amanuensis was not valued enough to be named, let alone credited or honored.<sup>34</sup>

The social standing, not class, of an individual in early modern northern European urban society may be better read from references to a technical occupation than by utilizing only sketchy court records about a personal incident or by emphasizing political titles. Certain of the skills practiced were viewed as more prestigious, yet it was truly the mastery of a skill that carried with it the respect of the community, a comfortable life, better chances for a happy marriage, good credit, merchant possibilities, and the opportunity to become a burgher. No craftsman could want more.

---

<sup>33</sup> Klaas van Berkel, *Isaac Beeckman en de mechanisering van het wereldbeeld* (Amsterdam: Rodopi, 1983).

<sup>34</sup> See Steven Shapin, "The Invisible Technician," *American Scientist* 77 (1989) 554-563. Aristocrats underwriting work in science or technology required at least one amanuensis to do the actual research work while the aristocrat took the credit.

Western Europe was not one uniform culture as it emerged from the medieval period into the era of global expansion. At home and abroad there was a continuing clear division between two cultures in Europe as demonstrated by the two principal language roots in use; the Romance languages and the Teutonic languages. The cultural differences within these separate language groups were further complicated by a north versus south set of distinctions within the same language, such as differences in kinship patterns or the social perceptions about beer and its ingredients.

The issue of differences in kinship patterns is addressed in the second chapter since it follows logically from the introductory discussion of crafts, guilds, and strangers. There is no more fundamental distinction between cultures than that of kinship, including the family, the family structures, and the family values, a reality made all the more apparent in modern times by the political, religious, and social struggle of those who are practicing Muslims. With the modern conundrums before our eyes, historians should be able to grasp major cultural distinctions in the early modern period based on the family and family values, especially when it tied so closely to craft practice.

Beyond language differences and kinship practices, there was a north versus south distinction in another ordinary and quite common example, the production of beer. In the case of the cultural use and understanding of beer, a Teutonic word and technology with northern European origins, the geography and climate of the northern areas of Europe compared to the more southern areas led to the development of two distinct types of beer, beer using *gruit* and beer using hops.<sup>35</sup> The idea of “beer” did not have the same

---

<sup>35</sup> Richard Yntema, "Allerhande bieren. Over biersoorten en hun distributie tussen de 14de en de 19de eeuw," [Beer Types and Their Distribution between the 14th and 19th centuries] in *Bier! Geschiedenis van een volksdrank* edited by R. E. Kistemaker and V. T. van Vilsteren, pp. 82-95. Amsterdam, De Bataafsche Leeuw, 1994. See also Robert Friedel, *A Culture of Improvement: Technology and the Western*

meaning throughout the Teutonic language geography because it was not locally the same. Within England the equivalent beverage was ale, not beer, and beer culture was late in coming.<sup>36</sup> The published discussions of the transfer of brewing technology involving the early modern period in Western Europe, such as the vast improvements in metallurgy allowing for huge brewing kettles and the development of brewing monopolies, has had to take into account the geographic, linguistic, and cultural understandings of the manufacture of beer and the place of beer in daily lives. Beer was consumed at every meal and by children as well as adults, a circumstance that was difficult for the English to comprehend and that affected their perception of continental beer drinkers.

A further linguistics problem is that the Romance languages of the early modern period are parsimonious with regard to craft terminology due to the low esteem held for manual work. Natural language attrition over time has reduced the number of words as well. The languages with Teutonic roots possess a vastly larger number and variety of terms for the free craftsman's knowledge and labors due to the huge population that was privileged to be part of the *brede middenstand* and the inherent respect held for the manual work of the artisan.

The English language used in the early modern period also had fewer craft terms than were used in the languages with a more immediate Teutonic root such as Dutch, Flemish, or German. This has presented a special problem when attempting to express crafts and craft knowledge in English. For example, in early modern Dutch *weet* meant to have knowledge, while *kunst* referred to the manual skill in practicing a craft. *Wetenschap* was knowledgeship and referred to the entire body of knowledge available to

---

*Millennium* (Cambridge, MA: MIT Press, 2007) and Judith M. Bennett, *Ale, Beer and Brewsters in England : Women's Work in a Changing World, 1300-1600* (New York: Oxford University Press, 1996).

<sup>36</sup> Luu, *Immigrants and Industries*, 259.

anyone in the Low Countries. *Wetenschap* and *kunstenarschap* meant to practice a craft with the knowledge of training or guild craftsmanship, indicating that the practitioner was part of an equally skilled body of practitioners, such as a group of university professors, a guild of barber-surgeons, or a large family of silversmiths. *Varen* meant to sail, a highly valued skill in northern Europe, a part of the world rife with waterways and tempestuous seas, quite different from the much warmer and more placid Mediterranean. *Varen well* meant to sail happily, the origin of “farewell.” Saying someone was *vaardig* meant someone was as good as a good sailor, such as *een vaardig cuijper*, meaning a very good cooper. *Vaardigheid* meant to have proficiency, that is, to sail with great skill. Thus, to have *vaardigheid* in a *wetenschap* or a *kunstenarschap* meant to practice the craft extremely well, as in, literally, to sail the knowledge or craftsmanship excellently, and therefore possess the wisdom of the craft.<sup>37</sup> Today in modern Dutch *wetenschap* is the word for science, excluding manual skills, and *kunst* refers explicitly to the work of artists. The meanings of the original words have changed as have the understandings carried with the words as they were used in early modern northern continental Europe.<sup>38</sup>

Notice the English word choices in the previous paragraph; knowledge, skill, wisdom, and craft. These are all words with Teutonic roots. Wherever possible the Teutonic language equivalents, roots, or words are used to more clearly express the craft meanings, and the word “technology” is avoided if knowledge or skill will do as well.

Terms related to social status acquired through excellence in a skill have evolved different meanings since the early modern period, such as *meester*. This became both “master” and “mister” in English, an awkward evolution that suggests craft or skill

---

<sup>37</sup> Sewell, Prisma, NNW

<sup>38</sup> See again Pamela Smith, *The Body of the Artisan*; Lissa Roberts et. al., *Mindful Hand*, also Delbourgo, *Brokered World*.

origins, possibly in conjunction with success in agriculture or farm development, as in *bouwmeester*, a word that once meant farm developer or plantation builder as found in New Netherland documents but in modern Dutch means architect. The English word “cunning” has a Teutonic origin as does the French word *connaitre*, both deriving from the same root as the Dutch word *kunst* meaning “craft.”

There are craft related disparaging terms as well, for example “boor” from the Dutch *boer* for farm laborer, “jerk” for the apprentice’s jerkin, and “slob” for the Dutch sailor’s baggy pants, *slobberin*. To have illicit relations with a woman was also connected to craft practice, as in to have knowledge of her, from which many vulgar craft related terms derive.<sup>39</sup>

For early modern Europe, the Romance versus Teutonic language problem and the south versus north complications have been avoided in this work by focusing on the small quadrant of technology transfer encompassing the United Provinces, Scandinavia, and northern Germany, with references to England as a separate culture.<sup>40</sup> This same quadrant of exchange in Europe had a counterpart in North America in the territory from Chesapeake Virginia to northern New England. The landscape for the technology transfers is largely coastal urban, involving skilled labor in a guild environment and the merchants financing the labor, or involving the guild outsiders called strangers who had moved from one city to another. In this study the Atlantic Ocean was both an inconvenience and a facilitator, less a barrier to technology transfer than a highway for

---

<sup>39</sup> Not all dictionaries agree on the vulgar term origins.

<sup>40</sup> The United Provinces are also called the Dutch Republic, the United Provinces, the United Republic, the northern Lowlands, or part of the Low Countries, expressions used interchangeably in this study.

movement, with few technological losses of any consequence occurring during its crossing.<sup>41</sup>

A technology may traverse or alter geography, impact the landscape, transfer across cultural boundaries, and encounter cultural barriers. Mobility is not culturally or environmentally neutral; geography, landscape, boundaries, and barriers affect mobility and are affected by that mobility. At issue are the consequences of relocating a technician who may contribute to the transfer of skills, as well as the place of the technician's labor, products, and by-products in the natural and manmade environment.<sup>42</sup>

For the early modern period, boundaries themselves are part of the historical discourse whether geographic, religious, or involving social class. National boundaries developed during this period, largely unmapped other than around cities until after the close of the Thirty Years War in 1648. Geographic physical barriers to movement were resolving themselves in the face of better forms of transportation and the economic motivations for trade and exploration. Religious boundaries were in a state of flux, and political organization and social boundaries were being challenged as well as being established, not only in Europe but also in the colonies.<sup>43</sup>

Aside from the historic upheavals that defined it, early modern Europe was otherwise an area of slow and careful movement, and physical movement was accomplished largely on foot, by ox, horse, or in some areas by boat.<sup>44</sup> Moving a printing

---

<sup>41</sup> One Dutch ship traveling from New Netherland to Holland went down off the coast of England with ore samples and their sources, setting back mining enterprises for more than two decades.

<sup>42</sup> David E. Nye, *Narratives and Spaces: Technology and the Construction of American Culture* (New York: Columbia University Press, 1997).

<sup>43</sup> For an overview of the historiography of crisis and stability and clarifications, see Theodore K. Rabb, *The Struggle for Stability in Early Modern Europe*, Oxford University Press, NY, 1975. Rabb's discussion of science, pp. 107-115, could be paralleled by a similar discussion of technology.

<sup>44</sup> The majority of physical movement for trade, pilgrimage, or other purposes was inland, not across large bodies of water. This had changed to a limited extent by the end of the early modern period.

press or moving the person who could build one took enormous effort, and a river or a city wall could prove the most problematic barriers to that effort.

Seeley uses the notion of “boundaries” regarding technology transfer, assuming that transfer will take place by crossing a boundary. The term “barrier” is sometimes more useful, especially to indicate when a technology does not successfully cross what others may see as a boundary but that actually emerges as a firm barrier.

Certain boundaries and barriers carefully demarked by early modern historians, such as guilds, gender, and the urban setting, are subject to new interpretations in the context of technology transfer. For example, according to Mitteraur and Sieder the guild was an institution that competed with the family, throwing up boundaries and barriers between one social structure and the other.<sup>45</sup> Is that claim valid for all parts of Europe, or was the guild an extension of the kinship system in some places, putting the control of secrets in the hands of real and fictive kin as much as in the hands of the guilds? If the barriers could be crossed, then they were not truly barriers, and possibly not even boundaries except in the figurative sense.

The period of time covered in this study ranges from after the 1585 fall of Antwerp in what is now Belgium to the consequences of the end of the reign of George I over Great Britain and colonial North America in 1727, years during which ideas of nationhood and political boundaries developed. Drawing lines on a map in 1648 at the end of the thirty years war constructed national distinctions across regions that were culturally the same. As individuals moved out into the Atlantic World in the same period, it is apparent that cultural distinctions endured where the political boundaries of the

---

<sup>45</sup> Michael Mitterauer and Reinhard Sieder, *The European Family: Patriarchy to Partnership from the Middle Ages to the Present* (Chicago: University of Chicago Press, 1982), 77, 79.

colonies were otherwise porous, weakly contested, or non-existent.<sup>46</sup> Formerly liberal policies toward newcomers to the colonies were altered under George II in the 1730s, resulting in severe restrictions on the movement and settlement of outsiders.

The date range from 1585 to the 1730s encompasses a period of the active dislocation of people in Europe that led to the establishment of the United Provinces, that initiated or enlarged stranger communities in many European cities, that contributed to the opening up of American colonies needing people, and that ended with the eventual hardening of the English position regarding stranger immigration to the North American colonies as Britain cemented its political and economic control over its distant subjects.

The sudden and severe expulsion of Protestants from Antwerp in 1585 was more than just the dislocation of people. It was the disruption of a way of life and a pattern of trade that had persisted for centuries. The movement from the southern lowlands to the unfamiliar territory to the north was a change of landscape immortalized in numerous nostalgic scenes of old Flanders as recalled by those who could never return.<sup>47</sup> The few who thought they could go home and that all would be well eventually, such as Emanuel van Meteren who had settled in London but who attempted to go back to Antwerp, were disabused of their hopes and thoroughly demoralized by the reality of the extreme measures instituted by the Spanish in large areas of Flanders.<sup>48</sup>

The dislocated persons covered the entire social spectrum. Lowly weavers shared the misery with the wealthy cloth merchants whom they had to follow, and highly skilled

---

<sup>46</sup> Cynthia van Zandt, "Negotiating Settlement: Colonialism, Cultural Exchange and Conflict in Early Colonial Atlantic North America, 1580-1660" (Ph. D. diss., University of Connecticut, 2000), and see April Lee Hatfield, *Atlantic Virginia: Intercolonial Relations in the Seventeenth Century* (Philadelphia: University of Pennsylvania Press, 2004).

<sup>47</sup> There was a considerable market for quaint Flanders landscapes such as those of Claes Janszen Visser, among others.

<sup>48</sup> J. L. Nevinson, "Emanuel van Meteren, 1535-1612," in *Proceedings of the Huguenot Society*, Vol. XIX, No. 4, (1956), 128-145.

labor sought out sponsors in distant cities such as London and Bremen where the artisans were willing to go as strangers. But other guild labor in Antwerp had depended to some extent on the Roman Catholic Church, and such laborers were locked into their crafts and craft equipment in small houses or rented spaces, reluctant to risk the loss of a livelihood over a matter of religion.<sup>49</sup>

Initially there was little hope of relocation for these particular skilled laborers, but that changed when the Spanish devastated large areas to the north. After the Dutch succeeded in holding the Spanish at bay, there was an opportunity for both skilled and unskilled labor to move north and help rebuild the damaged cities, raise defensive fortifications, join the increasingly successful Protestant military, or engage the new patterns of raw material supply and trade in the *moeder negotie*, the Baltic trade, while sailing from northern shores.<sup>50</sup>

The study presented here deals extensively with the children and grandchildren of the displaced from Antwerp in the south and other cities to the north where religious dissent or military disruption caused people to relocate, and it also involves the families in cities such as Bremen, Hoorn, or Dokkum that experienced growth and attracted the dislocated during the same period when the Hansa were in decline.

The familiarity of the act of relocation, made easier with tantalizing financial and property incentives, facilitated the movement of skilled labor out into the Atlantic World

---

<sup>49</sup> Guido Marnef, *Antwerp in the Age of Reformation: Underground Protestantism in a Commercial Metropolis, 1550-1577* (Baltimore, MD: Johns Hopkins University Press 1996).

<sup>50</sup> The Baltic trade has been considered the initiator of the economic rise of the Dutch Republic, thus referred to as the mother of trade, the *moeder negotie*. Jonathan Israel disagrees, arguing that the commercial rise of the Dutch Republic was based on the rich trades. Jonathan Israel, *The Dutch Republic: Its Rise, Greatness, and Fall 1477-1806* (Oxford: Clarendon Press, 1995), 1998 paperback edition. Israel also thinks that the fall of Antwerp resulted in a “diaspora of engineers, experts, and the technically skilled” (page 271) which would support his premise, but Karel Davids believes that technological innovations and their commercial advantages emerged in the north, favoring the *moeder negotie* position.

as easily as it had facilitated movement within Europe. Relocation associated with disruption was not that much different from relocation as a journeyman for the members of the *brede middenstand*. For northern continental Europeans, mobility was part of the life course and an essential component in mutual cultural recognition.<sup>51</sup>

When the Dutch first formed the United Provinces, the city of Amsterdam had not joined the rebellion. With the largest Dutch city closed to them, the refugees had to look elsewhere, usually successfully, but some were simply not welcome in certain cities, either in the low country areas or in England. Among the unwelcome were the marginally literate Walloons who spoke Walsch, a form of old French. In southern Flanders the majority of them tended to be the most ordinary of laborers, working the land, selling skeins of yarn or thread, and weaving when possible, occupations comparable to the majority of English labor across the channel. They were the cottagers to whom work was put out. Much prejudiced against and often discussed by the Dutch, the documentary references to them are at the level of “whatever are we going to do with them?”<sup>52</sup> In Canterbury they were severely segregated and forced in with the French whose language only resembled theirs. Much later many went from the continent to London from a variety of locations in the service of the Cockayne Project. They are largely outside the study presented here because they were marginally skilled and restricted in their movement, their cultural patterns differed from those of the northern continental Europeans, and if they went to colonial locations it was generally only as

---

<sup>51</sup> See the introduction to Delbourgo, et. al., *Brokered World*.

<sup>52</sup> The Dutch attitudes regarding the Walloons remain largely unexplored, though I encountered negative seventeenth century references to the refugees in documents in Alckmaar, Hoorn, Haarlem, and Amsterdam. Virginia turned them down for colonization and the West India Company was highly selective regarding their desire to go to New Netherland. For another point of view see Bertrand van Ruymbeke, “The Walloon and Huguenot Elements in New Netherland and Seventeenth Century New York: Identity, History and Memory,” in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America*, Volume IV of The Atlantic World series (Leiden and Boston: Brill, 2005).

farm workers because the Dutch West India Company prohibited weaving in its colonies to mollify the cloth guilds in the United Republic.<sup>53</sup>

Until very recently, most of the scholarly work on colonial continental northern Europeans in the area of New Netherland tended to dwell on the economics of the fur trade. The transcriptions, translations, and retranslations of the bulk of the documents relating to that trade were done in the New York State Library, outside the circles of academia but within a small group of active supporters of the efforts. Within the past two decades the emphasis on the fur trade has changed principally due to the scholarly work of people such as Joyce Goodfriend, Jaap Jacobs, and Janny Venema, but also due to a rise in the interest in the Dutch in the Atlantic World whether on the Gold Coast of Africa, in Brazil, Surinam, Curacao, or along the valleys of the Hudson and Delaware Rivers.

Aside from a dedicated interest in colonial Dutch foodways by Peter Rose, a few discussions of Dutch house construction, the study of Dutch farming practices and structures by David Cohen, David Narret's work regarding the persistence and gradual suppression of partitive (unigeniture) inheritance under English control, and a flurry of books on the Reformed Religion, the culture of the northern continental Europeans in New Netherland has not been thoroughly explored, especially with regard to kinship, the family, and household structure. David Cohen was the first to ask "How Dutch were the Dutch in New Netherland?" as he encountered individuals and farm families from a variety of supposedly separate ethnic origins intermingled in the colonial settlement of

---

<sup>53</sup> The prohibition against weaving is enlarged upon later in this work.

New Netherland.<sup>54</sup>

Certain researchers such as Stephen Bielinski have tried to pierce the rigid paradigm of the Dutchness of New Netherland by presenting material on the Lutherans, while others have touched briefly on the Walloon presence or addressed a German heritage. What they have all missed is that with the possible exception of certain Walloons and a few isolated other individuals, the overwhelming majority of the merchants, farmers, factors, and practitioners of crafts in New Netherland belonged to the same distinct northern European culture, without regard to their religion, craft, or country of origin. Past studies dwelling on the West India Company, the administrators, law, politics, religion, small communities, burghers, and a fur economy have all missed the underpinning of mutual cultural recognition among northern continental Europeans that is the basis of this study.

The problems in the studies of other Western Europeans in the colonies have been aggravated by historians in the United States being expected to present the histories of the English colonial experience when doing middle colony studies, introducing others more comparatively than as stand alone cultural entities. In that atmosphere, most of those who have taken on the task of New Netherland reporting have done so timidly, hesitating to make strong historical claims, choosing to understate historical data that questions the accepted paradigms rather than to risk confrontation with those who hold to accepted positions or who reference the enormous and well established body of scholarly works on the English experience in colonial America. The timid hesitancy has fostered the persistence of unexamined myths in early colonial American history, such as population

---

<sup>54</sup> David Steven Cohen, "How Dutch were the Dutch of New Netherland?" *New York History*, Vol. 62, No.1, January 1981, 43-60.

size, class distinctions, politics, economies, skills and products, deep cultural differences, family, gender, and race.

The West India Company settled New Netherland in 1624 after earlier trading by other Dutchmen and their companies had been prohibited in 1618. At the outset the colony occupied parts of what are now the states of Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and also extended to Curacao. The European population grew steadily with only one major setback, the Amerindian war of 1643. Trade focused on fur and timber initially and grew to include leather working and its export, but it was the dominance of the waters by Dutch ships along with the rise of the urban center on Manhattan Island that made the colony and its Atlantic World connections “the darling of the English.”

The English took possession of New Netherland in 1664 but under such liberal terms that it was more a displacement of the already much contested West India Company control than an Anglicization of the colony. In 1673 control returned to the West India Company and the United Republic, but in 1674 the English obtained the settlement area by treaty. The result after 1674 was a true effort by the English to make the area an extension of the cultural understandings held in England and in the Virginia, Maryland, the New England colonies, and elsewhere in the Atlantic World. In this study, 1674 is seen as the date that heralded English efforts at cultural change in what had been New Netherland.

Recently Dutch scholars have been successful at presenting their view of New Netherland as an extension of the complex culture of the early modern United Republic, rather than as a colony compared to the other colonies. Jaap Jacobs and Janny Venema

have done brilliant basic work with considerable detail, and their lengthy studies, available in English, indicate the vast quantities of documentary material on which scholars may draw.<sup>55</sup> Other scholars, also Dutch, of Dutch ancestry, or Dutch expatriates, have offered their studies in the context of a Dutch Atlantic World, such as Wim Klooster, Piet Emmer, Victor Enthoven, Henk den Heijer, and Johannes Postma. Other Europeans are entering the field, notably the German Claudia Schnurmann.

What is remarkable is that these studies have exposed just the tip of the iceberg, as if to say that the iceberg exists more than to say exactly what its nature, dimensions and meanings might be. Victor Enthoven and Martine Julia van Ittersum recently argued in the *Journal of Early Modern History* that there is still much to be done in the area of a Dutch Atlantic World, but most especially with regard to the movement of people, goods, and ideas; that is precisely the need that this study addresses.<sup>56</sup>

Bernard Bailyn has emphasized the notion of an Atlantic World that was distinctly English and thus an extension of the British Isles. For American colonial historians, this was at least a shift in perspective outward from the North American shores towards Europe, Africa, and the Caribbean. Since then scholars have realized that the combined influence of the Dutch and other northern Europeans in the Atlantic World was much larger than that of the English, whether in the trading of tobacco or the buying and selling of slaves. In addition, nearly three quarters of the Dutch and other northern

---

<sup>55</sup> Jaap Jacobs, *Een zegenrijk gewest: Nieuw-Nederland in de zeventiende eeuw* (A pleasant prospect: New Netherland in the seventeenth century) (Leiden: Prometheus-Bert Bakker, 1999). Janny Venema, *Beverwijck: A Dutch Village on the American Frontier, 1652-1664* (Albany, New York: SUNY at Albany Press, 2003).

<sup>56</sup> Victor Enthoven and Martine Julia van Ittersum, "The Mouse that Roars: Dutch Atlantic History," in *Journal of Early Modern History*, Volume 10, No. 3, (2006): 221-230.

European trade in the Atlantic World was by free merchants who were not connected to the various trading companies such as the West India Company.<sup>57</sup>

A serious problem in American colonial history is the obvious but often overlooked truth is that a technology cannot be transferred from a place that does not have that technology. Routinely the English colonists are given credit for possessing technologies that the early modern historian knows the English did not have among themselves in England.<sup>58</sup> That is not to say that all such technologies did not exist in England, but the experts from the continent of Europe who practiced rare or elite technologies as invited strangers in London could hardly have transferred those skills to rural English sheep farmers who intended to relocate to colonial New England from Suffolk for religious reasons.

Mobility was an ordinary part of the life of someone being trained in a skill in Europe, but for the early modern guild member in the late fifteenth century, the known world had widened through Atlantic Ocean travel to include Africa, then the Americas, and then the Far East, with the concomitant geographical and cultural movement of skilled knowledge outward from Europe by the means of merchants, factors, hired skilled workers, sailors, and others. There was a reverse movement of ideas and skills from the areas of contact into Europe, but there was also the exchange of ideas by those who were in motion in the Atlantic World or who settled on its fringes.

---

<sup>57</sup> Johannes Postma and Victor Enthoven, eds., *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585-1817* (Leyden and Boston: Brill, 2003), 1-4. See Wallerstein, *Modern World System II*, p. 46 who says "As of 1670 the Dutch owned three times the tonnage of the English, and more than the tonnage of England, France, Portugal, Spain, and the Germanies combined. The percentage of Dutch-built ships was even larger."

<sup>58</sup> Bernard Bailyn, *The New England Merchants in the Seventeenth Century* (Cambridge: Harvard University Press, 1955, 2<sup>nd</sup> printing 1979), is an example. He credits New England colonists with constructing saw mills, devices that were restricted in England, presenting the problem of how they acquired the knowledge to do so.

Physical mobility across geographies raises questions about such terms as migrant, emigrant, and immigrant. Movement was so much a part of the life process for many skilled workers that the terms are an ill fit. What can be said of a family that had relocated twice in Europe, went to Brazil, were forced to a new colonial location later, but whose children settled on both sides of the Atlantic World? These appear to be more like oceanic Gypsies than like immigrants. Their peripatetic movements put the lie to the generic usage of the term immigration, challenge the population data taken from ship's passenger lists, and reveal many more patterns to the geographical transfer of technology than has been anticipated. Certainly such movement demonstrates the need for the context of an Atlantic World, and suggests that words such as migrant, emigrant, and immigrant should be replaced by a term or terms more suggestive of the actual movement, such as frequent relocation or a high degree of mobility.

In technology transfer, the actions of a few obscure individuals may result in the most extreme historical consequences, yet the transferring individuals may be the tinkerers and opportunists of their time period, motivated by matters of convenience or minor financial gain, otherwise insignificant pawns in the larger game of history. The transfer may be unwitting as well as willful, but it is rarely the action of great men and grand schemes except where financing is concerned and where there is the hope of an excellent return. Such investors often failed to understand a new technology, and usually failed to provide for its functioning once it was transferred, a problem addressed here in the chapter on wind driven saw mills.

The efforts to obtain or control a technology may include legal methods such as patents or apprenticeship laws, social methods such as marriage into the family practicing

the desired skill, devious methods such as the theft of tools or plans, and financial efforts to lure practitioners away from their usual setting. In every case, to qualify as a technology transfer, the desire for the product of the skilled craft must move beyond merely being purchased or beyond hiring the means of production to actually accomplishing the possession of the skill and practicing it to personal advantage.

The history of technology disciplinary background literature for technology transfer is incredibly thin for the date range from 1585 to the 1730s other than in certain subfields such as military history and ship design, and the focus is usually within the European context, not out into the Atlantic World and rarely into the colonies. Since the founding of the journal for the history of technology, *Technology and Culture*, there have been only a handful of articles on the early modern period in Europe or the early colonial period in the Americas or transfers in the Atlantic World, one of them the recent work by Judith Carney on the slave transfer of the technology of rice-growing from Africa into the Carolinas.<sup>59</sup> There is much more both in journals and in book publications for the medieval period in Europe or for the early Republic in North America. Some studies suffer from antiquarianism, discussing a technology in tedious detail and without social context. Other work is tainted by fierce nationalism and is presented with an eye to who had what first.

David Nye claimed that the field of the history of technology had reached “a moment of synthesis” in 1998, Stephen H. Cutcliffe clarifying this claim by stating that “as scholars we have reached at least a general agreement on periodization, key topics,

---

<sup>59</sup> Judith A. Carney, *Black Rice: The African Origins of Rice Cultivation in the Americas* (Cambridge: Harvard University Press, 2001)

and the societal embeddedness of technology.”<sup>60</sup> The new textbook by Nye being reviewed by Cutliffe gave two chapters to the pre-industrial era, one on relations between Amerindians and Europeans in the seventeenth and eighteenth centuries, used here, and the other on American tools related to agriculture from 1680 to 1850.<sup>61</sup> In the decade since, the study of the Atlantic World has matured and, ever concerned with mobility, the field of technology transfer has become involved.

In the Netherlands the prominent historian Karel Davids has revolutionized early modern history by his work on the history of technology in the period. His body of work is extensive, ranging from the history of Dutch navigation to the development of mills, and he includes technology transfer, even a failed attempt to transfer steam operation to sugar mills in the more southerly Americas.<sup>62</sup> Though his approach is usually with a view to economics and the economic impact of technologies, his work has had a profound effect on this study.

The recent trends in the history of technology include not only a rise in technology transfer studies but also an emphasis on historical narrative and, separately, attention to technology as part of the landscape. This study combines all three, technology transfer, narrative, and landscape, hopefully to the benefit of each. Every chapter is a narrative about a specific aspect of early modern culture or technology transferring to or in a colonial landscape redolent of the early modern northern European landscape, both by geographical similarities of climate and by human design.

---

<sup>60</sup> Stephen H. Cutliffe in his review of the David Nye’s textbook *Major Problems in the History of American Technology* in *Technology and Culture*, Vol. 40 No. 3 (1999) 648-650.

<sup>61</sup> Ibid. Cutliffe mentions papers by Patrick Malone and Judith McGaw.

<sup>62</sup> Karel Davids has discussed technology transfer in at least five articles and referenced the topic in several of his books and book chapters. See on-line the publications of Prof. Dr. C. A. Davids, Vrije Universiteit Amsterdam.

The early modern mix of skilled knowledge, the great broth of ideas, was a cacophony of technological thought and action on the scale of the linguistic pot-pourri created by William Shakespeare, and it is just as difficult to sort out the origins of separate technologies as to establish the etymologies of all the words in a Shakespearean play. Even knowing the craft well and successfully identifying the individual practicing the craft leaves the problem of mobility, communication, and skills transfer. Technology transfer is completely dependent upon the mobility of an individual who can, and will, communicate that technology to someone else. In a ghettoized city, the skills of one area of the city may be blocked from moving into another area. If a guild craft cannot be practiced anywhere other than in the city of training, then there is no opportunity to transfer the knowledge of that skill to another location, sometimes a problem in England but not usually a problem on the continent where journeymen were expected to have trained in another city. Freedom of motion may permit a technology to transfer geographically, but a language barrier may make it difficult to communicate the skilled knowledge to another person, while xenophobia and efforts to prevent cultural contamination may also affect both mobility and communication.

The value placed on a technology by a receiving culture in early modern societies is also a problem. For example, the Steelyard in London was established to prevent the cultural contamination of the English by the visiting merchants, factors and resident strangers, who were originally the Hansa.<sup>63</sup> The Steelyard, originally called the Stylehof, was a sizeable gated enclosure with multiple buildings and a weigh house. The hand-

---

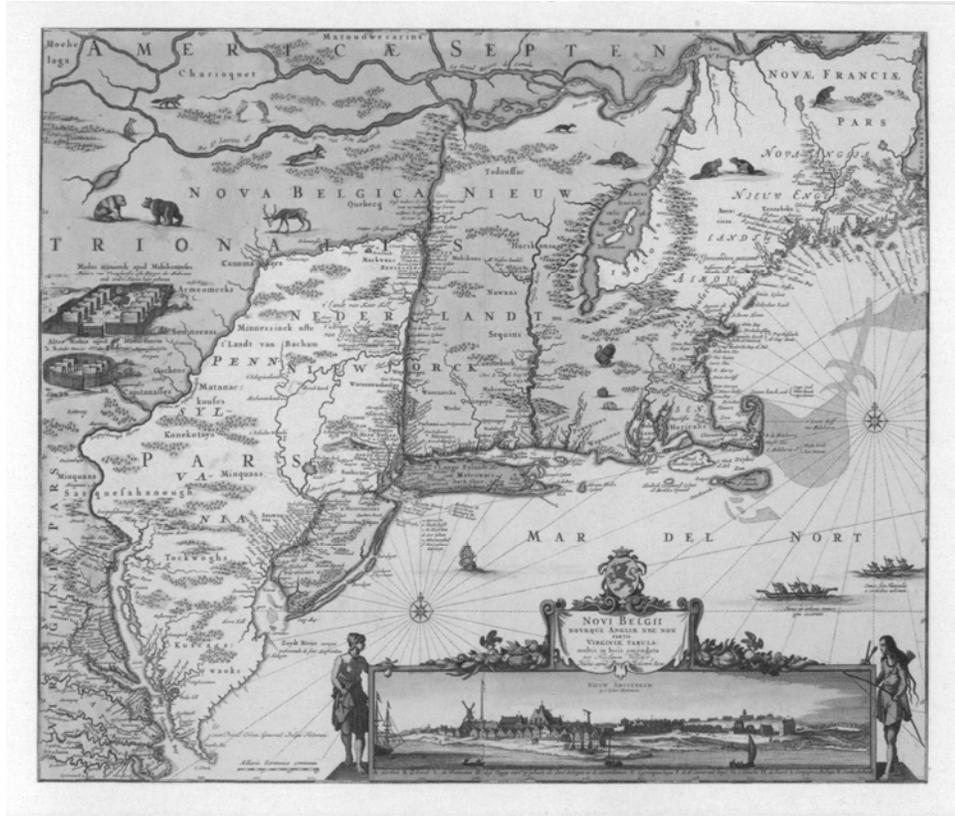
<sup>63</sup> During the reign of Mary Tudor the queen was concerned about Protestantism among stranger merchants in general but she was more concerned about the Hansa, the "Easterlings being bachelors." See TNA, PRO, SP Mary 1553-1558, p. 145. Holbein did a portrait of one Hansa merchant who was thirty-four years old, well above the usual age for marriage. Perhaps the Queen was misinformed.

held weighing balances used there by the strangers came to be called “steelyards” or “stilliards” by the English in reference to the place where they were used.<sup>64</sup> A set of good stilliards was not easily obtained by an Englishman, and even when the devices became more common a century later both in England and in the English colonies, they were held in such high regard among the English that they were itemized separately and sometimes received a valuation in household inventories equal to that of a full suit of clothes or a cow. The almost reverential respect and extraordinary value placed on this otherwise simple technology reflects the English cultural perception of the device as sophisticated and rare, while on the continent in the early modern period most common merchant and skilled labor households had a set of hand balances. Good stilliards were so highly valued among the English that a disparaging term derived from them. The expression “as bad as a soldier’s stilliards” referred both to poor quality and to inadequate imitation by those who were not knowledgeable about true stilliards and their correct use.<sup>65</sup>

---

<sup>64</sup> OED, 2<sup>nd</sup> Edition, 1989.

<sup>65</sup> OED, *ibid.*, 1650, “every soldier’s petty stillyards.”



Map of Colonial North America Showing New Amsterdam

English ironware found in many colonial American sites is used by archaeologists to identify the cultural origins of the site occupants, while Dutch tiles or glass beads may be called “trade items.” This picture is dramatically altered by the fact that merchants such as Louis de Geer became wealthy in Sweden not only by mining and selling iron to England, but also by buying up cheap lots of the inferior English ironware and shipping it to colonial locations where it sold for much higher prices than it would have in England or anywhere in continental Europe, a common practice still in place by 1688 when a New England merchant ordered ironware from Amsterdam.<sup>66</sup> The presumed origin of an artifact is further altered by the knowledge that Scandinavian, German, and Dutch contractors often built the houses and mills in Virginia, Maryland, and Delaware. The colonial historian cannot be certain regarding the cultural background of the owner of a house based on archaeological evidence alone, or the origin of the house carpenter, which is why following the paper trail, amassing data, and reconstituting the families have all proven to be the most effective methodological approaches.

It is not possible to discuss every one of the ubiquitous technologies that transferred from northern Europe to colonial North America in this study. In making choices, issues of technology scale and scope as well as skills varieties came into play. Certain traditional technologies, long the specialties of male scholars, have been avoided, such as ships and cannonry, not only because of the masculine taint but because the topic itself serves to overshadow the choice of emphasis of this work on narratives, cultures, transfers, and landscapes. Also, in some instances debates within the field of a specific technology or set of technologies for the early modern period have tended to take place

---

<sup>66</sup> GAA NA 5255, notary S. Van Sevenhoven, 13 September 1688. John Borland of Boston paid 1,034 guilders for 57 iron pots and kettles of unspecified origin, but to be transported via England.

on one side of the Atlantic or the other, such as weapons and their use in war in Europe, and the ways of war among the Amerindians in the colonies. Many of the arguments made independently of the other geography or culture would unravel when placed in the context of technology transfer. Such a study would be a stand-alone work in its own right and would eliminate too many other topics. On the other hand, certain discussions would be too small in scale or outside the scope of the time period or geographies discussed here.

This study is not about ships, steel, weapons, and war. It is a discussion of the ordinary, the commonplace, the day to day living out of lives in a specific cultural context without the singularities of events that introduced chaos except to mention them in passing as interruptions or disturbances in the daily routines of those who practiced crafts. The skills of these ordinary people transferred in a pattern that encompassed the shores of the Atlantic World, carrying ideas and crafts from northern continental Europe to the colonies, between the colonies, and sometimes back to places in Europe where the skills were desired but were not practiced by other cultures.

### Methodologies

The materials for the research in this study were documents, whether in original form, transcribed, translated, or abstracted from original sources. Two principal methodologies were employed; the collection and statistical analysis of data, and the reconstitution of families to establish the kinship and networking patterns as they related to crafts.

The work began with an emphasis on data collection and the development of a

large data base comprised of nearly seven thousand adult individuals. Difficulties in identifying specific skilled workers influenced the design of the data base, creating serendipitously a substantial result with enormous searching power, leading to an easier and more thorough reconstitution of family networks. This method of family and social network reconstitution within a particular group is referred to as a prosopography and it is particularly suitable for early time periods lacking biographies or complete life histories.<sup>67</sup>

The role of strangers, whether in London or elsewhere, became more apparent as the families were reconstituted, and the connections many settlers had with the wider world surfaced. The overall pattern of the movement of skilled knowledge affirmed that the English in New England, Maryland, and Virginia enjoyed a colonial back door with New Netherland through which European technical information could make its way to England without violating English law.

In addition to what should have been an easy path for the movement of skilled knowledge to England through the colonial back door, a closer study of specific crafts showed that, contrary to accepted wisdom, the English on Manhattan Island neither subsumed craft production nor intermarried freely with the settled northern continental European culture after the final takeover of New Netherland in 1674. There were numerous strong cultural differences that acted as barriers to either the transfer of the technologies or to the control of their practice in the urban setting of New Amsterdam/New York.

A careful count of New Netherland court cases addressing timber, timber

---

<sup>67</sup> See K. S. B. Keats-Rohan, *Prosopography: Approaches and Applications. A Handbook* (Coel Enterprises Ltd., 2007).

handling, and other raw materials in this study revealed that the importance of timber to the colony for trade was on a par with the importance of furs, and that leather working was primarily for export. A closer look at maps and related data regarding New Amsterdam exposed the population and actual size of the city as considerably larger and much more complex than scholars have guessed. The landscape altered with each new insight, revealing an urban center situated in a denuded surround bereft of trees, eerily similar to many an earlier view of continental European cities and their environs.

The presentation of the results of the methodologies is largely in narrative form, except for an occasional table, with attention to the landscape of early modern Europe, the Atlantic World, and the colonial shores from the Chesapeake Bay to New England. The theme of the landscape is inherent in the narrative presentation, sometimes explicit and at other times an undercurrent.

The research and the unanticipated results of this study extended into several often separate areas of history as a discipline and crossed into anthropology as well. Providing the complete historiography of each field or sub-field would have been a daunting and relatively pointless task, covering the study of the Atlantic World, early modern European history, American colonial history including New Netherland history, the history of technology, technology transfer, family history, and anthropology. Thus an additional methodology has been to carefully select and reference relevant works with an eye to what they place in question and what they offer future scholars who may be examining similar material or addressing related issues. Wherever possible works with broad overviews have been included to provide the background for what might be an unfamiliar scholarly position or an unfamiliar field.

## Documents

There is an extensive body of documentary materials available for the relocation of people and their skills from the United Republic to the New Netherland colony. By comparison, the documentary materials are more limited for New England, Maryland, and Virginia for the same early time period.<sup>68</sup> Historians have written multiple and voluminous histories for the early colonial English experience in North America based on only a few thousands of pages of material, while until recently American scholars have written little about New Netherland though there are tens of thousands of documents on both sides of the Atlantic.

One solid reason for the difference in historical focus is that most of the New Netherland material is in an old form of Dutch and historians waited for translations. Modern Dutch speakers have difficulty with the orthography, the spellings, the words no longer used, the altered meanings, and the phraseology in the older Dutch. This also explains why Dutch scholars have set the foundation for future scholarly work, and why American scholars should learn not only modern Dutch but also early Dutch orthography and old definitions to continue work involving the northern continental Europeans in the Atlantic World.

Another valid, though overworked, reason for the superficial treatment of the history of New Netherland is that the English were securely in control of the North American coastline after 1674 and for the slightly over one hundred years until the

---

<sup>68</sup> See Robert Charles Anderson's recent efforts to identify every individual in New England in the period of the Great Migration; *The Great Migration Begins: Immigrants to New England, 1620-1633*, New England Historic Genealogical Society, Boston, 1995. See also, *The Great Migration: Immigrants to New England, 1634-1635*, Robert Charles Anderson, George F. Sanborn, Jr., and Melinde Lutz Sanborn, New England Historic Genealogical Society, Boston, 1999. The population proved to be at least ten percent non-English, ten percent of questionable origins, and overall smaller in numbers than had been expected.

American Revolution. This ignores the half century that the Dutch and other northern continental Europeans were dominant in the North American colonial region and occupied the only true city of the early colonial period, New Amsterdam. In addition, emphasizing English political control minimizes or dismisses the English economic dependence upon the northern continental Europeans, it glosses over the reign of Dutch William and English Mary, and it assumes that the northern continental European cultures disappeared from the areas under English administration.

The Glorious Revolution and the reign of William and Mary in England have been addressed recently and put in a new light by Lisa Jardin's book "*Going Dutch*": *How England Plundered Holland's Glory*.<sup>69</sup> Jardin addresses England's love of all things Dutch that was counter balanced by strong feelings of envy and resentment, in the process offering clarification on historic events involving the Dutch that have been glossed over in the past.

A third reason for the neglect of New Netherland studies resides in the impression made on American school children by the large areas colored pink on the maps they saw hanging on their schoolroom walls in the middle of the twentieth century. The pink areas represented the extent of the British Empire. American historians saw themselves as first cousins to the British, or, as Steven Shapin put it as the twentieth century ended, "no doubt, we share practices with the early modern English because we are its [*sic*] particular cultural legatees."<sup>70</sup> This wishful connection, a form of envy regarding empire, began in the second half of the nineteenth century when those who chose to connect

---

<sup>69</sup> Linda Jardin, "*Going Dutch*": *How England Plundered Holland's Glory* (Great Britain: HarperCollins Publishers, printed in China, 2008).

<sup>70</sup> Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago and London: University of Chicago Press, 1994), xviii.

themselves to the English on the Mayflower or the aristocrats in Virginia actively derided the spawn of the Dutch. This was an extension of an already powerful hatred of the Dutch by the English so frequently expressed in the early modern period that Simon Schama has compared it to the vehemence with which the Germans spoke of the Jews.<sup>71</sup>

The Dutch language documents held by the New York State archives cover a wide range of topics. State funding only supports translating those documents that shed light on the political history of the area. In spite of that, the bulk of those documents have been translated and published, and what few remain are already transcribed and are in the process of being translated.<sup>72</sup>

The documents available in The Netherlands are extensive and vastly underutilized by American historians. Areas of the Americas are discussed relatively frequently, and for the time period from 1600 to 1675, for every reference to the East Indies, there is a reference to the West Indies.

The holdings in The Netherlands' archives, the *Gemeentearchieven*, are uneven throughout the country. Wars, fires, thefts, paper sales, and in some cases the belated realization of the value of the documents have had their effect on the holdings in cities such as Middleburg, Amsterdam, Rotterdam, and Hoorn. Guild materials are spotty in many places, though some cities such as Haarlem and Delft have more to offer. After World War II many of the Dutch documents were copied by the Church of Latter Day Saints where they are readily available but sometimes without the usual archival

---

<sup>71</sup> Simon Schama, *An Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age* (New York: Alfred A. Knopf, 1987).

<sup>72</sup> For a recent overview of what is available, see Charles T. Gehring, *A Survey of Manuscripts Relating to the History of New Netherland*, in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America* (Leiden and Boston: Brill 2005), 287-307.

references and citations. In addition, selected records were routinely abstracted by various scholars over the years.

Currently the *Gemeentearchieven* are undertaking the entry of all documents into massive regional databases in abstracted form and made available on the internet, an effort that has been completed successfully in Rotterdam. The entries are being done in the order of date, from most recent to oldest, to aid those needing to search public records for current information first. This is the reverse of the indexing pattern used in England, where the entries are from oldest dates and forward into time, leaving much of the eighteenth century still needing attention.

The documents in England mentioning technologies are rare compared to other documents, though there are references to strangers and their occupations in the Alien Returns and some early modern guild records may be found at the guild halls or the Guildhall Library. Official documents written in Dutch or other foreign languages during the early modern period in England, such as wills, were required to be translated when the issue came up, as in a probate court, and it is apparent that the Dutch orthography was a problem since the person translating may have done so decades after the document had been written. Weeks of research in the Public Records Office spread over a period of three separate journeys to England yielded far fewer materials than might be hoped regarding specific individuals in the Atlantic World, and there were better results simply using Scouloudi's collected stranger information from the Alien Returns and the Austin Friars Church records. What the English needed to know about skilled strangers in the

early modern period they recorded selectively, and that has been published, with recent excellent assessment by Lien Bich Luu.<sup>73</sup>

Every original document is open to interpretation by the modern reader, transcriber, and translator, which is always a problem. The past practices of historians in the last century and a half have had their effect on long-accepted translations, such as Victorian attitudes about sexual references, the perspective of the usually male historians of the past, the selection of topics to emphasize, and the choice of documents to translate. There are many misrepresentations and even glaring errors in some sources, such as the shelf-long multiple volume work by I. N. Phelps Stokes, *The Iconography of Manhattan Island*.<sup>74</sup>

This study avoids using the term “Dutch” to describe the people and the political colonial entity that comprised New Netherland. In reality, as observed by David Cohen, many of the “Dutch” were not originally from the United Republic. In colonial New Netherland there were Norwegians, Swedes, Walloons, Flemings, Frisians, Germans, Portugese, Africans, Caribs, Delawares, Danes, English, Irish, and Scots, among others. New Netherland documents were recorded in Dutch, Latin, French, and English on both sides of the Atlantic. The phrase used here instead is “northern continental Europeans.”

### Chapter Overviews

Each of the chapters in this study emphasizes a theme in technology and possible technology transfer while introducing the most fundamental aspects of the northern

---

<sup>73</sup> Luu relied heavily upon secondary sources in her work, presumably for just this reason. Roughly twenty percent of her references are to primary sources, and of those, not all allude to technologies or to the artisans who practiced them.

<sup>74</sup> I. N. Phelps Stokes, *Iconography of Manhattan Island, 1498-1909*. 6 vols. (New York: Robert H. Dodd, 1915-1928).

continental European culture so foreign to the English.

CHAPTER ONE: “Invited Strangers, Contracts, and Members of the Guild,” introduces the process of hiring a stranger through an Atlantic World go-between with the intention of having him or her work in another colonial culture. The chapter also examines the slow emergence of the colonial guild from the odd lot of artisans under contract to work in the New Netherland colonial setting on the Atlantic shores. European urban centers comparable to New Amsterdam/New York had both similar and differing percentages of workers in crafts, indicating some specialization determined by the colonial location and European desires. Guilds were slow to develop in New Netherland, in the process revealing the forces at work that created the need for the concept. The English continued to hire northern continental Europeans to meet their needs, a process that often involved their familiar experiences with, or as, strangers in England. Between the cultures of the English and those of northern continental Europe there were differences in skill levels, mobility in the Atlantic World, craft practice customs, labor and apprenticeship contracts, and other distinctions that acted as barriers to the transfer of technology.

CHAPTER TWO: “Marks of Difference in Kinship Styles and Family Customs,” describes the northern European kinship system that made it possible for them to control skilled knowledge and to function in foreign cities in spite of cultural differences with their host country and great geographical distances between members of the family network. The examples illuminate distinctions between two principal cultures in Europe, those of the northern continent and the English, in the process demonstrating that assumptions about the family derivative of the English model may not apply to certain

other Europeans, particularly artisans and risen merchants from specific areas. Skilled craftsmen followed life patterns as they were practiced and known in continental northern Europe, including the production of fictive kin within a craft grouping to further strengthen the ties that already existed in the style of kinship characteristic of their culture, Holland Custom. The unfamiliar kinship system, family structure, and related values were difficult for the English to understand or access, acting as another barrier to technology transfer.

CHAPTER THREE: “Skilled Wives, Sisters, and Daughters,” considers the role of women in the process of the development and control of an Atlantic World colonial city. The women held political power in ways that were neither the letter of the law nor part of the usual political processes, and certainly not characteristic of English women. The study provides examples and reasons for the power held by New Amsterdam skilled women over the urban administration and its labor decisions. This is a political perspective on the use of skilled knowledge, drawing on the sparse recent studies of the northern continental European early modern woman as well as the New Amsterdam contemporary documents. Technology transfer across very small geographies, such as from a wife to a new husband, should have become easier in the porous cultural boundaries of a distant colonial location, but the women prove to have selected sensibly among their own northern continental culture or selected from the overall established colonial culture in marrying and remarrying, even long after English occupation, rarely marrying any Englishman, let alone one who had newly arrived.

CHAPTER FOUR: “Saw Mills as an Example of Scale and Scope,” addresses timber processing technologies that were innovative in Europe at the same time that they

were transferring to the colonial setting. The documentary material demonstrates that the innovative larger saw mills were problems in certain instances on both sides of the Atlantic World. Though the wind driven saw mill technology transferred readily to the New Netherland colony, it did not persist because the rivers and streams of the colonial landscape decided which saw mill technology would proliferate in the new setting.

The English culture in England did not desire any “engines,” choosing to protect the hand sawyers. In contrast, the English colonists were able to access and acquire the knowledge necessary to produce the water-driven saw mills on a small scale through Scottish middlemen located in the area of what is now New Hampshire and Maine. English colonists continued to hire northern continental Europeans to produce larger saw mills through the end of the seventeenth century, some of them coming directly from Europe. Technologies related to mill building such as wheel making, carpentry, blacksmithing and axes are also discussed.

CHAPTER FIVE: “Cities and Citizens in the Landscape,” treats the early modern urban system broadly as a technology that was quickly in conflict with the concept of a fort-factory. The chapter focuses explicitly on the New Netherland weigh house and its functions as essential urban components while drawing on information from the previous chapters. Urban concepts transferred virtually intact from northern continental Europe to produce the single largest colonial city on the shores of North America, one that regularly weighed and collected tariffs on the goods passing through its port while artisans practiced their crafts along the city streets. The towns and cities of New Netherland were the envy of the English who opposed permitting Boston to become a city and who could not develop the urban centers they desired in Virginia or Maryland. Though unable to

city-build for the first half century in their own colonies, the later English were able to interact successfully with certain of the colonists in New Amsterdam/New York to accomplish necessary tasks in the urban infrastructure while cementing systems of control, but at an elite level.

The Conclusion summarizes the most significant findings, suggests where more research should be done, and asks additional questions. Because New Amsterdam/New York City existed without structured guilds for such a long time, a question is raised regarding innovation. With such a mix of people, a new colonial setting, and no guild control, the circumstances suggest the opportunity was there for innovation, and certain data indicates that it may have taken place, but the innovations may have been identified as European, not colonial, in origin, or they may have been culturally misattributed.

## CHAPTER ONE

### Invited Strangers, Contracts, and Members of the Guild

Late in 1662 the enterprising Atlantic World merchant Robert Loveland of New London, Connecticut in New England acted upon a scheme to obtain a skilled sugar baker. He arranged for the New Netherland merchant Sr. Balthasar de Hart to find and hire a capable worker in Amsterdam in Holland, and by the beginning of 1663 the sugar baker Hillebrant Kock was under contract to Loveland through the Dutch middleman de Hart with exceedingly generous terms: Kock would receive an advance of 100 guilders against his salary, transport to New Amsterdam from Amsterdam would be free of charge, and he would receive a first year salary of 450 guilders, the second year 550 guilders, and the third year 650 guilders, all to be paid in English money.<sup>75</sup> Kock declared himself well trained in the craft and signed on to serve Loveland as a foreman and master in the sugar bakery, the time of three years service to begin not when he arrived at New Amsterdam, but as soon as he “set foot on the land of New London.”<sup>76</sup>

The Englishman Robert Loveland had arranged to bring the knowledgeable Dutch sugar baker to the colonial English by way of an Atlantic World back door with the assistance of a middleman in New Netherland.<sup>77</sup> In Loveland’s native England the restrictions were severe regarding the employment of “strangers,” meaning those who were not members of the city guilds or who practiced a trade for which there was no

---

<sup>75</sup> GAA NA 1981, fol. 204, notary Jacob van Loosdrecht. In the abstract in NAC the date is given as February 24 1662, but in the original the month is crossed out so awkwardly that the date might be anytime from the 2<sup>nd</sup> of January to the 24<sup>th</sup> of March. The year was originally written as 1662 and overwritten to read 1663, a date change that may have been due to the difference between the English and Dutch calendar. “Loveland” is spelled “Lovelant” in the document. The exchange rate in New Netherland was roughly one pound for every ten guilders. That is based on the beaver pelt value of eight guilders among the Dutch, but nearly always less than a pound among the English.

<sup>76</sup> Ibid. Kock was hired as a *Mr. knecht*, either a master in the craft who would be employed by another or the head of the employees, or both.

<sup>77</sup> For middlemen in the Atlantic world, see Delbourgo, *Go-Betweens* as cited.

guild. Only a prominent or well-connected person could invite a stranger into any major English city without objection, and Loveland knew the restrictions well. His father had been a stranger in Norwich, a hosier at the time of the new knitting machine, and two of his brothers had resided in London. The family had become involved in the Atlantic World through the Spanish trade in the time of Charles I, moving people to Virginia, tobacco to England, and goods to Alicant in Spain.<sup>78</sup>

The hiring of Hillebrant Kock to run a sugar bakery was not the impetuous act of an idealistic new young colonial, but the sound decision of an experienced merchant who had been traveling the Atlantic World for almost twenty years. Born in Norwich in 1607 and out “beyond the seas” since at least 1645, Robert Loveland had been settled in New London, Connecticut since 1658, already moving wine lees and molasses into the town where a still and worms, possibly his own, had been established.<sup>79</sup> Loveland’s personal family experience with the problems of strangers, whether in Norwich or London, makes his informed, deliberate act of employing a Dutchman not only reasonable but also cleverly devious with respect to the laws governing the movement of skilled Dutch labor directly into England itself.

Sr. Balthasar de Hart, the merchant in New Amsterdam who arranged for the hiring of Hillebrant Kock from Amsterdam, was equally experienced. He had been involved with the tobacco trade between Virginia and New Netherland since at least 1659, sometimes traveling to Jamestown himself and called upon to act as a translator for

---

<sup>78</sup> Except as otherwise noted, all the personal information about Loveland comes from the website <http://homepages.rootsweb.ancestry.com/~djmurphy/loveland/ctrefs.htm>. The website uses Norwich wills, the records of the Norwich parishes St. Margaret, St. Lawrence, and St. Gregory, the Norwich Freeman’s Rolls, and Calkin’s *History of New London*. Robert’s father was in Norwich by 1580 and became a freeman of the city May 3, 1593 after paying the fee.

<sup>79</sup> Balthasar de Hart may have been involved in arranging for the Loveland still since he is on record as delivering still kettles to Reynier van der Coele in 1666. RNA vi 19; 19 June 1666, and see the Loveland website as noted.

individuals in both colonies.<sup>80</sup> Probably a long-time associate of Loveland's, de Hart continued to interact with him after the hiring of Kock, appearing as Loveland's attorney in New Amsterdam in an incident involving an English sea captain who had disappeared leaving debts unpaid, and de Hart repeatedly obtained goods for Loveland through at least 1664.<sup>81</sup>

Loveland and de Hart had the best of both cultural and trading worlds, English and Dutch. Loveland's experience in Norwich and London had placed him in regular contact with the Dutch merchants there through his family's trade with Virginia using Dutch-built ships and Dutch staff.<sup>82</sup> Sr. de Hart was bilingual and stepped into the Virginia and New Netherland trading scene just after "it was ordered by the King of Great Britain, that tobacco coming from Virginia should not be laden in any other, than the English bottoms."<sup>83</sup> Loveland bypassed English law by going to the Dutch to hire Kock while de Hart bypassed English law by using English-owned ships such as those of Robert Loveland.

---

<sup>80</sup> RNA iii 85, 2 Dec 1659; RNA iv 279 mentions Jamestown on 5 July 1663. RNA iv 261, 19 June 1663; RNA v 172, 17 Dec 1664

<sup>81</sup> RNA iv 294-295, 4 Sept 1663; RNA iv 298-299, 11 Sept 1663; RNA iv 317-318, 16 Oct 1663; and RNA iv 321, 23 Oct 1663 for the sea captain. Other goods for Loveland; RNA v 164-165, 19 Nov 1664 and RNA v 169, 6 Dec 1664. Loveland was deceased by 1668 and de Hart died a few years later. De Hart was among the first to be denized in New York City in 1665 after it had been occupied by the English. See Christoph 1664-1673 p. 101. See website for Loveland's death. De Hart died between 4 Jan. 1671/2 when he made his will and 23 Jan. when his executors presented it in court, RNA vi 357. De Hart had an affair or was engaged to Margariet Stuyvesant, Pieter Stuyvesant's sister. Margariet gave birth to a child in August following de Hart's death and baptized it with de Hart's brother's name Daniel in September of 1672. See BDC 103 where de Hart is listed as the father and the midwife is the only witness. Margariet sued de Hart's estate for 12,849 guilders 10 stuivers as referred to in a written declaration she submitted to the court, RNA vii 57; 13 Feb 1674. The executors countercharged theft and Margariet countercharged slander, no resolution entered in the court records. RNA vii 93, 95, 98, 105, 108, and 114.

<sup>82</sup> See Loveland website as noted.

<sup>83</sup> RNA iv, 298, 11 Sept 1663. The King's order had been made and received in the colonies between 17 Jan 1660 and 11 Sept 1663. See Claudia Schnurmann, *Riches from Atlantic Commerce*, for the opinion we share that the English Navigation Acts were largely ineffective.

The sugar baker Hillebrant Kock is just one example of a pattern of skills movement from continental northern Europeans into English hands that involved the colonies and the Atlantic World in general, privileging those English who could gain access to the knowledge of the continent cooperatively and cross-culturally through contacts in the colonial locations, or who could benefit, without cultural scruples, from the practice of continental artisans in the colonies. The pattern privileged those English who could, or would, learn the crafts from the non-English in the colonies and bring the skills back to England while avoiding the legal and political entanglements of direct craft skills transfer from northern continental Europe across the English Channel.

What Charles Wilson called “England’s Apprenticeship” for the early modern era could have been happening not just on that island but also in the English colonies where there was ready access to the skilled knowledge of the Dutch, Germans, and others through craftsmen and middlemen in New Netherland who had connections with the continent. The movement of artisans to Atlantic World colonies frequently involved those who had experience as strangers in a wide range of European cities, and the pattern utilized contracts as a means of hiring and maintaining skilled workers. In the process, the language of the guild and the expectation of guild structure and training persisted even in the absence of true guilds in the colonial locations.

The three features of the technology transfer pattern discussed here, strangers, contracts, and guilds, acted in concert and could have facilitated the transfer of northern continental European technology into English hands through the urban center of New Amsterdam/New York in the colonies. The process mirrored the legally difficult but more direct and long established path for continental skills movement and possible access

through strangers that was already in place in cities such as Norwich and London in England.

There were cultural and practical obstacles to the ready movement of skilled knowledge from the citizens of New Amsterdam/New York to the English. The concepts of the invited stranger, the contract terms, and the guild features as understood by the English in host cities such as London or Sandwich differed markedly from the understandings of the northern continental Europeans as strangers, while at the same time the unusual setting on the western shores of the Atlantic World with neither host nor stranger offered the unique opportunity for certain skilled knowledge to move into England through a colonial back door.

For the English colonists intending to settle in Virginia much earlier, there had been a plan to obtain skilled labor from northern continental Europeans for over half a century when Loveland hired Kock. The idea first emerged in the 1590s, the Englishman Richard Hakluyt suggesting that those preparing to settle in the North Atlantic should search for “men skilfull in burning of sope ashes, and in making of Pitch, and Tarre, and Rozen” and that such labor could be “fetched out of Prussia and Poland, which are thence to be had for small wages, being there in a maner of slaves.”<sup>84</sup> The first colonizing voyage to Virginia included eight Dutch, Germans, and Poles, and in London the underwriters claimed a year later that “we have already provided and sent thither skillful

---

<sup>84</sup> Hakluyt, Richard, “Inducements to the liking of the Voyage Intended towards Virginia,” E. G. R. Taylor, ed., *The Original Writings and Correspondence of the Two Richard Hakluyts* (London, 1935), Vol. II, 338. Inexpensive labor or slave labor was expected by the English based on the Spanish model.

workmen from forreine parts, which may teach and set ours in the way, whereby we may set many thousands a worke, in these such like services.”<sup>85</sup>

The English at Massachusetts also required the assistance of foreign experts, but their motives for colonial settlement, their experiences in Holland, and their rural origins in England produced two approaches that differed from the direct method utilized by the more cosmopolitan Virginians. In Virginia the colonists with aristocratic or merchant connections merely replicated the hiring of strangers as practiced in England’s cities while assuming that the concomitant English laws did not apply to their adventuring company or in their colonial location. By contrast, most of the early New Englanders gave preference to any Englishman who might have had technical exposure on the continent as the principal choice in obtaining the skilled labor. In 1629 the Massachusetts Bay Company’s first letter of instructions to Endicott and his council stated that they were sending Thomas Graves to accomplish skilled tasks because “he hath bin a Travillor in divers foreaigne parts to gain his experience.”<sup>86</sup>

The second option for the settlers in New England was to do the hiring of outsiders or their products on the sly, as they did when they arranged to obtain hardy, productive Frisian cattle.<sup>87</sup> Through the connections they had with merchants, merchant factors, sea captains and others working on ships, they bypassed their own countrymen in England by bringing the cattle directly from Friesland in the 1630s. It is not surprising that the early New Englanders, who had experienced English law through religious

---

<sup>85</sup> For the eight, see Edward Arber and A. G. Bradley, eds., *Travels and Works of Captain John Smith, President of Virginia, and Admiral of New England, 1580-1631* (Edinburgh, 1910) II, 446. For skillful workmen from foreign parts, see Alexander Brown, ed., introductory summary titled “New Britain, 1608,” in *The Genesis of the United States* (Boston, 1890), I, 268.

<sup>86</sup> For this incident and several others, see *Transactions and Collections, American Antiquarian Society*, Vol. III, pp 85, 86, 91, and 100

<sup>87</sup> Personal communication from the Hoorn archivist Piet Boon regarding the research results of Wilma Gysberts.

persecution, avoided highly visible interactions with the Dutch in either New Netherland or in the United Provinces and publicly gave the appearance of abiding by English law regarding the employment of strangers or the accessing of non-English goods.

Hakluyt's idea that colonial labor could be had cheaply by employing those who already lived in the manner of slaves became possible only for unskilled labor. The policy was readily apparent in Virginia regarding indentured servants and Afro-American slaves as Kathleen Brown has artfully described in detail.<sup>88</sup> Though the New Englanders did not utilize slaves to the extent of the Virginians, they did take on indentured servants and they mistreated cheap unskilled labor when it could be found, a pattern that emerged more distinctly with the rise of larger communities and cities.

One example of what was already in practice in New England was the case of the Amerindian Thomas Senequam, age 24, born at Boston, who was called before the New York court in 1665 in an incident involving missing property. Thomas was an indentured servant to a man in Massachusetts who beat him and sold his service for seven years to William Newman for forty pounds. Not informed of being sold and apparently having no cultural reference to the concept of indentured servitude, Thomas was lured away by Newman with the promise that he would be trained to tinker, that is, to mend pots and pans, and that he would receive food and clothes "for a long time" and travel to Connecticut. For the trip out of Massachusetts, Thomas was disguised by his new master in English clothes and a wig, and according to Thomas it was the intention of William Newman to slip him into Hartford, Connecticut passing him off as a European. In the meantime he was brought to New York where the new master used him in thievery. In

---

<sup>88</sup> Kathleen M. Brown, *Good Wives, Nasty Wenches, and Anxious Patriarchs: Gender, Race, and Power in Colonial Virginia*, Univ. of North Carolina Press, Chapel Hill and London, 1996.

court William Newman tried to lay all the blame on the Amerindian and claimed to have purchased him for life. The court ruled that there was no proof that Newman had purchased him, giving William three months to obtain the original bill of sale regarding Thomas.<sup>89</sup>

Both the aristocratic English in Virginia and the Puritans in New England took advantage of unskilled labor wherever they could find it, an extension of practices in England that were worsened in the colonial setting by the availability of Amerindians, Africans, and recently-arrived indentured servants. Skilled labor was another matter, and the English of the colonies quickly learned that the coveted specialties of alien artisans were just as expensive through the colonial middlemen of New Netherland as they were in Norwich or London.

Occasionally the foreign labor needed or desired in an English colony was obtained for highly personal reasons by local continental Europeans, without the intent to transmit skills to others. The Dutch widow Catharina Varlet was in Amsterdam in 1651 when she hired a journeyman tailor from Turnout in Flanders, Hendrick de Groot, to serve her son Joris Severijnszen Hacke on the “vast coast of Ackemacke” in Virginia.<sup>90</sup> Joris Hacke had been an apothecary and tobacco merchant in the English colony for some years, and the Hacke family had an extensive trading network in the Atlantic World that included relatives living in New Netherland, Brazil, and Curacao.<sup>91</sup>

---

<sup>89</sup> RNA v 203-206, 209-210; 25th to 31st March 1665. First section unindexed.

<sup>90</sup> GAA NA 2420c, fol. 151, notary Pieter van Toll, 9 September 1651, tailor Hendrick de Groot.

<sup>91</sup> BDC 32 Joris, also called Georgius or Gregorius, baptismal witness New Amsterdam 1 September 1652. His wife was the sister of Augustine Herrman’s wife. Anna Hacke was married to Matthys Becx and they witnessed for a child baptized in Brazil in November of 1638; Geertruydt Hacke was married to Caspar van Heussen and was also in Brazil to witness in November of 1641; Nicolaes Hacke and Wilhelmina Hacke were in Curacao as baptismal witnesses in 1659; there were also entries for a Jacques Hacke, Maria Hacke, and Gerret Hacke as baptismal witnesses in Brazil from 1638-1641. Matthys Becx married next Leonora Grevenraet who had family in New Netherland and at places as distant as Egypt. Becx became the director

The terms of the Hacke contract for the tailor de Groot were far less generous than those for the sugar baker Hillebrant Kock. The passage was free but the service was for four years and the pay was 80 guilders for the first year, 90 guilders for the second, 100 guilders for the third, and 130 guilders for the final year. Though less well paid than Kock, de Groot's labor at tailoring for Joris Hacke in Virginia was certainly easier than the labor of the indentured servants among the English around him. The terms of the contract and the youth of the hired man suggest he was intended to do an uncomplicated personal service for Hacke and his friends, relatives, and colleagues, producing *au courant* clothing styles for the residents of an English colony that was even more out-of-touch with regard to continental fashion than the average Englishman in Cromwell's England. No wonder that the Dutch were the darlings of the English in the colonies.

The usual length of time for a skilled worker's contracted service as arranged in the Dutch Republic but intended to be performed in remote locations other than the East Indies was three or four years.<sup>92</sup> Barent Reyndertszen, a gun maker, signed up in Amsterdam to serve the smith Remmert Janszen in New Netherland for three years, with free passage, housing, and a salary of 220 guilders a year to be paid in beavers.<sup>93</sup> Pieter Bronck, an entrepreneur in the Dutch colony, hired Jan Gerritszen in Amsterdam as a smith to work for him either at his place on the Hudson River "or at a substitute place" for four years, with free passage, room, board, and a salary of 16 guilders a month.<sup>94</sup> In

---

at Curacao. For interactions with the English, see April Lee Hatfield, *Atlantic Virginia: Intercolonial Relations in the Seventeenth Century* (Philadelphia: University of Pennsylvania Press, 2004).

<sup>92</sup> Maidservants were occasionally under contract for five years, though actual service was usually much shorter as in the case of Clara Matthys who married after only three months, her new husband buying out the balance of the contract for 100 guilders. Jaap Jacobs, *Een zegenrijk gewest*, 94. Contracts for the East Indies involved very long outward and return voyages that effectively lengthened the term of service.

<sup>93</sup> GAA NA 1801, fol. 220, notary C. van Vliet, April 23 1654.

<sup>94</sup> GAA NA 2105, fol. 109, notary Jacob Cocq, April 3 1649.

this last case, Pieter Bronck could rent the man out to another person at any location, including to an Englishman in the English colonies.

The policy of renting out a worker was common practice and extended to all residents in New Netherland, even to slaves. In 1655 Jan Corneliszen Clyn put his “Negro” out for sixteen months of service to a Walloon on Long Island with terms similar to those of an apprentice, the worker to receive free board and drink, maintenance, a first quality suit, hat, shoes, stockings, and 4 shirts.<sup>95</sup> Such generous terms suggest that the man possessed a desirable skill that he had acquired elsewhere, such as working on a farm in Brazil or raising tobacco in Virginia.

At the end of the three years of Hillebrant Kock’s apprenticeship, Robert Loveland could have relocated his well-trained sugar bakery crew to England, but he chose to remain in New England. The young colonials whom Kock had been training in the craft in New London could have gone back to their homeland and practiced a rare and profitable skill in any English town, and perhaps some of them did. Even the Dutchman Hillebrant Kock could have traveled to England if he applied to become an English citizen in the colony. The tailor de Groot could have obtained English citizenship in Virginia and used it to enter Bristol, Dover, or London to practice his tailoring skills and to pass his knowledge along to English apprentices.

Obtaining citizenship in the Atlantic World had become surprisingly easy. After March 13, 1657/8 when the English colonies passed from company control to the control of the crown, standard laws regarding denization were instituted for Virginia, Maryland, Connecticut, and Massachusetts, and numbers of foreigners chose to become citizens

---

<sup>95</sup> RNA i 338-339, 16 August 1655. Since this occurred after the fall of Brazil, the “Negro” may have been a slave brought to New Netherland with the other refugees.

with all privileges except the holding of public office and related administrative positions.<sup>96</sup> This may have been an added attraction for northern continental Europeans to enter into contracts that took them to English colonies.

The colonial English common practice of hiring experienced workers with connections to New Netherland or the United Republic was obvious on the western shores of the Atlantic World where it was highly visible and productive, but definitely not political. Even under circumstances of extreme political stress, such as disputes concerning colonial boundaries, the dependence of the English on foreign labor was the underlying true current of events while superficial political negotiations took place. Augustine Herrmans set out on a journey to Maryland to settle the limits of the boundaries between that colony and New Netherland, and as he passed through Delaware into Maryland he noted that a Dutch carpenter, Pieter Cornelisz, had been hired to build a house there.<sup>97</sup> Augustine's long harangue over boundaries days later with the Maryland administrators using maps and ancient records was of far less consequence to the colonial success of the English than the presence of skilled carpenters who could make the settlements of Delaware and Maryland realizable.

In the Atlantic World, the goods produced in the rich trades of Europe such as sugar, tobacco, silks, jewelry, or fine inlays have been presumed to be less significant to colonial consumers, though neither the personal tailor in Virginia nor the sugar baker in Connecticut supports that assumption. The Dutch colonial merchants at the top of the

---

<sup>96</sup> The foreigner was required to reside in the colony for four years prior to the denization. Though colonial denizations were intended to be uniform, the papers in one location were not necessarily acceptable in another, depending on the individual involved and just who signed what document or letter.

<sup>97</sup> Charles T. Gehring, trans. and ed., *Delaware Papers: Dutch Period, 1648-1664*. *New York Historical Manuscripts Series* (Baltimore: Genealogical Publishing Co., Inc., 1981), Augustine Herrman's Journal of the Dutch Embassy to Maryland in October of 1660, document 18:96, pages 211-222 inclusive and see footnotes pages 354-355. Pieter Cornelisz Baeck had been building houses in the Delaware and Maryland area from at least March of 1651, NY Hist Mss Dutch, 3:223.

enormous middle class of the Low Countries, the *brede middenstand*, did well by loading their ships with a variety of the trade goods in the colonies and sending the furs, sugar, tobacco, dyewood and indigo to parts of Europe. But compared to the merchants in the rich trades, how well were the average craftsmen in the same broad middle class doing on both sides of the Atlantic?

Were the craft practitioners as successful or numerous in skilled occupations in the Atlantic World, or were there differences between them that affected their mobility and skills transfer? Were they equally well motivated to teach their skills to apprentices or to contract out to provide services in unexpected locations? Most significantly, even if the English desired the skilled knowledge possessed by northern continental Europeans, were they limited to hiring it, and if so, then why? Which skill sets were more likely to be transferred from one culture to another on each side of the Atlantic, and what cultural barriers prevented other skills transfer between the northern continental Europeans and the English?

The answers to these questions lie in making specific comparisons between sites in Europe and in the Americas. The relative numbers of craftsmen in a trade as a percentage of the total population of skilled workers in an early modern urban center provides insight into the craft dominance and craft range. One reason for this methodological approach is that in the seventeenth century there was normally a great deal of mobility between cities in continental Europe, even after a craftsman had settled down and produced a family. The colonial locations displayed even more mobility as craftsmen signed on for short terms of work on distant shores. The constant turnover for so many workers makes it difficult to trace individuals and to make sweeping statements

regarding the crafts practiced based on a handful of collected individual lives.<sup>98</sup> Producing percentages of craft practitioners from the known occupations based on the assumption of universal craft mobility for an urban center permits the evaluation of the craft output in separate urban locations by comparing those percentages.

The existence of large numbers of documentary sources on both sides of the Atlantic allows the production of comparative percentage tables with relative ease. The choice made for such percentages in New Netherland combines the northern town of Beverwijck on the upper Hudson River, the city of New Amsterdam, and the general New Netherland population, expressed as the skills population of New Netherland but focused in New Amsterdam/New York where most of the artisans practiced their crafts.<sup>99</sup> These combined figures are compared to the occupational percentages for the Frisian city of Dokkum and its outlying towns in the United Republic. Then the figures are compared to the stranger population associated with the Dutch Church at Austin Friars in London.

In each of these situations, New Amsterdam/New York, Dokkum, and the stranger population affiliated with Austin Friars Church in London, there was a high degree of movement in and out of the urban setting while an individual was apparently resident there. A settler who appeared to be a resident in Beverwijck might also have a house and a burgher right in New Amsterdam, while a resident of New Amstel on the Delaware may be in the New Amsterdam records with mention of his craft. The Dokkum records also include transients or residents from Hamburg, Nijkerk, Haarlem, or Elborg and they include residents of outlying areas and towns such as Westergeest and Dantumawolde.

---

<sup>98</sup> This is one limitation of the prosopographical methodology and analysis.

<sup>99</sup> These percentages are from a personal data base that includes nearly seven thousand adults associated with New Netherland.

The common factor for all the Austin Friars Church craftsmen in London was their presence in the church records and their location in England, though many of them also traveled back and forth across the channel to the Low Countries, France, or to Emden in Germany. The Austin Friars data, though of a smaller population, represents special circumstances that allow for analysis and comparison by sampling a population in regular contact with the English as were the New Netherland colonists in contact with the English colonists.

One major problem encountered in planning a comparative study of skilled craftsmen and their significance in the New Netherland colony was finding a United Republic city that was similar to New Amsterdam, one where the people came and went, where a heavy military presence was necessary, where there was both expansion due to success and contraction due to failure, with many administrators and an overarching entity similar to the West India Company, a place that practiced a wide range of crafts, had ethnic diversity, ready access to the sea, considerable shipping, a similar population size at some point in time, and good records. The search for such a city led to Dokkum, and the records there are enlightening regarding the relative numbers of persons practicing specific crafts.<sup>100</sup>

The population of Dokkum fluctuated with events, surging during the Thirty Years War as soldiers and sailors, many of them Germans, poured into the city that was an Admiralty center. The same happened in New Netherland as the colony faced hostile

---

<sup>100</sup> Delft has been studied for its artisans but it was unlike New Amsterdam/New York in significant features, especially population size, and Graft has been used comparatively but inappropriately since it was a recent polder town. See Montias as cited and Arie Theodore van Deursen, both the English and Dutch versions which differ somewhat, *Plain lives in a golden age: popular culture, religion, and society in seventeenth-century Holland*, translated by Maarten Ultee (Cambridge University Press, New York), and *Een Dorp in de Polder: Graft in de Seventiende Eeuw*. (Amsterdam: Uitgeverij Bert Bakker).

Amerindians and threats from the English. The principal occupations in Dokkum between 1597 and the 1650s revolved around the needs of the Admiralty and its ships but included trading in herring, timber, and cloth, and the city had an active commercial exchange with an agricultural surround that included farm products, itinerant fishing, dairy cattle, and the battle-preferred Frisian horse. The ratio of urban to non-urban was roughly 1.7 non-agricultural households for each Frisian farm, a close approximation to the situation in New Netherland.<sup>101</sup>

There were two major differences between Dokkum and New Amsterdam/New York. One was the trade in furs, though it may be necessary to look more carefully at Dokkum's raw material imports since it was a timber trade city and furs from the same source areas usually accompanied the bulk importing of wood. The second difference was that the manufacture and trade in cloth allowed in Dokkum was not permitted in New Netherland except for goods imported from *Patria*. This restriction is not in the original charter of the West India Company and first appears in the 1623 instructions to the colonial supervisors, also appearing the same year in the agreement between the West India Company and the chief participants where it clearly states in paragraph XXIX that "The colonists shall not be permitted to make any woolen, linen, or cotton cloth, nor to weave any other stuffs there, on pain of being banished and peremptorily punished as oath breakers"<sup>102</sup>

---

<sup>101</sup> Meindert Schoor, *Geschiedenis van Dokkum, hart van de noordelijk Oostergo* Dokkum: Stichting Historia Doccumensis, 2004. See also Willem Frijhoff and Marijke Spies, *Dutch Culture in a European Perspective* (Palgrave Macmillan, 2006) and Jonathan Israel, *The Dutch Republic: Its Rise, Greatness, and Fall, 1477-1806* (Clarendon Press, Oxford, UK, 1995), 619-630.

<sup>102</sup> See VRBM, 152-153, prohibition in both Dutch and English, and see Huntington Documents for the more superficial prohibition.

There were two reasons why this restriction on cloth production in the New Netherland colony was an afterthought, both reasons due to the projectors encountering realities on the ground as colonization became imminent or a reality. First, many of the earliest settlers had a cloth industry background, particularly the Walloons, and second, the English of New England were already in competition by raising sheep, producing wool and weaving it. The trade with the Amerindians was an outlet for Dutch cloth and for English cloth purchased by the Dutch in *Patria* for trade purposes, and the restriction on weaving suggests that from time to time there may have been other prohibitions for which we do not have the records, such as the production of iron axe heads.<sup>103</sup>

Though there was no cloth manufacture in New Netherland, the trade in furs there could be considered an economic substitute for the role of the cloth trade in Dokkum. The furs had to be sorted, cleaned, picked free of long hairs, trimmed, packed, and shipped, and there were people who spent their productive years in the colony at those tasks, just as Dokkum cloth workers sorted, trimmed, fulled, sheared, and packed cloth for transport. Later when the English acquired New Netherland in 1664 the cloth weaving, fulling and other related industries were allowed to the limited extent that it was permitted by the English in the other colonies.

Dokkum's marriage records are particularly useful compared to those in many other United Republic locations because they were compiled continuously and alphabetically by G. Helder in some detail, not on separate cards, a lucky circumstance that also included the naming of an occupation for nearly every husband and often for the

---

<sup>103</sup> Herring fishing and the harvesting and transport of salt were also protected in the Atlantic World and not permitted to the West India Company.

future wife.<sup>104</sup> The marriages are from 1605 to 1660 (with very few in the earliest dates), spanning a portion of the time period of interest for crafts practiced in New Netherland. The marriages include remarriages, and those events have been eliminated from the percentage values for the occupations. The large number of people entered in the records makes it apparent that when a man remarried at a much later date his occupation had not changed, but upward mobility in a craft is visible, such as a journeyman becoming a master or a merchant in the trade as well as a burgher, and indicating that even unlikely trades could achieve burgher status such as happened with a slaughterer.<sup>105</sup> Certainly the records do not catch everyone who practiced a craft whether in Dokkum, in New Amsterdam/New York, or in the stranger population of London, a circumstance as equalizing as the high degree of mobility in each context.

The list of skilled workers for the Austin Friars Church members in London, who were largely Dutch, Flemish, Danish, or German, compares craft percentages across time. It has been compiled from two sets of data recorded in 1617 and one set compiled for the years 1627-1639. One of the 1617 sources was prepared in Dutch by the strangers themselves, and the other 1617 copy was prepared in English by an English official, while the data for the 1627-1639 time period was prepared in most cases by using the bilingual former strangers to collect the information. The differences between the two

---

<sup>104</sup> <http://www.angelfire.com/vt/sneuper/dokkumhuw.htm> "Index op huwelijken in Dokkum 1605-1660," listed alphabetically by G. Helder/FAF. The alphabetization of these Dutch language records by Helder made it easy to eliminate remarriages in order to avoid over-representing some occupations.

<sup>105</sup> Both Venema and Shattuck have stated that settlers in the Beverwijk area often had more than one occupation or changed occupations. This was not true generally with regard to standard guild crafts, but settlers could practice a craft and also do surveying, or be a brewer, obtain the right to transport beer, or hold a paid office in addition to practicing a craft, thereby supplementing their incomes. Hendrick Assuerus, the gold and silver smith discussed later in this chapter, also operated a New Amsterdam tavern as mentioned in O'Callahan, *Dutch Manuscripts*, p. 226, June 27 1661.

sets of data for 1617 begin to address the issue of whether or not the English could acquire skills beyond the hiring of cultural outsiders and why or why not.<sup>106</sup>

The separate Dutch and English listing of the same crafts as practiced by the same guild strangers at Austin Friars in London in 1617 shows significant discrepancies in their cultural points of view regarding the crafts themselves, their mode of practice, their product results, and their social status. The Dutch lumped together the craftsmen who made swords or knives and who worked in iron, while the English broke the listing down to a swordsman, several cutlers, and iron smiths. Locksmiths and a gunstock maker were listed separately by the English but put in one category, gun making, by the Dutch. The Dutch conflation agrees with illustrations of gun making by the German Jost Amman much earlier and by the Dutchman Jan Luyken much later, but the English made a distinction between the manufacture of the parts of the weapon, rather like the medieval listing of sleeve makers separately from tailors.<sup>107</sup>

The medieval tone continues in the English listing of an armorer who was actually a harness maker, probably a leather worker who attached the two halves of armor in the new style. To some extent the English breakdown of crafts may reflect the London presence or absence of guilds for the trade, since the English did not list the falconer, the engraver, or the flax comb maker.

---

<sup>106</sup> While the 1617 London list may seem too early for comparison with the colonies, by then Virginia had been settled for nearly a decade, trading was taking place at the mouth of the Hudson River through a small concern called The New Netherland Company, and the Brownists and Walloons were planning relocation to the New World. By 1639 all three colonial locations, Virginia, New Netherland, and New England, were thriving, there was a steady trade with Brazil and Curacao through the Dutch, and the Dutch were heavily involved with the populating and mercantile aspects of the English colonies.

<sup>107</sup> The illustrators are discussed in detail later in this chapter.

**Chart I: Occupations of the London Strangers at Austin Friars Church, 1617**

<b>Dutch Occupation</b>	<b>Number</b>	<b>English Occupation</b>	<b>Number</b>
Apothecary	1	Apothecary	1
Harness maker	1	Armorer	1
Bakers	5	Bakers	6
Basket maker	3	Basket maker	1
Brewers, brewersdrs.	4,4	Brewers	9
		Button maker	1
Candle makers	14	Candle makers	14
		Cobblers	2
Coopers	7	Coopers	5
Kettle makers	3	Copper or brass worker	3
Knife, ironwork	10	Cutlers	3
Distiller	1	Distillers	1
Gardeners	7	Gardeners	8
Gold, silver, jewels	26	Gold, silver, jewels	23
Guns, stocks	3	Gunstockmaker	1
		Hauler	1
Joiners, cabinet	16	Joiners	13
		Locksmiths	2
Painters	6	Painters	4
Needle maker	1	Pin makers	2
		Pipemaker	1
Pot baker	1	Pot baker	1
Sailmakers	2	Sailmaker	1
Seafaring man	1	Seafarer	1
Shoemakers	13	Shoemakers	10
		Smiths	5
Sugar bakers	6	Sugar baker	4
Surgeons	2	Surgeon	1
		Sword maker	1
Tailors, seamstresses	32	Tailors, seamstresses	31
Turners	6	Turners	6
		Vinegar maker	1
Falconer	1		
Engraver	1		
Spellemaker	2		
Flax comb maker	1		

DUTCH TOTAL 180. The Dutch also reported 121 merchants, 5 notaries, 3 schoolmasters, 3 innkeepers, 1 postman, and 144 people connected with cloth production and trade. The English reported 8 merchants, 5 schoolmasters, and 143 in cloth production and trade. The English list has two messengers, one unidentified “botcher” and one vinegar maker. Each has one reed maker listed, an unidentified occupation.

**Chart II: New Netherland Occupations**

<b>Occupation</b>	<b>Number</b>	<b>Percent</b>
Apothecary (related to tobacco trade)	2	<1
Bakers	41	5.1
Barber-surgeons	28	3.5
Blacksmith, gunsmith, iron worker	38	4.7
Block makers	2	<1
Bookkeepers	6	<1
Boss, foreman, overseer	9	1.1
Bottlers	6	<1
Brass worker	1	<1
Brewers	46	5.7
Brickmaker or tiler	5	<1
Butcher	5	<1
Carman, carter, porter	10	1.2
Carpenters	113	14
Cooper	20	2.5
Diagnose, comfort the sick	3	<1
Distiller	2	<1
Ferry operators	3	<1
Glaziers	7	<1
Goldsmith, gold thread puller	2,1	<1
Grain miller	7	<1
Gunstock makers	10	1.2
Hatters	2	<1
Leather worker, shoemaker, tanner	43	5.3
Masons	25	3.1
Mill builders	3	<1
Notaries	4	<1
Painters	5	<1
Pot baker	1	<1
Sail makers	5	<1
Sailors	136	16.9
Saw millers, Sawyers, saw mill builders	23	2.9
School master, teacher	9	1.1
Soldiers	136	16.9
Tailor	34	4.2
Turner	4	<1
Wagon maker	3	<1
Wheelwright	8	1

TOTAL: 813, including 1 sugar baker, 2 rope makers, and 2 window makers. Omits 13 surveyors, 135 administrators, 11 factors, 67 merchants, 114 farmers, 21 in church functions, 3 translators, 1 failed salt maker, tavern or inn keepers, man and maid servants, wampum stringers, and slaves.

**Chart III: Dokkum Craft Occupations**

CRAFT	NUMBER	PERCENT of 557	COMMENTS
Apothecary	2	.4%	Unspecified
Baker	53	9.5%	All kinds
Barber-surgeon	13	2.3%	Only medical
Bargemaker	11	2%	
Basketmaker	5	.9%	Not found in colony
Blockmaker	1	.2%	
Brazier, Coppersmith	7	1.3%	
Brewers	20	3.6%	
Butchers	6	1.1%	
Carpenters	27	4.8%	
Chestmakers	12	2.2%	
Coopers	21	3.8%	
Glassmakers or Glaziers	7	1.3%	
Gold or Silver Smith	10	5.6%	Includes gold wire maker
Groats, malt handling	10	5.6%	
Gun maker	3	.6%	
Hatters	9	1.6%	
Knife makers	7	1.3%	
Leather work, all	65	11.7%	Shoes, saddles, etc.
Lock maker	3	.6%	
Masons	22	3.9%	Brick or stone
Miller	6	1.1%	
Painter	2	.4%	Unspecified
Potter	6	1.1%	Unglazed
Ropemaker	11	2%	
Sailors through captains	79	14.2%	
Sawyers	3	.6%	One for holes
Ship's carpenter	15	2.7%	
Smith or iron worker	22	3.9%	
Tailor, all kinds	37	6.6%	
Tichelaar	7	1.3%	Glazed ceramics
Turners	10	5.6%	Includes stoolmakers
Wagonmakers	3	.6%	
Wheelwrights	15	2.7%	

Included in total of 557: One each; fisherman, candle maker, can maker, street maker, mast maker, oil presser, book presser, "sannen," glass etcher, "calcklasker," peddler. Two each; tin workers, grave diggers, bottlers, book binders, toy makers, pijpers, sail makers, gun makers. Not included: 32 cloth workers, 13 water transporters, 383 soldiers, and 22 women servants, as well as administrators and professionals such as ministers, physicians, lawyers, and educators. No soap makers or distillers were mentioned.

Otherwise, in the largest possible sense, the differences in the lists were due to distinct ways of viewing the trades that affected the skilled performance of the craft itself, the craft output, and the ease with which it could transfer from the northern continental culture to the English culture. The English persisted in the medieval policy of manufacturing parts of the products in separate shops while the Dutch, Flemish, Danes, and Germans practiced related crafts in the same shop in northern continental Europe, a practice that the English called “illegal combination”.<sup>108</sup>

The two distinctly different views of craft production, the craft groupings used by the northern continental Europeans and the compartmentalization of crafts by the English, affected technology transfer not only in England but also in the colonies. The craft groupings, that is, the practicing of related crafts by the same craftsman or in the same shop, created one of the barriers to the English capacity to comprehend the craft systems of strangers beyond the problem they already had with the northern continental European style of kinship discussed in the next chapter.

The craft guild difficulties in understanding between the two cultures were made much worse by the introduction of a child’s book authored by Comenius, originally published in Germany in 1657 and translated into English in 1659, the first craft book available to the English in their own tongue but not the first to circulate among the continental Europeans.<sup>109</sup>

The continental European public saw illustrations of the crafts and their methods of practice as collections for the first time beginning in the early modern period, though

---

<sup>108</sup> This is referred to in New York City in January of 1680 when coopers, leather workers, and shoemakers were fined for “illegal combination.” *Abstracts of New York Wills, 1708-1728*, page 431.

<sup>109</sup> Comenius was a scholar from Moravia who lived in Poland and later died in Amsterdam after he supported the Protestant cause in Poland. His book for children was *Orbus Sensualium Pictus*.

religious paintings and illuminated manuscripts with restricted access had portrayed certain medieval artisans much earlier both in England and on the continent.<sup>110</sup> The publicly circulated works showing craft practice on the continent included the first known collection, the 1568 *Standebuch* written by the German shoemaker Hans Sachs, illustrated by Jost Amman and published in Frankfurt am Main. Much later in 1635 the Leidener Jan Joriszen van Vliet produced a similar set of prints. In the early 1650s the *Straatwerken* by Leonard Bramer depicted both craftsmen and peddlers. The *Orbis Sensualium Pictus* by Comenius was published in 1657/1658 in German and Latin and translated into English in 1659, and *Het Menselyk Bedryf* by Jan Luyken was published in Amsterdam in 1694 depicting both artisans and other occupations.

Each of these principal sets of illustrations and texts reveals details of the crafts as practiced in early modern northern continental Europe and indicates the value placed on skilled knowledge. The date range from 1568 to 1694 allows for comparisons over time and shows the rise and fall of crafts as old techniques such as making crossbows faded from importance and new devices and modes became more common, such as guns and the fashionable high boot.

Determining the value a culture placed on a craft is more difficult than observing change over time. Jost Amman ranked his occupations from the highest to the lowest, from king to peddler, while Comenius and Luyken placed the crafts in the order of their importance in the lives of people, listing such necessary occupations as bakers, butchers, brewers, tailors and carpenters ahead of masons and schoolteachers, but that same order may suggest a rising social hierarchy.

---

<sup>110</sup> See Donna Barnes, *The Butcher, The Baker, The Candlestick Maker: Jan Luyken's Mirrors of 17<sup>th</sup>-Century Dutch Daily Life* (Hempstead, New York: Hofstra Museum, Hofstra University, 1995).

Comenius wrote and illustrated his series on crafts as a school book that would educate young children in Latin while providing the concomitant words in their native tongue. The pictures are simple and numbered to identify the significant aspects of the craft. No alteration was made for the 1659 English version other than the translation of the German into English, and the text achieved relatively wide circulation, not only because of its depictions of crafts but also because it had other illustrations in science and history, and it became a ready teaching tool for young children learning Latin.<sup>111</sup>

None of the illustrations of crafts in Comenius combines them in one workshop and no women perform any tasks for the man's craft, unlike other later illustrations such as those of Jan Luyken that show a turner in one corner of a chair maker's shop and women aiding the oil maker, diamond cutter, and the barber surgeon, among other crafts where women also worked.

Comenius had simplified the practice of crafts for two reasons; for the sake of boys of about the age of seven, and for the depiction of skills for which there were Latin words. Inadvertently this played into the medieval perceptions still held by the English. The child's book by Comenius continued to be used in England and in the English colonies throughout the eighteenth century and into the first half of the nineteenth century. It was joined later by other children's works in the early 1800s such as *The Book of Trades, or Library of the Useful Arts* and *Little Jack of all Trades*. The simplicity of the illustrations and the establishment of the correct English for the crafts as early as 1659 both reflects the reality of the English medieval attitude towards skills compartmentalization as well as the locking in of medieval English terminology that continued to be used well into the nineteenth century, while the works of Jost Amman,

---

<sup>111</sup> Initially the English words were placed oddly which was corrected for a later edition in 1672.

Jan van Vliet, and Jan Luyken demonstrate the practical aspects of crafts as actually performed by adults in early modern northern continental Europe, not as simplified or idealized for young boys or for the teaching of Latin.

As indicated by the difference of the English compartmentalization of craft practice versus the northern continental European practice of grouping related crafts together, the transfer of a technology across cultures depends partly on the perception of that technology by the culture desiring it and partly on the ability of the receiving culture to reproduce the technology. This was true of the skills necessary to produce sugar.

Before the arrival of Hillebrant Kock and others like him in the colonies, the English at home had desired sugar much more than the system that produced it, bringing strangers into London and other cities for its manufacture, a circumstance that changed over time. In London in 1593 there were five stranger sugar bakers, six by 1617, but notably, no more than three by the reign of Charles I.<sup>112</sup> The decline in the number of sugar baker strangers may reflect the training of Englishmen in the craft as they became able to reproduce the technology, though it may also indicate the elevation of the alien bakers from the stranger status to that of citizens and freemen. Sugar baking as a skill was not much removed from the skills of baking bread or preparing sweets and pies, allowing for the possible transfer of the skill to the English and for its stranger practitioners to become more readily assimilated.

In addition to the English compartmentalization of the crafts, their persistent medieval perceptions, and the easier transfer of the technology for simpler skills, there was another problem for cultural receptivity regarding alien technologies and their

---

<sup>112</sup> Irene Scouloudi. *Returns of Strangers in the Metropolis, 1593, 1627, 1635, 1639: a Study of an Active Minority* (Huguenot Society of London, 1985), Vol. LVII. Also see charts in this chapter.

practitioners that applied both in England and in the colonies. There were substantive differences between the New Netherland colonists and the English colonists with respect to prior mobility and long distance connections in addition to cultural differences in the perceptions of crafts and craft practices. Sugar baking had an extensive geographic reach for its raw materials, its transport, and the merchants who handled it. It was the geographic reach that was problematic for the English since relatively few of them traveled extensively, while it was no problem for the northern continental Europeans who were accustomed to relocations.<sup>113</sup> This can be demonstrated by the life course of one of the non-English sugar merchant factors, Adam Gerritszen Onckelbach, a representative participant in the exchanges of the Atlantic World who was connected to New Netherland.

Adam was in New Amsterdam in New Netherland by 1658, the date confirmed by the child born after he had an illicit relationship with Neeltje Jans van Hoorn. In 1659 Neeltje gave birth to a girl whom she named “Anna” after Adam’s mother.<sup>114</sup> Under pressure from her family, Adam married her in 1660, the marriage intentions identifying him as from Rouen in France and Neeltje as from Amsterdam.<sup>115</sup>

Though born in Rouen, Adam had lived in Rotterdam in the United Republic. He and his brother Jan had left that Dutch city by 1652 when his parents Gerrit Onckelbach and Anna Tuliers, along with his sister Maria, were required to testify in an affidavit

---

<sup>113</sup> The English required a license to leave England. Few of the “middlin’ sort” could manage a great deal of travel. The emphasis here is on the word “extensively.” At this early date there was little English involvement in sugar production.

<sup>114</sup> Anna was baptized in New Amsterdam on the 22<sup>nd</sup> of March, 1659 as “the bastard child” of Neeltje Jans. Adam and Neeltje may have become engaged after they realized Neeltje was pregnant because two close family members stand witness for the child. Usually just the midwife stands for a bastard baptism or there is no witness at all.

<sup>115</sup> Adam may have received his inheritance from his deceased father, or he and Neeltje’s family knew it was forthcoming.

regarding the living conditions of a neighbor.<sup>116</sup> In that record Adam's father was identified as a fifty-five year old sugar baker from Germany.<sup>117</sup> Later records in Rotterdam show that the relatives of Anna Tuliens focused principally on trade with France, particularly Rouen.<sup>118</sup>

Adam and his brother Jan acted as factors in the sugar trade for their father, one or both of them in Brazil. Adam probably fled Brazil at its fall, finally settling in New Netherland where in 1677 he was named as deceased. His brother Jan was in Guyana and he was also named as deceased when an inheritance from Germany was due to Adam and Jan or their heirs.<sup>119</sup>

Adam's complicated background is typical of those who were highly mobile in the Atlantic World or who had settled in locations along its rim but outside the English colonies. Adam's father was a German sugar baker who had been resident in Rouen in France as a stranger where he met and married a French woman, and Adam was born in that city. The family moved to Rotterdam where Adam's French mother Anna and her relatives continued contacts with Rouen while his German father remained connected to family in Germany as he obtained sugar from Brazil through Dutch traders and shippers. Adam and Jan went out into the Atlantic World as sugar factors, and Adam later resided in New Netherland.

---

<sup>116</sup> ONA Rotterdam, attestatie en verklaring, inv. nr. 213, akte nr. 99/blz.222, notary Jacob Duyfhuysen, jr., 28 September 1652. "Onckelbach" is spelled "Unggelbach" in the record.

<sup>117</sup> Gerrit Onckelbach died less than ten years later, probably sometime in 1660 or 1661 before his widow remarried to a Frenchman named Ramequin Sere.

<sup>118</sup> Rotterdam DTB, baptism of two children for Anna Tulier and Ramequin Sere, 2 Dec 1663 and 22 Feb 1665. The Tulier family and some of the witnesses were connected to Nicolas du Chemin, a merchant of Rouen.

<sup>119</sup> NAC July 27 1677, GAA NA 3111B/864, notary Hendrick Rosa. Guiana is spelled "Cajana" but referred to as in the West Indies. The German relatives were in Frankendaal, the inheritance to be managed by the *predikant* (minister) Otto Houn-Sliffer.

Neeltje Jans van Hoorn bore Adam four more children in New Amsterdam/New York, though only one of them survived, a boy named Gerrit. Adam was successful enough to live on the Heere Gracht by 1665 and to pay a city rate slightly higher than residents of the same street.<sup>120</sup> Meanwhile his wife Neeltje strung wampum for others, especially for her brother and for the merchant Frederick Philipszen, receiving 5 guilders for one hundred white sewant and 2 guilders, 10 stuivers for one hundred black sewant.<sup>121</sup> This was a solid source of income since the average worker earned only a guilder a day.<sup>122</sup>

A German father, a French mother, Dutch Republic residency, Brazil, Guyana, New Netherland, and a wife stringing Amerindian wampum: the geographical and cultural variety indicate the many opportunities for skills transfer. This is an entire set of circumstances rarely echoed by the English experience in New England, Maryland, or Virginia where the dominant colonial cultural pattern was the perpetuation of traditional English cultural customs by people who had lived primarily in one rural or suburban area in England for generations.<sup>123</sup>

Yet another cultural discrepancy created problems for the English. Northern continental European households sometimes shifted from one skill set to another at a remarriage, and this was as troubling to the English as the craft groupings and the ready mobility of the artisans.<sup>124</sup> The only surviving child of Adam and Neeltje, the boy Gerrit, was born into the consequences of a mixing of backgrounds and experiences in 1670, but

---

<sup>120</sup> RNA v, 221.

<sup>121</sup> RNA v, 176.

<sup>122</sup> LWA xxiv.

<sup>123</sup> See *Albion's Seed* and recall for exceptions that the original settlers of Massachusetts, few of whom survived, had lived in the Dutch Republic for years.

<sup>124</sup> Mitterauer and Sieder, *The European Family*, claim that the more southern European custom was for the widow of the master to marry one of the workers in the craft shop.

his future as a skilled worker would be decided by his stepfather.<sup>125</sup> After Adam Onckelbach died, Neeltje married Assuerus Hendrickszen, a gold and silver smith, in the month of June in 1676.<sup>126</sup> Gerrit was only six, but apparently an apt pupil for his stepfather's craft, training in it under his guidance. This shift from a household concerned with sugar that went to Europe to a household focused on gold and silver for local and colonial consumption involved not only a different skill set but also different craft practices and knowledge control within the northern continental European culture.

Assuerus Hendrickszen had made a good match when he married the widow Neeltje. He had connected with an established woman who owned a home in New Amsterdam and who had experience with stringing wampum. Further, the marriage came with an instant apprentice. Neeltje had also done well for herself. Her new husband belonged to an elite and highly exclusive group of skilled craftspeople whose families intermarried almost always within the trade, producing lines of gold and silver smiths that persisted for centuries.<sup>127</sup> This was unlike other trade families that intermarried within related groupings as will be discussed in the next chapter.

Assuerus was not new to the colony: he was a second generation gold and silver smith along the Hudson River, recorded as from Albany when he married Neeltje.<sup>128</sup> His father Hendrick Assuerus had been a goldsmith in the New Netherland colony under the

---

<sup>125</sup> BDC 98. The bastard child Anna may not have died until after Neeltje remarried because she and her husband Assuerus named a subsequent daughter "Anna."

<sup>126</sup> MDC 41, June 11 1676 for the intentions and June 25 1676 for the marriage. The standard rule for a remarriage was to wait a year. This allowed for the possibility of a final pregnancy that could have occurred just before the father died, the wait designed to permit monies from the estate to be assigned for the care of the child.

<sup>127</sup> Gold or silver smiths were not representative of skills in general and should not be held up as models for marriage patterns, widow behavior, remarriage, or other family interactions, even mobility. Both Lyndall Roper and Lien Bich Luu relied too heavily on these families in drawing their conclusions about religion, patriarchy, nationalities, or immigration.

<sup>128</sup> MDC 41.

Dutch since at least 1657, continuing to practice there under the control of the English. In New York City on March 8, 1667 Hendrick Assuerus was asked to assess certain effects in the estate of a deceased Dutch woman who had been a merchant. Under the authority of the English mayor, Hendrick evaluated a silver goblet at 26 guilders and 14 stuivers, a gold ring with a fine stone at 16 guilders, and an earthenware pitcher at 5 guilders worth of wampum.<sup>129</sup> Later that same year by order of the court Hendrick appraised the goods of an absentee debtor for application against what the man owed, such goods to be held unsold until the debtor returned.<sup>130</sup>

The craft skill set of Hendrick Assuerus and his son Assuerus Hendrickszen may seem odd for a remote colonial city if it was nothing more than a fur trading outpost, and leads to the observation that there was more going on at this location than has been realized. The records show that a silver goblet was not a rare exception among items of personal property in New Netherland. One settler had a Japanese sword, women quarreled over the ownership of earrings, silver spoons were made for commemorative purposes, and thieves ran off with valuables. The inventories of household and personal effects indicate a much higher level of sophistication in the colony, especially in New Amsterdam, than has been portrayed in most standard histories of the early American settlers. Some of the sophistication came with the refugees from the fall of Brazil, but more generally this population was the same cultural mix that had brought specialty trades and fine goods into English cities as strangers. That explains the comment of the

---

<sup>129</sup> RNA vi, 59. The merchant was Pietertje Jans.

<sup>130</sup> RNA vi, 85.

new colonial governor Francis Lovelace in 1668 who remarked with surprise that “these people have the manners of court and I know not how they acquired them.”<sup>131</sup>

Much earlier back in *Patria* when the father of Assuerus Hendrickszen, the silversmith Hendrick Assuerus, had married Lysbeth Laurens, he had developed a link with her father, Laurens Tielemans, a goldsmith from Brussels who had removed to Amsterdam.<sup>132</sup> Mobility was already part of the family history. Tielemans had lived in Amsterdam for only four years when he married Lysbeth’s mother, a young woman who had an uncle who was a goldsmith and whose father from Breda had been in Amsterdam since at least 1597.<sup>133</sup>

When Hendrick Assuerus’ wife Lysbeth died while he was in New Netherland, the welfare of their children Assuerus, 10, and Laurens, 7, received the oversight of the Amsterdam Orphan Masters who in 1657 permitted their paternal aunt Lysbeth Assuerus to care for them. The children had their own money through an inheritance they had received from their great-aunt Helena Montens who had remained in Breda and died there.<sup>134</sup> At ten years of age Assuerus was old enough to be in training as a gold or silversmith in Amsterdam, possibly with a member of the extended family. His brother Laurens trained in leatherwork. Both children joined their father Hendrick Assuerus in New Netherland at a later date.

Though Hendrick Assuerus was in a position to appraise fine items, no guild of silversmiths or goldsmiths existed in New Amsterdam or later in New York and many of

---

<sup>131</sup> 1668 letter from Francis Lovelace to James II.

<sup>132</sup> Nijgh, Mr. Y. H. M., “Montens,” in *Jaarboek van het Centraal Bureau voor Genealogie*, 22 (1968), 49.

<sup>133</sup> *Ibid.* p. 77.

<sup>134</sup> Kruimel, H. L., “De Klappers op de Inbrenregistres van de Weeskamer te Amsterdam,” *Nederlandsch Archief voor Genealogie en Heraldik*, vol. 5 p. 76, (1947), Inbrenregister No. 30 (1657), folio 124, 6 September 1657. Hendrick is a “*silversmit*” who “*in Nieuw-Nederland synde.*”

the rules of English silver smiths did not apply there, such as dating the silver mark.<sup>135</sup> Hendrick, a man named Juriaen Blanck, and Pieter Eencluijs were the only known gold or silver smiths in the early Dutch colony, though there were possibly more, especially after the fall of Brazil.<sup>136</sup> At least two other individuals applied for transport to the colony as gold thread drawers, but they may not have made the voyage. The only practicing gold or silversmith known to be in Boston beginning in the 1650s was one John Coney, his last name the Dutch and Old English word for rabbit which he used as his silver mark, and there were no English practitioners in Virginia.

The practice of the craft using gold or silver was capital intensive and required discretion. More than that, it was a craft that deliberately sequestered knowledge and financial assets within its tightly intermarried family ranks. In addition to Assuerus training his step-son Gerrit Onckelbach to be a silversmith, his niece married into the Kierstede family where there was already a silversmith, Cornelis Kierstede, who probably trained under Assuerus or his father. Kierstede moved to New Haven in Connecticut to practice his craft.

In addition to marrying within the craft, the private business of these families and the actual practice of the craft were not observable by the general public. A child or a newcomer to any city might be able to watch the shoemaker at his bench, or labor themselves at a grain mill or brewery, or observe the construction of a mill, or see carpenters plying their craft while building a house, but what the gold and silversmith did

---

<sup>135</sup> The only work on early New Amsterdam/New York City guilds authored by Simon Middleton does not discuss gold and silversmiths. There was a Gold and Silversmiths Society in New York that was formed after the American Revolution, suggesting that no guild of such smiths existed during the English colonial years.

<sup>136</sup> NAC 8 December 1663 references one Pieter “Eenloos” as a silversmith on the South River which is the Delaware River. This is probably Pieter Eencluijs.

was fine work using costly materials and it was accomplished under stringent security indoors.

While the silversmiths practiced their crafts for the English as well as for the New Netherland colonists, their families continued to intermarry restrictively and were among the wealthiest in the colonies, their lines perpetuated among themselves. Craft knowledge was shared later with the English to a very limited extent, either through a lucky apprenticeship or through a rare marriage.

Specialists in high end goods such as gold and silver items were a small population among skilled craftsmen in the average towns and lesser cities in Europe, but there was a larger population of such specialists in the great cities of Antwerp, London, Amsterdam, and Prague where their presence was not only a measure of the consumer appetite for luxuries but also necessary as financial reserves. Fine silversmiths, goldsmiths, and jewelers were more than just producers of goods in the towns and cities: they were the practitioners of assets policies one would associate ordinarily with banks.

Silversmiths and goldsmiths in London had begun to develop a reputation for excellence due to the presence of stranger artisans.<sup>137</sup> The quality of the work was driven by the high demand for the finished product, a demand that was as great as that of most other large cities in Europe. At the same time that sugar baking by strangers declined in London demonstrating cultural transfer and stranger assimilation, the number of stranger gold and silversmiths remained high, indicating a steady influx of the skilled craftsmen from outside England and an inability of the English to access the skills to produce the

---

<sup>137</sup> Luu, *Immigrants and Industries*, chapter on silversmiths.

newer craft styles.<sup>138</sup> The nature of the craft itself and the policy of marrying in help to explain why the strangers continued to enter London and failed to be assimilated, but a continued high degree of mobility was another factor.<sup>139</sup>

One of the early London strangers, a jeweler with later New Netherland connections, was Wolfert Wynantszen van Bylaer. The jeweler was from Barneveld in Gelderland at the time of his first marriage in London.<sup>140</sup> By 1594 he was a resident of Amsterdam, having managed to slip out of London with nearly a hundred thousand in guilders while his business still prospered in the English city under the subterfuge of another man's name.<sup>141</sup> Aside from his accumulation of wealth and his high degree of mobility, Wolfert is significant because he was childless after three marriages, the last to the widow of an Englishman in Amsterdam.<sup>142</sup> Without sons and daughters to train and to finance in their enterprises, van Bylaer made promises to more distant relatives and invested heavily in projects, especially in the West India Company and New Netherland. Through his sisters, Wolfert's extended family network included his two nephews, the colonial New Netherland *patroon* Kiliaen van Rensselaer who had worked for van Byler in Prague, and also the New Netherland director Wouter van Twiller.<sup>143</sup> In all likelihood van Bylaer knew or associated with members of the family of Pieter Minuit whose wife's father was a diamond cutter. The van Bylaer assets were among the funds that

---

<sup>138</sup> There were 27 goldsmiths, 2 silversmiths, and 21 jewelers who were working as strangers in London in 1593 for a total of 50 artisans. In 1617 the total number was 26 for the Austin Friars Church members alone, and 70 strangers were at work in the craft in the years from 1627 to 1639. This number dropped slightly after the Civil War, but climbed again during the Restoration.

<sup>139</sup> Luu is of the same opinion regarding mobility, especially for those who had served as journeymen in London, suggesting that it was fairly routine for stranger silversmiths to return to the continent at a later date; *ibid*, page 252.

<sup>140</sup> Austin Friars marriages, 92.

<sup>141</sup> VRBM p. 45, see also Hendrick Demetrieve in London in the *Alien Returns* as the servant of van Bylar.

<sup>142</sup> VRBM, *ibid*. The English man was a cloth merchant, apparently in silk.

<sup>143</sup> Van Bylaer's family per VRBM 43-49, and 53.

underwrote the movement of skilled labor to the New Netherland colony, first to Rensselaerswijk but also both directly and indirectly to New Amsterdam. Later one of the grandsons of Kiliaen van Rensselaer trained as a silversmith in Boston, complaining bitterly at the time about the dullness of the place.<sup>144</sup>

How does one account for such esoteric occupations in the colonies as a Holland sugar baker or a personal tailor or a New Netherland goldsmith or the involvement of a London stranger jeweler from Gelderland and his relatives in what has been portrayed as a cultural backwater on the eastern seaboard of the Atlantic Ocean? The unappealing and all too common portrayals of New Amsterdam/New York as a town overrun by hogs rooting in the streets with a tavern on every corner has had an eager audience in historians of the English colonial experience, while the representation of New Netherland as a colony focused on the fur trade has had the ear of New York State and Dutch historians, especially those studying the colonial economy. The picture presented by the sugar baker contract in New England or the personal tailor in Virginia or the sugar factor born in France or the gold and silversmiths in New Amsterdam suggests another historical picture entirely. The population of the city of New Amsterdam/New York had family members living as strangers in places like London, and the very skills so envied there were also in place in the colonial city on the other side of the Atlantic Ocean.

The pattern of contractual employment involving guild strangers and the mobility of skilled labor certainly provided the opportunity for the transfer of technologies from one culture to another, yet there were instances when no transfer took place, as demonstrated by the tight marrying-in of the gold and silversmiths. Another case of a

---

<sup>144</sup> Maria van Rensselaer Correspondence.

technology encountering a barrier arose when trying to resolve a conundrum involving leather workers.

Recalling that the gold and silver smith Assuerus Hendrickszen had a brother Laurens who was trained as a leather worker, one of the puzzling problems encountered when examining the New Netherland and European documents for skilled craftsmen was that there appeared to be far too many shoemakers and others producing leather goods in the colony. As will be covered more explicitly in another chapter, Anna the tanner and her husband Abel were practicing in the leather trade, including making shoes.<sup>145</sup> Their employee Lourens Holst went on to establish his own shop. Coenradt Ten Eyck brought in multiple leather workers from Amsterdam in spite of the fact that shoes were being imported regularly from *Patria*. Multiple additional examples raised the total number of leather workers to a level exceeding that of tailors in the colony. Were there really too many shoemakers and other leather workers in New Netherland, or was this characteristic of locations in the United Provinces?

In Dokkum a count of the known leather workers of every type revealed that they made up nearly 12 percent of the population of artisans, the largest group after the sailors and others who worked on board ships. This surprising finding makes the large number of leather workers in New Netherland less alarming. The majority in Dokkum were entered as shoemakers but two were saddlemakers, one made chamois, and several were leather pullers. The high figure for Dokkum is reasonable for the years the Admiralty was there and for the war-time needs, where boots, saddles, animal harness, and leather fittings as parts of military equipment might have created a larger population of leather workers. The agricultural area around Dokkum raised cattle, thus some of the craft

---

<sup>145</sup> See the chapter on skilled women in this study.

workers may have been shipping out both the hides and their leather wares to other locations. The end of the Thirty Years War, the silting of the port, the Admiralty relocating to Harlingen, and experience with hides as products of the agricultural surround were all excellent reasons for Dokkum leather workers from various origins to choose to move again, perhaps first to another Frisian city or to Hoorn or Amsterdam where they might have been born, and possibly from there to a colonial settlement, as was true for the leather working couple from Friesland, Reynout Reynoutszen and his wife Jannitje Jans.<sup>146</sup>

A look at the previously discussed craft descriptions of Amman, van Vliet, Bramer, and Luyken shows where leather might have been used, and it is apparent that Luyken's illustrations demonstrate an increased use in leather over time. The new armor had leather belt attachments, the new bilge pumps used lubricated leather for the seals, the manufacture of bellows employed leather at the sides, leather was used on drums, and craftsmen were portrayed wearing leather aprons. In the overall data from three sources, Austin Friars in London, the Dokkum marriages, and New Netherland, leather was used for gloves, as thongs for laces, it was braided for ropes and whips, made into hats, leather fire buckets, chamois, breeches, aprons, saddles, harnesses, bellows, drums, book covers and, of course, for shoes and boots. The new fashion of the military high boot used considerably more leather than the average footwear had used before. Decorative gilded and embossed fine leather was yet another usage that might account for occasional interactions between leather workers and goldsmiths in each of the locations.<sup>147</sup>

---

<sup>146</sup> Jannetje was from Leeuwarden and Reynout was from Bellitre. GAA NA 0561, fol. 69, notary J. Westfrisius, 16 June 1654, and GAA NA 1369, fol. 20, notary H. Schaef, 23 March 1663.

<sup>147</sup> At one time parchment makers were closely connected with gold and silversmiths, a situation that changed when the movable type printing press appeared.

In New Netherland the many records relating to shoes or hides or tanners show that the leather workers were slightly more numerous than bakers or brewers and substantially outnumbered the tailors. The many references to slaughterers, tanned hides shipping out, shoes coming in, and the continuing opportunities for leather workers indicate a raw material production center rather than a limited number of practicing shoemakers.

The growing population in the colonies and their increasing role as exporters of hides left the door open for many more leather workers to relocate there from Europe, but over time the second nature producers began to feel the pinch of a leather shortage as hides continued to be exported, and by 1732 in New York City the shoemakers petitioned the English administrators to curtail the export to England of the raw materials necessary for their craft.<sup>148</sup> Again it was about the products and acceptable labor where the English were concerned, and they chose to ship the raw materials to England to supply their own workers and their cultural needs rather than using the colonies as a place for the manufacture of the goods.

While the colonial locations in the Atlantic World offered opportunities for European leather workers that encouraged their movement outward, the unusual circumstance of raw material production for export back to Europe or to the Caribbean resulted in shortages, not a good environment for technical improvements in leather products, fostering instead the production of goods rapidly to meet urgent needs, possibly in a less skilled manner and with poorer materials than was desirable. The tanner and shoemaker Abel Hardenbroeck was cited for inferior work, and when shoes were ordered from any leather worker in the colony, the assumption was that it meant only average

---

<sup>148</sup> Simon Middleton, *Privileges to Rights*, 195.

quality.<sup>149</sup> Farmers raising cattle, slaughterers, tanners, packers, and shippers prospered in exporting, but often the shoemakers did not. How did the shoemakers cope with this? The answer is found in the protections that lay in the family networks linking related crafts into groupings, a fictive kinship feature that was under stress by the time of the 1732 petition against the English colonial administrators. This feature is discussed in detail in the next chapter.

Social mobility for a young man or woman of northern continental European heritage depended upon capable performance within the craft itself. Every child received training in a skill unless they were part of the knighthood or aristocracy, but only excellence in that skill or movement into a valued aspect of the skill gave the individual economic and social mobility. The lowest level of leather working was the unpalatable job of tanning hides in open pits. Grinding bark took one out of the pits but into a dreary and monotonous task unless the laborer was observant and learned how to operate a mill. Shaping leather into shoes or other items was a step up, while creating fine leather goods such as boots or gloves required a higher level of skill and provided more opportunity for a better income and a pleasant lifestyle. For craftsmen on the European continent, learning was meant to continue throughout the lifetime of each artisan, and only the dull or uninspired remained in the lowest skill level of any craft.

The opportunity to rise in a craft was limited in England where, like the caste system in India, a child was born to a certain social status and usually was locked into producing one medieval craft item throughout his life. The English were restricted in their craft practice and artisans occupied a lower social status just above that of tenant

---

<sup>149</sup> Abel, RNA reference to poorly made shoes. Comment regarding usual quality of shoes, “middling shoes,” RNA vii 68, 6 March 1674.

farmers, while across the channel the upward mobility within a craft due to craft groupings created a very broad middle class for the northern continental Europeans, with a high degree of personal opportunity. For the English, there was a true merchant class primarily involved with the cloth trade that was distinct from the practicing artisan, while, in contrast, becoming a merchant was always possible for any skilled worker in the northern continental European system.

Rarely did a northern continental European craftsman change the skill in which he had trained. Gerrit Onckelbach, the gold and silver smith who was the stepson of Assuerus Hendricks as discussed earlier, had every opportunity to succeed at his craft, but he finished out his days in a new occupation and location distilling liquor. While working in New York City as a gold and silver smith Gerrit was accused and convicted of forging coins of the realm.<sup>150</sup> Whether through his own actions, or negligence, or the jealousy of others, Gerrit was forced out of his elite craft, and he left New York City to take up liquor distilling on the shores of Connecticut. This is an extreme example of loss. Gerrit lost his craft, lost his city residency, lost the respect of his peers and family, disgraced his children, and put suspicion on the head of each of his apprentices. Denied continuing in gold and silver smithing, he had no choice other than to retreat to gentleman farming or to find a new craft. Distilling to produce liquor remained a relatively new skill, and it had become profitable in the colonies. With his accumulated financial assets, Gerrit moved easily into the new occupation, one that was already well established on the northern shores of Long Island Sound by such entrepreneurs as Robert

---

<sup>150</sup> The best source is Deborah Dependahl Waters, ed. *Elegant Plate: Three Centuries of Precious Metals in New York City, Museum of the City of New York*. New York: Museum of the City of New York. Hanover, New Hampshire and London, England: Distributed by the University Press of New England, 2000.

Loveland who had obtained his skilled knowledge and equipment through a Dutch middleman.

Occasionally in the New Netherland colony there are references to poor performance at a craft, or that someone could not continue at the labor in which he was trained due to age, or the circumstances had altered and a particular form of employment was no longer possible. The community could ask an elderly person to train someone else in his skill, allowing the former practitioner of the craft to continue to reside on the property as if he was a relative with rights.

In the 1650s in Fort Orange, later Albany, this happened in the case of Willem Juriaenszen who was a baker but who had become aged and infirm. He and a forty-one year old man named Jan Franszen van Hoesem entered into an agreement whereby Jan would purchase the property that included a bake house with an oven and utensils and allow Willem to reside there if the skilled baker would teach him his craft.<sup>151</sup> Shortly after, Willem Janszen defaulted on the contract. He had become crotchety, unruly, foul-mouthed, unwilling to practice his craft, and he was occupying a property that could be useful, so the community undertook to pay additional monies to Willem to buy him off the lot and allow him to find quarters elsewhere. Not succeeding in that effort, they repaired his buildings at community expense to be re-paid from his estate, Jan van Hoesem permitted to reside on the property to learn and practice the baker's craft, and Willem cautioned to control his utterances under penalty of a fine.<sup>152</sup>

A good marriage could offer a man an opportunity to retrain. In New Netherland the sailor Jan Pieterszen Haring married Grietje Cosyns, the daughter of the wagon maker

---

<sup>151</sup> CMFO vol I 1652-1656, pp. 78-79

<sup>152</sup> Ibid. 82, 199, 210, 255-256, and see Venema 283-284.

Cosyn Gerritszen. Jan moved to live on his father-in-law's property on Manhattan Island and he occupied himself in the usual seasonal work that alternated between the planting, maintenance, and harvesting of crops in the spring, summer, and early autumn, and traveling on the seas as a sailor during the winter months.<sup>153</sup> This pattern for Haring changed as he aged, and in later records he is referred to as a wagon maker, having learned the craft from his father-in-law.<sup>154</sup>

Craft workers in northern continental European cities or New Netherland could earn extra money at routine urban tasks such as serving as a porter for moving goods, inspecting materials, or receiving payment for bureaucratic responsibilities associated with the court or other institutions. These were not occupations in the true sense of the word as understood in the early modern period, but they were opportunities to step beyond the geographic limitations of a craft, move throughout the community, and supplement the craft income. An increased presence in the community in extra tasks and charitable acts could enhance the reputation of a craftsman if his work was sufficiently skilled and his behavior above reproach. Strangers in cities such as London were less able to supplement their income or move freely in the community or to take on the responsibilities associated with the governance of the host city or country, a circumstance that helped make a colonial location a reasonable alternative.

Equally restricted were those who had experienced a difficult public moment, such as punishment for a minor offense or producing defective goods. Joost Goderis, the

---

<sup>153</sup> Piet Boon, *Bouwers van de zee: zeevarenden van het Westfrieze platteland, c. 1680-1720*. Den Haag, 1996.

<sup>154</sup> Firth Haring Fabend, *A Dutch Family in the Middle Colonies, 1660-1800* (New Brunswick, New Jersey: Rutgers University press, 1991) and GAA NA 1309, fol. 17, notary H. Schaef, 6 January 1659 for father-in-law as wagonmaker, and GAA NA 3020, fol. 125, notary Hendrick venkel, 27 May 1680 for Jan Pieterszen Haring as a wagonmaker.

weigh master who will be discussed in the chapter on the city, had an awkward moment at the age of seventeen in the United Republic that may have meant he could not hope to practice his ribbon weaving craft or merchandise the goods in his home city of Haarlem, and he had another awkward moment in New Netherland that cost him his position as weighmaster.<sup>155</sup> There were others who went to New Netherland who had the same difficult circumstances in their past or during their years as colonial residents.

Relocating to a colony in the Atlantic World was a viable option both for trade practice and for additional employment at other financially compensated tasks, but residence in a colonial city without guilds or guild standards may have been appealing to some while off-putting to others. New Amsterdam was in the process of becoming a city by early 1653 and was officially functioning as such by 1654, yet there were no guilds developed, or even seriously considered, until 1658. According to the records of New Amsterdam, on the eleventh of July of that year:

“The President states, the Burgomasters have resolved, that the Board should fix certain hours of the day when the working-people should go to their work and come from their work, as well also their recess for meals. Wherein the Board resolved to draft a petition to the Director General and Council to establish Guilds.”<sup>156</sup>

S. R. Epstein has argued that guilds existed for the purpose of transmitting knowledge to apprentices.<sup>157</sup> It is more reasonable to argue that guilds existed for causes that were sensible in the view of different parties to the concept. For the burghers of the city of New Amsterdam, establishing guilds would bring order to the streets making it

---

<sup>155</sup> See the chapter on the city.

<sup>156</sup> RNA ii, 410; 11 July 1658. In 1656 the Director General and the Council gave the order that bakers and tapsters in New Amsterdam must get licenses “since there is, as yet, no guild or certain body known.” RNA ii 207 30 Oct 1656.

<sup>157</sup> Epstein, Stephan R. “Craft Guilds, Apprenticeship, and Technological Change in Preindustrial Europe,” in *Journal of Economic History*, Vol. 58 No. 3 (1998): 684-713.

easier to observe irregularities of conduct. For the masters of a craft, a guild provided rules of behavior for the underlings. Epstein's view of the guilds as teaching centers for skills is seductive as a singular reason for their existence from the perspective of technology transfer, but the reality was obviously much more complex.

From the outset of the New Netherland colony there had been expectations of skilled craftsman conducting themselves according to guilds and their structures even without guilds in place. The records contain frequent references to the customs in *Patria*, gradually supplanted with more specific references to the practices in the city of Amsterdam. The lack of a guild structure meant a less well regulated urban environment in every regard, whether it was individuals on the streets at hours when artisans should be at work, or transient Englishmen hiring a New Amsterdam resident to perform tasks that they could not do for themselves, or the physical arrangement of the streets, houses, and crafts to everyone's disadvantage.

The burghers in New Amsterdam often resorted to the claim of past practice when faced with craft problems rather than making sensible decisions in keeping with the customs in *Patria*. When the many tan pits in private back yards became unbearable with their run-off and stench in the July heat of 1664, the burghers ruled that such could not be forbidden as it had always been permitted in the city.<sup>158</sup> Reason prevailed only much later in 1676 when the tanneries were relocated outside the city wall, not by the administrative force of the English who became insistent on the matter, but by the choice of the Ten Eyck leatherworkers.<sup>159</sup>

---

<sup>158</sup> RNA v 87, 8 July 1664.

<sup>159</sup> See Middleton, *Privileges and Rights*, 85, for a summary of efforts to move tanners. Note Steven Saunders Webb, *1676: The End of American Independence* (Syracuse, New York: Syracuse University Press, 1984, 1995 paperback), 338. Webb erroneously gives credit to Andros for cleaning up the city.

Though guilds were not formalized after the 1658 decision to create them, the city of New Amsterdam approached actually setting up the guild system when it began to regulate the slaughter of animals in 1660, establishing sworn butchers and instructing them to have their own tools.<sup>160</sup> From this date onward the slaughterers, tanners, hide scrapers (curriers), leather workers, and shoemakers interacted so freely that by the time tanning was moved out of the city later, the English administrators felt compelled to impose their own cultural practices on the continental artisans. They made an effort to compartmentalize the crafts in the medieval sense the English understood, directing that no butchers were to be tanners, or tanners to be curriers or curriers to be shoemakers, and so on, demonstrating not a sense of the disorder of the city as much as a complete inability on their part to understand the value of craft groupings and their tight relationships, both in real and fictive kinship and in craft practice, illuminating one of the cultural barriers between the English and those from northern continental Europe regarding craft practice.<sup>161</sup>

Tools were often perceived as a means of accessing a technology. Certain aspects of the items manufactured depended upon the tools utilized, such as the decorations on wood or the forms for molded pewter. As long as a craftsman of a particular urban origin had the tools while others did not, he or she monopolized the quality and number of the items produced. Carpenter's tools were among the most popular artisan's instruments regularly sold, usually by widows who had remarried a man not in the same trade.

---

<sup>160</sup> The instructions for the sworn butchers are given in 1660, RNA vii 258-261. They were informed that they must have their own tools though other allowances were made, 15 October 1660-3 November 1660, the Jews Asser Levy and Moses Lucena not required to do hogs and permitted to give an altered oath in keeping with the standard in Amsterdam. Only sworn butchers may slaughter, penalty 25 guilders, and others must pay a fee to have it done.

<sup>161</sup> As cited by Middleton, *Privileges and Rights*, 85.

Marritie Gerrits sold carpenter's tools to Mary Goosens, appraised by the practicing carpenter Jan Hendrickszen van Bommel for 290 guilders, which would be equal to the cost of a very small house or a year's rent. The records suggest that the tools were intended for the use of Mary Goosen's son.<sup>162</sup>

Other circumstances of sales indicate less savory plans. Symon Janszen sold a few carpenter's tools to a man of the trade named Cornelis Willemszen. Later Symon pressed him in court to be paid the three beavers (about 24 guilders) he was due. Cornelis Willemszen still did not pay the debt and absconded with the tools in a stolen boat headed north to the Massachusetts colony. Though not the usual path traveled in transferring a technology from one culture to another, this particular absconding carpenter transferred his skills to New England while transporting the stolen tools as a means to practice the skills in a new location.<sup>163</sup>

When settlers were unable to purchase tools, they borrowed them. The Englishman Harry Hedger borrowed three carpenter's planes from Ambrosius de Weerhem in New Amsterdam with hopes to purchase them but they had to be returned. Thomas Hall, a former Virginian long in New Netherland, loaned a Dutch saw to the Englishman Tomas Higgens who did not return it.<sup>164</sup> In another instance, Jacob Wolfertszen allowed a jointly-owned jackscrew to remain with Frans Janszen van Hooghten too long and when he wanted to use it, the court applied Solomon's wisdom and said he could have it for as many years as the co-owner had monopolized it.<sup>165</sup>

---

<sup>162</sup> RNA vi 154-156; 10 November through 24 November 1668.

<sup>163</sup> RNA iii 39-40, 94, and 112; 9 September 1659 through 23 January 1660.

<sup>164</sup> This is the same Thomas Hall whose gender was challenged in Virginia. He married in New Netherland but there were no children of the union.

<sup>165</sup> Planes: RNA vi 225, 15 March 1669/70. Saw: RNA iv 22-23, 31 Jan. 1662. Jackscrew: RNA iii 387, 401-402, 18 October 1661 through 8 November 1661.

In New Netherland the grouping of crafts permitted individuals to diversify. Coopers made butter churns and buckets as well as barrels, a pot baker also worked as a hodman, a wheelwright was employed to make ladders, and hatters who worked in beaver also made ladies' muffs of the pelts.<sup>166</sup> This diversity of products from the same basic training was typical of cities in the Dutch Republic. A variety of goods output, flexibility in production, personally owned tools, and working within a craft grouping characterized the typical artisan in New Amsterdam/New York before English control became more severe after the final takeover in 1674.

The great gulf between English desires and English skills practice persisted as cultural differences continued to dominate craft production in the colonies. For example, the output of the New Amsterdam turner Frederick Arentsz indicates his spectrum of abilities compared to an English turner. He had been hired in Amsterdam by a New Netherland colonist and the young man had moved to the colony where he married and settled permanently in 1656.<sup>167</sup> Northern continental European turners did more than just turn and work by chisel the blocks of wood provided by sawyers or carpenters to make decorative spindles as was the usual case for the typical English turner.<sup>168</sup> Frederick Arentsz regularly made multiple sets of chairs and even a spinning wheel out of the black walnut provided by his clients.<sup>169</sup> When caught using abusive language, Frederick

---

<sup>166</sup> Churn made by cooper RNA vi 304; Dirck Claeszen Pottebaker sells his earthenware, RNA i 362, 13 Sept 1655 but also worked as a hodman, RNA vi 224; Claes Arentsz wheelwright makes ladders RNA vii 115, 21 August 1674; Beavers also used to make muffs, RNA iii 362, 27 Sept 1661.

<sup>167</sup> RNA ii 144, 25 July 1656. Frederick had left his master to marry; he listed as from Swartensluijs and his new bride Grietje Pieters as from Breda, MDC 20, July 20<sup>th</sup> 1656. His master probably was able to have him finish his term of service through the intercession of arbitrators, though the master had the obligation to stop the marriage when the banns were first posted, RNA ii 148.

<sup>168</sup> Blocks provided to Frederick, RNA vi 339, 24 October 1671. See *Wallington's World* for the diary of an English turner who was literate, religious, and consistent in his work.

<sup>169</sup> RNA ii 428, 27 August 1658, Frederick was busy and his wife was away selling chairs at Fort Orange to obtain beavers. More black walnut chairs, RNA vi 380, 2 July 1672. Black walnut spinning wheel,

was fined and directed to make a set of bowls for the bowling game on the public green, suggesting that he also made the ball feet so characteristic of Dutch cabinetry in this period.<sup>170</sup> The variety of the goods he produced, the range of tools he employed, and his skills flexibility made his life as an artisan more interesting and challenging than an English artisan, offering opportunities to rise in the ranks of turners.

The monotonous and singularly unoriginal tasks of English turners, coopers, potters, and sawyers suggest that the routine production of the same item among English craftsmen heralded the repetitive work that would be done during the Industrial Revolution in England a century later, the mechanical devices made attractive by their superiority to English tools, easily tempting workers to trade long craft apprenticeship and indentured servitude for steady wages and slavery to the machine.

After 1674 in colonial New York City when the English attempted to limit and compartmentalize craft practice, the action could have served to reduce the stature, breadth, depth, and opportunities of some of the members of the *brede middenstand* by narrowing their occupational tasks and breaking up their craft groupings. But this was more effective with the culturally English colonists in New York who had lived under those circumstances and who viewed it as normal, and it was only superficially effective for the much larger population of the northern continental Europeans resident in the city. The continuation of northern continental European practices and the persistence of the development of fictive kin, as well as the policy of marrying in, left the majority of the

---

RNA v 353-354 estimated at three days work but charged a tub of soap which would be payment at roughly eight to ten guilders a day, and the client provides the materials. Middleton, p. 42, has Frederick also doing chair matting, which, though not indicated by Middleton, was probably partly his wife's work.

<sup>170</sup> RNA vii 68, 6 March 1674.

crafts in New York City under northern continental European cultural control even after the tightening of English administrative control.

When the English began to impose their cultural sense of skills practice on the artisans of New York City, they began to tamper with their own best source for the products of continental Europe. They tried to force not only their sense of the separation of skills on the city artisans but also their English practices regarding apprenticeship service and contracts for new workers. The result was that the three or four years of service for an apprentice or for an artisan hired under contract in New Amsterdam/New York City grew to first five years then finally to the seven years characteristic of London, clearly unnecessary for any purpose other than to maintain workers in positions of servitude for prolonged periods of time.

The consequence of the English actions in New York City was a pushing shut of England's colonial back door to northern continental European skills. English newcomers to New York City in the 1670s and 1680s found themselves forced to deal with skilled craft practitioners who were non-English and who had the advantage of years of experience in the colonial location. The original artisans were denied the opportunity to export their products and limited to selling to the other colonists while competing with imported English wares, but they did well in spite of the problems.

This period was followed by a new wave of arrivals, the Huguenots. The silversmith Bartholomeus Le Roux arrived in New York City in the 1680s during the persecution of the Protestants in France that anticipated the revocation of the Edict of Nantes, but in a roundabout fashion. Oddly, London was the city of origin for him at his

marriage in New York's Dutch Church on the 14<sup>th</sup> of December, 1688.<sup>171</sup> His brother Pieter was also in New York when he married there in 1692, but he had been denized a decade earlier in England on March 8, 1681/2.<sup>172</sup> The movement dates for these brothers do not match religious events; Pieter easily obtained citizenship in London before he went to the colonies, and both brothers married Dutch, throwing into question whether they were Huguenots at all. Bartholomeus married Geertuydt van Rollegom and Pieter married Alida Thomas Vryman from Albany, families that were well known in the Hudson Valley and well-connected to other long established family networks.<sup>173</sup>

Huguenot origins have a cachet not attached to Dutch origins, especially in England, and many more self congratulatory genealogical and historical writings have been produced for them than for northern continental Europeans. Often the circumstances make the designation "French Huguenot" questionable, as is true in the case of the Le Roux brothers.

The matter of the Huguenots in the colonies would have been understood by the northern continental Europeans as referring to the stranger practices with which they were familiar. The easy assimilation of the supposed "French" Huguenots into what had been colonial New Netherland, their intermarriage with Dutch and Germans, and their swift incorporation into large craft groupings or into the tightly intermarried silver and

---

<sup>171</sup> MDC 66

<sup>172</sup> MDC 73 and William A. Shaw, ed., *The Publications of The Huguenot Society of London. Vol. XVIII, Denizations and Naturalizations of Aliens in England and Ireland, 1603-1700* (Published in Lymington by Chas. T. King, 1911), 147.

<sup>173</sup> This family also had colleagues serving as fictive kin, notably the silversmith van der Spiegel.

goldsmiths all indicate that they were of the same cultural understanding with respect to kinship, crafts, and craft practice.<sup>174</sup>

The presumed Huguenot Bartholomeus Le Roux trained an Englishman in his shop, Jeremy Dommer, suggesting that Le Roux may have spent a considerable length of time in London, possibly as a journeyman there, learning English in the process. Dommer set himself up in Boston where, in turn, he trained young Kiliaen Van Rensselaer.

After intervening decades of peaceful interaction between the English and the Dutch following the Glorious Revolution that linked the Dutch to the English through the reign of William and Mary, the final large movement into the colonies was by the Palatine refugees. The bulk of these refugees were rural agriculturalists, not artisans.<sup>175</sup> The few who had craft skills settled in New York City or Philadelphia where they were rapidly assimilated by the majority population of the descendants of the northern continental Europeans. Contact with them was avoided by the English who had been eager to send them out of their London refugee encampments to endure transport to distant colonial shores.

The removal of the Palatine Germans to the colonies was the only major movement of continental Europeans under Queen Anne, and later under the Georges the control over strangers tightened. The first efforts to rein in colonial freedoms in the New York City area occurred immediately following the death of Anne. The new regulations

---

<sup>174</sup> The Huguenot situation was as difficult to sort out as the Walloons, and both deserve a thorough examination in their own right. It may be that religion truly did bind them together, but other details of their lives throw that into question.

<sup>175</sup> John Tribekko and George Ruperti, compilers, *Lists of Germans From The Palatinate Who Came to England in 1709* (Baltimore: Genealogical Publishing Co., 1965), 10. There were 147 agriculturalists but only 11 smiths, 8 carpenters, 8 weavers, 5 millers, and 5 shoemakers, with additional crafts in lower numbers.

that seemed to flow forth in profusion under George I met with immediate hostility and the administrators backed away from their efforts to implement them, but by the beginning of the reign of George II in 1727 strangers from the continent were severely restricted. Newcomers from other than the British Isles were required to reside in one of the North Atlantic colonies in a settled location for a period of seven years, never away for more than three months, and only then could they apply for citizenship, paying costly fees in the process.<sup>176</sup>

The movement of the skilled knowledge of northern continental Europeans out into the Atlantic World made the products of the artisans accessible to the English who remained content to hire foreigners and who seemed not to desire to acquire the skilled knowledge they possessed and make it their own. Using go-betweens, the English were able to obtain skilled artisans from the continent and use them in the English colonies, and from that location it was possible for the skills to move to England through the colonial back door because citizenship could be obtained easily.

Two principal features of the practice of skilled crafts in New Amsterdam/New York acted as barriers to the movement of the knowledge into English hands, suggesting that the same happened in England. First, the English preferred their own guild system to that of the northern continental Europeans, retaining the medieval compartmentalization aspects as practiced in their larger cities such as London rather than developing craft groupings as was characteristic of northern continental Europeans. Second, the English were actively prevented from accessing the craft knowledge by the monopoly within the monopoly, the family.

---

<sup>176</sup> George II regulations. A. H. Carpenter, "Naturalization in England and the American Colonies." *American Historical Review* 9 (January 1904), 288-303.

Those foreigners who usually married in, as was the case with gold and silversmiths, did not begin to train the English in their craft in the colonies until the 1690s, controlling both the craft production and one of the sources of assets on the northwestern shores of the Atlantic World.

## CHAPTER TWO

### Marks of Difference in Kinship Styles and Family Customs

The English preferred desiring the products for which they had an appetite to desiring the means to produce them, not only because the strangers were cultural aliens but also because the citizens of London were usually unable to access the stranger families to create economic liaisons by marriage that would at least yield financial benefits in the absence of an opportunity to learn and practice the superior skills of others.

Whether it was foreign merchants dominating the cloth trade, or stranger silversmiths preferred by the consumer, or alien silk weavers producing what the English could not, each area of the much-resented alien economic control or success was perceived by the English as competition or as an undesirable monopoly.<sup>177</sup> Inside that external economic monopoly resided the further complication of the internal unfamiliar kinship system and value set of the others, what the English perceived as a monopoly within the monopoly.<sup>178</sup>

The internal monopoly of the real and fictive kinship system of the northern continental Europeans was structurally and functionally a distinctive cultural barrier to mutual understanding and certainly a further barrier to technology transfer, making the alien artisan or merchant family incoherent and inaccessible to those English desiring their skilled knowledge or desiring to share in their economic success on either side of the Atlantic Ocean.

---

<sup>177</sup> Marcel F. Backhouse, "The Strangers at work in Sandwich: Native Envy of an Industrious Minority 1561-1603." *Immigrants and Minorities* [Great Britain] Vol. 10, no. 3: 70-99.

<sup>178</sup> The phrase "the monopoly within the monopoly" recurs in English complaints and refers to the underlying connections between those in control. Perhaps the earliest use of the term involves Bristol and the families that tightly controlled the Muscovy Company.

The first encounters the English had with guild strangers in England involved language difficulties, followed by problems with their names and their overall pattern of naming, serious complications for the officials in a host city such as London where recording the presence of aliens was a necessary but challenging task. From the perspective of the northern continental Europeans, the structure of their own names honored ancestors and represented ways to recognize each other as skilled artisans in various parts of Europe, but when they became urban strangers in England, their patronymics along with the occupations they used as part of their names for identification within their culture, prominently marked them as different from the moment of contact.

The trait that the northern continental Europeans developed very early in response to the problem of names and other outward features was to adapt whenever possible, becoming as nearly invisible to the host country as could be managed while retaining connections to kin and exercising a continuing ease of mobility. A case in point involves “Henry Barnes,” actually Hendrick Barentszen, who was a *kleermaecker*, a tailor, and who first appeared in London as an employee of Roger Stofford in 1576.<sup>179</sup> In the 1593 London Returns of Strangers, Henry had a wife Jane and he reported that he had been born in Midwolde in Friesland.<sup>180</sup> As “Hendrick” he had probably received his tailor training in the nearby large city of Groningen. The recorder of aliens indicated that “Henry” had been in England for fifteen years and that he was currently a member of the Dutch Church at Austin Friars. The document further stated that his wife was French, that he had three children, two English serving women, and employed six women at his

---

<sup>179</sup> This was found by back-tracking from the 1593 *Returns of Aliens*. Kirk, R. E. G. and Ernest Kirk, “Returns of Aliens Dwelling in the City and Suburbs of London from the Reign of Henry VIII to that of James I,” *Huguenot Society* two volumes in one called Vol. X, three parts, Aberdeen Scotland: 1900-1908, Vol. X, part ii, 179.

<sup>180</sup> Scoudludi, *Hug. Soc.* Vol. LVII, f. 880 on page 149.

craft, a set of circumstances that indicated his level of achievement in the production of garments.<sup>181</sup> By 1618 “Henry Barnes” signed the Lambeth Parish stranger returns as a constable, by 1625 he had moved just outside London, and by the 1627-1639 returns none of the “Barnes” family was listed as a stranger.<sup>182</sup> Hendrick Barentszen *de kleermaecker* from Midwolde in Friesland simply disappeared as an alien, reappearing outside London as well-to-do Henry Barnes, his children and grandchildren beginning to blend into the English culture in such a manner that their descendants today may think that they have an English ancestry.

Hendrick the tailor’s discretion, his careful adaptation, and his deliberate efforts at relative invisibility included allowing his name and his wife’s name to change, from Hendrick to Henry, Janneken to Jane, and Barentszen to Barnes, one of several steps in the process of assimilation, something that was not easy for aliens who had made themselves notorious by their actions or who were of a more significant social status in the eyes of the English.<sup>183</sup> The overwhelming majority of strangers in English cities were careful both to suppress outward signs of difference and to employ English labor while maintaining many of their most vital cultural traits.

Just what were those stranger differences beyond their names, their language, inherent mobility, and the grouping of related crafts? The English ranted and railed against the highly skilled foreigners repeatedly, and more has been made of those attacks on them than what might be the nature of the culture of the northern continental European

---

<sup>181</sup> Ibid. Hendrick Barentszen was undoubtedly the same man as “Henrick Berntz” who married Janneken de Lande from Kamerijck in 1584 in the Austin Friars Church. He was entered as from “Oldam” in the area of Groningen, probably the place where he was baptized. Friesland and Groningenland were/are contiguous regions and the places named, Midwolde, Oldam, and Groningen, were/are close to each other. See Dutch Church at Austin Friars, 91, for the marriage.

<sup>182</sup> Kirk and Kirk, *Hug. Soc.* Vol. 10, part iii, 231 and 237.

<sup>183</sup> Van Meteren, for example.

guild strangers. The cultural emphasis has been on their religious beliefs, not their expertise in crafts, and little has been done with their kinship and family patterns.<sup>184</sup>

In the process of addressing the issue of the northern continental European culture while studying their family and craft movement in the Atlantic World, the principal features of their kinship system and how it functioned surfaced, revealing information that raises more issues than just those of technology transfer. Happily, the most fundamental aspects of their culture that was so alien to the English also help to explain their social stability and the ease with which their craft knowledge moved geographically.

The material presented here describes the cultural world view of the northern continental European practitioners of a traditional kinship system and its family customs. The information assails what the reader may believe to be true, challenging the established paradigms of the dominant schools of thought regarding the family as understood or debated by using English models, and questioning the view of guilds as separate entities in certain parts of Europe.<sup>185</sup> The kinship system of the northern continental European culture is presented with only occasional explicit contrasts to the English when it may be necessary to rethink their much more widely known models for

---

<sup>184</sup> Andrew Pettigree, *Foreign Protestant Communities in Sixteenth Century London* (Oxford: Clarendon Press, 1986) makes a few references to family, but instead see Ole Peter Grell, *Calvinist Exiles in Tudor and Stuart England*, (UK and USA: Ashgate, 1996), regarding the problems in trying to follow one family in a religious context. See Irene Scouloudi, *Returns of Strangers in the Metropolis, 1593, 1627, 1635, 1639: a Study of an Active Minority* (Huguenot Society, London, 1985) regarding her efforts to flesh out the lives of individuals from the great quantity of material that she described as “vast and daunting.”

<sup>185</sup> The presence of two different kinship systems in Europe alters how the early modern historian might consider the family in pre-industrial, proto-industrial, and early industrial times. The English model for families, either before the Industrial Revolution or after, simply does not apply, nor do the debates that have long ensued. Those who are familiar with the studies presented in the debates may wish to re-examine the origins of some of the families used as examples because they could prove to be the descendants of urban strangers. For new perspectives through kinship, see David Warren Sabean, *Kinship in Neckarhausen, 1700-1870*, (Cambridge: Cambridge University Press, 1998), and David Warren Sabean, Simon Teuscher, and Jon Mathieu, eds. *Kinship in Europe: Approaches to Long-Term Developments (1300-1900)*, (New York: Berghahn Books, 2007).

the family in England and the Americas.<sup>186</sup> The core issue is what the cultural differences between the English and the northern continental Europeans mean in interpreting mutual interactions in the Atlantic World, especially where one culture possessed the skills or the products of skills that the other culture desired.

### Holland Custom

In 1656 the merchant Seth Gilliszen Verbrugge from Haarlem in Holland wrote a letter to another merchant in New Amsterdam in New Netherland to recommend Jan de Peyster as an assistant. Seth wrote that de Peyster had experience from several years of selling silk fabric and that he was a relative, specifically “my wife’s uncle’s sister’s son from a good house.”<sup>187</sup> The expression “my wife’s uncle’s sister’s son” was deliberately precise and in keeping with the style of kinship underlying the complex family connections among the northern continental Europeans. To identify the same person, the English might have reduced the phrase to the term “cousin,” a word that was used far less commonly among the family expressions in the Low Countries, northern Germany, or Scandinavia.

When Seth referred to de Peyster as “from a good house” he was commenting upon the quality of the entire craft, sales and merchant activities of the extended family, in de Peyster’s case a family of goldsmiths, Seth moving smoothly in his description of the family relationships into commentary on skills knowledge and practice. One’s place

---

<sup>186</sup> A somewhat global overview of kinship and the family is provided by Alan Macfarlane in his Radcliffe-Brown Lecture in Social Anthropology, “On Individualism,” *Proceedings of the British Academy*, 82, 171-199 (1992). See also for basic material Robin Fox, *Kinship and Marriage: An Anthropological Perspective* (Cambridge: Cambridge University Press, 1967). Will Coster, *Family and Kinship in England 1450-1800* (Harlow, England: Pearson Education, 2001) has an excellent family history bibliography arranged under separate categories such as inheritance, kinship, or childhood.

<sup>187</sup> New York Historical Society, Stuyvesant-Rutherford Papers 1:2, as cited by Jaap Jacobs in *Een zegenrijk gewest*, page 87 and note 94 on p. 421, 9 May 1647.

in the family, the competent performance of a skill, and responsible social conduct were inextricably linked to the family networks and the kinship system as a whole.

The kinship system that Seth understood and within which he was living out his life had once been more deeply entrenched in northern Europe. Referred to explicitly by anthropologists as the bifurcate collateral system, originally it was shared by all northern Europeans who had been under the influence of the Anglo-Saxons or other European cultural groups with a similar kinship pattern.<sup>188</sup>

The bifurcate collateral system, also commonly called the Anglo-Saxon kinship system, refers to the presence in the family of a somewhat equally balanced paternal and maternal divide with separate relational terms for each side that were intended to distinguish between paternal and maternal relatives, as well as the presence of terms for lineal relationships such as son and daughter.<sup>189</sup> The Anglo-Saxon system built relationships through both parents, the terms differing between them so that the word for mother's brother was not the same as the word for father's brother. The system generalized distant relatives with the terms "niece" and "nephew" rather than the term "cousin." As a system, the type of kinship called bifurcate collateral also describes the

---

<sup>188</sup> Plakans argues for closer work between historians and anthropologists, pointing out the difficulties in doing historical anthropology, not the least of which is terminology. He uses the term bilateral kinship for continental Europeans, which is more generic but does not explain the persistence of separate terms for the two sides of the family, the dominance of the term for mother's brother, or the use of the gendered terms "niece" and "nephew" for "cousin."

<sup>189</sup> See Jack Goody, both 1983 and 2000, and how his position on Anglo-Saxon kinship changes over time. Alan Macfarlane views the separate maternal and paternal terms as representing separate social blocks, an idea that is not compatible with the mother's brother's status as second only to ego's father as the principal male in ego's life. Goody in his revised edition states that he does not think that the mother's brother was of any particular importance, but of the two terms, *vaderer* for father's brother and *aem* (*oom*) for mother's brother, it is *oom* that has persisted. The records also frequently clarify whether or not an individual is a true *oom* because it could be used as a term of honor.

relationships within nearly every Amerindian tribe, and certainly those tribes from Chesapeake Virginia through New England.<sup>190</sup>

The Anglo-Saxon style of kinship had existed in parts of England until the early Middle Ages but it was actively suppressed after the Norman invasion.<sup>191</sup> On the continent, especially where the Romans and Roman Catholicism had not penetrated or had penetrated weakly, the northern continental European family retained aspects of the bifurcate collateral kinship system throughout the Middle Ages and well into the early modern period. In some areas of the continent certain persistent features were retained into the nineteenth century and continue now in places such as Sweden, though the number and strength of the system's features diminished over time, drifting toward simple bilaterality.<sup>192</sup> During the late medieval and early modern period the results across Europe were at least two distinct styles of kinship that contributed to cultural similarities and differences, especially with regard to the perpetuation and control of

---

<sup>190</sup> Harold F. Driver, *Indians of North America*, University of Chicago Press, Chicago, 2<sup>nd</sup> ed., 1969, pp. 255, 259-261. Before contact all North American Amerindians shared in the bifurcate collateral system.

<sup>191</sup> England's slow loss of the Anglo-Saxon kinship system after the eleventh century was due to the impact of the Normans principally through the eradication of patronymics, the insistence of the taking of a surname, and the imposition of Norman law, but the Roman Catholic Church also played a role in the disruption of the old kinship system by insisting on the naming of children for saint's days, expecting second sons and daughters to serve the church, setting limitations on the closeness of relationships for marriage, requiring the use of church law and courts, and setting up religious institutions that interfered with the usual Anglo-Saxon practices regarding the family's social customs and needs. See Lorraine Lancaster, "Kinship in Anglo-Saxon Society-I" and "Kinship in Anglo-Saxon Society-II," *British Journal of Sociology*, 9, 1958, pp. 231-250 and pp. 359-377. Also see H. R. Loyn, "Kinship in Anglo-Saxon England," *Anglo-Saxon England*, 3, 1974 for comparisons of the English and others such as Germans and Norwegians, though not everyone agrees with the claim that *jus legale* took precedence over *jus naturale cognatorum* outside of England. The debates around the English family regarding features before and after the Industrial Revolution referencing the extended family and the nuclear family, arranged marriages and marriage for love, utilizing either statistical analysis or self commentary from diaries, all do not apply here because, with the exception of Jack Goody and Ole Petersen Grell, the authors did not discuss kinship systems in Europe nor did they recognize that some "English" families had ancestral origins on the European continent.

<sup>192</sup> David Gaunt, "Kinship: Thin Red Lines or Thick Blue Blood," in David I. Kertzer and Marzio Barbagli, eds., *Family Life in Early Modern Times: 1500-1789*, Vol. I of *The History of the European Family* (New Haven and London: Yale University Press, 2001), 262.

skilled knowledge and its practice, affecting the accessibility of that knowledge by others who did not possess the same style of kinship.<sup>193</sup>

The two distinct styles of kinship have been encountered by scholars in the past but have gone unrecognized. When Martha Howell compared the families of two late medieval cloth merchants in Cologne, she assumed that the obvious differences in personal entries in the journals of Werner Overstoltz and Jan Sloegin provided evidence of the early stages of the family as it changed from past style to modern style during the proto-industrial period as discussed by historians of the English experience. The patrician merchant Werner Overstoltz wrote in his journal about intermarriage with German noble lines, descent from Roman generals, his real property holdings, and his son as his sole heir. By contrast, Jan Sloegin was a stranger merchant born in Nimegen in the Low Countries. Sloegin wrote of family business affairs, relatives in distant locations, his children's education and careers, and the gifts he made to his sons and daughters.

Rather than showing a transition from the past family to the modern family on an English model, the personal journals showed two distinct styles of kinship that could exist at the same time and in the same place.<sup>194</sup> Overstoltz stressed patrilineal inheritance (primogeniture) while Sloegin demonstrated partitive inheritance in his gifts

---

<sup>193</sup> See Andrejs Plakans, *Kinship in the Past: An Anthropology of European Family Life, 1500-1900* (Oxford: Basil Blackwell, 1984), 172-173. Plakans uses the term "bilateral kindred" to discuss the kin group interactions that lay outside the household and the conjugal family unit, citing the 1913 work of Phillpotts for the historical treatment of medieval European kinship.

<sup>194</sup> From the work of Wolfgang Herborn as presented and discussed in Martha C. Howell, *Women, Production, and Patriarchy in Late Medieval Cities*, (Chicago and London: University of Chicago Press, 1986), 120-121. Steven Ozment, *Flesh and Spirit: Private Life in Early Modern Germany*, Viking Press, 1999, had the same problem as Martha Howell when he examined the private lives of families in early modern Germany. His miss-readings of intention in the records are numerous and clearly based on the English models. Natalie Davis also did not realize that some of her examples, especially those from Protestant families, may be from another style of kinship; "Ghosts, Kin, and Progeny: Some Features of Family Life in Early Modern France," *Daedalus* 106/2 (1977), 87-114.

(unigeniture), and Overstoltz emphasized noble lines but Sloegin was more concerned with his children's education.

Martha Howell's work was discussing the "family economy" or the "family production unit," not types of kinship. Without regard to possible differences between cultures, she described the family style she presented as located in northwestern Europe, including "most social classes in England, in France north of the Loire, in Scandinavia, in the Low Countries, and in most of Germany until about 1700."<sup>195</sup> The bifurcate collateral kinship system did not apply across "most social classes" as Howell claimed and the majority of the English did not practice it, explaining some of the difficulties encountered when applying the studies of the English family to northern continental Europe.

"Most social classes" is a particular issue. Each of the four men mentioned here, Seth Verbrugge, Jan de Peyster, Werner Overstoltz, and Jan Sloegin, was a merchant or on the way to becoming a merchant, therefore from the English point of view they were members of the same merchant class. But their differences indicate that there was something else going on: Seth Gilliszen Verbrugge used a kinship patronymic, Jan de Peyster was a young itinerant silk salesman from a family of goldsmiths and he was contracting to work in a distant colony as a factor for other goods such as furs and tobacco, Werner Overstoltz fancied himself an aristocrat, and Jan Sloegin had the origin and behavior patterns of a craftsman in the bifurcate collateral kinship system. The term "merchant class" proves too general for the particulars of these men's lives.

---

<sup>195</sup> Howell, 11-12. Another work of Howell's carefully discusses local and regional differences in family and kinship practices. See Martha Howell, "Fixing Movables: Gifts by Testament in Late Medieval Douai," *Past & Present* 150 (1996).

The true aristocrats and landed gentry in Denmark, Norway, Sweden, northern Germany, the Low Countries, and in selected other areas of Europe did not practice many principal aspects of the bifurcate collateral kinship system, just as the English did not.<sup>196</sup> Instead they abided by rules for continued membership in the knighthood or aristocracy, called the *ridderschap*. The rules of the *ridderschap* prohibited certain features of the craft kinship system, such as the use of the patronymic, doing manual labor, or working as an artisan, usually even in conjunction with mercantile activities.<sup>197</sup>

Henk van Nierop has discussed the aristocrat and laborer distinctions at length for the northern part of the low countries in the early modern period, including presenting specific cases where a man's right to continue in the *ridderschap* was challenged because he had been seen cutting his own hay, or he was using a patronymic, or otherwise belying his aristocratic heritage. Van Nierop chose to use the term Holland Custom for the social behavior of the non-aristocrats, the commoners or quite ordinary people practicing crafts.<sup>198</sup> The ordinary people included craftsmen who rose to become merchants or prominent burghers and who often had considerably more family wealth and greater political control than the aristocrats.<sup>199</sup> By the end of the sixteenth century, sixty percent of the population of Holland lived in cities where the most highly skilled crafts were practiced and where the populace had more voting power than the nobility.<sup>200</sup> During the early modern period the majority of these ordinary people lived out their lives within the

---

<sup>196</sup> This is one of the problems with Peter Kalm's journal. As a Swedish aristocrat he did not understand what he was observing.

<sup>197</sup> Henk van Nierop, *The nobility of Holland: From knights to regents, 1500-1650* (Cambridge: Cambridge University Press, 1984).

<sup>198</sup> Van Nierop. Many other generic kinship terms have been used by historians when referring to relationships within families in the early modern period, such as agnate and cognate as used by Frijhoff, but I have chosen to use the most explicit terminology I could find that echoed the principal features of the combined guild, risen merchant, and burgher craft practitioners as the data suggested.

<sup>199</sup> Van Nierop, 98. These are risen merchants.

<sup>200</sup> Van Nierop, 6.

slowly modifying bifurcate collateral kinship system, practicing crafts, holding the burgher right, and rising to distribute and market their goods, some gradually becoming substantial merchants.

The term Holland Custom as used by van Nierop for the ordinary people is preferable to the anthropological expression “bifurcate collateral,” and to the expression “Anglo-Saxon kinship” not only for simplicity’s sake but also to avoid the complications arising when using the term “Anglo-Saxon” for a non-English culture.<sup>201</sup> For the purposes of this study, the term Holland Custom supplants other terms for the kinship style being discussed and it is being used generically for the features presented here, whether the individual was Dutch or not.

Taking Holland Custom into account requires rethinking class distinctions as broadly understood in social history in the early modern period in Europe. Since most of the practitioners of the kinship system in this study were artisans, salespeople, or merchants who might spend part of their life course in each role, it is more appropriate to discuss the social stratification within the *brede middenstand* for the ranks of occupations than to use the term “class,” as pointed out in the previous chapter. The members of the broad middle class saw success in life as part of a cycle, where every person had a chance

---

<sup>201</sup> See Lorraine Lancaster on the “unedifying” debate regarding terminological correctness when discussing kinship, in “Kinship in Anglo-Saxon Society: I”, *British Journal of Sociology*, 1958, 9:235. See also Jack Goody, *The Development of the Family and Marriage in Europe* (Cambridge: Cambridge University Press, 1983) and his much more recent study *The European Family: An Historico-Anthropological Essay* (Oxford: Blackwell, 2000). Donald Haks, who had an excellent opportunity to think through the Dutch data he had amassed, made the unfortunate mistake of interpreting it based on the English model. A. M. van der Woude’s approach is much the same except for very early material cited here later. Many of the Dutch scholars have used methods pioneered by Simon Hart who is also cited later. Frijhoff uses the simpler terms for family rather than those for kinship; agnate for a patrilinear family, and cognate for a horizontally complex set of relationships. Unfortunately these simpler terms are derivative of studies that have not examined closely the late medieval and early modern craft practicing families of northern continental Europe, and I agree with Lancaster and Goody regarding the need to reach for the details of the kinship system while taking care not to lose the focus of the study by becoming embroiled in the fine points of anthropological terminology.

to achieve the highest possible urban ranking, usually faring better than the members of the *ridderschap*.



The Family Circle

The image of a cycle or circle permeates the most fundamental aspects of Holland Custom. The family was referred to as a circle, often emphasized with a circular table, an extravagance not everyone could afford, but regularly symbolized by a circle hanging over that table in the form of a wreath or other device. Taverns were places where separate families could meet, and the symbol for a tavern was three intersecting circles. A tavern on every corner was an essential component of the urban setting. But the most poignant image of anyone's life course was the cycle of the moon used to represent the cycle a man traveled from his birth to his full adult years.

In Dutch the cycle identified with "the man in the moon" was a reference to two words that differed by a single letter, *man* and *maan*. The word *man* could mean man, husband, or person, thus the cycle referred to everyone. Dutch children grew up with an image described to them or displayed on a wall as a print or a painting where there was a new moon seen as a baby's face peering over an adult's shoulder. The next figure played on the half moon, or a half man, which was the expression for a beggar, sometimes depicted with no legs as if the person might be able to think and have some functions but was as yet unable to stand on his own two feet, such as a still-dependent child. The following figure was of a humped back man representing the gibbous moon, a symbol for the maimed and the not completely unfurled man, or the adolescent, and finally there was the full moon, the full man, dressed in fine clothes, having achieved all he could desire. The images were presented in a circular layout on the background, indicating a cycle.<sup>202</sup>

The northern continental European artisans usually perceived themselves as belonging to sets of interconnected circles of nuclear and extended families, with

---

<sup>202</sup> There are large numbers of these genre renditions, most of which are explained away as social commentary on the classes.

themselves at the center of the extensive networks that reached outward linking people together at any particular point in time, similar to a thin circular slice of wood in the otherwise continuous length of a tree trunk. The circle of connections and interconnections was constantly gaining and losing members, ever changing slightly, always requiring contact with one another and updates on alterations. The English perception of a personal life in a craft was lineal, a series of begets and sons of sons, while the adult member was usually locked into a single craft occupation as a farmer, baker, turner, or tailor. The circles and cycles of the lives of northern continental Europeans were more interconnected and hopeful, contributing to family and craft structure and function in a community and extending outward into the wider world.

Holland Custom as a kinship system with its extended networks “provided the material, physical, social, and symbolic capital that allowed each person to play honorably his role, to represent him or herself in the public sphere, and to perform efficiently in the social context.”<sup>203</sup> Seth Gilliszen Verbrugge was referencing all the features provided in kinship when he recommended Jan de Peyster as a relative, a competent worker, and from a good house.

Seth’s father was a Haarlem carpenter who became a risen merchant and who had traveled as far as Moscow to trade in Baltic Sea goods such as furs and timber.<sup>204</sup> Later Seth’s father bought furs, timber, and tobacco in North America for import into

---

<sup>203</sup> Goodfriend, Joyce D., *Revisiting New Netherland: Perspectives on Early Dutch America* (Leiden and Boston: Brill, 2005), 151.

<sup>204</sup> John Ross Delafield, “The Van Brugh Family,” *NYG&B RECORD*, Vol. LXVI, No. 1, 1935, pp. 2-11. Seth’s father Gillis Janszen Verbrugge and mother Janneke Ceth (Seth) made a will in July of 1635 because Gillis was about to journey to “Moscovien,” page 6.

Europe.<sup>205</sup> Through his father, Seth was also the grandson of a refugee from Leende near Ghent who had relocated to London to live there as a stranger.<sup>206</sup> On his mother's side, Seth was the grandson of a prominent carpenter, contractor, and risen wood merchant who had lived in Hoorn as well as in Haarlem.<sup>207</sup> Seth's first wife was a Vermander, related to the artist Karel Vermander, and she had family in London. His second wife was Maria Wyckenburg whose uncle Edward Dill was the auctioneer for the Admiralty in Amsterdam. According to his will in England in 1681, "Seth Van Brugg," the true nephew of Seth Gilliszen, was a merchant of St. Swithin in London.<sup>208</sup> Mobility was a part of this family's lives, their culture, and their heritage.

The patterns of connections to the continent that also reached to the strangers in London were common among the settlers of New Netherland. An example involves a little girl named Abigail. On February 9<sup>th</sup>, 1648 in New Amsterdam in New Netherland, Willem de Key and his wife Catharina Roelofs brought their infant daughter to church to be baptized.<sup>209</sup> The records show that Jacob de Key and Anna Regoot were listed as the child's baptismal sponsors. Neither of their names appears again in the New Netherland documents. They were two of the few people recorded as baptismal witnesses who were not physically present.<sup>210</sup>

---

<sup>205</sup> Oliver Rink, *Holland on the Hudson: an Economic and Social History of Dutch New York* (Ithaca, New York: Cornell University Press, 1986), 177-179.

<sup>206</sup> Delafield, *The Van Brugh Family*, 3.

<sup>207</sup> She was the daughter of Seth Corszen Stam and Ariaentie Dircx, baptism not found.

<sup>208</sup> PRO, London Wills, PROB 11/368 Q 148, 15 October 1681.

<sup>209</sup> BDC 24. The date was entered as "Eodem" referring to the last entered date, which was "den 9 Febr." of 1648. The entry continues with only "Willem Caij" entered as the father, Abigail as the child, and Jacob de Keij and Anna Reegood entered as witnesses (*getuijgen*). Willem de Key and Trijntje Roelofs had been married just a year before in the Dutch Church in New Netherland in 1647, MDC 14, "den 24 Febr. *Wilhem Keij, j.m. Van Haerlem, en Trijn Roelofs, j.d. Van Amsterdam.*"

<sup>210</sup> Jacob Theuniszen de Key, appearing later in the New Netherland records, was not the same man.

The witness Anna Regoot was in London, living comfortably with her second husband Paulus de Ganne and her two sons from her previous marriage in Haarlem to Boudewijn Mattheuszen with whom she had also lived in London.<sup>211</sup> The child Abigail born in New Amsterdam had been named for Anna's sister in Haarlem, Abigail Regoot, Willem de Key's mother. Anna was the child's maternal aunt while Jacob de Key was the child's great-uncle.

Jacob de Key, Willem de Key's paternal uncle, was also living in Haarlem. Willem de Key's father was Abraham de Key, and the brothers Jacob and Abraham had both been born in London while their father Lieven de Key was living there as a stranger.

Lieven de Key was the renowned architect of numerous large structures in Haarlem and Leiden. He had been born in Ghent sometime around 1560 and relocated with his parents and siblings to London where he married a woman also from Ghent, Catelyne de Caluwe, at Austin Friars Church in 1585.<sup>212</sup> It is not known what architectural work Lieven did in London where he was described as a supplier to Southwark, but by 1590 he had removed to the continent with his wife and children, his sister Janneken, and his brothers Willem, Michael, and Isaac. In 1592 he became the official architect for the city of Haarlem.<sup>213</sup>

Lieven de Key's brother Willem became the head of the West India Company's Haarlem Chamber in 1621 at the Company's earliest establishment, and his personal investment paid off handsomely when Piet Heyn captured the Spanish silver fleet in

---

<sup>211</sup> PRO, London, PROB 11/175 21 September 1637, Q123, will of Paul Ganne, mentions wife Anna Regoot and two children of her previous marriage.

<sup>212</sup> Austin Friars marriages, 115.

<sup>213</sup> See William Hoffman, *The American Genealogist* Vol. 30, No. 2, (April 1954) for more information.

1628.<sup>214</sup> Jacob de Key, a son of Lieven de Key, became the head of the West India Company's Haarlem Chamber in 1630. Probably this uncle of the younger Willem de Key schooled his nephew in shipping, settlement possibilities, and mercantile activities involving the New Netherland colony as part of the larger Atlantic World. While in New Netherland Willem traded easily with the Massachusetts colony as a merchant since several members of his family spoke English<sup>215</sup>

The connections of Anna Regoot to the American colonies, London, and the continent did not begin and end with the de Key family in Haarlem and New Netherland. Anna's husband Paulus de Ganne was not only a major cloth merchant in London with many trading contacts in Haarlem, he also invested in colonial development in the Americas and worked for Dudley Carleton, a Virginia Company principal, and also worked for the merchant Philip Burlemachi.<sup>216</sup> Paulus de Ganne was one of the several individuals who found themselves caught up in a Star Chamber incident, charged with exporting quantities of funds out of England.

Anna's brother in Haarlem was Francois Regoot, whose wife was Maijke Deynoot. Mayke Deynoot next married Govert van der Liphorst in Haarlem, and a branch of this family later settled in New Netherland.<sup>217</sup> The Deynoot family became involved in the Virginia trade in tobacco through Rotterdam, where several relatives settled, and at least one member of the family was also living in London.<sup>218</sup> Anna, Abigail, and Francois also had another sister Mayke Regoot who was married to Daniel Christoffelszen Deijnoot. Daniel's father Christoffel Martijnszen may have been

---

<sup>214</sup> Jonathan Israel, 497.

<sup>215</sup> Aspinwall Notarial Records

<sup>216</sup> See Scouloudi, *Returns of Strangers*, and Kirk and Kirk *Returns of Aliens*.

<sup>217</sup> Delafield, *The Van Brugh Family*.

<sup>218</sup> Christopher Deynoot is mentioned in the will of Seth Van Brugge.

involved in attempts to arrange travel to the Americas for the Brownists in Leiden, and Daniel's son established himself in London.<sup>219</sup>

Daniel Deynoot's sister Jannetie married Harman Dirckszen Hooglandt whose son Christoffel became a factor and merchant in New Netherland. The general movement outward into the Atlantic World also had a theme of return. Christoffel Hooglandt's son Frans, born in New York, returned to Haarlem in the United Republic where as "*Frans Hogelant van Nieuw nederlant*" he married Anna Willems.<sup>220</sup>

Anna Regoot also had family in Norwich in England, named in her will. The will connects her to the Verbrugges who were principally in Haarlem, London, and New Netherland, and it connects her to the prominent Heerewyn families. This was the same family network of which Seth Gilliszen Verbrugge was a member and also Wolfert van Bylar.

The extensive reconstitution of the family network around the baptismal witnesses Jacob de Key and Anna Regoot in New Amsterdam for the little girl Abigail led to connections between New Netherland, Haarlem, Leiden, Rotterdam, Virginia, and the stranger communities in London and Norwich, and involved cloth and fur merchants, carpenters, and an architect, among others. That was just for the child's father Willem de Key. On the mother's side, Catharina Roelofs, the connections were to Amsterdam and to Norway, and when she was widowed Catharina married two more times, the last time to a member of the Verbrugge family. Any single family reconstitution of northern

---

<sup>219</sup> Networks of merchants was also a subject for Bernard Bailyn as he discussed New England merchant families. He did not recognize that many of the individuals involved were not English and that the overall network extended both beyond England and beyond New England, connecting to northern continental Europeans.

<sup>220</sup> GAHaarlem. This was also entered in the Amsterdam records: *Francois Hoogland y.m. van Nieuw York en Anna Willems van der Plas y.d. van Hillegom woon: tot Heemstede*. The intentions were 10 October 1694 and the marriage 29 October 1694.

continental Europeans can reveal similar extensive networks located across vast geographies, where the relationships within the network provided the glue to hold any one individual to others on whom he or she could depend.

When discussing technology transfer, such tight family relationships and extraordinary distances provide insight into skills movement in the early modern period and affirm that such skills movement routinely included colonial locations.<sup>221</sup> Further, a colonial settler with previous family connections to a colonial project would be enough to suggest an informed design for settlement. Willem de Key knew where he was going and what his employer, the West India Company, had in mind for him with their expectations for the progress of New Netherland because two members of his family had been directors of the Haarlem Chamber. But Willem brought much more with him than that. As a child he had been raised in a city where he knew that his grandfather had designed and built major urban edifices, such as the weigh house, the meat hall, the cloth merchants' hall, and the new façade for the city hall.

As happened in the case of Willem's daughter Abigail, Holland Custom practiced a pattern of remembrance naming for name-giving at a baptism. Abigail was named for her paternal grandmother, and if her father had survived and there had been more children, the next child would have been named for the mother's side of the family. The naming pattern reinforced the kinship system by giving the names of grandparents to the children, connecting them lineally to an earlier heritage while they struggled to learn the extensive lateral relationships in the large circle that was their personal slice of life at any point in time.

---

<sup>221</sup> See Pierre Jeannin, *Merchants of the Sixteenth Century* (New York: Harper & Row, 1972), and Bernard Bailyn, *The New England Merchants in the Seventeenth Century* (Cambridge: Harvard University Press, 1955, 2<sup>nd</sup> printing 1979).

An example of remembrance naming as one of the complex rituals attending the family customs of the northern continental Europeans may be seen in the case of a tailor resident in New Netherland, Evert Janszen Wendel from Emden, who adopted his surname at the suggestion of his relatives in Europe after his mother's death. Evert's two sisters and their husbands wrote to him from Germany on the 27<sup>th</sup> of December in 1661 to indicate how best he could remember his mother and his mother's family:

“Further, if it please God, you again sign your name, you must write it thus: Everden Jansen, which is after your blessed grandfather, but Wendel, which is after your blessed grandmother. You can govern yourself accordingly, we write you this for your own sake”<sup>222</sup>

This simple paragraph contains the elements of multiple cultural differences between the northern continental Europeans and the English. Evert the tailor was literate, which was characteristic of the majority of skilled craftsmen on the northern continent, and he and his family remained in contact across large distances. In addition, Evert utilized a patronymic and he practiced remembrance naming.

Evert was using the patronymic Janszen, also spelled Jansen. The use of patronymics was prohibited in England but common in the northern areas of the continent. It was a custom that involved giving the child a second name derived from the father's first name. If one employs the remembrance naming reasoning in the letter, Evert's shortened given name was for his grandfather Everden who was probably named Everden Jansen. Thus Evert's father was Jan Everdensen meaning Jan, the son of Everden, and in turn Evert, who was the son of Jan, became Everden Jansen, a name identical with his paternal grandfather's. Evert took the surname Wendel from his paternal grandmother who was either named Wendel herself or whose second name was Wendel after her father,

---

<sup>222</sup> A.J.F. Van Laer, *The Dutch Settlers Society of Albany Yearbook* (Albany, New York), vol. IV 1928-1929, page 6. The Wendel family letters were preserved by Oliver Wendel Holmes.

the same form used for men and women.<sup>223</sup> Honoring both sides of the family by remembrance naming was common practice.

The correspondence sent to Evert by his family refers specifically to remembrance naming and demonstrates that it was a conscious and valued act among craft practicing families in northern Germany and the Low Countries, a cultural trait that was expected to persist in the New Netherland colony on the other side of the Atlantic Ocean.<sup>224</sup> Evert's siblings and his in-laws felt compelled to offer advice on the matter of how to develop and sign his full name in his distant location to retain connections to his heritage. They believed that their suggestions were for his own sake, committing their recommendations to a missive that would take months to reach him in a distant colony.

The persistence of cultural practices involving kinship and family may have been fostered in part by the events that formed the Dutch Republic, Simon Schama stating that though “the Calvinist clergy insisted that the Dutch should consider themselves as reborn into a fresh life, cleansed of the filth of idolatry and Romish superstition, it was more comforting to be children sired of an old and fruitful stock than innocent orphans cast before the storm.” Even Hooft and Grotius insisted that “the old customs and laws shall remain unbreakable.”<sup>225</sup>

It was the family rituals, structures, and interactions that the English found so difficult to comprehend, encompassing as they did, as seen in this example, written communication, extended relationships across great distances, complex networks, patronymics, and remembrance naming. Indeed, the cultural patterns are not easy to

---

<sup>223</sup> J. Van der Schaar, *Woordenboek van voornamen* (Utrecht, Netherlands: Prisma, 1998), 357.

<sup>224</sup> When I called this to the attention of a family in Leiden several years ago, they said they had taken names from grandparents for their children, but that they hadn't really thought about it, unwittingly demonstrating the persistence of a cultural practice but the loss of the meaning for it.

<sup>225</sup> Simon Schama, *The Embarrassment of Riches*, 81.

follow. The Dutch scholar Willem Frijhoff has described the naming pattern of the Low Countries in the following manner: the first son was named for the paternal grandfather, the first daughter for the maternal grandmother, the next son for the maternal grandfather, and the next daughter for the paternal mother.<sup>226</sup> After the immediate family, according to him, other names supposedly devolved from aunts and uncles.

Frijhoff's simplistic view of the naming pattern did not prove to be true when studied in a large sample. Frijhoff's version has the first son named for the father's side of the family and the first daughter named for the mother's side of the family, a gendered concept. This is redolent of the English pattern where, in general, the first son would be named for the child's father and the first daughter for the child's mother.

After studying over two hundred carefully selected northern continental European families, the pattern that emerged showed that parents named the first born son or daughter, or both, for the side of the family with the principal power, usually social, financial, or in craft production, but not administrative.<sup>227</sup> Sometimes the name given to the first or other children honored a mentor, a craft master, a caregiver, or a person who had provided opportunity or funding.

Honoring a parent or a mentor with name giving is shown in the case of the two Schuyler sons that settled in New Netherland. Both sons were born in Amsterdam where their mother Geertruy Philips Schuyler was a maidservant from Duisberg, Germany in the prosperous house of the master sugar baker David van Kessel. The mistress of the

---

<sup>226</sup> Frijhoff, *Wegen van Evert Williamsz.*, 134-135.

<sup>227</sup> The families had to be carefully selected to avoid confusion, as would be the case with a man named Jan Janszen married to a woman named Anna Jans. For whom would a son Jan be named? There were other considerations as well, such as knowing the names, partners, and offspring in three generations and having enough children born to the parents to observe the naming pattern. Administrative positions were generally transitory, so it is not surprising that they were less commonly honored.

house, Maaïke de Wijs, stood as a witness for Geertruy, acting as fictive kin when she married another sugar baker in the city who was from Emden, Pieter Tjerkszen, a man who may have worked for or with the master sugar baker who was Geertruy's employer. The young couple's eldest son Philip was named for Geertruy's father, but another son David was named for the mentor for the couple, the wealthy sugar baker David van Kessel for whom at least Geertruy had worked.<sup>228</sup> The son Philip took his mother's family's surname and he was known in New Netherland as Philip Pieterszen Schuyler. The brother David later took the same surname.

Significantly, the first born son was more often named for the mother's father than for the father's father partly because men chose to honor individuals related to craft training or business success as well as members of their family and partly because at that time more girls were born than boys. The first born daughter was nearly always named for the father's mother. The combined percentages for the first born daughter's name and the first born son's name resulted in the first born child being named for the father's side of the family, without regard to gender, roughly seventy percent of the time. Almost without fail, the naming alternated from one side of the family to the other with each successive birth.

If a northern continental European family had not yet adopted a surname, then the patronymic was usually enhanced by three designators; the craft practiced by the individual, the place where the individual was born or baptized, and the name of the spouse. Establishing the correct identity of anyone in a crowded urban setting was of considerable concern to people in the early modern period, as it was in this study. There

---

<sup>228</sup> I. H. van Eeghen, "De Familie Schuylder/Schuyler in Amsterdam en Fort Oranje (Albany)," *Centraal Bureau voor Genealogie*, Jaarboek, Deel 36, 1982, 177-179.

could be dozens of men named Pieter Janszen in a community, some of them practicing the same craft.

The term that designated an individual's craft was as culturally significant to any one person as the connections made with ancestors through the given name and the patronymic. The craft label attached to an artisan was not only a description of his or her occupation; it was also a caution for future behavior and an honorific if it became a surname. But occupational naming creates special problems, as seen in the rare case of Jan Adriaenszen Molenaer who was in New Amsterdam by May of 1663.

Jan's occupational surname *molenaer* suggests that he was a miller, but in fact he was known as a leather worker on Long Island.<sup>229</sup> Jan used the same occupational designator as his father who was a miller still living in the town of Pijnaker between Leiden and Delft in the United Republic in 1678. Adriaen Dirckszen Molenaer, over sixty and with failing eyesight, asked the local schoolmaster to write a letter to Jan updating him on family events, including Jan's sister's plans to marry and how other members of the family were faring. The father also asked Jan to pass a message along to another colonist.<sup>230</sup>

Jan Adriaenszen Molenaer had taken his father's occupational designator to create a family surname. There was a rising pressure to adopt surnames in *Patria* and also around the English of Long Island, and the name Molenaer allowed Jan Pieterszen to reference his father's prestigious occupation though he did not translate the name to Miller. The names of the trades with the highest social standing among craftsmen

---

<sup>229</sup> He was a resident of Bushwick on Long Island where he took his loyalty oath as a leather worker.

<sup>230</sup> Sigal, M. C., "Een bijdrage tot de kennis omtrent de vestiging van Hollandse emigranten to Boswijck", in *De Navorscher*, 93<sup>rd</sup> yearly issue, 1951-1952, p. 154.

became the commonest surnames. Miller, Smith, Shoemaker, Baker, and Cooper greatly outnumber names such as Ratcatcher or Chimneysweep.

Occasionally, if the community was small enough, people were known by only their given name and their occupational designator without a patronymic, such as *Hilletje de vroedvrouw*, a midwife, or *Jan de Timmerman*, a carpenter. This happened with greater frequency in towns rather than cities, and in the colonies the example is Beverwyck in New Netherland where many dozens of individuals were known only by their given name and their occupation, but without a patronymic.<sup>231</sup>

At the other extreme, a magistrate of Alckmaar in Holland tried to elevate himself beyond his father's occupations of miller and beer merchant by taking, undeservedly, the name of a noble family. Pieter Harmensz. Clock began to sign as Pieter Harmensz. van Percijn, the use of the patronymic clearly revealing his non-aristocratic origins. Pieter's father was known to have a bad reputation but that alone does not account for this odd exception and suggests that there may have been other cases of noble family name-taking.<sup>232</sup>

Naming may also reflect the person's place of origin, and the temporary designator regarding location could become a family surname. Large, well-known northern Dutch or Frisian cities were rarely used as surnames, such as Amsterdam or Leeuwarden. Flanders cities were often used and may have been for centuries, such as "van Brugge" or "van Antwerp." Small Dutch towns were more likely to become surnames, such as tiny Quackenbosch near Leiden or Langendijck near Alckmaar. This form of remembrance naming indicates both a possible pride of place and nostalgia for

---

<sup>231</sup> See Venema's index for the lengthy lists.

<sup>232</sup> W. A. Fasel as cited by van Nierop p. 214, occurred 1609.

that which had been left behind, as well as a means of distinguishing between two people with the same given names and patronymics.

Name development took place gradually throughout a person's lifetime and could depend upon life events and the specific locations involved. Dr. Nicolas Tulp, the subject of a Rembrandt painting, was baptized in Amsterdam as Claes Pieterszen in 1593 where Claes is a short form of Nicolas, then after training in Medicine at Leiden he returned to his home city with a Latinized name, Nicolaus Petreius. Later, after he had married, he named his house "The Tulip" and hung out a sign to that effect, keeping the sign and using it again when he moved. As an official of the city of Amsterdam he used a seal on which there was a tulip and he came to be called Dr. Nicolas Tulp, where *tulp* is the Dutch for tulip.<sup>233</sup>

Additional cases of remembrance naming through surnames include the family of the New Netherland settler Gerrit Hendrickszen de Wees, a slaughterer. The father of de Wees was a prominent art broker in Amsterdam, and at his death the settlement of the estate involved considerable paperwork. In the early records one of the other heirs was named Govert Isaacszen de Wees. In a much later document dated 1677 the reference to de Wees disappears and instead he is referred to as Govert Isaacszen Weijman. This follows the death of Margariet Weijman, apparently the last surviving relative carrying the Weijman name, and reflects back in time to Govert's paternal grandmother's father,

---

<sup>233</sup> S. A. C. Dudok van Heel, "Tulpen uit Amsterdam," *Amstelodamum* 79 (1992), 1-6, as cited in R. A. Ebeling, *Voor- en familienamen in Nederland: Geschiedenis, verspeiding, vorm en gebruik*, Centraal Bureau van Genealogie ('s Gravenhage and Gronigen: Van Dijk and Foorhuis REGIO PROjekt, 1993), 123. See both Ebling and a recent edition of the *Genealogische Repertorium* for more on names and naming.

his great grandfather Govert Isaacszen Weijman.<sup>234</sup> Such a name change late in life is rare.

Wouter Gysbertszen Verscheur is another example of taking a surname from the woman's side of the family as was true for the Schuylers. He was the son of Gysbert Theuniszen Bogaert and Aeltie Wouters Verscheur. Wouter was baptised at Barneveld in Gelderland in the United Republic on February 16, 1644 and named for his mother's father. He did not use the Verscheur surname until March 21, 1678/9 when he witnessed a deed in English controlled Bushwick on Long Island. Wouter's brother Theunis Gysbertszen used the Bogaert surname from their father's family. The two full brothers produced descendants with two different surnames.<sup>235</sup> An Englishman hiring both men for separate jobs would not know that they were related in any way, one called Wouter Verscheur and the other called Theunis Bogaert, and if he discovered that they were full blood brothers, he might well think that they were devious in their customs.

In Hoorn in the Dutch Republic the Sloos family network included a doting aunt who was willing to be *naamsieck* over a child being baptised. Theuntje Pieters Sloos married Jan Warrebouts and the baptismal entry in 1636 for one of their children reads that the mother "gave the child the name Pieter Janszen Sloos." Theuntje was one of at least six sisters and three brothers, none of whom had produced a surviving child named Pieter. "Pieter Janszen Sloos" was the name of Theuntje's paternal grandfather, not her father, an ancestor who had been a well-known apothecary in Hoorn<sup>236</sup>

The word *naamsieck*, literally namesick, refers to the preferential attitude displayed toward a child carrying a relative's name or a name from that relative's side of

---

<sup>234</sup> GAA, doc N.A.A. 4737, p. 124, 8 April 1677, and see NAA 4737, 124, 8 April 1677.

<sup>235</sup> Macy, Harry Jr. REC 125:34

<sup>236</sup> SAW, Hoorn, DTB April 27, 1636.

the family. The preferences may have been part of the deliberate pattern of social behavior for Holland Custom at an earlier date, guaranteeing concern for the individual and providing a reason to leave the namesake an inheritance, but as the old customs faded this may have been seen as more pathetic and comical than practical.

Showing respect and reverence for an ancestor by remembrance naming encouraged each individual member of a network to perform at his or her best possible level because the worst indictment for bad behavior was for a person's name to disappear. In New Netherland, the Norwegian saw mill operator Albert Andrieszen Bradt was well known in and out of court as a bully, an abuser of his wife, and one who beat his children. Though all of his children were remembrance named for ancestors, none of his grandchildren chose to give a child the name Albert, rejecting their abusive relative.<sup>237</sup>

The concomitant act of rejection in England was the father crossing out the name of a child in the baptismal register. Among the northern continental Europeans, the power of rejection resided with the descendants, while among the English the power rested with the child's father. In the same fashion, masters among the northerners were to treat the apprentice as a son, but in more southern cultures and among the English, the apprentice was to view the master as a father.<sup>238</sup>

Sometimes the given name, the patronymic, and the craft designator were not sufficient to distinguish between individuals, and when that happened the public officials could reach for the specifics of the occupation and where it was being practiced as well as where the person had been born or baptized and the name of the artisan's spouse, all to sort out two or more individuals with the same given name and patronymic.

---

<sup>237</sup> Peter Christoph, *Bradt: A Norwegian Family in Colonial America* (Salem, MA: Higgenson Book Company, 1994).

<sup>238</sup> This is a claim by Mitteraur and Sieder.

The need for specifics is shown in a case involving two men who lived in the city of Hoorn in West Friesland north of Amsterdam in the first half of the seventeenth century. Both men were named Jan Claeszen, that is, Jan the son of Nicolaes. Both men were sailors and both had been born in Alckmaar, so either could be called Jan Claeszen, sailor from Alckmaar. Both men sailed on ships named the *Fortuijn* (Fortune), so either could be called Jan Claeszen Fortuijn, as it was customary to use the ship's name as a surname. Both had spent many years in Hoorn, so *van Hoorn* did not distinguish between them. Both had been in New Netherland for periods of time, so that travel there could not be used as a distinction, as in Jan Claeszen Fortuijn, sailor to New Netherland.<sup>239</sup> A spouse could be used to make a distinction, but the first Jan Claeszen married a *huisvrouw* named Grietje Jacobs, and when he passed away Grietje married the other man named Jan Claeszen, creating a problem in clarifying which estate was being discussed when Grietje died. Apparently there was nothing else to distinguish between them, such as hair color or a great age difference. The Hoorn record keepers chose to designate the second husband of Grietje as “Jan Claeszen *Alteras*,” giving him a potential surname, where the Latin *alteras* means “the other one of two.”<sup>240</sup> For the sake of clarity, this name was used for him both in the Hoorn records and in the records of New Amsterdam in New Netherland.

This case indicates the value placed on the patronymic, the occupation, the place of birth, place of residence, places where the craft was practiced, and the name of the spouse as ways to identify the individual. It also shows that the underlying common practices of naming due to understood cultural customs were respected, but that officials

---

<sup>239</sup> Jan Claeszen Alteras was in New Netherland by at least 1638. See *Reg. Prov. Sec.*, 1638-1660, volume I.

<sup>240</sup> SAW 2112, Hoorn notary Pronk, 28 February 1652 and 2 April 1652, for all the information given here.

could reach for additional terms for clarification. Each man's name and his designators produced a picture of the individual, his craft practice, and his family, and each man was known as Jan, the son of Claes, born in Alckmaar, a sailor who went to New Netherland on the Fortune, who resided in Hoorn with Grietje Jacobs as his spouse.

The details of the notarial record that required the careful identification of the individual are even more enlightening regarding life as Jan Claeszen Alteras lived it. Jan was aging and he and his equally aged wife Grietje were renting and had no minor children living with them. They decided to buy into a housing complex for their later years, for which Jan hoped to earn the money by signing on to sail to New Netherland again. But when Jan returned to Hoorn after his last voyage to the Atlantic colony, he discovered that Grietje had died during his absence and their debts and what little personal property they owned were both issues in settling her estate. Once the legal problems were over, Jan did not purchase the property he and Grietje desired but instead he contracted to sail away again, this time to the East Indies where he died. Jan's ease of repeated movement outward into the Atlantic World, his plan to purchase part of a housing complex for the couple's retirement years, and his voyage to the East Indies all were ordinary events for members of the northern continental culture. Throughout the Low Countries, Denmark, northern Germany, Norway, Sweden, and the shores of the Baltic, there were social structures that served the elderly and the orphaned, there was an emphasis on skilled craft practice, and there was a high degree of mobility. These were some of the aspects of the same society that also included a common language root and the naming system that honored ancestors and identified the individual, as well as the

large and complex family networks into which religious ritual was incorporated in baptismal witnessing and other acts.

Just as the vocabulary for crafts and craft practice was large and complex, the vocabulary for relationships was also sizeable. One of the most specific was “*van het selvde groeve*,” meaning “from the same cleft,” making it plain that two siblings were from the same mother but different fathers.<sup>241</sup> Some of those early terms now have different meanings. For example, in the seventeenth century a *voorsitter*, spelled today *voorzitter*, was the wife’s former deceased husband, meaning literally the person who sat at the head of the table before. Today the word means chairman of the board and few know of its earlier usage.

It was common for two men with the same name and craft to be referred to as *de jonge* and *de oude*, meaning the young and the old. If there were two men named Jan Janszen who were apothecaries in a city, the more senior individual would be called *de oude*. The English used junior and senior as well but with regard to two men who were related lineally as father and son, not with respect to general seniority or to craft seniority.

The word for uncle, *oom*, was used respectfully for an older, well established member of the community, a practice that also existed in England but apparently not until later. A true uncle was called by his given name by relatives and the word *oom* was added as a suffix. This was the case when Jacob Melyn wrote to a family member regarding an excellent marriage in the network, and he referred to his uncle as Dirck

---

<sup>241</sup> A. Beets and J. W. Muller, *Woordenboek der Nedelandsche Taal*, vijfde deel, (‘s-Gravenhage and Leiden: Martinus Nijhoff and A. W. Sijthoff, 1900), 794. The example is a translation from old Frisian, *naaste buur, naaste bloedvriend, als het kalf in de groeve ligt*, and the authors suggest seeing Harraboomee for similar usages.

oom.<sup>242</sup> This was a spontaneous and familiar form, as evidenced by a child who cried out for his uncle Rutger as “Rut oom” when another man was threatening him.<sup>243</sup>

The wide variety of terms for relationships between members of extended families in Holland Custom diminished over time, but some of the words persisted, distributed across languages such as Norwegian and German as well as Dutch. *Bestemoer* and *bestemoij* meant grandmother and great aunt respectively in the older Dutch, absent today in The Netherlands, but *bestemoer* persists in Scandinavia. The loss of many of these terms demonstrates the gradual loss of the detailed language of the old kinship system along with the practice of the system’s features.

There was a further connection between the use of the patronymic, the tradition of remembrance naming, and craft practice beyond the craft being used as a designator to distinguish between individuals, and that was the real and fictive kin as baptismal and other witnesses. Until recently, publications about families in New Netherland, especially genealogical studies, claimed that the baptismal witnesses in the colonial New Amsterdam church records were whoever could be persuaded to stand for the child in such a remote colonial location. This seemed reasonable, but on the European continent the baptismal witnesses were connected to the child being baptized in some way, even if the witness was only a neighbor. Neighbors might be connected with a family by occupation since those practicing the same craft usually lived near each other in a city where an entire street might house everyone with the same or related skills. Only if the colonial population was truly sparse would it be reasonable to think that the custom would have to be modified in the Atlantic World.

---

<sup>242</sup> Letter Book, Melyn Papers, American Antiquarian Society, 22 May 1691.

<sup>243</sup> Court Minutes of Fort Orange, 1658-1659, 91-93. Seven year old Pieter Adriaenszen was being subjected to a man exposing himself.

A thorough study of the baptismal records in New Netherland, Brazil, and Curacao, as well as a search for related families in London, Amsterdam, Hoorn, Haarlem, and Rotterdam, revealed that the baptismal and marital witnesses were principally relatives, but they could also be colleagues, masters of the craft, or others who were directly and substantively connected to the couple having the child baptized, no matter where the couple might be located.

Patterns within the baptisms of children and the marriage of family members reveal other traits that impacted the family. If a child had been born and baptized but later died, the next infant of the same sex born to the parents would be named for the deceased child. In that case, precisely the same individuals would stand witness for the new baptism as had been done for the earlier child. The use of the same witnesses happened so frequently that it suggests either a well-established custom, not multiple lazy ministers.

If too many children of the same gender were born, such as too many boys, then one child would be given the remembrance name for the opposite gender but with the name altered for the gender. That is, if a child should have been named Pieter but a number of daughters were born consecutively, then the next daughter born was called Pietertje, or if a family had nothing but sons, then one or more would receive the masculine form of the names of grandmothers, rarely done for a name such as Maria but common with names such as Jannetje or Gerritje, which became Jan and Gerrit respectively.

Families that already had large numbers of children rarely served as baptismal witnesses for others, while childless couples witnessed very frequently, producing a large

clutch of fictive offspring from among whom they could choose to leave an inheritance. Jacob Claeszen Coppe was in New Netherland when he witnessed for the baptisms of two little girls, one the daughter of Cornelis Aertszen and the other the daughter of Jan Aertszen van der Bilt. When Coppe died his will specified that each of the girls for whom he had served as a baptismal witness was to receive 350 guilders, the whole 700 guilders indicated as the value of his farm and cattle, the money to be handled personally by van der Bilt.<sup>244</sup>

Marriages resulted in a sudden flurry of baptismal cross-witnessing between families and colleagues. The actual marriage was usually preceded by each newly engaged person serving at least once as a baptismal witness for the family of the other, tying the couple together with fictive kin commitments as an engaged couple prior to the marriage that would make those families real kin.

A further custom was one that considered both social interaction and financial outlay. Whenever possible, several baptisms or marriages within the same family would take place at the same time, conveniently combining two or more events, gathering the relatives together for a single celebration often so large that it had to be held out of the town or city.<sup>245</sup> The unfortunate assumption that the many taverns and inns within and around New Amsterdam indicated a high level of debauchery is an uninformed assessment of the true situation. Taverns were meeting places for the various nuclear families connected by blood or marriage, and every grouping of related individuals had a

---

<sup>244</sup> Will made 14 December 1653, the action following the death took place 27 September 1659. OM 110 and 136.

<sup>245</sup> This happened on both sides of the Atlantic and accounts for marriages or baptisms that took place at a distance from the actual residences of the participants, such as at Swaag outside Hoorn, Sloten outside Amsterdam, or Brooklyn and The Ferry outside New Amsterdam/New York. Personal information provided by Piet Boon, head of the archives at Hoorn.

favorite location where over beer, wine or other food and drink contracts could be made, marriages suggested, and parties arranged or held for major events. Regular and expected social interaction often decided the dates of marriages and baptisms so that two or more related nuclear families could join together in a celebration.

There are other indications of the value placed on family relationships aside from the evidence provided by baptismal witnessing, contracts, and wills. In the Zaanstreek proto-industrial mills area that arose at the beginning of the seventeenth century in Holland, deaths in the family were continuously marked by temporarily removing wind boards from the mill vanes as late as the nineteenth century. If 16 boards were removed, then the miller had died, if 15, then the miller's wife had died, 13 for a child, 11 for a parent of the mill operating couple, 9 for their brother or sister, and so on down to 1 for the child of a niece, nephew, or cousin.<sup>246</sup>

The removal of the boards was allegorical regarding the mill operator's support system and bonds of affection and respect during his successful application of his skills. He, his wife, and their children were all critical to the family's financial well-being because they contributed to it through their labors, and the respected grandparents were there for advice and assistance when necessary, but the death of a niece's child would have had little impact on the family's emotional well-being or success. Notice that the value placed on the miller's parent was higher than that placed on his sibling.

The kinship system of the northern continental Europeans reinforced guild and craft relationships through baptismal witnessing, apprenticeship placement, marriage, guardianships, and the witnessing and executorships for wills, producing fictive kin

---

<sup>246</sup> Before wind boards they were sails. Peter Spier, *Of Dikes and Windmills* (Garden City, New York: Doubleday and Co., Inc., 1969), 71.

where the participants were not otherwise related. In addition, in court cases, craft colleagues often appeared accompanying the plaintiff or the defendant, sometimes at the request of the court. Colleagues became obligated to each other in a variety of ways that could be just as binding as the relationships within the blood or marriage. The consequences of this fictive kinship pattern included protection from market fluctuations through connections within a craft grouping, as well as the sequestration of skilled knowledge making it inaccessible to those outside the craft and especially to those in another culture. The following examples draw on the connections between the leather workers as a craft grouping by using the kinship and craft ties of Coenradt ten Eyck, and the contrasting family and business ties developed by the carpenter and contractor Adolph Pieterszen van der Groeft.

The 1645 Amsterdam marriage entry for Coenradt Ten Eyck indicated that he was from Meurs [Moers] in Germany and that his bride Maria Boels was from Cologne. Coenradt was 27 years old and employed as a shoemaker's assistant in Amsterdam at that time.<sup>247</sup> He remained in the city through the births and baptisms of three children, but by the 20<sup>th</sup> of August, 1651 he had arrived in New Amsterdam for the purpose of making shoes and developing the leather working industry in the rising community.<sup>248</sup>

Coenradt and his family crossed the Atlantic with men from Amsterdam who were also leather workers; one may have been Jacob Steendam who later left New

---

<sup>247</sup> Gwen Epperson, "The Ten-Eyck-Boel European Connection," RECORD volume 118, no. 1, January 1987, pp. 14-18.

<sup>248</sup> Ten Eyck did not begin his career in New Netherland as a tobacco trader as has been reported. The series of ten records in RNA refer to a single hogshead of tobacco that he had left in someone's care and that was no longer available. He could have received it in trade, purchased it for his own use, or intended to use it to obtain other items. See Middleton 254 n. 83, and RECORD 1932, pp. 152-161 by Henry Waterman George.

Netherland for the East Indies.<sup>249</sup> Another may have been Pieter Janszen Wit who removed from New Amsterdam to Kingston, New York by 1666.<sup>250</sup> A third was certainly Barent Meyndertszen whom Coenradt hired in Amsterdam on the 21<sup>st</sup> of March, 1651 to go to New Netherland with him as a shoemaker's assistant.<sup>251</sup>

Ten Eyck brought other leather workers to the colony over the years. In 1658 he agreed to pay for the transport of Jan Evertszen, a shoemaker from Amsterdam who was to voyage to New Netherland on the Gilded Beaver, and on the 6<sup>th</sup> of January, 1659, Ten Eyck hired Abel Hardenbroeck in Amsterdam to go to New Netherland to work at the tannery, make shoes, and help in the shop.<sup>252</sup> For that same voyage, Ten Eyck also hired Pieter Janszen Schol, the employment contracts accomplished through Coenradt's sister's husband in Amsterdam, Engel Uylenberg.<sup>253</sup>

By the end of the seventeenth century the Ten Eyck family had one of the largest raw material production and manufacturing industries in New York City.<sup>254</sup> The success of the Ten Eycks in the colonial location was due to the connections formed between producers, manufacturers, packers, and merchants that sheltered the craft workers from economic fluctuations, such as a steamy summer that encouraged rot at the tanning pits or

---

<sup>249</sup> LDC early, Jacob Steendam and his wife Sara Abrahams, with a notation that they left for the East Indies.

<sup>250</sup> The Steendams are baptismal witness for Pieter Janszen Wit twice. Gerrit Bicker, a leather worker formerly in Brazil, also witnesses for Wit. Pieter Wit was mentioned in RNA as late as 1661, but may have moved to Kingston by 1666 when he serves as a witness for Juriaen Westval. Pieter Janszen Wit is entered as Winckelhoeck once in RNA, ii, 243, 4 Dec 1656, with an apparent partner Samuel Tomas in an issue involving land.

<sup>251</sup> As cited in William J. Hoffman, "Random Notes Concerning Settlers of Dutch Descent: Part I" in *The American Genealogist*, whole number 114, volume 29, number 2, pages 69 and 70, April 1953. Standard notation TAG 114:29:2, 69-70.

<sup>252</sup> Hoffman, *ibid.* for Hardenbroeck. For Jan Evertszen, May 17 1658, see Rosalie Fellows Bailey, "Emigrants to New Netherland. Account Book. 1654 to 1664" in the RECORD Vol. 94:194, 199. Ten Eyck paid the passage much later, after January 10<sup>th</sup>, 1660.

<sup>253</sup> Engel Uylenberg was a relative of Rembrandt's Saskia Uylenberg.

<sup>254</sup> See James Grant Wilson, ed. *The memorial history of the City of New-York, from its settlement to the year 1892*. New York: New York History Co., 1892-1893.

problems with the excessive exporting of hides. This pattern of cooperative and protective connections echoed long standing practices among continental northern European artisans.

When Coenradt Ten Eyck first arrived in New Amsterdam in 1651, he had not yet developed local connections within his craft other than that of his assistant Barent Meyndertszen who had traveled there with him. At the birth of his child in August of 1651 the baptismal witnesses were relatives, his brother Andries Ten Eyck and his wife's sister Janneken Boel, neither of whom lived in New Netherland. By the birth of his next child, his assistant Barent Meyndertszen assumed a sponsorship role for the infant at the baptism as did Hilletie Hendricks, the wife of a landowner who was probably supplying Ten Eyck with cattle hides.<sup>255</sup> The leather working Steendams witness for the next two children, and for the following child the sponsors were the leather worker Reynout Reynoutszen and the wife of the leather worker Arent Isaacszen. In 1659 the baptismal witnesses were connected to leather packers; Thomas Frederickszen, a cooper, and Margriet Hardenbroeck, the wife of the leather shipper Frederick Philipszen and the sister of the tanner Abel Hardenbroeck. The pattern continues in subsequent baptisms.<sup>256</sup>

Each baptismal sponsor had assumed responsibility for the child for whom they stood witness. That could include taking the child in if the parents died, or aiding in placing the child in an apprenticeship, educating the child in religious precepts, or naming the child with a token inheritance in a will. Not only did the baptismal witnesses for Coenradt Ten Eyck take on these responsibilities for his offspring, Coenradt himself also stood frequently as a baptismal witness for the children of colleagues in spite of the

---

<sup>255</sup> Hilletje later married Claes Carstenszen. She was the grandmother of the young woman who married the first colonial Roosevelt.

<sup>256</sup> BDC 30, 33, 38, 42, 48, 54, 63, and 73.

large number of children he had in his own family. He or his wife witnessed for the leather workers Reynout Reynoutszen, Albert Coninck, Pieter Janszen Schol, Jacob Abrahamszen, and Arent Isaacszen. He also witnessed for the cooper Thomas Frederickszen and for the slaughterer Dirck Claeszen.<sup>257</sup>

Less obvious than the mutual witnesses are those who practiced in the same related crafts but who were not included in the usual cross witnessing. The van Laer brothers were tanners but they never witness for the Ten Eyck group nor does any member of that group witness for them. The van Laers were testy with each other as well as with colleagues, a great social error. Also missing from the Ten Eyck group is Laurens Holst who had not properly attended the tan pits for Anna and Abel Hardenbroeck, and the newcomer Jochem Beekman from Stettin in Pomerania was not included as well. The van Laers, Laurens Holst, and Jochem Beekman had to construct their own family and craft networks of interrelationships.

Baptismal witnessing for an infant was followed later by the child serving as an apprentice. Masters were cautioned to treat the apprentice as if he or she was his own child, and they were admonished to set a good example and to discipline only as necessary, an extension of the fictive kin concept.<sup>258</sup> When the master did not properly play the fictive father role, the child was removed from his care and training.<sup>259</sup>

After the death of a parent someone had to take responsibility for the child, providing food and clothing from the parental estate through the Orphan Masters and placing him or her appropriately to learn a craft. Coenradt Ten Eyck took on the task at

---

<sup>257</sup> BDC 39, 44, 45, 46, 55, 65, 70, 82, and 98.

<sup>258</sup> Mitterauer and Sieder cite a southern European record that admonishes the child to obey the master as he would his father. The difference in perspective is significant.

<sup>259</sup> There are many of these, but the earliest one is Coun. Min. 1638, page 9, where Jan Damen was ordered to treat Lenaert Arentsen's son "as his own son."

the death of Aeltie, the widow of the deceased leather worker Gerrit Bicker. Their son Victor had been born and baptized in Brazil, the family traveling later to New Netherland as refugees. Coenradt became the boy's guardian, placing him with Jan Harperdinck to learn the leather trade. Ten Eyck's responsibilities as one of the overseers of the estate and of the boy's welfare lasted more than seven years.<sup>260</sup>

In addition to those of the same craft stepping in to serve as baptismal witnesses or as surrogate fathers to an apprentice or as legal guardians, they also arranged marriages to form new bonds between members of the same craft grouping. Ten Eyck's children's marriages reveal that pattern. Marritie Ten Eyck, born in Amsterdam before her father relocated to New Netherland, became the bride of Wessel Wesselszen, the son of the leather worker Wessel Evertszen. Tobias Ten Eyck married a godchild of his father's, extending the fictive kinship, and Dirck Ten Eyck married a relative of his mother's family. The Ten Eyck children took up residence along the entire length of the Hudson River, from Albany in the north to New York City in the south, spreading the rare given name Coenradt throughout the Hudson River valley. The second and third generations rose in social status, able to train their children in crafts with more distinction and to "marry up," with one of the Ten Eyck family becoming a gold and silver smith.<sup>261</sup>

Coenradt Ten Eyck was expected to act the fatherly role of master to his servants in the leather working crafts in New Netherland. When Abel Hardenbroeck and Pieter Janszen Schol appeared in court claiming to be too overwhelmed either to perform the rattle watch or to pay the fee for not serving their duty, Ten Eyck described them as using their free time and money unwisely, drinking late into the night, carousing, and then

---

<sup>260</sup>RNA v, 42, 48; RNA vi, 38, 138, 170, 282, and 288-289; 8 April 1664 through 28 March 1671.

<sup>261</sup> See Waters, *Elegant Plate*.

going home to play the *baas*. Abel had at least one employee and both Abel and Pieter were married which could explain the use of the word boss, but it is more likely that Ten Eyck, the true master, was being sarcastic.<sup>262</sup>

The craftsmen also acted in concert when necessary. In 1661 Coenradt Ten Eyck, along with Abel Hardenbroeck, Carsten Luurszen, and Jan Harperdinck, represented all the shoemakers when they registered a complaint against Ariaen and Stoffel van Laer for their “neglect to grind or pound their tan.”<sup>263</sup> A bark mill could be like a grain mill. Each leather worker could take his bark to be ground, contracting with the bark miller for the service with the expectation that it would happen quickly. Or, the leather worker could contract with the bark mill to purchase quantities of their ground tanning material for later use. Ordinarily in *Patria* such a serious complaint of contractual default might go through the guild, and then to court only if necessary, but there was no guild protection in New Amsterdam.<sup>264</sup>

None of the Ten Eyck family married into the English population for multiple generations. The Ten Eyck family network did not marry out until 1728 when Samuel Ten Eyck was wed to Maria Gorne, the daughter of John Gorne and Mary Harris, a widow from Albany.<sup>265</sup> Even after that date the Ten Eycks continued to marry principally within what had been the highly mobile northern continental Europeans who had settled in New Netherland.

---

<sup>262</sup> RNA iii, 275; 8 March 1661.

<sup>263</sup> RNA vi, 273; 29 September 1670.

<sup>264</sup> See Harald Deceulaer, “Guilds and Litigation: Conflict Settlement in Antwerp (1585-1796),” in *Individual, Corporate and Judicial Status in European Cities*, Marc Boone and Maarten Prak, eds., 171-207. Leuven-Appeldoorn: Garant, 1996. This provides a specific view on customs as they were also practiced in Amsterdam.

<sup>265</sup> MDC 148.

Control of the northern continental European style of leather work remained in the hands of artisan groups that could hardly be described as originally Dutch, coming as they did from Germany, Pomerania, or Loockeren in Flanders. The craft grouping sequestered its knowledge firmly within both its true kin and its fictive kin in extensive networks in leather working that guaranteed resilience in times of economic stress, with one area of the field adjusting and compensating for the problems in another, acting in concert when the threat was too severe, as was the case in the complaint in 1732 that too many hides were being shipped out.

While the leather workers married within their craft and did not marry the English for multiple generations in the colonies, the van der Groeft/De Grove family of carpenters, contractors, and shippers were quick to marry into the new source of political power, sharing their skilled knowledge with ethnic others. Adolph Pieterszen van der Groeft and his wife Agatha Dircks were in New Netherland and paying a city tax in New Amsterdam by 1655 when one of their children was baptized at the Dutch Church.<sup>266</sup> Adolph was a carpenter by trade, possibly experienced in building “great works,” and he began to assume city oversight responsibilities almost immediately, becoming involved in constructing sheet piling at the edge of the East River, evaluating the canal and the wall, inspecting carpentry work and the quality of timber, reconciling others in disputes, and assessing problems with properties.<sup>267</sup> By 1670 Adolph was called a Master and an Old-Stander by the English in the city, asked not only to inspect and arbitrate, but also to survey.<sup>268</sup> Later Adolph Pieterszen was one of the experts involved in the design and

---

<sup>266</sup> BDC 1655, RNA i, 372, 13 Oct. 1655.

<sup>267</sup> Multiple entries in RNA through all volumes.

<sup>268</sup> RNA vi, 246, RNA vii, 91 and 95, 1670s.

construction of the new church in New Amsterdam/New York, and he contracted to build the town hall at New Haarlem.<sup>269</sup>

By the 1680s Adolph sealed his status with the English by marrying off his daughter Tryntie to the merchant and overseer of the customs house, Thomas Coker.<sup>270</sup> Adolph's son Dirck took advantage of his new connections through his brother-in-law and moved with his wife to Newport, Rhode Island while trading with Boston. Another son Pieter trained as a carpenter and married Jannetie, the daughter of the carpenter Egbert Van Borsum whose family had operated the ferry between New York City and Long Island at one time. Pieter later became a merchant and a sea captain, dying in a wreck off the coast of Cape Cod where the English buried his body and erected a memorial headstone, his wife Jannetie sending the residents of Sandwich a cast iron bell for their church in appreciation of their care and concern.<sup>271</sup>

Early in Adolph's years in New Netherland his association with other carpenters was apparent. He or his wife served as a baptismal witness for the carpenters Frans Janszen van Hoogten, Jan Hendrickszen van Bommel, Jan Janszen Romans, Jan Adriaenszen, Reynier Willemszen, and Sibrant Claeszen. None of the carpenters served as baptismal witnesses for Adolph partly because he had numerous relatives in New Netherland, most of them through his wife Agatha Dircks, but also because there was a considerable difference in social status between him and the other carpenters.

---

<sup>269</sup> The copy of the contract is in Riker's *History of Haarlem*.

<sup>270</sup> MDC 50; January 8 posting, February 3 1682 marriage, he from "Engelandt" and she from New York. In May of 1680 Coker's report to London was filed; London Documents, Report to London, Thomas Coker's affidavit, and viz't Thomas Coker, Documents Relating to the Colonial History of New York, III, pp. 305, 306, and the Customs House position p. 403. Coincidentally, Thomas Coker owned the London tavern at the sign of the Red Cow, a site involved in artisan and apprentice rioting much earlier. See New York Wills.

<sup>271</sup> Waterman to Goss, New England Historical and Genealogical Register, 37:48.

The status of a craft seemed to determine the openness of the skill to outsiders in most cases with the notable exception of gold and silversmiths. In the illustrations of Amman, van Vliet, Bramer, and Luykens, leather working as a skill ranked near that of bakers, brewers, tailors, and ordinary carpenters, while specialty carpenters such as cabinet makers, major contractors, or mill builders ranked higher.

Adolph van der Groeft was both well-connected in the colonies and well-respected in his craft, a combination that guaranteed his movement upward within the artisan class. His surveying of properties and his construction of major city features that included a church, the canal, sheet piling, the New Haarlem town hall, a bridge, and later a pier helped him to be perceived among the English as a talented master resembling more a continental architect than the lowly hand sawyer or manually laboring carpenter who could be seen in the streets of London and other English towns or colonial locations. His techniques were accessible to English arrivals in New York through his son-in-law Thomas Coker who obtained projects for him from the English administrators. By the generation of the grandchildren of Adolph Pieterszen van der Groeft, the family was known as the De Groves, and they owned ships jointly with one another, embarked on government expeditions such as the taking of Port Royal, and served in influential capacities in their communities, intermarrying freely with the English. Only the more sophisticated artisans and contractors, such as Adolph Pieterszen van der Groeft and others who produced “great works,” were open to marriage with the English to mutual advantage.

Of all the features of Holland Custom, the mutual responsibility of relatives rose as paramount compared to any other issues, including rules of law, matters of religion, or

great distances between family members. The case of Antonia Straetsman illustrates the strength of family relationships over other concerns. Antonia traveled to Brazil with her husband Jan Meyering where he died, and from that relationship Antonia had a surviving child Margriet.<sup>272</sup> Antonia remarried to Jurriaen Haff from Augsburg who had been serving in the military in Brazil, but that husband passed away as well, leaving another surviving child Laurens. Antonia remarried again in Brazil, this time to Tieleman Jacobszen from Comerick who was a tailor, and they had a surviving daughter Anna. In 1654 the family was driven out of Brazil by the Portuguese and in the process Antonia and her third husband Tieleman became separated from each other.

Antonia and her sister Barentje, her brother-in-law the baker Hans Coenraedtszen, and all their children escaped by ship from Brazil to New Netherland. There Antonia learned that her husband Tieleman had died on Guadeloupe, so she married in New Amsterdam for a fourth time to the Fleming Gabriel Corbesy, a soldier who later took to farming. Antonia became ill and died a few years later. Shortly after she passed away an English man arrived with news that her third husband had survived the assault on Brazil after all and was alive and well and working as a tailor on the island of Jamaica. Antonia's minister wrote to her third husband Tieleman Jacobszen telling of her passing and her unfortunate belief that he was dead, thereby explaining her bigamous remarriage to Gabriel Corbesy. The minister asked Tieleman to reflect on any love he might have for the now motherless daughter Anna he had conceived in Brazil, pleading

---

<sup>272</sup> Brazil Records, marriages and baptisms at Pernambuco.

with him to consider if he had “something to make for her or send to her as a token of Fatherly Affection” or if he would come to her or have her sent to him.<sup>273</sup>

Tieleman took ship to New Netherland where, in spite of the accidental bigamy of his wife and the time he had been away, he stood as baptismal witness to a child of his married stepdaughter Margariet, just as Gabriel Corbesy had done a few years earlier. The baptismal witnesses for Margariet’s children included her half sister Anna, her aunt Barentje, her last stepfather and accidental bigamist Gabriel Corbesy, her former stepfather Tieleman Jacobszen, her half brother Lourens Haff, and her half brother’s wife.

The inheritance customs of the artisan and merchant northern continental Europeans differed considerably from those of the English. The English practiced primogeniture, an ancient land ownership tactic that left everything to the eldest son, though the father sometimes named a dower amount for one or more daughters. Those of the northern continent who were skilled at a craft or who became merchants practiced partitive inheritance, also termed unigeniture, distributing their wealth among all their children and often gifting it to them as soon as they reached the age of majority, thereby getting them off to a good start.

The act of gifting makes many wills poor sources for reconstituting a northern continental European family because children who had already received their entitlement by gift might not be listed as heirs. The practice of gifting persisted in the American colonies long after the establishment of English rule and much later than David Narrett

---

<sup>273</sup> A. P. G. Jos van der Linde, trans. and ed., *Old First Dutch Reformed Church of Brooklyn, New York: First Book of Records, 1660-1752*, New York Historical Manuscripts Dutch Series (Baltimore: Genealogical Publishing Co., Inc., 1983), 51, 79, 197, 246, dates from 1662-1664.

believed to be the case with partitive inheritance.<sup>274</sup> For instance, Theunis Slingerlandt in Albany took care to enter a record of gifts to his sons Arent and Albert that was included in the minutes of the Common Council in 1686, and Cornelis Thomaszen Cadmus in New Jersey gifted his land and other property to his three grandsons in 1738 on the condition that they would care for him and his wife for the rest of their days.<sup>275</sup>

Between the English and the northern continental Europeans the cultural barrier of distinctly different kinship systems remained strong throughout most of the early modern period and extended outward from northern Europe to colonies around the globe. Each individual continental European family practiced their style of kinship while emphasizing learning, literacy, and craft skills in a manner that gave meaning to the systems of discourse of the members of that culture while it stymied the English principally in its symbolic forms, sets of values, networks, and the casual mobility of its cultural practitioners.

From the perspective of the English, the list of differences between them and the other Europeans was long indeed, including a distinct kinship system, real and fictive kin, unfamiliar family structure and terminology, significant roles for women, high literacy rates, family connections to crafts and their interactions, easy mobility, remembrance naming for ancestors and colleagues, patronymics, gifting, and partitive inheritance. The English reluctance to yield the features of their less complex culture and to try to work through and into the Holland Custom kinship system is understandable, helping to

---

<sup>274</sup> David Narrett, *Inheritance and Family Life in Colonial New York City* (Ithaca: Cornell University Press, 1992).

<sup>275</sup> For Slingerlandt, see Minutes of the Common Council of Albany, 1686-1704, Manuscript Room of the New York State Library, vol. 4, 356-358. For Cadmus, see East Jersey Deeds, H2, fo. 37, page 157A, December 29, 1738, conveying all property real and personal, “the grandchildren agreeing to secure to their grandparents a comfortable maintenance for life.”

explain their preference for the products of the alien knowledge rather than to struggle to possess that knowledge. The English resentment of the possession of the skills by aliens, their desire for the economic benefit, and their effort to impose their pattern of guild practice on others is also understandable. But the approach-avoidance, admiration-envy attitudes of those English who had an appetite for the products of the skills but no desire to understand how they were manufactured often has an angry tone, as if to suggest that the aliens should be able to do something to make it all accessible to the English. Ultimately, it was much easier for the northern continental Europeans to figure out the English and to meet their civic expectations, to adapt, and to appear to assimilate than it was for the English to understand the alien culture or to acquire the skilled knowledge of their darling strangers.

## CHAPTER THREE

### Skilled Wives, Sisters, Mothers, and Daughters

In July of 1668 a determined Anna Meynderts left the family tannery and made her way through the streets of New York City to solve an urgent problem.<sup>276</sup> A new worker had become troublesome while her husband was away traveling on business, so Anna had decided to go to court alone as she was entitled to do if her husband was not in town.<sup>277</sup> When she appeared before the court Anna complained about the new worker Lourens Holst stating that he was “behaving very stubbornly in her husband’s absence and will not attend to his work in taking care of the tan pits.”<sup>278</sup>

The court could have refused to hear the case, or it could have directed Anna to stay out of her husband’s business, or it could have ruled for the worker citing Anna for being a scold. Instead, the court heard Anna’s complaint, understood her situation, and ordered Lourens to work as required, giving Anna the satisfaction she sought.<sup>279</sup>

When Anna’s husband Abel Hardenbroeck returned home a few weeks later and examined the condition of the tan pits, he gave Lourens a beating and refused to pay his

---

<sup>276</sup> Anna had been widowed and was remarried to Abel Hardenbroeck, but in the patronymic system Anna was called “Meynderts” because that was her father’s given name. She continued to be addressed as Anna Meynderts even after English occupation and a third marriage to an English man.

<sup>277</sup> For overviews of Dutch women’s rights, status, and property, see Martha Dickinson Shattuck, “A Civil Society: Court and Community in Beverwijck, New Netherland, 1652-1664” (Ph. D. diss., Boston University, 1993) and Linda B. Biemer, *Women and Property in Colonial New York: The Transition from Dutch to English Law, 1643-1727* (Ann Arbor: University of Michigan Press, 1983). See also Susan Elizabeth Shaw, “Building New Netherland: Gender and Family Ties in a Frontier Society” (Ph. D. diss., Cornell University, 2000), and for comparative material with the Spanish see Deborah A. Rosen, “Women and Property across Colonial America: A Comparison of Legal Systems in New Mexico and New York,” *The William and Mary Quarterly*, vol. 60 no. 2, April 2003, 355-381.

<sup>278</sup> Bertold Fernow, ed., *The Records of New Amsterdam from 1653 to 1674 Anno Domini* (New York: The Knickerbocker Press, 1897), vol. vi, 139, 7 July 1668. Hereafter the *Records of New Amsterdam* are abbreviated RNA and this would be cited as RNA vi, 139, 7 July 1668.

<sup>279</sup> *Ibid.* Women had been actively involved in tanning for more than a century in Europe. Roper cites references to one Appollonia Mair in Augsburg, a tanner’s widow, who petitioned to set up her own shop in 1557. Lyndal Roper, *The Holy Household: Women and Morals in Reformation Augsburg* (Oxford: Clarendon Press, 2001 reprint), 49.

wages. Young Lourens went to court himself, this time as the plaintiff suing for his pay.<sup>280</sup> Abel counterclaimed craft injury and asked that the court fine Lourens 500 guilders for his neglect and damage of the tan pits, a monetary penalty equal to the cost of a house and significantly more than a year's wages.<sup>281</sup> The court decided to have the pit damage examined, appointing two inspectors.<sup>282</sup> One of the two inspectors was Coenraedt Ten Eyck, the master worker in leather who had hired multiple other leather workers to go to New Netherland, including Anna's husband Abel.<sup>283</sup> Now in a much weakened legal and social position, Lourens went to court again to complain defensively about the beating, following which the court fined Anna and Abel a token amount of 12 guilders.<sup>284</sup>

When Lourens Holst did not perform his duties as demanded by Anna, he misjudged the power relations between men, women, and the colonial administrators in the urban setting. The stiff penalty Lourens received taught all New York City workers the lessons of a grammar spoken equally by men and women, punctuated by family relationships, and underlined by the oversight of a master in the skill.

Eventually Lourens learned this grammar himself when later he married a slaughterer's widow and set up business in New York City as a tanner in his own right.<sup>285</sup>

---

<sup>280</sup> RNA vi, 142, 4 August 1668.

<sup>281</sup> Wages were commonly one guilder a day. Charles Gehring, trans. and ed., *Laws and Writs of Appeal, 1647-1663*, New Netherland Documents Series, Volume XVI, part one (Syracuse: Syracuse University Press, 1991).

<sup>282</sup> RNA, vi, 142 as cited above.

<sup>283</sup> As discussed in an earlier chapter, Coenraedt Ten Eyck had hired one of the inspectors, Barent Meyndertszen in Amsterdam, Holland on 21 March 1651 as a shoemaker's apprentice to go to New Netherland, and he hired Abel Hardenbroeck on 6 January 1659 to go to New Netherland to work at the tannery, make shoes, and to help in the shop. As cited in William J. Hoffman, "Random Notes Concerning Settlers of Dutch Descent: Part I" in *The American Genealogist*, whole number 114, volume 29, number 2, pages 69 and 70, April 1953. Standard notation TAG 114:29:2, 69-70.

<sup>284</sup> RNA vi, 145, 4 September 1668.

<sup>285</sup> See Samuel S. Purple, trans. and ed., *Records of the Reformed Dutch Church in New Amsterdam and New York: Marriages from 11 December 1639 to 26 August 1801* (New York: The New York Genealogical

Lourens prospered at his craft partly due to his experienced wife Hilletje who, in 1671, was given a pass “to go in the sloop of M. Krygier to Delaware, and thence up the river in some boat or canoe, to the Swede’s plantation, with shoes, and other such of her husband’s trade, and return without hindrance.”<sup>286</sup>

The source of Anna’s civic management of their tanning business lay not only with her husband but also possibly with earlier experience derived through her family and her continuing family connections, a common training practice in both the New Netherland colony and in *Patria*, the fatherland. Anna used the governmental politics of the city to regulate the conduct of skills, while the administration used Anna and Abel to ensure the continued practice of those skills under proper conditions and to the benefit of the city.

There were obvious differences between the conduct of colonial Anna as a married woman from northern continental Europe and the conduct expected of a married colonial English woman. Anna was literate, had the oversight of the tanning pits and the supervision of a skilled worker in her husband’s absence, and she appeared confidently in court. In those respects Anna was typical of her culture and, characteristically, Anna had kept her patronymic as her maiden name, retaining it in marriage. Unlike English women,

---

and Biographical Society, 1890), hereafter MDC. See also Samuel S. Purple, trans., and Thomas Grier Evans, ed., *Records of the Reformed Dutch Church in New Amsterdam and New York: Baptisms from 25 December, 1639, to 27 December, 1730* (New York: New York Genealogical and Biographical Society, 1901), hereafter BDC. See MDC 34, “Laurens Laurenszen, j. m. Van Bremen, en Hilletje Gerrits, Wede. Van Gerrit Hendrickszen,” 25 July 1669. Hilletje had at least one child by Gerrit Hendrickszen baptized in 1664, BDC 74. Hilletje was young since she was still having children by Lourens in 1686, BDC 176.

<sup>286</sup> Peter R. Christoph and Florence A. Christoph, eds., *New York Historical Manuscripts: English, General Entries, 1664-1673* (Baltimore: Genealogical Publishing Co. Inc., 1982), 466, and see the footnote on page 555.

the personhood of a northern continental European woman was not “subsumed by law into her husband’s identity.”<sup>287</sup>

The English in the colonies were additionally frustrated in their efforts to access or obtain northern continental European skills by yet another cultural misapprehension beyond those of the guild crafts functioning in related groupings and the unfamiliar aspects of the non-English but European kinship system they observed. In addition to those problems, there were numerous and significant differences between their own English women and the women of New Amsterdam/New York City. There were also disparities in how each culture perceived women, as either powerful or powerless, literate or illiterate, dynamic or passive. These differences and disparities existed in Europe and persisted in the colonial setting.<sup>288</sup>

The prevailing wisdom regarding the English occupation of New Netherland holds that the English men arriving in the colony promptly married the propertied foreign women.<sup>289</sup> Is this view accurate? It has never been examined closely and the answer would have an impact on the study of technology transfer. The discussion here describes

---

<sup>287</sup> Mary Beth Norton, “‘Either Married or to Bee Married’: Women’s Legal Inequality in Early America,” in Carla Gardina Pestana and Sharon V. Salinger, eds., *Inequality in Early America* (Hanover N.H. and London: Dartmouth College/University Press of New England, 1999), 25.

<sup>288</sup> The literacy rate for English women increased from 1% in 1500 to less than 50% in 1800. Heidi Brayman Hackel and Catherine E. Kelly, eds., *Reading Women: Literacy, Authorship, and Culture in the Atlantic World, 1500-1800* (Philadelphia: University of Pennsylvania Press, 2008), 1-2.

<sup>289</sup> Firth Haring Fabend has claimed that there were many such mixed marriages, a statement that is not supported by the data. See also her chapter “Relations Between Men and Women in New Netherland,” in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America*, volume four of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830* as edited by Wim Klooster and Benjamin Schmidt (Leiden and Boston: Brill, 2005). Fabend incorrectly claims that for the first two decades most of the settlers in New Netherland were single men and that there were few families involved (263), she suggests that relations between men and women of New Netherland settlement origins “ended” with the 1674 takeover by the English (263), she claims that “personal correspondence is totally lacking” which is not true (273), she refers to “Roman-Dutch Law” but Customary Law prevailed in most cases and could vary in some areas of the Dutch Republic (281) but see also Biemer, Shattuck, and Rosen, and she forgot Cohen’s caution “How Dutch were the Dutch?” The chapter otherwise presents a good overview of the relevant literature on men and women and should be read on that basis with the caveats in mind.

and analyzes the circumstances and nature of the skills practiced by New Netherland women in an urban environment, then addresses the issue of cross-cultural marriages that may have allowed the tools, shop, financial books, and the artisan knowledge to pass from one spouse to the other, or through a woman from her last husband to her next husband.

By 1650 “the darlings of the English” were Dutch ships and captains, Danish turners, Flemish tailors, Norwegian saw mill operators, and German leather workers, but were the equally mobile northern continental women equally desirable to an English man? Marrying a technology was one way to obtain its economic benefits; marry the blacksmith’s widow, acquire the forge and hire a worker, or marry the brewer’s wife and live well while she made the beer. This concept is no less realistic than the examples of borrowing tools or a carpenter absconding with them as discussed in another chapter. Desperate circumstances could require desperate measures. Did that happen between the English and the northern continental Europeans as seen through the window of the colonial setting in the Atlantic World?

The power and consequent free actions of skilled women and women in training as daughters, sisters, brides, wives, and widows is a theme that runs through this chapter.<sup>290</sup> It is discussed here in the context of technology as technical knowledge, its transfer, and its control where geographic transfer and cultural transfer could occur through northern continental women in or towards an urban colonial setting or across the Atlantic, demonstrating that an ease of mobility in the Atlantic World was not the

---

<sup>290</sup> For an overview of the state of the history of women associated with the Dutch Republic, see Els Kloek, “Introduction,” in Els Kloek et. al., eds., *Women of the Golden Age, An international debate on women in seventeenth-century Holland, England, and Italy* (Hilversum: Verloren 1994), 9-18.

province of men alone. Many women in colonial New Amsterdam/New York City had the power to determine success for themselves and for others because they possessed skills that allowed them to decide whether to remain in one place or to move as marriageable daughters, as wives, or as widows. These women were literate, kept financial accounts, and knew a skill by exposure or training through a parent, siblings, a spouse, a master, or a mistress.

Skilled women in the northern continental European culture selected their first husband and additional spouses partly based on the technical expertise each could bring to the marriage, overlooking differences in ethnic origins, languages, and religious beliefs in the process, but rarely selecting an English man. Hilletje the slaughterer's widow chose to marry Laurens Holst, the German tanner and shoemaker, keeping her skilled knowledge in slaughtering connected to his knowledge in tanning and shoemaking to the benefit of them both. Their practice of related crafts may have been how they met, and after marriage they would begin to form their own additional connections with colleagues in the related leather working skills.

As was true for Hilletje, wives chose whether or not to practice skilled knowledge with or for the husband while he was alive, whether to continue alone after his death, or to remarry an equally skilled candidate. Through the process of marriage men and women could acquire the skilled knowledge necessary for success at a craft. This was above and beyond the usual assumption that the generalized typical early modern woman merely served as her husband's hand maiden, his emotional support system, his bedmate, and the producer of his progeny.

The popular Low Countries allegory of Labor and Diligence serves as one of many models for the expectations regarding the tasks of women in the role of marriage to skilled men in the arts and crafts.<sup>291</sup> In the illustration the woman holds a small whip and spur and uses her sexuality to entice the man to not only to labor at his craft but also to labor diligently, an old concept that applied equally to rural laborers and to urban artisans. The woman is not portrayed as performing the labor but as the driving force behind the one who did the work, fully entwined with him.

In contrast, the works of Jacob Cats had begun to circulate widely back in *Patria* and could be seen as advice to married couples. Written intimately, they have been interpreted as either dictating the subjugation of the woman to the man or presenting the option of a sense of equality.<sup>292</sup> That sense of equality would have to include the possibility of a woman possessing skills, but the debate still rages.

Suffice it to say that marriage was seen as necessary for a man to be stable and dependable in his labors, especially seen that way by the guilds, and it was through marriages and remarriages that skilled knowledge, the tools of a craft, and the place to practice the craft could be acquired, allowing for the possibility of the movement of skilled knowledge between cultures and sub-cultures. In the New Netherland colony, the documents demonstrate that the very small geography between married men and women was traversed by a mutual learning process that often resulted in the transfer of a technology from one culture to another.

---

<sup>291</sup> Veldman, Ilja M., "Representations of Labor and Diligence in Late-Sixteenth-Century Netherlandish Art: The Secularization of the Work Ethic," in Wheelock, Arthur K. Jr., and Seeff, Adele, eds., *The Public and Private in Dutch Culture of the Golden Age*, (Newark: University of Delaware Press, 2000), 123-140.

<sup>292</sup> See the pros and cons as set out by A. Agnes Sneller, "Reading Jacob Cats," and the reply by A. Th. Van Deursen, "Jacob Cats and the married woman. A response to Agnes Sneller," both in Els Kloek et. al., eds., *Women of the Golden Age*, 21-38.



*Cum Labor & socias iungunt Industria palmas, Daermen geen Arbeit spaert noch gheen Diligentie  
 Ars quoque Palladium meditatur pectore curam. Sietmen dat Conste baert diuersche Inuentie.*

Labor and Diligence

The northern continental European women in New Netherland were aware of the power they possessed through the exercise of their skilled knowledge and used it in the family, in court, in business interactions, to enjoy personal satisfactions, and as leverage against the considerable power men held. The variety and personal control of skills was greatest in a community or in an urban setting where the exercise of the skills gave the practitioner status and power in the routines of daily community life and in the control of the city itself, and the community or city exercised its power to foster, support, and regulate the continued practice of those skills.<sup>293</sup>

The exercise of power by women through their skilled knowledge is highly visible in the earliest years of colonial settlement in the newly official urban area of Manhattan Island in the period from 1653 through 1674 as it transitioned from New Amsterdam to New York City.<sup>294</sup> The high visibility of women in the city records is due to the top heavy administration first under the West India Company and later under the English, as well as the need to keep records in more than one language, the relatively large number of notaries, the copies kept of correspondence, the cases that were referred back to Europe, and the large number of church and family documents that have survived.

Unfortunately, nineteenth century readers and translators have shown their bias in their interpretation of these documents, often assuming that property ownership passed

---

<sup>293</sup> See Isabella Henriette van Eeghen, *De gilden; theorie en praktijk* (Bussum: C. A. J. van Dishoeck, 1965), also Simon Middleton, *From Privileges to Rights: Work and Politics in Colonial New York City* (Philadelphia: University of Pennsylvania Press), 2006.

<sup>294</sup> The date range from 1653 through 1674 begins when New Amsterdam first took on the appearance of an urban center and petitioned for city status in 1653. City rights were granted by the West India Company in 1654, then the city was threatened by the English in 1664 and occupied by them in 1665, but the occupiers chose to accede to local customs and to maintain the status quo by mutual written agreement. The West India Company regained control in 1673, then lost it again in 1674 by treaty. After that the English imposed a strict adherence to English law. The more than twenty year period from 1653 to 1674 marks the greatest involvement of continental northern European women in the transfer of knowledge and skills geographically and culturally in the city of New Amsterdam as it became New York City.

from man to man, failing to understand the patronymic naming system where married women continued to be referenced by their maiden names, and frequently misreading unfamiliar foreign women's names as the names of men. A lack of training in the features of the culture of northern continental Europeans has permitted too many readings of the documents to take place through the haze of a presumption of similarities to the experiences of the English in their colonies.

The principal documentary source used in this chapter is *The Records of New Amsterdam* as edited by Bertold Fernow in the late nineteenth century. Fernow examined the original early records of New Amsterdam for the period when it transitioned to New York City and compared them to earlier translations done before 1850 by Westbrook and O'Callaghan, thus he was not working unaided. Unfortunately two major problems have made the translated historical material much less accessible than it should be. There are over 2,200 pages in small print in the seven published volumes, and there are numerous editorial difficulties. The index does not reflect the actual contents of the work because there are many unindexed or mis-indexed items, including entire pages of lists. There are few errors of substance regarding actual document content, but many other minor problems, especially in cases involving women.<sup>295</sup> Nonetheless, the translations are an imposing collection offering a privileged view of an urban area, and they would be the envy of many modern European cities that have lost similar records from the same early time period.

Women in New Netherland were often propertied. Anna's house and lot in New York was hers before she married Abel, thus he obtained both a physical location to

---

<sup>295</sup> The published material was compared with the original documents in New York City with the assistance of Jaap Jacobs and, though the agreement was that the material should be retranslated and republished, there were no glaringly egregious errors with regard to the content in the samples we examined.

practice his leather-working skills and an experienced wife when he married her.<sup>296</sup> In New Amsterdam and early New York City the majority of women held property and were able to read, write, do computations, keep financial records, understand their husband's craft, and even practice a craft of their own.<sup>297</sup> When the women appeared in court they were expected to know their husband's craft and business well enough to address issues of inferior work or to settle accounts, though they were excused if they had been married only a few years.<sup>298</sup>

In the years from 1657 through 1665, over twenty women in New Amsterdam were widowed and became burghers themselves, a status partly dependent upon owning property.<sup>299</sup> There were women who held real property in the city in their own right, whether as a burgher or not, and by doing so they indicated an investment in the furtherance of the city's structures, functions, and overall system as a technology.<sup>300</sup>

---

<sup>296</sup> Anna had been married to the company supplier, Ensign Dirck Smit van Lockem in 1654, MDC 19. He died in early 1661 and she sold his Long Island property, subsequently purchasing a house and lot in New Amsterdam that spring. RNA iii, 348-349. Afterward Anna married Abel and their first child was baptized more than a year later, BDC 66.

<sup>297</sup> Of the more than five hundred women who are part of the court actions in the *Records of New Amsterdam*, there are only two instances of women being illiterate and one instance of an illiterate man. In the case of Aefje Leenderts, a possible Walloon daughter married to a Frenchman, the court entered the comment "she cannot read nor write," RNA iii, 12, 17 September 1658.

<sup>298</sup> RNA iii, 386, 18 October 1661. Josyntje Verhagen claimed that she did not yet know her husband's business because they had been married only two years.

<sup>299</sup> Among them were Tietje Lippes, Metje Wessels, Tryntie Hendricks, Lysbeth Pieters, Rachel Vigne, Lysbet Ackerman, Annetje Kocks, Metje Grevenraet, Aeltie Constapels, Barbara Constapels, Grietje Schoorsteenveger, Anneke Litsco, Abigail Verplanck, Annetje Smits, Agatha Jans, Elsje Barents, Geertie Jans, and Immetje, the widow of Frans Claeszen. RNA vii, 150-153, 11 April 1657; RNA v, 221-225, 19 April 1665.

<sup>300</sup> Burghers were required to own property, have it occupied for a year, and pay a fee. Widows automatically became burghers after the death of their burgher husbands, the daughters of burghers could become burghers, and a man could become a burgher by marrying such women. See LWA 80. See also Dennis J. Maika, "Commerce and Community: Manhattan Merchants in the Seventeenth Century" (Ph. D. diss., New York University, 1995).

Jannetie Bones had a city lot of her own, as did Geertje Stoffels.<sup>301</sup> Antonia Straetsmans, the presumed widowed refugee from Brazil discussed earlier, petitioned to receive a lot and in her case it was granted, but petitioning for a lot did not guarantee that it would be received.<sup>302</sup> As late as September 7, 1672 under the English, the widow of Jacob van Couwenhoven was denied a specific lot as promised to her husband under the West India Company auspices, but she was given the choice of another lot or an award of 200 guilders.<sup>303</sup>

Though not always specified in the record, some of the women had inherited their real estate properties from family or from deceased husbands. But other women were married when they obtained properties, such as Styntie Hermans, wife of Cornelis Hendrickszen, who successfully petitioned for a lot in the city, though it is not certain if she was acting only for herself.<sup>304</sup> Title to the properties did not automatically transfer to a new husband if a woman remarried. Matteus de Vos, in a case involving a lot, said that he had “no community of goods with his wife” and that the lot was hers.<sup>305</sup>

The lots were city spaces that had to be developed by the construction of a house, and the women did as was expected. Hermje was granted a lot and said that she would build in the spring.<sup>306</sup> Beletje Jacobs had a carpenter build a house in June of 1658, and Mary Peeck hired a carpenter to build a house but he delayed so much that she sued him and the court ordered the carpenter to do it or to refund the money.<sup>307</sup>

---

<sup>301</sup> RNA ii, 342-343 and RNA vii, 176, both 1 March 1658; RNA vii, 187, 2 May 1658; RNA iii, 169 for Geertje Stoffels who went to court on 8 June 8 1660 because the lot proved smaller than she believed it to be when she purchased it.

<sup>302</sup> RNA vii, 187, 2 May 1658. Teuntje’s lot was on the south side of the Wall (Wall Street), RNA vii, 209.

<sup>303</sup> RNA vi, 387, 7 September 1672. The government had probably taken her original lot for city works.

<sup>304</sup> RNA vii, 163, 15 November 1657 and RNA vii, 165, 20 December 1657.

<sup>305</sup> RNA vii, 218, 28 March 1659. Community of goods was the norm.

<sup>306</sup> RNA vii, 165, 7 December 1657.

<sup>307</sup> RNA ii, 402, 17 June 1658 and RNA iv, 95, 13 June 1662.

Women bought houses on their own, as did Lysbet Pieterszen in 1654 and Tysje Willems in 1662.<sup>308</sup> Both the lot and the house were absolutely the property of the women who bought them or inherited them. When Nicasius de Sille tried to sell the house of his wife Tryntje under English occupation in 1669, she complained that the house was hers and the court took her side.<sup>309</sup>

The women described so far were typical of those who lived in any number of cities on the European continent, and there was little about them that would remind an English man of an English woman. That is not to say that life was easier or better for a woman in New Amsterdam compared to a woman in Boston, only distinctly different, relatively more open and free, and possibly both confusing and worrisome when observed by an English man.

Skilled women were absolutely necessary throughout New Netherland but especially in the city of New Amsterdam where they often had to take up the tasks of their husbands, fathers, or brothers when they were away or had died. This was a common necessity in *Patria*, but the men died at a much more rapid rate and at a younger age than the women in this particular colonial setting largely due to their high risk employment as seamen, soldiers, traveling merchant factors, and coastal traders, as well as their deaths from Amerindian conflicts.<sup>310</sup> The effect of the death rate of married men is clear in the New Amsterdam marriage records where women remarried at twice the rate of the men (see table). Due to trade and settlement hazards, the ratio of women to men in the colony was probably roughly two to one, larger than the Amsterdam ratio of

---

<sup>308</sup> RNA i, 227-228, 17 August 1654 and RNA iv, 159-160, 7 November 1662.

<sup>309</sup> RNA vi, 207, 7 December 1669.

<sup>310</sup> In addition to married men, there are a sizeable number of deaths of bachelors indicated repeatedly in various New Netherland records, shrinking the remarriage pool.

three to two among the common people that took into account the loss of men out of that city due to “leakage” towards the East Indies.<sup>311</sup>

Both men and women could choose to remain unmarried. After being widowed, Rachel van Tienhoven assured the Orphan Masters that she would select guardians for her children, but that she might not marry again and therefore did not have to set anything aside for them.<sup>312</sup> The widowed Metje Wessels, truly a force to be reckoned with, appears repeatedly in the records of New Amsterdam/New York City usually accompanied by her son but often alone. Metje had lived in Brazil with her husband and children, and when driven out by the Portugese she settled in New Amsterdam. Her son was a poor shadow of his mother and the records show accounts that check back and forth to be sure her son got it right.<sup>313</sup> Metje never remarried.

The West India Company repeatedly tried to lure men with their families into colonization and tried to import orphans as labor while at the same time they attempted to cope with the occasional urban excess of unmarried and unconnected women by using such desperate measures as threats of returning the unskilled and miscreants among them back to Europe, a policy that resounds as the reverse of the equivalent threat in London to send a misbehaving English woman to a colony. The women targeted for removal demonstrated their personal investment in the colonial enterprise by rapidly selecting a

---

<sup>311</sup> Lotte C. van der Pol, “The lure of the big city. Female migration to Amsterdam,” in Kloek et. al., eds., *Women of the Golden Age*, 78-79.

<sup>312</sup> Berthold Fernow, trans. and ed., *Minutes of the Orphanmasters of New Amsterdam, 1655-1663*, (New York: Francis P. Harper, 1902-1907), 87, 4 June 1659. The individuals who did not remarry were determined from these records, marriage records, and an examination of the baptismal records for children by another spouse after a marriage out of the colony.

<sup>313</sup> Women who had never married and who appeared in court alone were rare. One circumstance involved an apparent cripple, Lyntie. She appears in the records as the defendant in a debt case for 37 English pounds and 12 schillings of wampum filed by a transient small merchant, George Canida. RNA vi, 107, 110, and 113, on the 14th, 21st, and 28th January 1667/8. She was variously called Mauke, Manke, and Manique. The Dutch word *manke* seems to be the correct transcription, a term that translates as “cripple.”

new husband from among the young, somewhat marginal, and very sparse bachelor population willing to marry a woman who did not have family connections in the colony, highly desirable skills, or powerful contacts in *Patria*.

The attraction of New Amsterdam/New York City for women is apparent from the number of them who went to the colony, returned to Europe, and then went back to the colony. In some instances these women were merchants traveling repeatedly across the Atlantic, but in other instances willful choice of relocation is apparent. Ariaentje Walings is one such case.

Ariaentje had been part of an original New Netherland family farm settlement group from East Friesland along with at least her father, mother, and two brothers.<sup>314</sup> She married the seaman Frans Pieterszen Sloos in the colony sometime before 1631 when she returned with him to Europe, taking up residence in the West Friesland city of Hoorn, her husband's place of origin.<sup>315</sup> There she gave birth to a daughter and took her to be baptised with the name Jaepjen. The minister was so startled by Ariaentje Walings' colonial experience that he wrote "raised up and married in the Virginias" in the baptismal register and forgot to record the names of the relatives who stood as surety for the child.<sup>316</sup> While Ariaentje Walings was ordinary in the sense of exhibiting the familiar

---

<sup>314</sup> Simon Walings and Jacob Walings were entered consecutively in the Hoorn *lidmaten* (church membership list) suggesting they were brothers. 25 September 1633, GAH, Lidmaten, 1615-1666.

<sup>315</sup> Ariaentje Walings and Frans Pieterszen Sloos were entered in the membership 5 October 1631, GAH, Lidmaten, 1615-1666, 5 October 1631. Frans was on the ship *den Eendracht* as a linesman in 1631, GAA NA 0758, notary Nicolaes Gerritsz. Rooleeu, fol. 39 dated 22 January 1631 and fol. 31 dated 3 February 1631. Frans Pieterszen's name is variously Floos and Sloos in the records.

<sup>316</sup> Streeksarchief Westfriesland, Collectie Doop, Trouw en Begraaf Boeken, Hoorn, inv. nr. 5A, page 40, "den 4<sup>th</sup> September @ 1633." Hereafter SAW, DTB, Hoorn. "Frans pietersz sloos van Hoorn ende die Moeder Aryaentjen Walichsdr van Vrieslant doch opgevoet en getrouwt inden verginjes nu woonnend hier op het Nieuwenoor." The area of settlement on the northwestern Atlantic shores were generically called "the Virginias."

cultural behaviors of the northern European continent, she was extraordinary in having had a colonial experience that was matter-of-fact to her yet remarkable to others.

Ariaentje Walings' husband died soon after Jacomyntje's baptism and Ariaentje married a Hoorn soap maker by whom she had another daughter.<sup>317</sup> The soap maker died and, surprisingly, Ariaentje chose to return alone to New Netherland with her two children. Possibly this was to protect her first daughter's inheritance through Frans Pieterszen Sloos' unpaid West India Company wages because the Company could no longer honor its debts other than by offering land in the colony.<sup>318</sup> Or, it may have been that Ariaentje anticipated benefits from practicing her deceased second husband's craft of soap making because one small tub of the material could bring as much money as four or five beaver pelts.<sup>319</sup> But the return could have been for childhood nostalgia or to have the association of friends and family who were still in the colony. For whatever the reason, it was a major undertaking for a single mother with two underage daughters.

Soon after landing at New Amsterdam Ariaentje found a younger spouse among the eligible men, she married, and she began to manufacture soap. Ariaentje's new third husband labored for her in the fields cutting and burning wood to produce the ash for the soap making and also burning lime to sell to the masons for mortar.<sup>320</sup>

---

<sup>317</sup> GAH, DTB, Trouw, "Aryentjen Walingsh weduwe van de Bil in Vrieslant, hier wonende op het Nieuwe Noort by de Nieuwe Steegh" bans 9 December 1635, married 23 December 1635, "Cornelis Jans Slob weduwenaer van Hoorn wonende op de Nieuwendam." In his previous marriage he is called a soapmaker. Their daughter Tryntie Cornelis was born in Purmerent according to her marriage record in New Netherland, MDC 22. See also GAA NA 1346, fol. 10, notary H. Schaeff, 4 March 1651.

<sup>318</sup> See Jaap Jacobs, *Een zegenrijk gewest*, for the best treatment of the issue of company shortfalls and the failure to pay wages.

<sup>319</sup> At the end of 1653 soap was priced at 4 beavers a tun (small barrel), where one beaver had a set value of 8 guilders. RNA i, 134, 1 December 1653.

<sup>320</sup> MDC 16, intentions "den 22 dicto [October] Dirck [blank] en Ariaentje Wallings, Wede. Uijt Noordt Hollt." Ariaentje probably said she was from Hoorn where she married previously.

This is an unusual case where a woman brought a skill to the colony with first hand knowledge of the need for it based on the years she had lived there. Both her skill and her prior experience in New Netherland made her a desirable resident. When she left New Netherland she was a newly married farmer's daughter; when she returned she was a contributing craftswoman in a city. She could anticipate a comfortable, respectable life.

In 1657 rumors circulated that Ariaentje's third husband Dirck Theuniszen was having an illicit relationship with her youngest daughter Tryntje. In anger, Ariaentje took the matter to court to refute the incident, perhaps unwisely though she certainly knew she had the power to do so. All parties indicated that the popular suspicions were unfounded, but apparently Ariaentje alienated her daughter Tryntje in the process of making the rumors so much more public by going to court.<sup>321</sup> Ariaentje exercised her rights within the court system but lost the affection of her daughter Tryntje for whom she was never invited as a baptismal witness.

Women could exercise power through their knowledge and skills by cleverly utilizing the laws and customs that applied specifically to them in order to relocate with those skills, even to the detriment of the community. This was true in the case of Johanna Jans, a married woman who lived in remote New Amstel on Delaware Bay. Johanna's husband was away frequently and, while caring for her three young sons, she supervised the construction of the town mill that had been started by her husband who was a carpenter.<sup>322</sup>

---

<sup>321</sup> See for commentary John O. Evjen, *Scandinavian Immigrants in New York 1630-1674* (Baltimore: Genealogical Publishing Co., Inc., 1972), 136-137. Evjen was incorrect in saying that the wife of Goderis was a sister of Ariaentje. She was Ariaentje's daughter Jaepje born and baptized in Hoorn.

<sup>322</sup> Evjen, *Scandinavians*, 284-290.

Johanna was suddenly widowed and she was forced to consider her dismal prospects in the isolated and growth-stunted Delaware Bay community. She developed a relationship with an increasingly successful New Amsterdam turner, a man from Denmark whom she met when he traveled to New Amstel for business, and they planned to marry.<sup>323</sup> Johanna made arrangements to move to the big city, which included getting a permit to leave the little community of New Amstel. But the very people who had made conditions difficult there with their abuse of power, Alexander d’Hinossa and his second in command Jacob Alrichs, refused to let her go, claiming that they needed her to complete and run the mill.

Faced with the local power tactics, Johanna employed one of her own. She communicated her unhappiness to the Director General of New Netherland Pieter Stuyvesant, complaining about being prevented in her effort to marry and join her next husband at his place of residence. Stuyvesant responded by granting Johanna permission to leave, then he wrote to the New Amstel administrators reminding them that they must not interfere with a wish to remarry. Jacob Alrichs responded most apologetically, writing to Stuyvesant that he was only thinking of the best interests of the widow and her children, asserting that she would be “assisted” in completing the mill and would have a good income from operating it, claiming that he had no wish “to prejudice her desires and welfare, which I never considered, much less would do,” and finally allowing her to leave<sup>324</sup>

---

<sup>323</sup> For Lourens Andrieszen de Drayer van Buskirk, also van Holstein, see Evjen 152-155.

<sup>324</sup> Delaware Papers, documents 18:45 and 18:46, August 17 and September 5 1658, pages 127-129. See also Evjen, *Scandinavians*, 284-290 as previously cited. Johanna successfully married Laurens Andries from Holstein, MDC 23, December 12, 1658. The efforts to prevent Johanna from leaving and the correspondence with Stuyvesant caused so much delay that she had her child by her fiancé only months after marrying him.

Obviously Johanna's skill as supervisor of the mill construction and as the future operator of the mill was necessary and valuable to the community of New Amstel, but unlike a male counterpart, she could not be forced to practice those skills when the opportunity for a wifely and motherly role presented itself. Johanna's new husband could expect to benefit from her record keeping and other skills in the urban setting of New Amsterdam where he had already purchased property and built a house on the west side of Broadway. Years later the family moved to New Jersey where they purchased large tracts of land, the total exceeding a thousand acres.<sup>325</sup>

Director General Pieter Stuyvesant was having problems with his own married half-sister Margaret Stuyvesant. Margaret was boldly operating a business on Manhattan Island that dared to step beyond the bounds of propriety by dealing in trade goods popularly considered both masculine and sexually suggestive, such as angle irons and large iron spikes. A distant merchant in Amsterdam took note of the trade, complained, and faulted Margaret's husband Jacob Backer. Jacob responded authoritatively, saying that it was "his wife's trade and he did not participate in it."<sup>326</sup>

Brewing beer would seem to be a masculine craft, but actually it was done as much by women as by men in the colonial setting, and in the past in Europe it had been dominated by women.<sup>327</sup> In April of 1665 Jeremias van Rensselaer, a wealthy colonial

---

<sup>325</sup> Evjen, 153-154.

<sup>326</sup> Jacob de Lange obtained the declaration of Reynier Rycken who said that Jacob Backer claimed the trade was that of his wife and that he was not involved in it, and that de Lange would have to go to her. GAA, NA 1899, fol. 247, notary Frans Uytenbogaert, 4 October 1657, film 2121, GAA NA, copy 2. These microfilmed records are available in several locations. The originals and abstracts are in Amsterdam, but the abstracts may also be found at the New York Public Library, at Tarrytown, NY, and at the New Netherland Institute.

<sup>327</sup> See Lien Bich Luu, her chapter on "Beer Brewing" in *Immigrants and the Industries of London, 1500-1700* (Aldershot, England and Burlington, Vermont: Ashgate, 2005), 259-300, also Lyndal Roper, *The Holy Household*, 47, and also Richard J. Yntema, "Entrepreneurship and Technological Change in Holland's Brewing Industry, 1500-1580," in L. Noordegraaf and C. Lesger, eds., *Entrepreneurs and*

landowner, wrote to his mother regarding his new wife Maria van Cortlandt saying “I have taken up brewing, this for the sake of my wife, as in her father’s house she always had the management thereof, knowing both how to brew the beer and how to help the worker to do it.” Maria had been born in New Amsterdam where her father Olaf Stevenszen van Cortlandt had a brew house.<sup>328</sup>

New Amsterdam was rife with taverns and inns as could be expected of the largest city and trading center anywhere along the northern Atlantic coast from Virginia to Maine. The taverns were meeting places for families as was discussed earlier in this work. Much has been made of the most negative aspects of alcoholic beverage consumption among the residents of the seventeenth-century city, and the tales of drunken ribaldry have exacerbated the problems of women’s history when discussing women tapsters. True, in 1648 Director General Pieter Stuyvesant asserted that one quarter of the establishments around Fort Amsterdam were taverns at that time, and he set limits on their number and circumstances of operation. In light of how many women were employed at these services such an action worked upon their income, but the provision that the changes would not go into effect for four years allowed time to adjust.<sup>329</sup>

The brewing of beer was a major industry in *Patria* and beer was consumed morning, noon, and night. The beer varied in alcohol content and was safer to drink than city water. Beer was also consumed in large quantities in New Netherland and it was also more sanitary than the effluent from beaver lodge streams that drained from the

---

*Entrepreneurship in Early Modern Times: Merchants and Industrialists Within the Orbit of the Dutch Staple Market*, Hollandse Historische Reeks XXIV (Den Haag: Drukkerij Smits B. V., 1995), 185-201.

<sup>328</sup> A. J. van Laer, trans. and ed., *Correspondence of Jeremias van Rensselaer, 1651-1674* (Albany: The University of the State of New York, 1932), 377-378, letter dated 15/25 April 1665.

<sup>329</sup> LWA 15, 10 March 1648.

North American uplands since the beaver carried a deadly disease that contaminated the water.<sup>330</sup>

There were numerous women brewers and tapsters in New Amsterdam and early New York City and generally they were the wives of craftsmen or merchants keeping the taverns without experienced husbandly assistance and not necessarily because their husbands were away on business.<sup>331</sup> Sara, the wife of Jan Schepmoes, was a tapster who was known affectionately as Mother Pieters, a respectful term usually reserved for a midwife, which she may have been.<sup>332</sup> The widow Metje Wessels was a tapster and innkeeper but also a merchant supplier of wine and beer.<sup>333</sup> The wife of the English man Rendel Huwit ran a tavern and the wife of the bilingual notary Solomon La Chair also tapped, thereby offering two taverns where patrons could be certain other languages could be spoken and understood. English men were frequently in town as sailors, merchants, or on other business, and the tavern meeting places allowed for considerable interaction on many levels.

The need to regulate tapping included concerns about public order, disturbing the peace, providing alcohol to the natives, and supporting the city through taxes. In response to complaints from “brewers and brew wives” on November 23, 1656, the excise officer referred to a 1649 ordinance of the Lords States General in Amsterdam in

---

<sup>330</sup> The beaver is a carrier of a one celled amoebic organism called *giardia*. The symptoms of giardiasis in humans are roughly those of typhoid fever and potentially just as deadly.

<sup>331</sup> Women who were named as tapsters in *The Records of New Amsterdam* were at least Rachel Vigne, RNA ii, 11-12, 17 January 1656; Rendel Huwit’s wife, RNA ii, 53, 3 March 1656; the widow of Lubbert Gysbertsz, RNA ii, 93, 1 May 1656; Elsje van Reuvecam, RNA ii, 417, 12 August 1658; Madaleen Vincent, Leuntje Pieters, Mary Polet, Metje Wessels, Tryn Corsen, Sara Schepmoes, and Marretie Jans the mother of Cornelis Langevelthuyszen, all RNA ii, 263, 9 January 1657; Lysbeth Ackermans, RNA v, 196-197, 7 March 1665; Katherine Evans, RNA vi, 26, July 3 1666.

<sup>332</sup> Sara Pieters, wife of Jan Schepmoes, as *Moer* Pieters, RNA v, 44, 8 April 1664. The expression *Moer* is used in other works that were not yet published when Fernow translated RNA.

<sup>333</sup> Metje Wessels, the mother of Warnaer Wessels, permitted to operate an inn and to tap RNA ii, 233, 20 November 1656, and as wine and beer supplier in quantity (merchant), RNA vi, 180, 18 May 1669.

the United Republic that permitted such officers to enter cellars, to collect a tax of 12 stuivers on each brewing batch, to restrict brewing privileges to those in the trade or residing in the house, and if the household merchandized the beer, to impose a tax of eight stuivers a month for each household member over the age of twelve.<sup>334</sup> The brewers and brew wives complained that most of them were not beer merchants, and that the last item regarding children and other household members should not apply.

The brewers did not fare as well as they hoped because the Council of New Amsterdam decided that the tax should be raised to 20 stuivers for each brewing and that the excise officer should be apprised of all movement of beer out of the brewhouse, with such removal requiring a permit of six stuivers. But the issue that had rubbed the brewers and brew wives the wrong way, the 8 stuivers per month tax on each household member over the age of twelve, was modified to read that it would only apply when “retailing beer by the whole, half, or quarter tun,”<sup>335</sup>

The last item, the tax on those over the age of twelve, was without regard to gender. Certainly girls trained at brewing in their own households, as seen in the case of Maria van Cortlandt who trained under her father. And certainly the brewing mothers of large families had their hands full, with children helping at every step of the process in the brewhouse. If the beer was only for consumption by the immediate family, relatives, and business associates, then a tax on the family’s children was unacceptable. The city

---

<sup>334</sup> RNA ii, 235, 23 November 1656. Fernow has this as a complaint of brewers and brewers’ wives, probably a mis-reading of the expression *brouwvrouwen*. Possibly he did not know that women could be brewers.

<sup>335</sup> RNA ii, 236, 25 November 1656.

could not afford to so deeply antagonize the brew wives, and the excise officer who had gone a bit too far was admonished to “civilly agree” with the brewers and brew wives.<sup>336</sup>

The high tax on brewing without regard to batch size made it economical to brew more beer rather than less. Beer brewing technology had been in a boom stage on the continent for decades where small breweries had been bought up, or driven out, by major brewers who were using giant pieces of equipment and brewing on a large scale.<sup>337</sup> There is no evidence that the same took place in the colonies. Instead small scale brewing seemed to continue in colonial New Amsterdam and New York long after large concerns in continental cities such as Haarlem, Rotterdam, and Gouda had overwhelmed small producers, and women continued to be involved in the colonial setting.

Women often tried to slip past the brewing rules and were as likely to do mischief as the men. Josyntie Verhagen, among others, was cited for tapping without a license and Anna Koex was one of a number of women cited for selling alcohol to a native. The tapster Hilletje Jans faced an awkward moment in court after the wife of Christiaen Anthony appeared at her tavern dressed in a man’s clothes with whiskers painted on her face while she asked for a tankard of beer.<sup>338</sup> Christiaen Anthony’s wife was Engeltje Jacobs and they had married just months earlier.<sup>339</sup> Engeltje may have been enjoying her new, more powerful role in society as a married woman but she took it a step too far. Though women were practicing some crafts alongside men and sharing in the

---

<sup>336</sup> Ibid.

<sup>337</sup> Yntema, as cited.

<sup>338</sup> Josyntje was selling liquor without a license and was ordered to obtain one, RNA vi, 90, 30 July 1667. For Anna Koex [Cocx] see RNA vi, 100, 29 October 1667, and for the wife of Christiaen Anthony see RNA ii, 407, 24 June 1658. For enlightenment on contemporary transvestism in *Patria*, see Rudolf M. Dekker and Lotte C. van de Pol, *The Tradition of Transvestism in Early Modern Europe* (New York: St. Martin’s Press, 1997).

<sup>339</sup> MDC 22, intentions 15 February 1658. Christian is entered as “Toemszen,” probably an error for Teuniszen which was a short form of Anthony.

development of the city, there were certain social and moral lines they were not permitted to cross. The fact that Engeltje tried to do so in such a public fashion hints at her comfort level in masculine roles and her self-perception as equal participants in urban culture. Imagine how such a frivolous indulgence by an English woman in Virginia, Maryland, or New England might have been received and what penalty might have been assigned!

Not every technology came directly to New Amsterdam from *Patria*, and some technologies were brought in by non-European individuals who acquired the skilled knowledge through the much earlier colonization of the Americas by the Spanish or Portugese. Curacao, Aruba, and Bonaire, southerly Caribbean islands within sight of each other just off the coast of Venezuela, were part of New Netherland and under the jurisdiction of Director General Pieter Stuyvesant and the West India Company. Among other goods, the islands provided New Netherland with horses, cattle, sheep, and goats.<sup>340</sup> Ownership and maintenance of the livestock on the island of Curacao fell to the Amerindians there, Creoles who were not natives but a mix of racial origins after 150 years of Spanish control that ceased when the Dutch took possession. The West India Company had the privilege of helping itself to the livestock in return for providing protection for the Creoles, though among them there was a “Captain of the Indians.”<sup>341</sup> Colonists and freemen had to purchase the livestock from the Amerindians and treat them with respect, as none of them were slaves.<sup>342</sup>

---

<sup>340</sup> Charles T. Gehring and J. A. Schiltkamp, eds., *New Netherland Documents Volume XVII: Curacao Papers, 1640-1665*, New Netherland Documents XVII (Interlaken: Heart of the Lakes Publishing, 1987). For horses, cattle, sheep, goats, gardens and orchards, see page 11 and pages 71-77.

<sup>341</sup> *Ibid.*, 58, for Captain of the Indians.

<sup>342</sup> *Ibid.* 76 for the Creoles having to buy and not treated as slaves; 74 where the vice-director instructed others to “through appropriate persuasion and promises encourage them to perform service.”

The task of caring for the livestock was not a small one and it was highly valued, with special attention to the horses who were vital work animals. In just one month the grazing horses rounded up yielded roughly 600 mares and about 300 stallions and geldings.<sup>343</sup> Not all of these horses were exported. On Curacao they were used to haul dyewood cut from the tree stands. This was accomplished by the Amerindians without whom the Dutch did not know “how to manage” it.<sup>344</sup>

Livestock maintenance was difficult for the Creoles. The animals had to be fed on an island without natural aquifers and with sparse rainfall as the only source of water. Hay had to be purchased from the Dutch, usually obtained in return for barrels of goat’s meat.<sup>345</sup> The Amerindians could slaughter goats for hay or barter live goats for linen or coins, but they supported themselves primarily with cattle, especially cows.<sup>346</sup>

Each horse transported to New Amsterdam brought the local Curacao administration 50 guilders, and each transported to New England brought 60 guilders.<sup>347</sup> The animals were so highly prized that when a typical load of 50 horses was due to be sent north, Pieter Stuyvesant requested that a small selection of the best be sent to him at New Amsterdam, from which he intended to choose a horse for his son.<sup>348</sup> Mathias Beck wrote back from Curacao, “I shall send directly to your honors by way of the first suitable ship departing from here a half dozen of the best horses, for reasons known to your honors.”<sup>349</sup>

---

<sup>343</sup> Ibid., April 1654, 59.

<sup>344</sup> Ibid., 60 and 106.

<sup>345</sup> Ibid., 181.

<sup>346</sup> Ibid., 77 goats, 98 cows.

<sup>347</sup> Ibid., 111 for 50 guilders, for 60 guilders 25 Feb 1661, 177.

<sup>348</sup> Ibid., 171-172 where ship Den Eyckenboom shipped 50 horses, 8 May 1660.

<sup>349</sup> Ibid., 163, 4 Feb 1660.

Hillary Creole was one of three Amerindians that boarded the ship *Den Eyckenboom* at Curacao in the spring of 1660 to care for the horses, cattle, goats and sheep on board as they traveled to New Amsterdam.<sup>350</sup> Hillary arrived safely and stayed at the plantation called Stuyvesant's Bowery to care for the horses. Very soon after arriving she married Lovys van Angola but continued to use her skills to care for the animals at the Bowery.<sup>351</sup> She did not have to worry about how she would be treated in New Netherland not only because of the rules that applied in Curacao but also because Stuyvesant and the Council had passed an ordinance in 1648 requiring that Amerindians be paid for their labor.<sup>352</sup>

Hillary Creole and her husband Lovys van Angola may have had multiple children, but the only record is of a set of triplets baptised in the Dutch Church on July 12<sup>th</sup>, 1665 in what had recently become New York City.<sup>353</sup> One of the triplets, Lucretia, became the wife of Claes Manuels, "a black patentee of Tappan" on the Hudson River.<sup>354</sup>

The long experience the family had with horses that began with Hillary Creole involved cultural technology transfer from the Spanish to the Amerindians and then to other Europeans, transfer geographically and culturally from the rural island to urban New Amsterdam, then transfer geographically to lush green pastures just south of the Catskill Mountains where the children and grandchildren of Hillary lived a pastoral

---

<sup>350</sup> Hillary was also called Lari and Lare, and her "surname" (actually a designator) was variously spelled Criolyo and Crioelje.

<sup>351</sup> MDC 26, 29 May 1660, "Lovijs Angola, en Hilarij Criolijo, Negros." Hillary Criolyo and Elera d'Crioolle have been confused with one another. "Elera" is almost certainly an erroneous entry or mis-transcription of the name "Elena" because she named one of her daughters by Jan de Vries "Helena." See Henry Hoff below.

<sup>352</sup> LWA 20, 28 September 1648.

<sup>353</sup> Mother, BDC 79, with Lovys Angola as the father, July 12 1665, for the triplets Lucretia, Elisabeth, and Anthony; witnesses Anna Wallis, Metje Bastiaens.

<sup>354</sup> See George Budke as cited by Henry Hoff, "The deVries Family of Tappan, New York: A study in Assimilation," TAG whole numbers 287-288, July/October 1997, Vol. 72, Nos. 3-4, 345 and 347. Also, BDC 79, 12 July 1665.

existence. The market for horses was considerable, especially so close to an urban setting. They were used not only for riding but also for carts and in horse mills, and they were exported regularly elsewhere, thus Hillary's descendants prospered. Hillary herself was widowed eventually but continued to live on Stuyvesant's bowery where she still was when she remarried on July 26, 1682 to Pieter van Kampen, a widower.<sup>355</sup>

The higher price for the horses to New England reflected three concerns; the greater distance required to transport them, the need for horse power in the urban setting of New Amsterdam, and the chance to make a higher profit. The English could have resented several aspects of this situation; paying a higher price for the skills and resources to develop and deliver fine horseflesh, consternation regarding the Creole woman involved, and annoyance concerning the money the foreigners made.

Skilled women with power by virtue of their knowledge were only a segment of the total population of women on Manhattan Island. There were many women who held no such knowledge or power, who were slaves or half-slaves in households or on farms just outside the city. Somewhere between the slaves or half slaves and the widow-burgers in New Amsterdam/New York were those women who were young and relatively inexperienced but adventuresome enough to sign up to travel to New Netherland, demonstrating their mobility in the Atlantic World. Their working conditions could be just as difficult as those of the English women who went as indentured servants to Virginia, but the service terms were much shorter and they were

---

<sup>355</sup> MDC 51, banns entered 26 July 1682. "Pieter Van Kampen, Wedr. Van Susanna Hillarie \_\_\_\_\_ Wede. Van Lovys Angola, beyde woonende op Stuyvesants Bouwerye."

given special opportunities to break the service contract if they found a suitable marriage.<sup>356</sup>

In 1641 Jan Verbeeck and his wife hired the young unmarried woman Jennetgen Theunis from Amsterdam as a servant for one year or more to do needlework, sewing, and other tasks. In return she received wages of 25 guilders each year and free passage, and if she had the opportunity for a good marriage, she could break the contract.<sup>357</sup>

In 1654 Isaac Grevenraet hired thirteen year old Teuntie Huyberts as a maid servant to work for him and his wife for four years, no salary but free passage, room and board. This resembled an apprenticeship more than the actual hiring of a servant, and she may have been a distant relative of the family.<sup>358</sup>

The servant Engletje Hendricks, working for Mistress van Beeck in New Amsterdam, wanted to leave her service and demanded a half year wages and the return of all her belongings. Van Beeck counterclaimed for a debt in Holland and for the passage money she paid to transport Engletje to New Netherland. The court allowed that Engletje be paid her half year's wages, that all her belongings be returned to her, that she did not need to pay for her passage from Holland to New Netherland, but that she had to repay the small debt she incurred in Holland that Mistress van Beeck had paid before the

---

<sup>356</sup> For an idea of how servants fared in an urban setting see Marybeth Carlson, "‘There is no Service Here but my Service!’ Municipal Attempts to Regulate Domestic Servant Behavior in Early Modern Holland," in Wayne te Brake and Wim Klooster, eds., *Power and the City in the Netherlandic World* (Leiden and Boston: Brill, 2006). For a comparison, see Kathleen M. Brown, *Goodwives, Nasty Wenches, and Anxious Patriarchs: Gender, Race, and Power in Colonial Virginia* (Chapel Hill and London: University of North Carolina Press, 1996). See also the comparative data and background material in Marybeth Carlson, "A Trojan horse of worldliness? Maidservants in the burgher household in Rotterdam at the end of the seventeenth century" in Kloek et. al., *Women of the Golden Age*.

<sup>357</sup> GAA NA 1060, fol. 163, notary J. v.d. Ven, 17 July 1641.

<sup>358</sup> GAA NA 1594 or 1595, fol. 139, notary Willem Hasen, 24 November 1654. This was from the NAC microfilm at the New Netherland Project/Institute and it is not clear if it is 1594 or 1595 or if one index card is the copy of the other.

voyage. The van Beecks protested the decision repeatedly in court but the judgement was enforced.<sup>359</sup>

The servant Maeyken Huybertszen wanted to marry Hans Fommer and they had their marriage banns posted at the church, but her employer Mistress Anna van der Donck saw the banns and attempted to prevent the wedding because she wanted Maeyken to continue to work for her. The court decided that Maeyken had satisfied the contract and therefore could marry, which she did.<sup>360</sup>

Janneken Gerrits had been a servant to Mistress Judith Verleth before she married, and Janneken's husband Caspar Steinmets tried to collect old back wages for the service she had given her mistress on board the ship from Amsterdam in Holland to New Netherland, which he was successful in doing.<sup>361</sup>

Characteristic of the mobility of northern continental Europeans in general, each of these women found a way to get to New Netherland, to earn money, to become desirable mates, and to marry and become a productive part of the urban community.<sup>362</sup> Each of the women who were their employers had used the court as a way to squeeze the most out of their employees, but the young servants were able to use the court to their advantage as well, and they were none the worse for it. They had learned good housekeeping at the feet of fine mistresses, prominent women of the community from

---

<sup>359</sup> RNA i, 397, 15 November 1655. Upheld, RNA I, 406, 415, and 419. Judgement ordered against van Beeck RNA ii, 9 and 13. Apparently Engeltje Hendricks married Balthus Loockerman in the upper reaches of the Hudson River, possibly had children there, then had children baptised in New York City later. This Engeltje should not be confused with a later Engel Hendricks who was 25 in 1666 and was whipped and imprisoned for attempting to murder her newborn illegitimate child, RNA vi, 34.

<sup>360</sup> RNA, i, 118-119, 15 September 1653. MDC 18, banns posted 3 September 1653.

<sup>361</sup> RNA i, 55, 24 February 1653, and 65, 10 March 1653. Caspar and Jannetie were married in New Amsterdam the year before, MDC 16, intentions 31 March 1652.

<sup>362</sup> For the mobility of women on and about the continent of northern Europe, see the chapter "Onderzoek naar de samenstelling van de bevolking van Amsterdam in de 17e en 18e eeuw, op grond van gegevens over migratie, huwelijk, beroep en alfabetisme," in Simon Hart, *Geschrift en Getal*, Hollandse Studien 9 (Dordrecht: Amicitia in Bloemendaal, 1976), 115-182, and see also Lotte van der Pol in Kloek et. al., *Women of the Golden Age*. Others such as A. M. van der Woude have emphasized the male migration.

whom they had acquired knowledge about household functions, possibly including bookkeeping. That last skill alone was worth the trouble of servitude because the practice of accounting was used by the Dutch “as an institution and technique to discipline those who were subject to their influence.”<sup>363</sup>

The power of good accounting should not be underestimated. Magdalena du Tellit was apparently as clever at numbers as her surveyor husband Master Jacques Cousseau. When settling an account with an English man, in effect Magdalena delivered to him a solid lesson in the proper short style of bookkeeping for monies due to her husband in the sum of 3333 lbs tobacco, 40 beavers, and 5 lbs of silver.<sup>364</sup>

As the colonial city of New Amsterdam/New York matured, the young women who succeeded in going to New Netherland as servants decreased in number because they were competing for positions that began to be filled by slaves. Potential Mistresses and Masters saw more value in owning the servant for a lifetime than paying for passage and a short term of service. From the earliest settlement to the final English occupation in 1674, the percentage of young women in service declined each year while the number of households employing slave women increased.

Some of the increase in slave women was due to the fall of Brazil in 1654, some due to the regular trade in slaves, and some of the increase was due to Africans, African-Americans, and English who were sold into slavery or into long term service out of Virginia by the residents there to pay debts in New Netherland. The situation worsened

---

<sup>363</sup> E. G. Sukoharsono, “A Power and Knowledge Analysis of Indonesian Accounting History: Social, Political, and Economic Forces Shaping the Emergence and Development of Accounting” (Ph. D. diss., University of Wollongong, 1995). The quote is from the abstract.

<sup>364</sup>RNA v, 283-284, 22 August 1665. See Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, New Jersey: Princeton University Press, 1995), 90-91.

in New York City under English rule.<sup>365</sup> The consequence was that while the pattern of the employment of servant girls among the wealthy that passed along skills was continuing in *Patria*, it faded in colonial New Amsterdam/New York as the citizens purchased slaves or acquired long-term indentured servants in the English style.

The household slavewomen had none of the privileges or freedoms, even half-slavery, that was enjoyed by the former slaves of the West India Company and others who had been freed, and the comparisons were stark and very public in New Amsterdam. Thus, in the same year the household negress Urka ran away when her Mistress tried to sell her to a Virginia man, the negress Catlyn was herself a Mistress in a residence in which she kept a boarder.<sup>366</sup> Also in the same period, the negress Barber was a servant at the house of Jan Jurriaenszen Beck the Joiner and was a “cupping woman”, that is, someone who lets blood.<sup>367</sup> With such models of opportunity and the possibilities for a better quality of life in the community, no wonder that Urka ran away from the prospect of Virginia slavery.

Women operated the putting out system in New Netherland. Since clothmaking was prohibited and there were taxes on new goods brought into the colony, women took whatever yardgoods they could obtain and had clothing such as caps and other small pieces put out as work to others. Grietje Pieters hired one new young resident of New Netherland, Tanneke van Gelder, to make linen caps, but Grietje was not satisfied with the work and tried to get Tanneke to go before “good women” who would act as arbitrators to view the work on the caps. Tanneke balked but Grietje finally won her

---

<sup>365</sup> See Kathleen M. Brown, *Goodwives*.

<sup>366</sup> RNA iv, 81-82, 16 May 1662, and RNA iv, 53, 21 March 1662.

<sup>367</sup> RNA iii, 315, 10 June 1661. See Florence W. J. Koorn and H. Roodenburg, “Kopsters: Vrouwen in de Marge van de Gezondheidszorg,” in *Spiegel Historiae*, 1984, 19(3): 125-129.

point that the caps were poorly sewn, and Tanneke was charged with the cost of the suit.<sup>368</sup>

Grietje's problem with Tanneke is another example of a woman taking an inadequate worker to have the skills assessed just as Anna took her complaints about Lourens Holst to court. The "good women" who viewed Tanneke's work were the equivalent of guild masters providing skills oversight, and they constituted a type of quality control over the putting out system in the city.

The opportunities for a cross-cultural marriage with the English, especially an English man, may have been better in the colonies than in Europe. English men and women did marry northern continental Europeans in the United Republic but to a very limited extent. Simon Hart's research on Amsterdam foreign sailor marriages from 1651 to 1665 found that an English origin accounted for only four percent of those marriages.<sup>369</sup> English women were not only rarely available in the Dutch Republic, they may not have been in high demand because of the strong cultural differences, their illiteracy, and their lack of skills, however, such cross-cultural marriages did take place in *Patria*. In both the case of men and of women it is always necessary to keep in mind that the purportedly English spouse may have come from a stranger population in the English city of origin.<sup>370</sup>

---

<sup>368</sup> RNA iv, 136, 140, 144, 147, 151, and 308, all in the Fall of 1662.

<sup>369</sup> Hart, *Geschrift en Getal*, 202.

<sup>370</sup> This claim is based on the observation that few of the married men in the colony, Dutch, Norwegian, Danish, German, or Frisian, brought over English wives. The Frisian Enne Tiebbes, the ancestor of two immigrant New Netherland women, took a person "from London" for his second wife in Amsterdam, but she died in *Patria* and his third marriage was to a Dutch woman. E. K. Lyon, "Origins of Some New Netherland Families: Ennes—Barents—Goderis—Hibon—Lewis—Bradt," *RECORD* Vol. 127, No. 4 (October 1996), 203. The jeweler Wolfert van Bijlar, a widower himself, married a supposedly English widow in Amsterdam (see earlier chapters).

The claim has been made repeatedly that in New Amsterdam/New York City many English men married New Netherland women after the English occupation in 1664, but the following material shows that there is no evidence to support that claim, diminishing the possibility of technology transfer or control by that route. Even when the English lost the colony and reclaimed it in 1674 with a stricter application of English Law rather than the permissive continuation of New Netherland's customary practices as had happened during the first occupation, there was no sudden uptick in cross-cultural English marriages, just individual cases where marriages were made as deliberately as was the usual case in the northern continental European culture.

Based on percentages, there are a surprisingly large number of marriages involving someone of English or Scottish origin in the New Amsterdam Dutch Church marriage records in the earliest period, but in the five years from 1639 through 1644 every English marriage was of an English man to an English woman except in five cases, one of which was the Scot Roelant Hackwart who married Jannetie Jans from Amsterdam in 1640.<sup>371</sup>

There had been a Scots/Dutch intermarriage pattern of long standing in *Patria* where Scottish men had often served in the military but their numbers were few.<sup>372</sup> The outlook of Scots from their own culture recognized some similarities with northern continental Europeans, and the guttural sounds of their language made the equivalent sounds of Dutch and German less noticeable. Intermarriage with Scots continued in what had been the New Netherland colony after the English were fully in control, a trend

---

<sup>371</sup> An additional Scot may have been Thomas Sander, but he is listed as from Amsterdam, MDC 10.

<sup>372</sup> Hart, 197. 12 Scottish soldiers serving on board ships had their first marriage in Amsterdam in the same time period as the English sailors discussed previously. This would yield an even smaller percentage than the English.

usually attributed to mutual Calvinism but the evidence for that is weak.<sup>373</sup> Another connection the Scots shared with the northern continental Europeans was that they had also been treated as outsiders in London and other English cities. The Alien Returns in London counted Scots as foreigners until James the sixth of Scotland became James the first of England. After that event incoming Scots were no longer aliens but continued to have difficulties being accepted by the English. The wife of James, Anna of Denmark, had to suffer every Danish servant or artisan in her retinue to continue to be counted as an alien.

Another marriage exception regarding English involvement as discussed above was that of Gysbert op Dyck from Wesel in Germany who married Catharina Smit from England in 1643. Op Dyck became a major real estate investor along the Connecticut and Massachusetts shores. The assumption that Catharina was English derives from her origin, but she could have been from a stranger family in that country.

The Dutch man Theunis Nyssen married an English woman who had been born in New England but who had been expelled from that colony with her father, and “Melem Harloo” of Middlesex in England, probably Willem Harlow, married the presumably Dutch widow Elsje Jans.<sup>374</sup> Theunis acquired an English woman well-acquainted with the colonial experience who had been in the New Netherland colony for a considerable length of time, and he obtained through her a means of accessing the English language trade. “Melem” acquired a widow whose former husband Jan Pieterszen had been in the colony for a long time using his skills, and Elsje’s new husband obtained through her a

---

<sup>373</sup> This puts into question some of Bernard Bailyn’s material on Scottish New York.

<sup>374</sup> MDC 10-12.

means to the Dutch language and trade, as well as her knowledge of Jan's skills and access to whatever property she brought into the marriage.

Jan Fourbus from Sweden took an English wife, Margariet Frankens, who was presumably from Gloucester in England, though the record reads "Loster," then in 1648 the Norwegian Pieter Leendertszen married Sara Daniels from Norwich in England, and in 1650 the Dutch man Teunis Jacobszen married Sara Denys of England.<sup>375</sup> These marriages cannot be interpreted as marriages to English women. Norwich had a nearly fifty percent stranger population in that period, and all three women seem to carry a patronymic, suggesting that Margaret Frankens and Sara Denys were also from an unspecified stranger community.<sup>376</sup>

In 1650 John Maston of England married the young woman Dievertje Jans from North Holland and just weeks later the German Harmen Janszen from Hesse married Maria Malaet from Angola. These were clearly cross-cultural marriages. John Maston literally married into the New Amsterdam cultural, technological, economic, religious, and political structure, and his children were baptized in the Dutch church. The German Harmen Janszen and his mulatto wife relocated to the Esopus on the mid-Hudson River in 1661, and he may be the same man who was further upriver at Beverwyck working as a rope maker at a much later date.<sup>377</sup>

Mr. Adriaen Van der Donck from Breda married English Maria Douthey from Heemstede on Long Island in 1645. The prominent Dutch man cemented his social

---

<sup>375</sup> MDC 12, MDC 15, MDC 16.

<sup>376</sup> Some of the marriages mentioned here have been subject to genealogical research, but because the conclusions are sketchy or weak, they are not cited. The early origins of these colonists should be better researched than has been true in the past.

<sup>377</sup> Evjen, *Scandinavian Immigrants in New York*, 418; Janny Venema, *Beverwijck: A Dutch Village on the American Frontier, 1652-1664*, (Albany, New York: SUNY at Albany Press), 2003, 468, 1677 document.

status by marrying a woman of the English gentry, and he was accepted into an ethnically mixed population. Van der Donck behaved more like a member of the *ridderschap* than a risen craftsman, possibly explaining his choice. He was landed and had at least two saw mills, both attractive projects for the English woman. When Van der Donck died, Maria remarried back into her own culture but within the experienced colonial population. She chose the English/Irish man Hugh O'Neal of Maryland.<sup>378</sup>

One notable case of cross-cultural marriage is that of Thomas Southart to the daughter of the mulatto Anthony Jans Van Salee in 1653. This was truly the effort of an English opportunist to acquire colonial land or money through marriage. Southart thought that his marriage to Anthony's daughter was accompanied by a dower gift, an English practice in England and in English colonial locations, but neither the common practice among northern continental Europeans nor the practice under rules that applied during the first English occupation. Though Southart claimed to have a binding document to support his position, his tactic seems particularly unsavory because he tried this ploy through an interracial marriage, possibly thinking that his wife's family would not have the social status or political pull to resist his effort to acquire some of her father's assets. The matter came before the court in late December of 1653 and involved arbitrators, dragging on for months with the outcome unknown.<sup>379</sup>

---

<sup>378</sup> RNA iv, 233.

<sup>379</sup> RNA i, 141, 146, 148, 152, 154, and 171. 22 December 1653 through 2 March 1654.

**TABLE I: NEW AMSTERDAM MARRIAGES:1639-1666.** The data for most years is for eight or fewer months of marriage entries. Individual status is based only on entry information.

YEAR	MONTHS	MARRIAGES	RATE/MO	WIDOWERS	WIDOWS	AFRO-AM	ENGLISH
1639	1	2	2	0	0	0	0
1640	5	6	1.2	1	1	0	1
1641	7	14	2	3	6	2	1
1642	11	22	2	0	5	4	7
1643	7	8	1.1	2	3	0	3
1644	8	15	1.9	3	7	3	6
1645	7	13	1.9	3	9	0	2
1646	8	11	1.4	1	2	3	0
1647	9	15	1.7	2	5	1	3
1648	4	6	1.5	0	1	1	2
1649	8	12	1.5	1	2	0	0
1650	9	16	1.8	1	5	1	3
1651	1	3	3	0	0	0	0
1652	8	22	2.8	4	5	1	0
1653	8	14	1.8	0	2	3	0
1654	7	14	2	0	7	1	0
1655	11	25	2.3	0	0	0	2
1656	11	26	2.4	4	8	1	3
1657	9	20	2.2	6	6	1	0
1658	9	19	2.1	1	4	0	0
1659	12	41	3.4	14	14	1	2
1660	10	30	3	3	2	1	2
1661	8	19	2.4	3	6	0	0
1662	8	22	2.8	5	4	0	0
1663	9	26	2.9	6	10	1	0
1664	10	29	2.9	5	11	2	0
1665	8	19	2.4	5	8	0	2
1666	10	14	1.4	1	4	1	1
<b>SUB- TOTAL:</b>	223	483	2.2/mo.	74	137	28	40

Hendrick Lambertszen Mol from Amsterdam and Catharyn Ringsfort from Sandwich in England married in 1660. Hendrick's case was also an unusual one. His father was one of the few northern continental Europeans to hold land in Maryland and to be granted English citizenship there. Hendrick may have married an English woman to cement his family's place among the English in Maryland without concern for his wife's cultural background or possible lack of skills, though Catherine may have been from the large stranger population in Sandwich. In addition, Sandwich was one of the Cinque Ports in England with practices and policies that the English of Maryland and Virginia could certainly understand (see the chapter on the city).

This has been just a sampling of the marriages in question before 1664. Immediately after the English occupation in August of 1664 and throughout the following year, 1665, there was no increase in the number of marriages between the English and the northern continental Europeans.<sup>380</sup> Instead a pattern slowly emerges of the marriage of colonists to colonists. Another small pattern was revealed showing the marriages of a very few English and non-English newcomers to people born in the colony or long established there, something that was only possible at later dates when the children of colonists had reached sufficient maturity.

Though widowers and widows in New York could return to *Patria* if they wished, instead they chose to remarry and remain in the colonies. There were few outright marriages of new-comer English men to established colonial northern continental women until well after the second English occupation, when the numbers of such marriages began to increase. Two newcomer English men successfully married foreign women

---

<sup>380</sup> There was just one such marriage out of a total of twenty-nine marriages, MDC 30-31. In the following year there were no such marriages.

shortly after the final English takeover. Willem Boyll from old England and the Dutch woman Jannetje Frans from New York married in 1675.<sup>381</sup> Jannetje's father Frans van Hooghten was a carpenter in New Amsterdam who developed many craft ties with colleagues. Frans had no sons, and only three daughters reached maturity and married in the colony. Boyll and his wife had their children baptized in the Dutch Church and they remained residents of New York where Boyll participated actively in a contracting business that helped grow the city.

Philip Smith from Cambridge in England also benefited remarkably when he married the Dutch woman Margareta Blanck from New York in 1676.<sup>382</sup> Margareta was from a family of gold and silversmiths in the colonies, and Philip now had access to funds to underwrite enterprises. Philip's surname is suspicious, though, because many a silver or goldsmith chose "Smith" as a surname both in *Patria* and as strangers in English cities such as London.

Nathaniel Baily from New Castle in Delaware married Margariet Obee, New Amsterdam born, in New York in 1677, her father part of the tanners and leather workers network. This represents the more typical pattern of marriages between colonists either born in the Americas or resident there for a long period of time, crossing cultural boundaries in favor of a continued colonial understanding and presence.

It was in the context of the second English occupation that Anna the tanner's husband Abel died and Anna married the colonial English man John Lilly from Fairfield, Connecticut in 1685.<sup>383</sup> Many years later in 1700 Anna was still considered as her own

---

<sup>381</sup> MDC 40, banns 29 August 1675.

<sup>382</sup> MDC 42, banns 23 July 1676.

<sup>383</sup> MDC 58, Banns 21 November 1685.

person, Anna Meynderts, or as the widow of Abel Hardenbroeck.<sup>384</sup> Through his marriage to Anna, John Lilly gained a foothold in New York City, access to the tanning and leather working industry, and a family connection to her sister-in-law Margaret Hardenbroeck and Margaret's husband Frederick Phillipszen. In return, Anna through her marriage to John Lilly acquired a place among the now powerful English networks linking across the Long Island Sound between New York and Connecticut.

Skilled, propertied, and settled northern continental European women eligible for marriage or remarriage exerted a strong geographical pull on men through the possession of such attributes, whether in Europe or in the colonies, and in Amsterdam back in *Patria* native born women had a "privileged position on the marriage market."<sup>385</sup> Artisans were encouraged to marry and were not taken seriously until they did so, but they had to be careful to choose the right city or community. Marriageable journeymen from distant cities who were in training in another city unfamiliar to them often formed bonds with women well-established in their own urban environment, sometimes the daughters of the masters for whom the journeymen worked.<sup>386</sup> This custom meant that eligible women benefited from the appeal of their urban setting but that they could be passed by if they resided in an unappealing location. To prove the point, when a young minister on the

---

<sup>384</sup> BDC 266, April 17, 1700, she witnessing for the baptism of a child of her son.

<sup>385</sup> Lotte van der pol in Kloek, et. al., *Women of the Golden Age*, 79.

<sup>386</sup> In a sense this made marriage quasi-matrilocal, but not matrilineal. That is, the stranger men married women who were native to their city and who probably had kin there. Often young couples resided in the new wife's family's home until able to set out on their own (personal observation based on the examination of records). See the work of anthropologist Peter Kloos. See also the new book by Laura J. Mitchell, *Belongings. Property, Family, and Identity in Colonial South Africa: An Exploration of Frontiers, 1725-1830* (New York: Columbia University Press, 2009).

island of Curacao was asked why he had not yet married, he answered “If you marry the woman, you marry the place.”<sup>387</sup>

Urban women in northern Europe were cognizant of their customary power by location and waited patiently for men to seek out suitable matches. Older women such as Anna in New Amsterdam remained part of the eligible pool because they had the double draw of having honed their skills and having acquired assets through their own labor and/or an inheritance. The case of the young widow Johanna who ran the mill also demonstrates the appeal of place. She knew she had little to offer if she stayed in New Amstel on the Delaware, so she chose to marry someone who would be living in a much more desirable urban setting, thereby establishing herself at a location where, if she was widowed again, she would have a better chance to attract another spouse.

The power women had to commit potential husbands to a location was a source of concern for the relatives of young unmarried men who were sent out from Europe to spend brief periods of time training in mercantile skills. In one such case, young Johannes van Beeck, a member of the family of a West India Company board member, was under the supervision of Director General Petrus Stuyvesant. In spite of this, Maria Verleth, connected to one of the free merchant family networks in New Netherland, managed to take van Beeck’s fancy and the two young lovers ran off to Long Island to marry among the English.<sup>388</sup>

---

<sup>387</sup> Gehring and Schiltkamp, *Curacao Papers*, document # 107, personal letter from Willem Volckerius in Curacao to his cousin Gerrit van Tricht in New Netherland, pages 217 and 471. The Dutch reads “*men met het wijf tegelijck het landt trouwdt.*”

<sup>388</sup> For the full furor, see Charles T. Gehring, trans. and ed., *Council Minutes, 1655-1656*, New Netherland Documents Series (Syracuse: Syracuse University Press, 1995), pages 263-264, 286, 286n, 289, 300, 301-302, 306, 308-309, and 317.

The ensuing furor within van Beeck's family members and others on both sides of the Atlantic included efforts to set aside the marriage, but Maria was with child and Johannes was now rooted in North America. Later when Maria became a widow with minor children, the New Amsterdam Orphan Masters hastened to secure van Beeck's estate for the children. They were prodded to do so by Joost van Beeck, the brother of Johannes, who wanted the lucrative guardianship, and the Orphan Masters also pressed for control because they could gain financially by collecting the interest the estate funds would earn. Maria just as quickly established her right through a geographical and political "place," claiming exemption from oversight based on the fact that she and her husband had married in English territory and that her children had also been born among the English.<sup>389</sup> Maria's personal family connections were powerful, and the young widow could count on them to support her efforts to control her own resources and future.<sup>390</sup>

Marriage and widowhood created sister networks that were an unusually effective means of sustaining skill control and establishing a trade monopoly. Sisters-in-law were part of these networks where half sisters, stepsisters, the sister acquired by a brother's marriage as well as a husband's sister were all sisters-in-law. Since women in New Amsterdam were outliving many of the men and the widows remarried at twice the rate of the widowers, there were numbers of stable sister networks. The women's uncles died but their aunts did not, their husbands died but their husbands' sisters did not. Their brothers died but their brothers' wives did not. The women involved had an increasingly

---

<sup>389</sup> For the role of the Orphan Masters see Adriana van Zwieteren, "The Orphan Chamber of New Amsterdam," in *The William and Mary Quarterly*, 3<sup>rd</sup> Series, Vol. LIII, No. 2 (April 1996).

<sup>390</sup> Janneken Verlet was the wife of Augustine Herrmans and Nicolas Verlet was married to Anna Stuyvesant.

large sisterhood developing during their maturing years, something their own daughters could observe and from which they could learn.

Remarriages in the sisterhood drew men into the networks. The sisters Petronella and Tietje Lippes married men in New Netherland. Petronella's husband died and she returned to *Patria* where she married Jan Adriaenszen in Amsterdam and she had a child, then she returned to New Netherland with her new husband. Tietje with her husband Laurens Laurenszen, along with Petronella and her second husband Jan Adriaenszen, lived side by side in New Amsterdam where, with additional partners, they had a local monopoly on the trade in lumber, controlling part of the flow of building materials into the city and to the English colonies.<sup>391</sup>

New Amsterdam/New York City was a locality that drew other experienced colonials to marriage with the women there more than it drew outsiders from England. Though women practiced skills learned through their family, transfer of the skilled knowledge occurred in the colonial locations primarily by the intermarriage of two settled colonists rather than by direct marriage with newly arriving Englishmen. The attraction provided by strong, well-established women in an urban setting operated to hold certain men to the city at the very time that there was an enormous colonial pull to move outward, acquire land, and settle in more remote areas.<sup>392</sup>

By choosing the desirable location of a large city and remaining there for a substantial period of time, skilled women in the colony attracted men seeking to live and prosper in a favorable environment with a clever helpmate. Women such as Anna and Johanna had the power to produce and reproduce the urban colonial context through their

---

<sup>391</sup> RNA v, 225, 19 April 1665, for the burghers list and addresses.

<sup>392</sup> This community versus frontier problem is addressed by Laura J. Mitchell as cited.

choice of location, their possession of skills, their actions in court or through administrators, and by choosing whom to marry. These women were neither the put-upon servants of Virginia nor the the puritanical goodwives of New England.<sup>393</sup> They were not uniformly of one continental origin and they were not locked into long servitude or pilloried for petty misbehaviors.

Narratives placing most women in the role of victims writes a form of gender bias into Atlantic World history, failing to properly recognize that there were knowledgeable women of certain cultures who were active, even aggressive, colonists in the Atlantic World, moving skilled knowledge from place to place. Some women must be recast as powerful advocates and practitioners of technologies that had a significant impact on the colonial environment, for good or ill, while they restricted access to their skills by marrying within their own culture or marrying those from a colonial line.

English men rarely accessed skilled knowledge by marrying northern continental European women. The attitudes of men of various European cultural origins toward women of other origins in the early modern period has not been researched except possibly in the context of religious differences, and it is beyond this study to explain successfully why English men rarely married Dutch, German, Danish, or Norwegian women. The material presented here suggests that such women in the colonial setting were undesirable to English men or inaccessible to them in ways none of the English men have expressed in the documents.

In the process of practicing their skills, learning new skills, demonstrating mobility and relocating while marrying and remarrying, women acquired property and

---

<sup>393</sup> According to Deborah A. Rosen in "Women and Property," "women throughout the colonies lived in patriarchal social systems that limited their autonomy and power." *William and Mary Quarterly*, vol. 60, no. 2 (April 2003): 355.

voices in the colonial setting while transferring skilled knowledge, not only to each other and their spouses but also to their children. In that context, Anna, Johanna, and many other women in New Amsterdam/New York City were clever wives, mothers, sisters, and daughters in the urban setting, a setting they helped to create and maintain as an extension of their northern continental European cultural beliefs and practices. In that setting the English men were unnecessary to them until the former New Netherland colony was completely and relentlessly under English law and control. Only then did cross-cultural marriages increase in number.

## CHAPTER FOUR

### The Saw Mill: Scale, Scope, and Middlemen

Francois Fesaert had entered into an employment contract with the West India Company, his name appearing in the 1625 instructions given to the New Netherland colonial director who was ordered “to have a temporary water or wind mill for sawing lumber put up by Francois Fezard [*sic*], giving him such assistance as he may need.”<sup>394</sup> The priority was unequivocal: the director was to have the mill builder construct a saw mill promptly upon arrival. The expert status of the mill builder was also unequivocal: the director was to facilitate his technical efforts. The colonial administrators put Fesaert to immediate effective use and apparently he was well along in his work by 1626 when a booklet in the Dutch Republic reported the following:

Francois Molemaecker [mill builder] is busy building a horse-mill, over which shall be constructed a spacious room sufficient to accommodate a large congregation, and then a tower is to be erected where the bells brought from Porto Rico will be hung.<sup>395</sup>

Glorious news! Progress in the colony, religion in its proper elevation, and Spain’s colonial bells hung defiantly in the Reformed Church!

---

<sup>394</sup> Document C, Instructions to Verhulst, January, 1625, in A. J. F. Van Laer, trans. and ed., *Documents Relating to New Netherland: 1624-1626*, The Henry E. Huntington Library and Art Gallery (San Marino, CA: 1924), 64. The name Francois has also been recorded as Francis. Because the F the V have a similar pronunciation in Dutch, Fesaert was listed variously as Fezard, Veersaert, and Versaert, all locators, and he was also known as Molemaecker. He may be the same man who was entered as Francis Webb, hired to build a saw mill in New England in 1629. *Transcriptions and Collections, American Antiquarian Society*, Vol. III, 100. The correct name may be Versaert, referring to someone from the Saar river region, where Franciscus Versaert, a mill builder, appeared as a witness at the marriage of his daughter Eva to Johannes Grotelaers in the Roman Catholic Church in Broekhuizervorst in the 1640s.

<sup>395</sup> Nicolaes Van Wassenaer, *Historisch verhael aldar gedenck-weerdigste geschedenissen die van de beginner des jaeres 1621...tot 1632 voorgefallen sijn*. Portions of this 21 page Amsterdam pamphlet may be found in English in J. Franklin Jameson, *Narratives of New Netherland: 1609-1664* (New York: Charles Scribner and Sons, 1909), 83-84. Fitted with a single saw in one frame, the machinery of a one-horse mill operated at one horsepower, doing the work of two saw gangs or four men.

All seemed well until Pieter Minuit took control of the colony within that same year, to the great disadvantage of Fesaert. The mill builder continued his work under much altered conditions that eventually forced him and his family to leave the colony. When Fesaert arrived back in Amsterdam he filed a lawsuit against the West India Company in general and Pieter Minuit in particular in which he claimed to have suffered abuse from Minuit while employed in New Netherland, asserting that the company director had withheld supplies from him, his wife, his two children, and had abused his youthful apprentice in an effort to force him to rectify problems in a wind driven saw mill he had built for the company.<sup>396</sup>

As was true for many before and after him, Minuit simply did not understand the sawing machines and their technical experts. In early modern Europe, in the North American colonies, and in the Atlantic World in general the attitude towards mechanization and to those who were mechanics was inconsistent, often varying from location to location, favorable in one moment and contrary in the next. Mechanization on a large scale for the purpose of milling wood had spread rapidly geographically in the late sixteenth and early seventeenth centuries yet small mills also persisted and in some areas did not exist at all. The responses individuals and communities had to mechanical mysteries and to the potential of machines to replace manual labor in the first half of the seventeenth century involved competing economic forces, cultural differences, and, in certain cases, specific environmental synergies or conflicts.

---

<sup>396</sup> The original suit and counter suit documents were lost when the first West India Company records were sold for scrap paper in the nineteenth century, but the circumstances of the suit are clear from the subsequent multiple affidavits preserved in public notarial records held in the Amsterdam archives as cited in the following pages. The original lawsuit may have included a request for back wages and compensation for what had been denied to Fesaert and his family.

In the case of the wind driven and water driven saw mills, there were differences in cultural attitudes and systems of mechanization among the Dutch, French, English, Walloons, Norwegians, and Scots. The scale and scope of saw mills on either side of the Atlantic depended upon a number of factors beyond cultural differences that included economic practicality and the opportunities provided by the environment. As a new technology with few experts available, it also required patient middlemen.

Innovations with such a scale of size and such a scope of geographical transfer as the wind driven saw mill required the assistance of middlemen to connect individuals who had the necessary skills but who were in different locations. The middlemen had to arrange for the employment of experts to assure the successful construction of the machines, to aid others in understanding the devices, and to assist them in operating the “engines.” The West India Company was aware of the necessary process, using Director Verhulst to interact with the technical expert Fesaert, seeing that the mill builder was accommodated in every possible way, “giving him such assistance as he may need.” Verhulst succeeded as a facilitator and a middleman where Minuit failed, contributing to early problems in the New Netherland colony.

Anywhere that it was reasonable to put up a saw mill in North America the European colonists did so, from the north in what is now Maine and New Hampshire southward to Virginia. The first few mills were the large ones in and near Fort Amsterdam in New Netherland, but within a decade there were dozens of water driven

saw mills in that colony alone, stretching from the northern reaches of the Hudson River to Delaware Bay.<sup>397</sup>

The ubiquitous presence of trees and forests in North America was echoed by the equally ubiquitous presence in northern continental Europe of wooden structures, wooden transports, wooden reinforcements for dykes, and wooden products in the early modern period. Processed wood was an integral but ordinary part of both the urban and the rural landscape in the northern area of continental Europe, while the trees that produced the raw material were in extremely short supply except at great distances, such as up the Rhine or across the North Sea in Norway.

By contrast, timber was scarce in England where ships were in short supply and houses were still being built in half-timber style, conserving wood as much as possible. The English restricted saw mills to protect the rights of hand sawyers, alarmed by any “engines” that threatened labor. Mechanical devices such as the ribbon weaving engine looms in London had been the targets of protest.<sup>398</sup> The English not only did not understand the technology of advanced mechanization, they actively opposed such “engines” in their country as late as the last quarter of the seventeenth century.

The first machine for processing raw wood into timber among the English in the Massachusetts colony, excluding what is now New Hampshire and northward, was built sometime after May 28<sup>th</sup> 1629 when Francis Webb was hired to set up a saw mill, and the

---

<sup>397</sup> York, Maine claims to have had the first saw mill in North America, built in 1623. I could find no documentary support for this popular notion, and scholars who mention saw mills never place them in New England before the 1630s.

<sup>398</sup> By the last quarter of the seventeenth century saw mills had recently been introduced in England, the Privy Council concerned for them due to the recent uprisings against the cloth weaving “engine looms.” The Council was hopeful that “...Ingenuity will find encouragement in England,” referring to engines of all sorts. As quoted and discussed by Michael Berlin in, “‘Broken all in pieces’: artisans and the regulation of workmanship in early modern London,” Geoffrey Crossick, ed., *The Artisan and the European Town*, Historical Urban Studies Series (Aldershot, England and Brookfield, Vermont: SCOLAR Press, 1997), 86 and 89n.

immediate question that comes to mind is how to account for saw mills among the English colonists half a century before they were available back in their homeland.<sup>399</sup>

Webb may have been an Englishman who had experience in building saw mills from exposure in Europe, on the model of Thomas Graves discussed in an earlier chapter

Returning to the circumstances in Europe, the West India Company knew what it was doing when it hired Francois Fesaert to build a wind driven saw mill in a distant colony. The fur trade and the timber trade went hand-in-hand in Europe, and maps made of the shores of the Americas showed fur-bearing animals and a variety of trees as potential resources for the enterprising Europeans to harvest.<sup>400</sup> Wood for shipbuilding had been coming into Amsterdam from as far as Surinam and other places in the area of the Caribbean and Central America since at least the beginning of the seventeenth century.<sup>401</sup> Certainly the West India Company expected to cut down trees and process logs into timber for which purpose they exported the state-of-the-art wind driven saw mill technology along with the requisite expertise. The reasoning behind introducing saw mills into the New Netherland colony was that the mechanization of timber processing would reduce manpower and labor costs, speed the building of housing and other structures, contribute to the rapid construction of boats and large ships, and provide select timber for export.

In Europe, unlike the seasonal trade in grain and furs that accompanied it, wood possessed the special feature that it required itself to trade. Wood required wooden ships,

---

<sup>399</sup> *Translations and Collections of the American Antiquarian Society*, Vol. III, p. 100. Webb may have been an outsider or possibly he was the same as Francois Versaert.

<sup>400</sup> For numerous examples see Victoria Dickenson, *Drawn from Life: Science and Art in the Portrayal of the New World* (Toronto, Canada: University of Toronto Press, 1998), Pierluigi Portinara and Franco Knirsch, *The Cartography of North America, 1500-1800* (Greenwich, Connecticut: Brompton Books Corp., 1987), and Benjamin Schmidt, *Innocence Abroad: The Dutch Imagination and the New World, 1570-1670* (Cambridge: Cambridge University press, 2001).

<sup>401</sup> Nan Porsius, <http://www.bataviawerf.nl/014houtbatavia.htm>, p. 5.

wooden docks, wood framed structures, and wooden saw mills. More demand required producing more wood that in turn created a greater need for more ships to transport it, more docks to handle the trade in it, more dykes to reinforce larger ports with it, and more mills to process it. The standing timber in distant North America was seen as a realistic source of large quantities of wood that was anticipated to have an excellent economic return on the high front end investment but only by producing large quantities. The trade in timber did not have high profits and only commerce in bulk made it practicable.

The European demands for urban construction timber for housing had risen as the population increased in the early modern period, putting pressure on the wood supplies already needed for ships, and by the beginning of the seventeenth century a vastly increased supply of wood was flowing from Norway. A better way to process quantities of wood had been introduced only a little over ten years earlier in the 1580s and 1590s in the form of the wind driven saw mill, and the decades from the 1620s to the 1640s became a boom period in Europe for Norwegian wood, wind driven saw mills, shipbuilding, and house construction. Public and private attitudes in northern continental Europe shifted in the same period regarding the mechanization of the production of the huge quantities of timber that had become necessary.

The scale and scope of the need for timber, the places to which woodsmen and merchants traveled to obtain the logs, and the development of the machines to process the wood in large quantities were all early modern alterations and upheavals around a single raw material. Technologies and laborers were in a state of flux regarding the handling of wood to produce boards, blocks, beams, and wainscoting, with large numbers of patents

filed in the United Republic.<sup>402</sup> Skills transfer occurred rapidly, and, like the sailors instructing merchants and learned men in the geography of the globe, artisans such as carpenters and mill builders taught others how to construct and use the new machines, turning the former individual and family ownership of small mills of any sort into new, large enterprises involving multiple partners and thousands of guilders on the scale of the voyages of global commercial ships. Minuit the administrator was in good company in his misunderstandings and his distress, and Fesaert was in an awkward position as the knowledgeable expert who was caught in the turmoil of innovative technologies, their geographic spread, and the desires of others to possess the machines and their products.

Two colonists who had been to New Netherland and who had returned to Amsterdam, Gillis Janszen, a master house carpenter, and Abraham Pieterszen, a miller, both testified in affidavits that Pieter Minuit opposed Francois Fesaert's suggestion that a stream on Manhattan Island could be dammed for the construction of a water-driven grist mill.<sup>403</sup> Such a mill could, and often did, serve to saw wood as well as grind grain. Rather than following Fesaert's recommendation for the location of the water driven mill, Minuit chose a spot just west of the wall of the fort for the construction of a wind driven post mill that could be used only to grind grain. The mill location had the fort embankment at its rear which acted to baffle the breeze to the wind vanes and to prevent the windmill from ever functioning well. Minuit then had Fesaert build a separate wind driven saw mill south of the fort, constantly harping on Fesaert's rate of mill construction and claiming that the saw mill never worked as well as one Fesaert built privately, though

---

<sup>402</sup> Hundreds of patents for mills of every sort were filed from the end of the sixteenth century and through the eighteenth century. Many were to pump water from the land or to mill grain, but others specified ways to cut boards, including creating grooves and other features. G. Doorman, *Octrooien voor uitvindingen in de Nederlanden uit de 16e-18e eeuw* ('s-Gravenhage: Martinus Nijhoff, 1940).

<sup>403</sup> GAA, NA 943, notary A. J. Engel, 25 June 1632.

it was used for almost three decades, first as a mill and then as a light house and watch station at the end of the island, the mill shape becoming the standard for light houses in the following centuries.

For the officials of the West India Company the issue of Francois Fesaert's work centered on the original instructions; the mills had been a priority. Why had they taken so long to build, why didn't the company mills work as well as the privately built mills, and where were the additional expected products of the saw mills; the ships and the timber?<sup>404</sup> On the other side of the issue, Fesaert was suing for compensation and loss: the colonial dream for him and his family had dissolved under the abuse of power by Minuit.

In 1632 the New Netherland minister Jonas Michaelius, accompanied by the miller Abraham Pieterszen, appeared as a witness in Amsterdam in support of Francois. Michaelius declared how he had complained to the New Netherland colony's secretary Jan van Romund about the harsh treatment Fesaert received and the false indebtedness to the company that Minuit pressed against him, and claimed that the Walloons did not understand the technology. Both the minister and the miller admitted that the "saw wind mill" built privately by Francois ran "lighter" than the company mills, but Minuit had tried to press the private sawmill into company use in violation of the settlers' privileges, claiming the right to employ it because the work of Fesaert on the company mills had not produced equally satisfactory results. The minister testified further that when Minuit

---

<sup>404</sup> Timber had been shipping out from New Netherland since at least 1626. Pieter Schagen in a letter to the States General listed the furs sent back to *Patria* and added that the ship also held "considerable oak timber and hickory." 5 November 1626, Algemeen Rijksarchief, Den Haag. See Jaap Jacobs, *Een zegenrijk gewest*, 182.

withheld supplies from the mill builder's family, the minister himself had stood as financial security for Fesaert's necessities, giving comfort to his household.<sup>405</sup>

Fesaert was much disadvantaged because he had to sue a company to access the company's employee for redress, not an individual, and he was delayed in concluding his suit by the remote colonial location of the witnesses. Luckily, the minister had served out his contract in colonial New Netherland and had returned to *Patria* along with others who had been in the colony. Fesaert had to wait for more witnesses to arrive safely by ship in Amsterdam to testify for him. In the meantime, Minuit had his say.

The West India Company insisted that Pieter Minuit submit an affidavit in response to the accusations by Fesaert, the minister, and others.<sup>406</sup> Minuit did so in an arrogant and dismissive manner, claiming that Fesaert should have anticipated the hardships of life in New Netherland, implying that he should have been prepared to supply himself and his family if the director chose not to do so. Minuit took the position that Fesaert was just looking for a quarrel, suggesting that he had turned a minor problem into a major conflict. Minuit's description of Fesaert's personality is supported to a degree by the testimony of the minister who reluctantly admitted that Fesaert was a stubborn man but a reliable person who did his work daily, albeit slowly.<sup>407</sup>

Pieter Minuit may have thought he knew how things should be. He had spent time residing in the Dutch city of Hoorn in Westfriesland, an active center in the timber trade with a successful ship building industry.<sup>408</sup> Hoorn had wind driven saw mills from

---

<sup>405</sup> GAA NA 943, notary A. J. Engel, 17 July 1632.

<sup>406</sup> The document with the company demand no longer exists but may be inferred from the Pieter Minuit response. It was standard practice to cross-demand affidavits, sometimes used as a delaying tactic when money was involved. The affidavit was GAA NA 694/reg. 52, notary Jan Warnartszen, 21 July 1632.

<sup>407</sup> GAA NA 943, notary A. J. Engel, 17 July 1632.

<sup>408</sup> SAW, Hoorn, Notarial Archives inventory number 2070, folio 253-254, 19 January 1616.

as early as the end of the sixteenth century, but Minuit had never been party to the rise, development, or construction of the new technology. In addition, Pieter Minuit had no experience as a leader. Born in Wesel in Germany and probably of Walloon origin, he was identified as a diamond cutter in a will he and his wife prepared while they were living in Utrecht.<sup>409</sup> His wife's relatives had participated in northern European trade involving furs, timber, amber, and grain, and perhaps Minuit had acquired knowledge at the level of a typical wood merchant.<sup>410</sup> Certainly he was not well enough informed about mills of any sort to direct the building or operating of them, and it is apparent from the testimony of the minister Michaelius and the other personnel from New Netherland that Minuit tried to micromanage the construction of the mills to the detriment of both the colony and Francois Fesaert.

Fesaert's relief came in a hopefully anticipated form. During the years he had been in New Netherland the company workers had started building a large ocean going vessel in the upper reaches of the Hudson River where they could select and process the hull timbers near the water's edge.<sup>411</sup> Francois may have left the colony by the time the workers floated the hull downstream to Manhattan Island where the carpenters installed the decks and trim using wood milled at the privately owned saw mill built by Fesaert. Another possibility is that the ship may have been completed and used by him to return to

---

<sup>409</sup> Utrecht Municipal Archives, *Transporten en Plechten*, pp. 189-192, 15 Sept. 1615, wife Geertruijdt Raedts of Cleves.

<sup>410</sup> Minuit's wife's relative Govert Raedt of Cleves interacted with Minuit and Clases Claesz. of Hoorn for trading purposes, especially in timber.

<sup>411</sup> I. N. Phelps Stokes, *Iconography of Manhattan Island, 1498-1909*, 6 Volumes (New York: Robert H. Dodd, 1915-1928), thought that the ship was built near Fort Orange based on a July, 1630 contract of Van Rensselaer that mentions the construction of a new unnamed ship, but no such contract is in VRBM.

*Patria* when it set out on its maiden voyage.<sup>412</sup> Later the ship, dubbed *Nieuw Nederlandt*, ventured to privateer against the Spaniards in the Caribbean, and David De Vries described it plying the waters of the West Indies from July to September in 1632.<sup>413</sup> It then crossed the Atlantic to arrive in Amsterdam again late that autumn. The *Nieuw Nederlandt* was a sensation in the Dutch city, at 800 tons one of the largest Atlantic Ocean ships ever built but constructed in a distant colony.<sup>414</sup> Even the English were amazed when it was first put afloat, Captain James Mason writing to Secretary Coke in England that the Dutch in New Netherland "...have built shipps there, wherof one was sent into Holland of 600 tunnes or thereabouts."<sup>415</sup> Most of the water craft the English had constructed in their North American colonies were little more than small fishing boats.

In the first week of November in 1632 no fewer than four men from the ship *Nieuw Nederlandt* appeared before notaries to testify for Francois Fesaert in affidavits, Minne Corneliszen, Stoffel Andrieszen, Jan Dirckszen from Haarlem, and Roelof Carstenszen from Fleckero in Norway.<sup>416</sup> They claimed that Fesaert was truly a skilled mill builder and that they had chosen to use the better private mill he built in order to saw

---

<sup>412</sup> In early 1632 Adam Willemszen from Leiden returned to Amsterdam as a boatswain on a ship built in the colony that he referred to as the *Nieuw Nederlandt*. GAA NA 306/123v., notary Fred. Van Banchem, 24 February 1632 and GAA NA 946/43, 2e pak, notary Gerlof Jelles Selden, 20 March 1632.

<sup>413</sup> David Pieterszen de Vries, *Korte historiael ende journaels aenteijkenings*, 1630-1633.

<sup>414</sup> See Henry G. Bayer, Martha J. Lamb, James Grant Wilson, and I.N. Phelps Stokes who all refer to this ship, most of them in glowing nineteenth and early twentieth century undocumented hyperbole. Their comments have not stood up to a more critical examination but they may have seen records that were destroyed later. In general, they called it a vessel larger than any previously produced in the shipyards of Holland or Zeeland, that it had been constructed in 1630 or 1631 by two shipbuilders and launched at the Manhattans, and that it was the envy of all the European powers. J. Franklin Jameson reported its size as 800 tons. East India ships were larger than West India ships, so it could have been one of the largest of the latter.

<sup>415</sup> April 2, 1632, letter to Mr. Secretary Coke found in the London Trade Papers, State Paper Office, X. 1., and reproduced in *Documents Relative to the Colonial History of New York; Procured in Holland, England, and France*, by agent John Romeyn Brodhead (Albany: Weed, Parsons and Company, 1853), Vol. 3, 16-17.

<sup>416</sup> GAA NA 943, notary A. J. Engel, 3 November 1632, and GAA NA 943, Notary A. J. Engel, 6 November 1632.

the ship's upper timbers. This information affirmed Fesaert's skills and his ability to complete a task, but the dismayed company had to pay to use the private mill while their own wind driven saw mill continued to be inadequate. Finally the company sent a different director, Wouter van Twiller, to take over the New Netherland colony in what they hoped would be a new beginning.

The vignette of the story of Francois Fesaert's troubles in a colony, the mysteries of the wind driven saw mill and the construction of the great ship *Nieuw Nederlandt* point to the problems that existed in the patterns of the movements of skilled labor and major European technologies out into the northern Atlantic World, especially when it involved a new technology. Beyond the actual construction of the saw mills and their products, the events in the new colony were highly public, visible to Europeans and Amerindians on both sides of the Atlantic, and written into letters, reports, notarial testimony, and pamphlets. Wind driven saw mills seemed to be the global technology of the future.

The transfer of a technology geographically does not imply cultural transfer nor was cultural transfer intended by the company or the colonists, yet the need for skilled labor, the push to create colonial settlements, the desire to fight the Spanish on the seas that they had controlled for a century, and the impetus to profit from the perceived riches of the New World eventually created the setting for the potential for the cultural transfer of innovative saw mill technologies among the ethnically diverse population within the New Netherland colonial location and to other colonial locations on the North American coastline. But the story is much more complicated than that, because the wind driven saw mill, the glorious new technology so aggravating to Minit, did not succeed in New

Netherland, leading to unforeseen opportunities for the English and the proliferation of a much more environmentally obstructive form for the saw mill.

Much of the story of Francois Fesaert was merely an extension of long standing practices in Europe, particularly with respect to the movement of skilled experts of any sort. There were unusual problems for Fesaert, though, due to the exceptional case of a colonial location and the unfamiliar new technology. Typically Francois Fesaert and other craftsmen in cities had the protections of a guild unless the person was a stranger. The employer abuse would have been referred to the guild masters who, in turn, would have pressed the suit for the guild member if necessary. Not only did Fesaert not have this avenue available to him in the distant colony, there was no saw mill builder's guild in Amsterdam yet because the technology was novel, quite rare, and in direct competition with the city's manual sawyer's guild.<sup>417</sup> Mill builders of every other sort were included in the St. Joseph's Guild, which was the guild of the carpenters, but few of those guild members had ever seen the mechanics of the new saw mills. The wind driven saw mill was an innovation that was still under development in the United Republic. The machines were massive and some of them were capable of doing the work of twenty men, a tremendous threat to hand labor in certain settings.

Hoorn was one of the cities that benefited early from the wood trade, the use of wind driven saw mills, and the demand for building ships. Only a few miles to the north of Hoorn the old Hansa city of Enkhuizen prohibited saw mills within its walls and the

---

<sup>417</sup> Mechanized saw millers first appeared in Amsterdam in the 1655 *Beroepen Poorters* under *Hout* [wood], one saw miller added for each of the years as follows: from 1657, a miller from Wessanen, number 1, 357; 1663 number 2, 527; 1664 a miller from "Zaardam," number 2, 255; 1665 number 2, 560; and 1667 number 3, 75. Beginning in 1670 most of the mechanized saw millers were from the Zaan region.

bringing of milled wood into the city.<sup>418</sup> The contrasts between the two communities, Hoorn the shipbuilder and Enkhuizen the salt purifier and herring packer, were local and very much part of the region's economy, a form of competition that pitted rapidly expanding, mechanized Hoorn against tiny Enkhuizen.<sup>419</sup> The symbol for the mechanized city of Hoorn was a horned unicorn and the symbol for Enkhuizen was a maiden, and a slang expression for illicit intercourse was to claim that two people were like Hoorn and Enkhuizen, the phrase clearly expressing how Enkhuizen felt about Hoorn in its boom period.

The animosity over the scale of the wood shipments, wood processing, and timber trade was at a high level of dissent well before the introduction of the wind driven saw mills when another local city, Alkmaar, deliberately burned Hoorn stockpiles of wood in a riotous event concerning the privileges of its city and immediate area.<sup>420</sup> Resentment was intense over each aspect of the timber trade, whether wood was milled or unmilled, stockpiled to raise prices, or because it brought in more Norwegians, Danes, and Scots to already crowded Hoorn.

The Dutch in Holland had been struggling with the wood sawing labor and production issue for several decades when the Francois Fesart incident became a matter of public record. The rapidly growing metropolis of Amsterdam had long-standing problems in the timber trade that began because it sided with the Spanish at the outset of the Dutch Revolt. Amsterdam Roman Catholic wood merchants, carpenters, and sawyers

---

<sup>418</sup> Simon Hart claims that Enkhuizen prohibited the saw mills, but Lesger, citing Ad. van der Woude, has one near Enkhuizen by 1620. C. M. Lesger, *Hoorn als Stedelijk knooppunt: Stedensystem tijdens de late middeleeuwen en vroegmoderne tijd*, Hollandse Studien 26 (Den Haag: Hilversum, 1990), 80.

<sup>419</sup> Lesger, 99.

<sup>420</sup> Lesger, 112. Done very early, late 1570s early 1580s, and it was not due to the new saw mill technology but rather the resentment of Hoorn's rising centrality and shifting markets in general.

had continued to deal with the Spaniards throughout the first several years of the war, profiting from the military needs of the Spanish while cornering the immediate timber market as other cities fell to Spanish attacks.<sup>421</sup> When Amsterdam had to throw in with parts of Holland against Spain later, their timber market suffered in competition with other cities that were already expanding or rebuilding, partly because many of the established connections for the other cities were with Protestants.

After the major conflicts were over, Amsterdam lagged behind other cities to its west in its attitudes toward the milling of timber, the construction of saw mills, the development of city timber regulations, the religious affiliation of its timber merchants, and the status of sawyers. The city had two early saw mills in the late 1580s and early 1590s, one of which was operated briefly for rasping Brazil wood. Other eager projectors stepped in and put up additional rasping mills, and still more saw mills developed, generally in conjunction with the area just outside the St. Anthonie's Port.<sup>422</sup>

The hand sawyers strenuously objected to milled wood and Amsterdam bowed to them, protecting them in the same way that the cities of Leiden and Enkhuizen had done before, allowing *wagonschot* but forbidding larger timber that was milled by machine from entering the city to be sold, remarkably not prohibiting individuals from obtaining it for their personal use. In 1630 a few Amsterdam wood merchants managed to form a company for the purpose of setting up saw mills and thereafter the timber industry

---

<sup>421</sup> S.A.C. Dudok van Heel, "Twee figuren te veel: De familie Cat en hun memorietafel uit 1517," *Jaarboek van het Centraal Bureau voor Genealogie* 50 (1996). Leiden expelled nearly as many Spanish loyalist wood merchants, brick manufacturers, and construction experts as Roman Catholic priests and nuns. W. A. Fasel, "de Leidse Glippers," *Jaarboekje voor Geschiedenis en Oudheidkunde van Leiden en Omstreken*, 1956, deel 48, pages 68-78.

<sup>422</sup> Simon Hart, *Geschrift en Getal*, 109-113.

prospered in a small way compared to the Zaanstreek, but with no further complaints from the hand sawyers who were now declining in numbers.<sup>423</sup>

By 1630 when Amsterdam was just setting up its own wood processing industry, New Netherland had been established in mechanized wood sawing for six years, New England had hired someone to build a saw mill a year earlier, and the Scots above Massachusetts Bay were actively under way towards developing their own timber production area. Apparently the forested environment in the Atlantic World was just the place for the new and rapidly spreading mechanization of timber processing, partly explaining not only the expansion of the rural Zaanstreek as a center for timber production using large wind driven saw mills, but offering another possibility for the decline of the same mills near New Amsterdam/New York City beyond that of the ready availability of water power. The colonial city at the tip of Manhattan Island had other reasons for existing.

In New Netherland the wind driven saw mills were costly in their initial establishment, they required skilled experts to maintain them, but most significantly they did not fit what the colonial environment offered, which was numerous streams. In the early years on Manhattan Island it was all about the maintenance of the costly wind driven mills. By 1635 there was a need for equipment for the mills and for sawyers who would go into the now distant forest to fell the trees and to cut them to length.<sup>424</sup> Three years later in 1638 only one mill was in operation, one was not in use, and one had

---

<sup>423</sup> Simon Hart, *ibid.*

<sup>424</sup> Algemeen Rijksarchief 'sGraveshage, OWIC, inv. nr. 50, document 32, 20 August 1635, copy of a letter sent to the company from Wouter van Twiller, Marten Gerritszen, Jacobus van Corlaer, Claes van Elslant, and Andries Hudden, not translated or published.

burned down.<sup>425</sup> Large saw mills on both sides of the Atlantic took quite a beating from the wind and weather, from the jarring internal rotational mechanics, and from the high risk of fire from lightening or friction.

Just a year later in 1639 the West India Company leased out the wind driven saw mill on Nooten Island to three men in partnership, Evert Evertszen Bischof, Sibout Claeszen, and Harmen Bastiaenszen. The materials that came with the lease included 20 gang saws, 40 clamps, 10 log irons, 5 sledges, a cross-cut saw, and a list of 22 other items. The lessees had to give the company 500 boards a year, half pine and half oak, and saw not less than 65 boards to any long, large logs taken from company land.<sup>426</sup>

This is the same Nooten Island wind driven saw mill that was associated with Cornelis Melyn. The men who leased it may have worked for him or he might have used the mill earlier. Cornelis was born in Antwerp in 1602 where the Melyns were carpenters and wood traders. He was a burgher in Amsterdam in 1638, trading in fish through the Basques in “Flamman Nieuw Nederlant,” “Vergines” and “Terraneuf,” and he was in New Netherland by at least 1639 when his half-brother died in Europe.<sup>427</sup> By 1641 Cornelis was sharing a New Netherland patroonship with Godard van Reede, the Heer van Nederhorst, for Staten Island. Melyn became a member of the eight man council of New Netherland in the years 1643 and 1644, but constant mutual harassment between the

---

<sup>425</sup> A. J. F. Van Laer, trans., Kenneth Scott and Kenn Stryker-Rodda, eds., *Register of the Provincial Secretary, 1638-1642*, New York Historical Manuscripts Series (Baltimore: Genealogical Publishing Co. Inc., 1974), Vol. I: 131.

<sup>426</sup> Van Laer, *Reg. Prov. Sec. 1638-1642*, 225-226, # 161, 13 Sept. 1639. A standard eight foot log of average diameter usually yielded 20 boards.

<sup>427</sup> Notarial record in French, GAA NA 0677, notary Jan Warnaefts, 12 April 1638. Dr. Karel Degryse of Belgium assisted me with other information on the Melyn family, including the Antwerp Town Archives, genealogical notes Bisschops (Schepenen: Melyn), the State Archives at Ghent, Coppens de ter Eeckenbrugge, number 4, Melyn, and material from the unpublished doctoral thesis of Dr. Degryse, *De Antwerpse fortuinen. Kapitaalaccumulatie, -investering en -rendement te Antwerpen in de 18de eeuw.*, Ghent University, 1985, Bylage A (Melyn). The Melyn family prospered in Antwerp, became merchants on a grand scale, and later became ennobled.

colonists and the Amerindians on Staten Island boiled over into conflict with Director Kieft. When Melyn continued that quarrel with the next director, Stuyvesant, he was banned for seven years with a fine of 300 guilders. Through court actions in Amsterdam he managed to return by 1649, but the interim years had affected the continued viability of the saw mill on Nooten Island.<sup>428</sup>

The decision to lease out the large wind driven saw mill on Nooten Island paid off for a period of time, but by 1648 it was in such bad shape that it was demolished and burnt for its nails, and by 1650 the remaining wind driven mill on the tip of Manhattan Island was also burnt.<sup>429</sup> Complaints sent formally to the West India Company in a *Remonstrance* in 1649 derided the “excessive expense” that had involved hiring an expert to build the costly machines, to equip them, and to maintain them.<sup>430</sup> It was easy to lodge that complaint twenty-five years after the fact, and it did not make much sense to those still in *Patria* when such structures were productive there and now numbered in the hundreds in the Zaanstreek area of Holland.

There were several good reasons for the change of heart about the utility of the large wind driven saw mills. The most significant was the presence of a thousand streams and rivers in the colony that altered the original grand plan for the great wind

---

<sup>428</sup> Jaap Jacobs, *Een zegenrijk gewest*, 95, 126, 139-140, 142, 144, 430 (n. 105), 432 (n. 157), 433 (n. 177), 433-434 (n. 192), and 483. Some members of the Melyn family remained in North America. See MDC 18, in 1653, and MDC 19, in 1654, two possible relatives, Cornelia and Marijken, and there was an Isaac Melijn, BDC 163, in 1684, and a Jacob Melyn in New England.

<sup>429</sup> The wind driven saw mill was dismantled certainly by early 1653 when New Amsterdam officially became a city since there is no mention of it in any city planning. One sketch of the tip of Manhattan Island in 1650 shows the act of dismantling it, the crank shaft suspended from a crane and men gathered at the base picking through the ashes for nails after having burned it. This sketch was probably the basis for the later views of New Amsterdam. See Richard J. Koke, *American Landscape and Genre Paintings in the New-York Historical Society*, Vol. I. (Boston: G. K. Hall 1982), 64-65. By 12 January 1648 the Nooten Island saw mill was wholly decayed, had been scavenged, was not worth repair, and it was recommended that it be dismantled or burned for the iron, CM 1638, 437.

<sup>430</sup> E. B. O’Callaghan, ed., *Documents Relative to the Colonial History of the State of New York* (Albany, New York: Weed, Parsons and Company, 1856) Vol I, 296. The complaints were called a “Remonstrance.”

driven machines that had proven so expensive. The large number of locations suitable for water driven saw mills made them the devices of choice over time, two of them operating successfully on the saw kill to the benefit of one of the 1649 complainants about the larger devices, and another of the saw mills was so small that it was constructed in a man's back yard.<sup>431</sup> The drawback to the smaller water driven saw mills was that their operation was seasonal. The wheels were unable to turn when it was cold enough for ice to form on them in winter or when water levels were low in a dry summer. In spite of that, the average small mill, when well constructed and operated by one or two people, could turn out at least 40 boards a day, many more than two hand sawyers could produce in the same time period.<sup>432</sup>

The transfer of the wind driven saw mill geographically to France was an event that was contemporary with the geographical transfer of the same mechanics into New Netherland in the wilds of coastal North America, but in both locations the utilization of the device was short-lived yet for different reasons. In France it simply never took hold on the scale seen in the area of the Zaanstreek just northwest of Amsterdam due to the features of the port area in which it was constructed.

The middleman involved in the French case was Olivier Aubry, Seigneur de Davias, who went to Amsterdam as a representative of the King of France for the express purpose of finding a saw mill builder to erect a functioning specimen in Brittany. On 3 July 1621 two men committed to a contract that involved constructing and operating a

---

<sup>431</sup> Corr. 11:80a, 26 May 1653, referring to Van der Donck's mills petition, company permission granted him for saw and grain mills in 1645, and two saw mills started in 1646. The small water mill was in the kill in Rutger Jacobszen's back yard near Fort Orange, FOCM 223, 15 February 1656.

<sup>432</sup> Minutes of the Court of Rensselaerswijck, not translated, missed by Van Laer, New York State Library, Books: 40a, folder 7, folio verso 95, 16 November 1661. Evert Pels wants Hans Jansen van Rotterdam back to work for him since the summer is over and the stream no longer lacks water.

mill in France to saw oak. The middleman hired Albert Pieterszen from Zaandam, a mill builder, and Cornelis Corneliszen Hagenaar from Rotterdam, a carpenter, each to be paid at the rate of 600 guilders a year, given free passage to the location, expenses covered, and housing, food, and drink included.<sup>433</sup> By 22 July 1621 Cornelis Corneliszen Hagenaar was already in St. Malo and at work on the saw mill according to a power of attorney he had given his wife in Rotterdam.<sup>434</sup> Cornelis certainly prospered from his high wages, probably taking two or more years to complete the wind driven saw mill construction, and in 1626 he bought a fine house in Rotterdam for the large sum of 965 guilders.<sup>435</sup> He continued to do well for the next ten years, building, buying, and selling new and refurbished houses.

St. Malo in Brittany was a logical location for bringing in wood from elsewhere and for introducing a new saw milling machine in the ship building industry where it would face the least opposition from hand sawyers. As a port, St. Malo was active in the trade for Spanish wine and it had viable shipping connections to England. The saw mills could have proliferated in that location if the ships had remained small and the port had deepened, neither of which happened. The mills did not increase in number and the area was never known as a place for the milling of wood into timber.

Other middlemen were successfully spreading saw mills in an American colony. Specific areas of New England, such as what are now New Hampshire, Maine and Nova Scotia, were settled partly through the efforts of Scots. Through their long-standing connections with the northern areas of the Low Countries, the Scots had established saw

---

<sup>433</sup> GAA NA 384, page 421, notary Nic. Jacobs, 3 July 1621. One person was to build the device and the other to stay and operate it later.

<sup>434</sup> ONA Rotterdam, 103, 36/61, notary Nicolaas v. d. Hagen, 22 July 1621. His wife was Ariaentgen Ariensdr. The brother of Cornelis had been in the East Indies where he died.

<sup>435</sup> ONA Rotterdam, 183, 124/164, notary Jacob Cornelisz. van der Swan, 5 January 1626.

mills in their own country. There had been a saw mill in Scotland by the end of the 16<sup>th</sup> century and they became increasingly common, some of them wind driven by the 1630s, one contract arranging for the construction of “an saw water miln or a saw windmiln” in 1638 at Deeside, Aderdeenshire.<sup>436</sup> By 1675 Scotland was producing timber through mechanization at the rate of seven to eight thousand boards a year.<sup>437</sup>

The water driven saw mills used commonly both in Scotland and on the other side of the Atlantic in northern New England in what is now the New Hampshire area were generally very small, perhaps only one or two blades in a frame. Anything larger or more complex required a greater outlay of money for construction and maintenance. Due to the high initial costs, the typical mills in the area north of Massachusetts Bay were made more desirable to individuals by offering ownership in shares. The records show shares as small as one eighth and as large as one half, with ownership of the shares being sold independently while the saw mill continued to operate under the ever shifting partnership group.<sup>438</sup> Many of the mills operated on small water sources that had been dammed to create the water drop necessary to turn the mill wheel. Such damming blocked fish and other water life from moving up or down the stream.<sup>439</sup>

There was probably a mill already erected in the northern area above Massachusetts Bay by 1637 when Timothy Dalton was to saw 400 planks for a

---

<sup>436</sup> John Shaw, *Water Power in Scotland, 1550-1870* (Edinburgh: John Donald Publishers Ltd., 1984), 95.

<sup>437</sup> *Ibid.*, 96.

<sup>438</sup> Charles Henry Pope, *The Pioneers of Maine and New Hampshire, 1623 to 1660 A Descriptive List, Drawn from Records of the Colonies, Towns, Churches, Courts and Other Contemporary Sources* (Boston, MA: Charles H. Pope, publisher, 1908). Alphabetical list. Hughe Gayle in partnership with William Ellington operated a tide mill with two saws. Two other mills they shared were freshet saw mills operating off springs.

<sup>439</sup> There are numerous sources that mention the problems the damming caused, and in some cases the issues that arose from opening the dams. For possible impacts and the problems inherent in undoing the environmental damage, see Richard White, *The Organic Machine: The Remaking of the Columbia River* (Canada and USA: Hill and Wang, 1996 paperback edition) and Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill and London: University of North Carolina Press, 1989).

community bridge, and the next early one was constructed sometime after 1638 when John Foulsham received the liberty to do so. Most of the subsequent saw mills were constructed, bought, or sold in the years from the late 1640s through the end of the 1650s.<sup>440</sup> The presence of these mills just north of “the Bostons” made it likely that the technology would transfer to that area fairly easily since the English had more in common culturally and politically with the Scots than they did with the residents of New Netherland.

The cutting of trees, moving them, and the operation of the water driven saw mills was seasonal work and not the year long occupation of the mill owners or workers either in hilly forested parts of Europe or in North America. Many of the people who labored at the saw mills were also farmers. While the large scale mechanization of the sawing of the wood in the Dutch Republic was relatively new historically, the harvesting was not. An ancient system remained in place in Europe involving cutting logs, branches, and bent knees upstream during the winter months and moving them across the snow to rivers. From there the raw material harvested in Europe was rafted to cities and stockpiled for use, or placed in holding ponds, or delivered to shops that had ordered the wood.<sup>441</sup> The same procedure was utilized in the colonies and persisted for centuries, the steps in the harvesting remaining the same in spite of the development of steam and fossil fuel power sources for heavy machinery.<sup>442</sup>

---

<sup>440</sup> Both Bernard Bailyn and Laurel Thatcher Ulrich have reported the total of these mills as greater in number than they actually were. Bernard Bailyn, *The New England Merchants in the Seventeenth Century* (Cambridge: Harvard University Press, 1979), 44; Laurel Thatcher Ulrich, *The Age of Homespun: Objects and Stories in the Creation of an American Myth* (New York: Alfred A. Knopf, 2001), 79-81. Ulrich bases saw mill totals on an undated map, pages 80-81, that shows all mill types.

<sup>441</sup> For an excellent view of wood set up for use in and around a city, see the print of Wawel Castle in Krakow in Poland, Flavio Conti, *The Grand Tour: Homes of Kings* (New York: HBJ Press, 1978), 119.

<sup>442</sup> See Charles P. Kindleberger, *World Economic Primacy: 1500-1990* (New York and Oxford: Oxford University Press, 1996), 91 for wood for Italian ships, Dutch wood sources, and comments on the

Short pieces of wood, wood of unusual shapes, and rare woods were not rafted in Europe or in the colonies but traveled by small ships, local scows, and wagons. The short pieces hauled into cities by wagon in the Low Countries were called *wagonschoten*, the word from which the term “wainscoting” is derived. Ancient practices in the wood trade had established a base eight mathematical system for timber measurement, most of it still in use today. A board was eight feet long, one foot wide, and a thumb thick. A plank was two thumbs thick. True full size *wagonschot* was half a board in length but never less than four feet.

Houses in the United Provinces and the New Netherland colony were measured in boards, the average house running two boards in width and four boards in depth. One lot of board wood came as “a hundred foot,” an expression that was something like a baker’s dozen. Twelve eight foot boards made a total of 96 feet, but boards were often usually more than eight feet in length and a customer who carefully selected the boards might haul away a footage amount far in excess of 96 feet. The total length was therefore capped at 100 feet. References to wood lengths on both sides of the Atlantic use the 100 foot lot, but local measures for the foot often differed and needed to be specified in contracts for timber.

Prior to the common use of saw mills near European cities, wood was processed into boards and planks by sawyer gangs using a saw mounted in a wooden frame, and in urban areas these sawyers enjoyed guild protection. Sawyers were young, largely unskilled, healthy and strong because the work required hours of hard labor, usually outdoors and under less than ideal conditions. Guild membership meant some

---

persistence of the fundamental harvesting and transport methods. There are surviving early films of the method of wood harvesting and transport in the Adirondacks of New York State.

protections and a small degree of respect, but the sawyer gangs, possibly rowdy at times, were more likely to evoke disdain and concern in the minds of the public.<sup>443</sup> Sawyer gangs are not portrayed among the illustrations of occupations created by Jost Amman (1568), Jan Joris van Vliet (1635), Leonard Bramer (c. 1650), or Jan Luyken (1694), lending credence to the idea that this was an occupation with a low social status.<sup>444</sup>

In the New Netherland colony, the mechanized sawing by mills turned hand sawing into an undesirable form of labor, performed principally to cut firewood and often relegated to slaves. In one instance a colonial miscreant was sentenced to hand saw timber as a punishment, making it clear that sawing was a menial and disrespected task. This parallels similar punishments that began to be applied in Amsterdam as noted by Simon Schama.<sup>445</sup> In cultural contrast, the English literature on the occupation of sawyers describes the manual labor in glowing terms well into the nineteenth century.<sup>446</sup>

---

<sup>443</sup> Donna Barnes, *The Butcher, The Baker, The Candlestick Maker: Jan Luyken's Mirrors of 17<sup>th</sup>-Century Dutch Daily Life* (Hempstead, New York: Hofstra Museum, Hofstra University, 1995), 256-257.

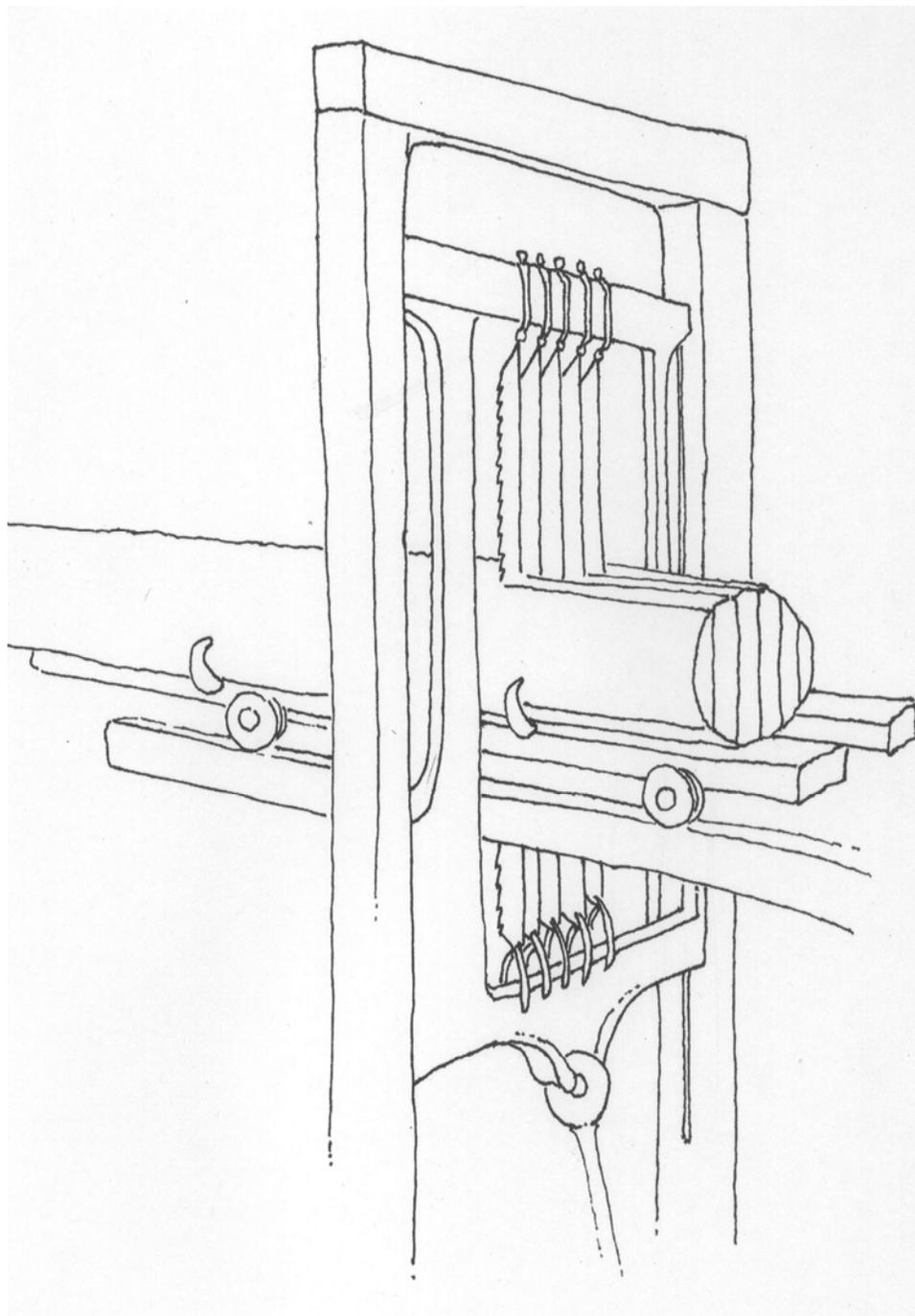
<sup>444</sup> See Donna Barnes.

<sup>445</sup> CM 1638, 486, 3 March 1648 and also, same source, 1642 incident sentencing a man to three months labor in chains with the negroes. See Simon Schama for the rasping of dyewood in prisons.

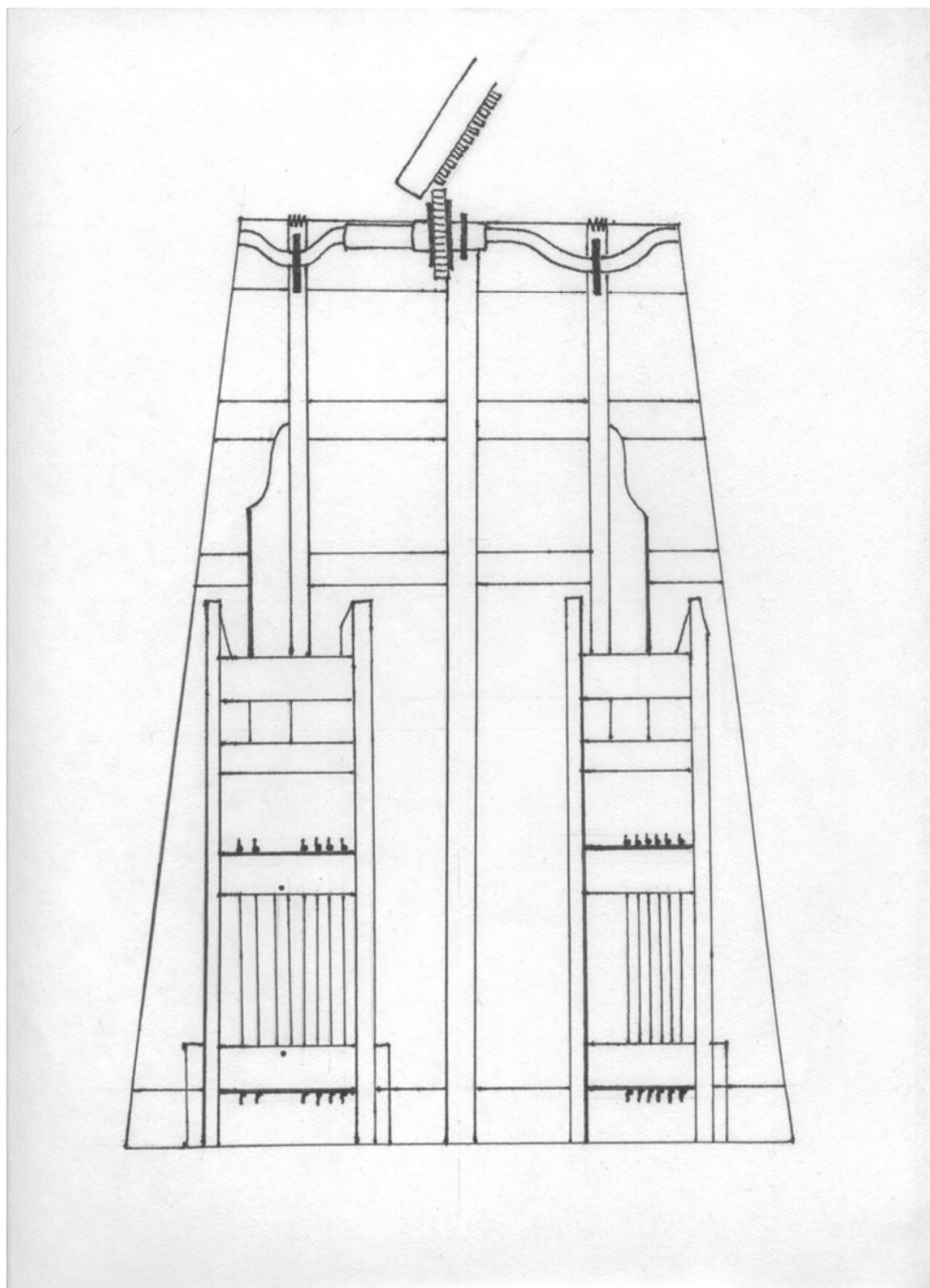
<sup>446</sup> See *The Book of Trades, or Library of the Useful Arts* (London: Tabart & Company, 1804). In April of 1648 in New Netherland the Englishman James Hallett was "to be severely whipped with rods, and in addition to be locked to a chain to saw or labor for the honorable Company," CM 1638, 511. This may not have been as humiliating for him as for a northern continental European.



Hand Sawyers



Saw Frame with Log on a Carriage



Interior Works of a Wind Driven Saw Mill



Large Stone Mill

The simplicity of the harvesting process in Norway in the seventeenth century and the demand for the labor to accomplish it put many urban European sawyers and haulers out on ships to travel to Norway's shores and labor in the forests. It was inevitable that in the act of harvesting they would also come near the small water driven sawing machines that could process the raw wood into timber. Small water driven saw mills with a horizontal wheel were common in Scandinavia where they were less costly than one with

a vertically mounted wheel, and they often operated as a community facility.<sup>447</sup> Norway had numerous such saw mills along its coast that were busily milling the harvested logs into construction timber and shipping it out to places like England.

The Scottish connection to saw mills was almost certainly developed through the links between Hoorn and Norway. Hoorn is just across the North Sea from Norway's shores, and both Norwegians and Scots appear in the Hoorn records in increasing numbers in the years of the city's greatest use of wood for shipbuilding and for the processing there of the raw material by saw mills.<sup>448</sup>

The Norwegian connection had a much longer reach than just across the North Sea to Hoorn and to Scotland, extending as it did to the foothills of the Adirondacks in the Hudson River Valley. In the colony of New Netherland at the upper reaches of the Hudson River the *Patroon* Van Rensselaer had hired men from Scandinavia to harvest and process his wood, and his records contain numerous references to how harvesting and milling was done in Norway, the prices paid by skippers picking up wood in Norway, and even the Norwegian tools and mill parts that were commonly used and that he had brought into the colony by ship.<sup>449</sup>

England primarily imported previously milled wood from Norway, not raw logs, and the timber was used principally for ships but also house construction well into the eighteenth century. In the second half of the seventeenth century Samuel Pepys repeatedly obtained naval timber from Norway for costly prices in the thousands of pounds, and following the Great Fire of London he and William Penn decided that they

---

<sup>447</sup> John Reynolds, *Windmills and Watermills* (New York, New York: Praeger Publishers, 1975), 57-65. His chapter on horizontal mills covers information through the end of the sixteenth century.

<sup>448</sup> According to Lesger, Hoorn was not a major processing center for wood being exported, but it did process the raw material for its own use in shipbuilding. It also brought in wood already milled in Norway.

<sup>449</sup> VRBM, where there are over fifty pages of documentary references.

would look “into Scotland about timber” because “it will be a good commodity this time of building the City.”<sup>450</sup> Some of the ship timber was also obtained from the King’s land holdings or other private sources, but otherwise in England the bulk of it came from Norway first and then Scotland.<sup>451</sup> By 1731 almost 85% of all Norwegian timber exports went to England.<sup>452</sup>

Not only was the water driven mill more practical in coastal North America where there were so many streams and rivers, the small mills were also easy to transport across great distances. Van Rensselaer had been able to transport parts for mills across the Atlantic and local colonists became able to buy small mills and move them to a new site. There was a precedent for this along the coast of Africa where at least one saw mill was already in operation.<sup>453</sup>

The need for the parts of mills, whether for grain or for sawing wood, created tasks for related skills, and harvesting the trees also required the appropriate tools. Wheelwrights made the principal flat round disc on which the mill builder or the carpenter would insert the gears, blacksmiths provided the iron rods and connectors, and whalers supplied the lubricants (trane oil). Mill builders and carpenters worked together in construction but often it was former sailors who helped run the wind driven mills, not surprising considering all the sails, ropes, cleats, and block and tackle involved. Even in the remote saw milling region north of Massachusetts Bay, the occupations that dominated the area beyond that of farmers were the millwrights and the carpenters, the

---

<sup>450</sup> Samuel Pepys Diary, 12 October 1664; 18 October 1664 and again 16 December 1665 referencing a contract from 15 April 1663; 26 September 1666. William Penn was the father of William Penn of Pennsylvania.

<sup>451</sup> Ibid., 2 November 1664; 12 January 1664/65.

<sup>452</sup> Simon Hart, *Geschrift en Getal*, page 86 note 46.

<sup>453</sup> John Thornton, *Africa and Africans in the Making of the Atlantic World, 1400-1800* (Cambridge: Cambridge University Press, 1998), 33.

latter benefiting both from aiding in constructing the saw mills and by using the boards produced by the mills.

The number and strength of the tools required for felling trees such as crosscut saws, pikes, and large axes, underwent technical modifications over time. The crosscut saws became larger and sturdier, the pikes were devices that had shifted in use from the hands of soldiers and farmers to the hands of lumbermen who lengthened them and used them to turn and tug on logs, and the axe went through a marvelous transformation that involved still other middlemen.

Axe heads were a popular item desired by the Amerindians in exchange for beaver pelts. Their favorite type of axe head was one commonly used in the Low Countries where the head varied in design from one area of Europe to another as much as did the rod and the foot as land and timber measurements. The axe head the Amerindians chose was more rectangular than other styles. Large quantities of these trade items were imported from Europe but the axe handles, or hafts, were not. Why ship the hafts when there was so much more wood in North America? More significantly, the natives preferred mounting the axe heads themselves.

For the earliest period of colonization American historians of technology often wandered into the land of conjecture. Brooke Hindle and Steven Lubar title one section of their book "Anonymous Technological Improvements" and go on to say that "the best example of anonymous technology may be the elegant American felling axe" that could "fell three times as many trees" because its head was better balanced on the haft and "the handle was given a length and curve precisely fitted to the height and swing of the

axman.”<sup>454</sup> The “American axe” was described as developing by “trial and error,” Hindle claiming it was due to the “great opportunity” in the “New World.”<sup>455</sup>

The so-called “American axe” had middlemen in its technological modification and transfer, the Amerindians, who had a haft design that went with their previous stone axe head. They desired a particular style of iron axe head because they had already used a similar object in stone, and they chose to mount the iron head back further on the very hafts that they had been accustomed to carving for themselves. As the iron axe head moved inland to still other Amerindian cultures, the haft began to be carved with the features of the battle club that it was beginning to replace. The handle of the battle club was long, curved, and had a deer’s hoof pointed downward at the end.<sup>456</sup> One axe discovered in the early nineteenth century with the haft still attached had been mounted in reverse on the head, the knobbed end of the club extending and the deer’s hoof inserted into the axe head slot.<sup>457</sup> These axes found their way into the hands of colonists, but probably not until after the French and Indian war and the later colonial movement inland where Amerindian and European interaction took place as described by Richard White.<sup>458</sup> In the meantime, the coast of the North Atlantic had been cleared by anything but the touted “American axe.”

---

<sup>454</sup> Brooke Hindle and Steven Lubar, *Engines of Change: The American Industrial Revolution, 1790-1860* (Washington, D. C. and London: Smithsonian Institution Press, 1986) third printing, 1991, 44-45.

<sup>455</sup> Brooke Hindle, “The Artisan during America’s Wooden Age,” in Carroll W. Pursell, Jr., ed., *Technology in America: A History of Individuals and Ideas* (Cambridge and London: The MIT Press, 1981) second printing 1991, 12.

<sup>456</sup> In personal communications William Starna said that he had noticed the same thing, while George Hamell remarked that it seemed plausible but would be difficult to prove, but there are extant Amerindian hafts in European collections.

<sup>457</sup> Carolyn Gilman, *Where Two Worlds Meet: The Great Lakes Fur Trade* (St. Paul: Minnesota Historical Society, 1982), Plate 57 on page 71. 1830-1834 haft to an iron head has a swollen curved end that looks like a battle axe was inserted in reverse.

<sup>458</sup> Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815* (Cambridge: Cambridge University Press, 1991).

The wood for the saw mills was certainly being harvested at a rapid rate in New Netherland, whether by axe or cross-cut saw, but the small water driven saw mill technology was moving very slowly from the north southward into Massachusetts Bay, apparently not meeting the local needs of the towns at “the Bostons” in sufficient amounts until well after 1650. In the 1640s the Englishmen Henry Sately and Adam Mot bought 125 boards in New Netherland for 50 guilders, the West India Company Director Stuyvesant sent a shipload of lumber to Boston to sell for the benefit of the company, and timber was being exported to Virginia as well.<sup>459</sup>

The outward movement of timber as a material for export was a source of concern. The English at Gravesend on western Long Island in the New Netherland colony complained in 1650 that “some men falled a greate many timber trees to make use of in saweing them, and selling them to other places, when the inhabitants might want necessary timber for building.”<sup>460</sup>

Two years later Jacob Swart, a New Netherland carpenter from Helligesont in Scandinavia, sued for wages owed him when he had been employed to build a saw mill in Virginia. In the New Amsterdam court on September 16<sup>th</sup>, 1652 he demanded that the defendant pay the 48 beavers he was owed, an amount equal to 384 guilders.<sup>461</sup>

Timber was still crossing the Atlantic. Sometime before August 19<sup>th</sup>, 1659, pine boards and logs were sent to Bourdeaux in France on the ship De Meulen that had been chartered by a group of people in New Amsterdam.<sup>462</sup> As late as 1660, oak planks were

---

<sup>459</sup> CM 1638; 221, 346, 379.

<sup>460</sup> Corr. 11:24a, after March 1650 but before 1651, undated.

<sup>461</sup> E. B. O’Callaghan, trans., *Calendar of Historical Manuscripts in the Office of the Secretary of State, Albany, N. Y., Volume I, Dutch Manuscripts, 1630-1664* (Albany, New York: Weed, Parsons and Company, 1865), 127, 16 September 1652.

<sup>462</sup> 18 August 1659, letter of Olaf Stevenszen van Cortlandt to Jeremias Van Rensselaer, page 166 in the Jeremias van Rensselaer Correspondence.

being sent to Holland from New Netherland. Recall that a plank was eight feet long, or longer if specially ordered (one order was for 24 feet), at least a foot wide and two thumbs (two inches) thick. This was massive material.<sup>463</sup> Each oak plank was being charged to the recipient at 15 stuivers apiece, or a total of 375 guilders, and if not paid on time there would be a charge of 25 guilders. The oak planks could bring a one hundred percent profit in Holland.<sup>464</sup> By 1661 a sawmill was being planned at Bergen in what is now New Jersey, Bartel Lot and Egbert Sanderson petitioning for the same to the administrators in New Amsterdam on 20 October 1661. They were referred to the Bergen schepens for consideration of the project.<sup>465</sup>

The years of 1660 and 1661 in New Netherland herald the end of the first major period of small water driven saw mill construction and the beginning of the development of large mills with stone foundations intended either to mill grain or timber. At the same point in time the English throughout New England were just beginning to have the small saw mills established in sufficient numbers to provide for their own needs. The new stone mills in New Netherland were large enough to provide shelter for forty or fifty soldiers, as was true for the 1660 gristmill of Pieter Jacobszen van Holstein and Pieter Corneliszten.<sup>466</sup> The New Englanders were still trying to catch up, and the technology of the small water driven saw mill that had transferred to them through Scottish middlemen had not yet made them competitive. They still turned to experts for the construction of major saw mills.

---

<sup>463</sup> GAA NA 2863, fol. 445, film 2897, notary Bernh. Coornhart, 14 October 1660

<sup>464</sup> The estimate on the value in Holland is based on the correspondence of Jeremias Van Rensselaer.

<sup>465</sup> Edward van Winkle, *Bergen Book. Year Book of the Holland Society of New York*, Vol. 2, 1914. Bergen Marriage Register, page 30.

<sup>466</sup> O'Callaghan, *Docs. Rel.*, Vol. 13, 341.

In March of 1662, John Tooker journeyed to New Amsterdam from his home on the eastern tip of English Long Island. He located the saw mill builders he wanted and with the help of the multilingual notary Salomon Lachaire he entered into a lengthy contract with them. Tooker was to transport the men to the possible mill site at his own expense to inspect it for suitability, the builders asking that they be paid a fee for performing this service. If the site proved suitable, Tooker was to provide all the materials, food, drink, shelter, and the labor, and to pay the mill builders 400 guilders for supervising the construction. Payment was to be made in beaver pelts or wampum, and Tooker was required to drive cattle for two days to Breukelen where he was to sell them for the proper form of compensation.<sup>467</sup> At about the same time, the English man Samuel Swain in Stamford, Connecticut was listed as a millbuilder, though the designation does specify what types of mills he built.<sup>468</sup>

Expert mill builders on the European continent and mill builders from what had been New Netherland continued to be hired for large mill construction in the English colonies at later dates, one of them traveling from the Zaanstreek to “Carolina in Amerika” in 1672 to build a saw mill on a large scale.<sup>469</sup>

Another mill builder resident in the upper Hudson River Valley was hired by the French to build a mill in Canada in the 1680s. Jan Jacobszen Gardenier was hired in May of 1685 to build a saw mill for Pierre de Salvay at the Bay of St. Paul 15 leagues below Quebec in Canada. The contract provided for all meals, transportation, laborers, raw materials, shelter, medical care, and payment for time worked if Jan became ill or died.

---

<sup>467</sup> O’Callaghan, E. B., trans., Kenneth Scott and Kenn Stryker-Rodda, eds. *The Register of Salomon Lachaire, Notary Public of New Amsterdam, 1661-1662* (Baltimore: Genealogical Publishing Co., Inc., 1978).

<sup>468</sup> Herbert F. Sherwood, *The Story of Stamford*.

<sup>469</sup> Simon Hart, *Geschrift en Getal*, 86, 86n.

Payment was in pieces of eight to a value of 54 guilders a month, work to begin May 28<sup>th</sup>, 1685 and the rate of pay to continue until the mill was completed. After the mill had been constructed, Jan agreed to stay and saw at the mill for “two or three months” and to train a man to operate it, continuing at the same pay rate.<sup>470</sup> Jan returned safely to New York and resided in Kinderhook where he was known as a millwright.<sup>471</sup>

In a letter that included comments on mills in general in New York in 1701, the Earl of Bellomont informed the Lords of Trades in England that “here is a Dutchman lately come over who is an extraordinary artist at those mills. Mr. Livingston told me this last summer he had made him a mill that went with 12 saws.”<sup>472</sup> Obviously there were a few Englishmen who had no idea what was possible mechanically for saw mills even as late as the beginning of the eighteenth century, more than two hundred years after the wind driven saw mill had first been established in the United Republic.

By 1718 when the Patroon Van Rensselaer made his will, timber production on his lands ranked on a level with the income that his extensive holdings had from rents. In his will he left the manor to his eldest son, he provided for his daughters from the rents, then he went on for three pages detailing the disposition of all the saw mills and the woodlands for timber production.<sup>473</sup> Timber production was happening on a very large scale at that point in time and lumber was being shipped out in huge quantities, with

---

<sup>470</sup> Pearson, ERA III, 586-587, not entered into the records until 1 June 1685. See O’ Callaghan, *Docs. Rel.* IV, 749 for the location and the output of the saw mill five years later. Sr. de Salvay (also Solvay) had served as the ambassador to New York Governor Dongan, O’Callaghan, *Docs. Rel.*, Vol. 3, 450.

<sup>471</sup> Jonathan Pearson, *Contributions for the Genealogies of the First Settlers of the Ancient County of Albany, From 1630-1800* (Baltimore: Genealogical Publishing Co., Inc., 1978), 52.

<sup>472</sup> O’Callaghan, *Docs. Rel.*, Vol IV, London Documents, XIV, 825, 2 January 1700/1701.

<sup>473</sup> *Abstracts of Wills*, Vol. II, 1708-1728 (New York: New-York Historical Society, 1893), 216-219.

documents such as this one suggesting that much of the milled lumber may not have been coming from New England.<sup>474</sup>

The West India Company grand plan for a wind driven saw mill and for major timber production in the New Netherland colony was not realized through a new technology or the individual expert, Francois Fesaert. The great Holland machine that was capable of doing the work of twenty men using wind power was not appropriate for a colonial landscape that offered more opportunity for water power. Independent colonial small investors and only one of the Patroons were successfully operating small water powered saw mills and realizing a return. After nearly a century in the colonies the other technological path using water power for saw mills provided the timber for ships, houses, and for export, just as small water powered mills in Norway became the source for most of England's timber. In the United Republic on the continent in northern Europe the wind driven saw mill in the Zaanstreek dominated production.

Even the smaller and simpler technology of the water driven saw mill was difficult for the English to grasp because they had no experience with it. They required the Scottish middlemen to transfer the technology to them or they hired experts to construct the devices and it diffused slowly through their settlements, barely meeting their own needs before the mills could begin to produce for export.

There were three unexpected results from the research associated with the saw mills. The first was the failure of the massive wind driven saw mill in colonial North

---

<sup>474</sup> Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill and London: University of North Carolina Press, 1989), 58, speaks of the saw mills and their output in the 1680s in Maine and northern New England with only four examples; two with a single mill, one with a part ownership in a mill, and one instance of saws only. She cites Charles F. Carroll, *Timber Economy of Puritan New England*, Sargent York Deeds, Willis *History of Portland*, and Eckstrom, "Lumbering in Maine." The ten thousand board feet listed in a will was not a large amount. At twelve boards per 100 feet it was only about 1,200 boards. A small mill working to produce 40 boards a day for 100 days would produce 4,000 boards.

America due to features of the landscape that permitted small entrepreneurs to be successful timber producers. The second surprise was the role the Scots played as middlemen in facilitating the transfer of the water driven saw mill technology from northern continental Europe to the English in the colonies. It was not intuitive to guess that the English did not have saw mills while the Scots did, nor was it reasonable to believe that the Scots would play a role in transferring a technology to the English in a colony while the same technology was suppressed in England.

The third realization was that there were stages in the development of sizeable mills in the North American landscape, with small mills operating off freshets and little streams initially, doing much less damage to the environment than the larger mills that were established later.

A significant difficulty in studying the saw mill technology and its geographic and cultural movement was the number of favorite myths encountered, from the supposedly first saw mill built in the Americas at York in Maine in 1623, never confirmed, to the tale of Yankee ingenuity involved in describing the wondrous American axe. There are still more tales, on both sides of the Atlantic, making the task difficult for an historian of technology but serving to remind everyone of the need to look more closely and inclusively.

The entire picture of the saw mills either in Europe or in the colonies demonstrates the complexity that can be involved in examining a single first level raw material processing system. The scale of the machines varied and the impressions others had about those devices also varied, from the belated wonderment of the Earl of Bellomont to the early inability of the Walloons to comprehend the difficulties in

construction, operation, or maintenance. The English in the colonies realized the value of possessing the machines and desired to acquire the technology, but that also varied, with some still purchasing the products, others learning from the Scots, still others hiring colonial Dutch to build the device, and other English as far away as Carolina bringing in an expert from Europe.

Elaborate mechanical constructions continued to require the experts anywhere, in the Zaanstreek or France in Europe, on the tip of Manhattan Island, along the Hudson River, in Canada, or Carolina. The “artist,” as Lord Bellomont called the mill builder, was still necessary and would continue to be required for each complex machine developed for whatever purpose, as had been true for centuries.

Ultimately, the successful acquisition of the technology by the English and their ability to make it their own was only possible where the cultural barrier was least difficult and where the machine was small and manageable. Even then, one bothersome consideration for Massachusetts that may have contributed to the slow diffusion of the technology was that they were of a distinct religious group that did not easily mix with the Scots or the other English who did not share their belief system.

## CHAPTER FIVE

### Cities and Citizens in the Landscape

In October of 1660 Mr. Philip Calvert observed somewhat enviously that New Netherland was “fortunate to have cities and villages,” this comment made by him during dinner while he was considering the “potentialities” of Virginia and Maryland and discussing them with the emissary Augustine Herrman of New Netherland at the Maryland trading property of Simon Overzee at St. Mary’s.<sup>475</sup>

Fortunate to have cities and villages indeed, since the only considerable city from the southern Chesapeake Bay to Labrador was on the tip of Manhattan Island, and the next largest community controlled the fur trade at the far reaches of the Hudson River. Even the English at “the Bostons” on and about the Charles River and at other locations along the northern Atlantic coast had little more to offer colonists than the incipient settlements of projectors or tiny villages and small market towns serving as centers for the surrounding rural agricultural development.<sup>476</sup>

Less than four years after Mr. Calvert made his remark, two English ships under the auspices of the Duke of York entered the Hudson River and negotiated with Pieter Stuyvesant, the burghers, and other officials to turn the West India Company trading city of New Amsterdam into the English city of New York. The terms of the political transfer of the urban technology were generous and cautious, but also self-serving. The English

---

<sup>475</sup> Charles T. Gehring, trans. and ed., *Delaware Papers: Dutch Period, 1648-1664*. *New York Historical Manuscripts Series* (Baltimore: Genealogical Publishing Co., Inc., 1981), page 216, excerpt from Augustine Herrman’s Journal of the Dutch Embassy to Maryland, document 18:96, pages 211-222 inclusive and see footnotes pages 354-355. Philip Calvert was Lord Baltimore’s half brother, page 222.

<sup>476</sup> Ships from New Netherland to New England called their destination either “the North” or “the Bostons.”

agreed to allow the colonial residents from the continent to continue their customary practices as merchants and artisans while their laws of inheritance and usual cultural views would be respected. The technology of a city had been acquired by the English as easily as they had acquired the carpenter who stole the tools and a boat and slipped off into the night.

The ability to create a town or a city with all its functioning components required at least considering it as a setting in which artisans worked and merchants traded, and as Mr. Calvert indicated by his 1660 remark, creating those towns or cities was yet another skill set and its products that the English desired in the colonies. Obviously the English on both sides of the Atlantic had an appetite for that which craftsmen could produce in an urban setting, whether it was sugar or rum, boots or tools, silver or mills, including hiring the northern continental European artisans as discussed in previous chapters, and Mr. Calvert shared in both the desire for the products and the desire for the setting that produced them.

It should have been easy for English colonists to create a city and to people it with English craftsmen or with continental artisans hired through middlemen in the manner of Robert Loveland and his sugar baker at New London, and that happened relatively early at places like New Amsterdam or New London on Long Island Sound but not at Jamestown or Boston. How is it that in most cases the English did not, could not, or would not produce the same sizeable towns and cities for themselves in the colonial setting?

In the colonies the English had an opportunity to serve an apprenticeship they could not serve at home, that of town and city-building, an option they did not exercise.

The English had no practical experience in establishing cities and few events in England had required rebuilding them. Unlike areas in northern continental Europe that had suffered the war-time damage and destruction of cities, the English experiences were limited to minor incidents in their own country or playing the role of spectator to the reconstruction and new city development in areas of northern continental Europe, such as the rebuilding of Haarlem in Holland or the establishment of Goteberg in Sweden.

Both James I and Charles I had wanted it to be otherwise in England, and they had tried to transform London into a royal capital city resembling those of continental monarchs, but their plans met with resistance from the independent Londoners. The proposed concepts did not properly consider the needs of shopkeepers and, in addition, they might have eliminated the very attractions the existing city had for the gentry.<sup>477</sup> Under James I and Charles I, only Edinburgh in Scotland realized changes that were successful. Other than some road improvements, the early seventeenth century royal plans were never implemented for London, and generally whenever major works were imagined by groups and individuals in England in that time period, foreigners were invited to do the planning and to accomplish the tasks. Some of these circumstances were altered by the Great Fire of London with the need for designs and constructions afterward in the late 1660s and 1670s, but the effect was not felt in the colonies in any immediate sense.

The earliest settlements of the Virginia English or the West India Company or the New Englanders, and even the Swedes on the Delaware, had all started the same way, not as towns or cities but as fort-factories, a technological system that had been in use

---

<sup>477</sup> James Robertson, "Stuart London and the Idea of a Capital City," *Renaissance Studies* (Great Britain) 2001, 15(1): 37-58. Robertson claims that the plans did affect colonial North America, but I see no such consequence.

successfully throughout the Atlantic World since the West African coastline had opened to European trade in the middle of the fifteenth century.<sup>478</sup> The fort-factory was a fortified location for trade that could also house and otherwise accommodate merchant factors. Some of the original fort-factories on the western shores of Africa eventually served as holding stations for the slave trade, others in the Atlantic World developed into towns and cities, while still others such as the English and Dutch whaling stations at Spitsbergen were sorry sites of mean housing and little protection from either competitors or the elements.<sup>479</sup>

There was a shared cultural body of knowledge in the mobile Atlantic World regarding fort-factories since the concept was accessible to any Europeans or non-Europeans with whom merchants or factors had contact or who traveled widely to promote trade. The long period of a mutual sense of fort-factories extended through three centuries from their earliest establishment in the second half of the fifteenth century until much later in the eighteenth century. In the process of the geographical expansion of the concept, the technological system of fort-factories encompassed the globe from Deshima in Japan to Surinam in Central America, all places where they could be considered “bridgeheads of political, economic, and cultural interaction.”<sup>480</sup>

The cultures that shared in the concept of the fort-factory did so in ways that varied slightly in keeping with differences in their customs. As a consequence, the fort-

---

<sup>478</sup> See the unique collection of papers on fort-factories, J. Everaert and J. Parmentier, eds., *International Conference on Shipping, Factories and Colonization* (Brussels: Royal Academy of Overseas Sciences, 1996-1997).

<sup>479</sup> Louwrens Hacquebord and P. van Leunen, eds., “De arctische walvisvaart” in *400 Jaar Willem Barentsz* (Harlingen 1996) 102-110. See also by Hacquebord “Whaling Stations as Bridgeheads for Exploration of the Arctic Regions in the Sixteenth and Seventeenth Century” in J. Everaert and J. Parmentier eds., op cit., 289-297. Some of the information is from a personal communication with Hacquebord. According to him, early shelters on Manhattan Island resembled those of the Spitsbergen sites.

<sup>480</sup> From the title of the article by J. van Goor, “Dutch Factories in Asia (1600-1800): Bridgeheads of Political, Economic, and Cultural Interaction” in J. Everaert and J. Parmentier, eds., op. cit., 71-92.

factory as a technology had more or less success depending upon its location, the reception it received, the cultural attitudes of its founders, and the choices made by those who were involved. The principal evidence for cultural variations in their establishment and operation lies not only in their eventual trading success or failure but also in the technologies that transferred geographically and culturally with the fort-factory; items as small as gun locks and the means to reproduce them, and ideas as large as the possibility of transforming the fort-factory into a city.<sup>481</sup>

In stark contrast to the fort-factories or trading posts in Virginia, Maryland, and New England, every fort-factory established under West India Company auspices in New Netherland in the North American colonial region eventually became a city. Shortly after the American Revolution, roughly two thirds of the urban population of the young American nation resided in what had been West India Company fort-factories, at New York City, Albany, Hartford, Philadelphia, and other locations in the area of the Hudson and Delaware Rivers and the Delaware and Chesapeake Bays.<sup>482</sup>

The settlers in Maryland were limited to a trading post, while the English in Virginia had established a fort-factory at Jamestown with the expectation that it would serve all the basic purposes for which the technological system was intended, principally protection and trade, but that it would also serve the need to produce trade items such as glass beads that would reduce the necessity for re-supply across great distances. The protection was not simply from the native people; there were European competitors,

---

<sup>481</sup> The Spanish began on a similar basis but developed a set plan for cities. See Kicza, John E., "Patterns in Early Spanish Overseas Expansion," *William and Mary Quarterly*. Third Series, volume 49, No. 2 (April 1992): 229-253.

<sup>482</sup> Data from the 1800 Federal Census as cited by Jedidiah Morse in *Geography Made Easy: Being an Abridgement of the American Universal Geography*, 10<sup>th</sup> edition, printed by J. T. Buckingham for Thomas Andrews, Boston, 1806.

roving marauders on the seas, and Spanish ships out looking for Protestant booty that were willing to resort to violence in order to return to their sponsors with a full ship.

The colonists in Jamestown almost certainly had a model for the production of goods such as glass beads on-site from earlier experiences and fort-factory trading locations globally, though English involvement had been very limited until the end of the sixteenth century and the beginning of the seventeenth century.<sup>483</sup> Jamestown never expanded much above its status as a fort-factory, eventually shifting in its location slightly and resembling a small village but not recognized as a reasonable town even by 1660, one basis for Mr. Calvert's comment.

Just two years before the English took New Amsterdam, Governor Berkeley and the Burgesses of Virginia attempted to improve Jamestown as the gateway port to the upriver plantations by requiring each county in the colony to construct a twenty foot by forty foot brick building in the community. The effort was a failure, with only a small fraction of the structures actually built, and those that were completed collapsed later due to shabby materials and construction.<sup>484</sup>

The early English colonists at Jamestown had struggled to survive under harsh conditions from the beginning, proving unable to introduce sophisticated technologies such as towns and cities into an environment that overwhelmed them. Later excursions they made to view the colonial landscape offered no evidence of town or city planning. The exploration of the interior of Virginia by an expedition in 1650 reveals no grand

---

<sup>483</sup> For an earlier successful Spanish fort-factory structure that Jamestown resembled, see the one in the Philippines that became Manila as discussed by Geoffrey Parker. It had the same three-sided structure. It is possible that the English had either seen a similar Spanish example or a drawing of such a structure.

<sup>484</sup> See the new results from reassessments of earlier archaeological digs and conclusions in *Colonial Williamsburg Research Review, Vol. VII (Spring 1997)*, also the website listed below.  
[http://research.history.org/Archaeological\\_Research/Research\\_Articles/ThemeTown/Jamestown.cfm?pageNum1](http://research.history.org/Archaeological_Research/Research_Articles/ThemeTown/Jamestown.cfm?pageNum1)

scheme for managing land or water other than the advantage of river walking where nature made the bottom “gravelly,” or the problem of avoiding “many rotten Marrisches and Swampps,” or noting where shifting sand bars might require “a little labour” to make a stream passable.<sup>485</sup> The 1650 expedition referred to gatherings of Amerindians as “Towns,” revealing the limited English grasp of the concept, and they viewed all the resources as riches to be used when settling acquired land. The expedition members were happy to return “well and in good health” to small Fort Henry. Publication of the report of the exploration was intended to lure colonists to the area with the promise of land, but there was no promise of an English village, town or city, even as an inducement to settlement.

Many, if not most, of the English who settled in Virginia hailed from areas in England where their previous experiences with land, water, and port management were exercises in decline and decay. These settlers had a personal history spent observing nature’s inevitable return of land to marshes through storms battering the dykes. In England the silting up of rivers such as the Severn at Bristol and the expense and labor of elaborate docks that fell to water forces in the area of the Cinque Ports were evidence that the complex politics of managed port towns in the early modern period was not successful in maintaining the infrastructure and waterways most necessary to trade in those locations. While the English in Virginia received the liberties that permitted them to have burgesses, not surprisingly they did not acquire the concomitant urbanization.

The Cinque Ports included the southeastern seven towns of Dover, Hythe, New Romney, Sandwich, Hastings, Rye, and Winchelsea, and they had traditionally enjoyed a

---

<sup>485</sup> Edward Bland, *The Discovery of New Brittain* published in London, 1651, as found in the Great Americana Series, Readex Microprint Corporation, USA, 1966, pages 1, 3, and 16.

major role in English trade with the European continent, but by the end of the fifteenth century the ports were silting up severely and suffering from broken dykes and drowned lands. The towns and ports were further disrupted in the sixteenth century by conflict in the Spanish Lowlands on the continent that reduced trade and brought in refugees. Both by choice and by necessity, many continental Europeans removed to the Cinque Ports area of England, a trend the Crown encouraged with inducements to the foreigners, particularly Lowlanders, to settle in the towns where they could exercise their water and harbor management skills to improve conditions while benefiting as merchants.

Unfortunately the Cinque Ports often used their towns' reduced circumstances as a ploy to prevent the assessing of additional taxes, to protect their liberties, or to avoid reduction in their share of tariffs, policies that did not favor physical improvement.<sup>486</sup> The policies of the Crown alone and the Crown through the Privy Council did not have as great an effect as had been hoped, and by 1621 parliament complained that two hundred Dutch men had left.<sup>487</sup>

In the same way that the English had decided to bring alien silversmiths into London, the English who desired repairing the cities and towns of the Cinque Ports had brought in foreigners to accomplish the tasks. But unlike London where many stranger artisans could be successful and assimilate over time, the Cinque Ports were facing tremendous odds against the restoration of their former status due to the new vastly larger ships and the increased trade that the small facilities would not be able to accommodate. Once forward-looking and filled with potential in 1493, by 1676 the Cinque Port towns

---

<sup>486</sup> This is a personal conclusion arrived at after reviewing the records. There were no explicit requests for funds for repair, only for the reduction of the ports' financial obligations because they were in such poor condition and doing badly.

<sup>487</sup> "House of Commons Journal Volume 1: 12 March 1621", *Journal of the House of Commons: volume 1: 1547-1629* (1802), 549-551.

were smuggler's havens and small pockets of power leaving only traces of the former sophisticated system of town, port, and waterway management.

For all Mr. Calvert's rhetoric about colonial "potentialities" and his desire for "villages and cities" in the colonies, the settlers from areas of port decline in England could not have been celebratory about the prospect of bringing a full set of town and port technologies into the waters of Virginia or Maryland. To an environmentalist, the decision not to tamper with the marshy colonial setting by drainage and port development rings of a good lesson well learned and put into practice to the advantage of the watery environment in America. Unfortunately, it was precisely the avoidance of standard port town practices that put slave labor to work at private and other small docks loading and unloading ships, something no respectable guild town in Europe would have permitted at the time.<sup>488</sup>

In New England the situation in the case of the community that became Boston was similar to the efforts to establish the Jamestown fort-factory, though their model may have been more local, perhaps coming from other colonies along the coastline to the south since it was established much later than Jamestown and shortly after the West India Company locations. Boston was intended to serve as a fortified town that would permit market trade among the settlers and the Amerindians while using shallow water to control the size and type of ships that came to exchange goods from other places such as New Netherland, Virginia, and the Caribbean.

---

<sup>488</sup> The song *Sixteen Tons* is a dock chantey referring to loading a ship's last of goods where "sixteen tons" was equal to one "last." Some sources claim that a last was twenty tons. In this case the "ton" is a specific size of barrel, not a measure of weight. Mart A. Stewart discusses how new technologies increased the rate at which slaves had to work. See also Judith Carney for a slave culture around the technology of growing rice.

The colonial village of Boston was the namesake for a town with a similar river setting in England in an area called South Holland just north of The Fens. The word Holland refers to low-lying land and the somewhat inland countryside suffered from water problems involving irrigation and flooding.<sup>489</sup> Within England the politics of the inland control of agricultural area waterways, lands, and marshes were based upon a specific watery geography that excluded the concept of major ports and rarely involved principal cities or the distant urban center and its surround at London. Local control of these areas was in the hands of the gentry of the county who perceived other distant English as outsiders or strangers and who viewed new technologies with hostility.

An example offering insight into the land and water management mindset of a New Englander and his or her attitudes towards big cities comes from an early incident in England. In 1580 George Carleton leased one thousand acres of Crown land in the area of South Holland near Boston in Lincolnshire and commenced a drainage project approved and encouraged by the Privy Council.<sup>490</sup> The subsequent modification of dykes and sewers, the introduction of drainage engines, and the instigation of new laws by those who were “strangers and dwelling out of the country, some of them above one hundred miles” fed a political struggle with the local overseers that dragged on for more than twenty years.<sup>491</sup> The flooding and drainage dispute pitted the local county gentry against a centralized and citified rule emanating from London. The conflict in South Holland

---

<sup>489</sup> Boston in England was a port town but of minor proportions. I have seen trade records in Rotterdam referring to English Boston for ships of about 40 tons.

<sup>490</sup> Kennedy, Mark E., “Fen Drainage, the Central Government, and Local Interest: Carleton and the Gentlemen of South Holland,” *The Historical Journal*, Vol. 26, No. 1 (March, 1983), 15-37. The word “holland” derives as a contraction from the words “hollow land” meaning a low lying area, O.E.D. See also D.M. Palliser, *The Age of Elizabeth: England under the later Tudors, 1547-1603* (London: Longman 1983) 197-198, for additional contemporary projects and project politics.

<sup>491</sup> Kennedy, *ibid.*, The quote is from the local records of the commissioners of sewers, LXXI, as cited by Kennedy.

eventually yielded to compromise in 1601, but this was possible only because the central government at London succeeded in pointing out the failures of the dyke reeves and sewer commissioners to return maintenance value for what had been paid to them in taxes.<sup>492</sup>

The South Holland political struggle in England over drainage authority involved land for agricultural or pastoral use, not major land reclamation, lake drainage, or polder development as had been true in The Fens. The simple local politics of land and water management near Boston worked to the advantage of the region's gentry and addressed the concerns of those few people who were affected by the actions of one newcomer linked to the distant central authority.

The settlers at the early colonial "Bostons" did not use the South Holland local politics familiar to them to exercise control over the geographical, environmental, and functional features of new villages. Boston in New England, if transported into the English landscape and placed near its namesake in 1650, would have represented a quaint medieval anomaly out of touch with how England's original Boston had changed.<sup>493</sup> In New England most matters of local regulation had been placed in the hands of magistrates, not county gentry, while during the same time period in the original Boston the county gentry had been granted the freedoms of the city.

The New England politics of town, land, and water management through magistrates was an extension of Puritan religious politics, part of Winthrop's vision of "a city upon a hill." In this regard, New England was as true to the principals of its Puritan

---

<sup>492</sup> Ibid.

<sup>493</sup> Fernand Braudel, *The Structures of Everyday Life: The Limits of the Possible* (New York: Harper and Rowe Publishers, Inc., 1981), 520. Braudel says "they had to live by their own resources and emerge from their wilderness to find a place in the vast world; the real parallel for them is the medieval city."

faith as it was to medieval practices in town formation.<sup>494</sup> Town function and its maintenance nostalgically followed that of the agricultural market towns of the past in England in general, and the politics of the small and the local in the colony repeatedly rejected resident pleas to institute the features of a true city until nearly the 1680s, residents petitioning six times to the General Court to become a city in the years between 1650 and 1677.<sup>495</sup> The general tone of the South Holland dispute in England and the colonial modification to use magistrates in New England raises familiar images of the iconic New Englander: wary of strangers, protective of the local, resentful of central authority, ruling by religion, and concerned about the expense.

The West India Company's initial establishment of fort-factories along the coast of North America and the concomitant colonization of New Netherland took place within strict company guidelines that set high standards for the fort, other buildings, equipment, personnel, and the location of the facility.<sup>496</sup> Selecting and developing the location was a critical consideration, certainly a problem for both Jamestown and Plymouth. The man in charge of making that decision for New Netherland was directed to

“write to us where it would be most suitable to build a fort for defense, keeping in mind that the fittest place is where the river is narrow, where it cannot be fired upon from higher ground, where large ships cannot come too close, where there is a distant view unobstructed by trees or hills, where it is possible to have water in the moat, and where there is no sand, but clay or other firm earth.”<sup>497</sup>

---

<sup>494</sup> Stephen Foster, *The Long Argument: English Puritanism and the Shaping of New England Culture, 1570-1700* (Chapel Hill: The University of North Carolina Press, 1991), 288.

<sup>495</sup> Kennedy, Lawrence W., *Planning the City upon a Hill: Boston since 1630* (Amherst Massachusetts: University of Massachusetts Press, 1992), 19.

<sup>496</sup> A. J. F. van Laer, trans. and ed., *Documents Relating to New Netherland, 1624-1626, in the Huntington Library* (San Marino: The Henry E. Huntington Library and Art Gallery, 1924). Hereafter DRNN.

<sup>497</sup> DRNN, Document C, “Instructions for Willem Verhulst,” 47 and 48.

He was directed further that “should the places where forts have been erected not be in fitting locations or in a proper state of defense” he should “consider well, before any more labor or money be expended upon them, whether it is not advisable to choose other and more suitable places.”<sup>498</sup> The tone of the instructions from the company organizers was decidedly military, and the expectations incorporate the concept of a fort as understood in the United Republic after many years of war, replicating notions of fort-factories as they had been known and understood for centuries in the Atlantic World.<sup>499</sup>

The original location chosen for the fort-factory in the area of the Manhattans was on Nooten Island, now Governor’s Island, well inside the shallow sand bars that existed then and that disguised the deep water of the Hudson River. Later, after the purchase of Manhattan Island in 1626, the fort-factory was relocated to the much larger and more central site.

Cryn Frederickszen, a young man who had been trained at Leiden University in engineering, was hired to supervise the fort’s construction. He was given specific instructions to follow, not all of which were possible in the final location perhaps because the plans were similar to those for the fort at Batavia in the East Indies.<sup>500</sup> Every site around the world was different, and on Manhattan Island the bedrock just beneath the surface was cracked and running with springs that still affect construction today. No deep ditch could be dug to surround the four sided structure, and as a consequence soon after the engineer had left the colony numbers of small houses began to be erected within the 200 foot perimeter that the fort was supposed to maintain.

---

<sup>498</sup> Ibid.

<sup>499</sup> DRNN, Document E, April 22, 1625; “Special Instructions for Cryn Fredericksz.,” 132-171.

<sup>500</sup> Frans Westra, “Lost and Found: Cryn Fredericx---A New York Founder” in *de Halve Maan*, published by the Holland Society of New York, Vol. LXXI, Number One, Spring 1998, 7-16.

The plans for the fort-factory included the essential social elements that could be expected of northern continental Europeans, indicating the intention to colonize with families that had rarely been the case in conjunction with a fort-factory but was absolutely necessary along the North American coastline to make a claim of ownership. The planners incorporated a church, a hospital, a school, and a poorhouse, and also indicated which street the company officials should occupy, where the market place should be, and how the streets should be oriented with respect to the fort. Inserting the institutional features of a social community into the fort-factory design established a commitment that the company was ill-prepared to meet either financially or with competent personnel, laying the groundwork for popular dissatisfaction and an alternative urbanization.

At first the colonists were useful in New Netherland primarily as a presence to maintain a geographical wedge between the northern and southern English colonies, but they were also a source of labor and support personnel:

“They [the colonists] shall take up their permanent residence at the place to be assigned to them by the commander and his council and use all diligence to fortify the same by common effort, likewise erecting in common the necessary public buildings and establishing trade relations as far as possible.”<sup>501</sup>

The company specified a residence design intended to reduce smuggling by allowing regular searches. This constraint on privacy reads that “from his own house the Commissary must be able to go into all the lofts on the right-hand side, along the entire street, doors to be made from one into the other.”<sup>502</sup> This was hardly an inducement to taking up residence in a company structure, but the early colonists had few choices.

---

<sup>501</sup> DRNN, Document A, March 28, 1624; “Provisional Regulations for the Colonists Adopted by the Assembly of the Nineteen of the West India Company,” 2 and 6.

<sup>502</sup> DRNN, Document A, 13.

Because the original construction of the fort had been modified and used limited personnel who occasionally suffered injury in the process, the results were less than satisfactory and it deteriorated rapidly, while the West India Company disappointed the colonists by the failure for the social plans to materialize as had been represented to them.<sup>503</sup> Repairs on the fort were required frequently and it became increasingly difficult for the administrators in *Patria* and in the colony to elicit enthusiasm or cooperation for the maintenance of the structure.<sup>504</sup> Some of the social institutions intended for the colonists finally appeared but they were late in coming or inadequate, forcing the inhabitants to worship over a horse mill and otherwise fend for themselves. When a separate church was finally constructed it was placed inside the fort, a location bitterly opposed by the developing community.

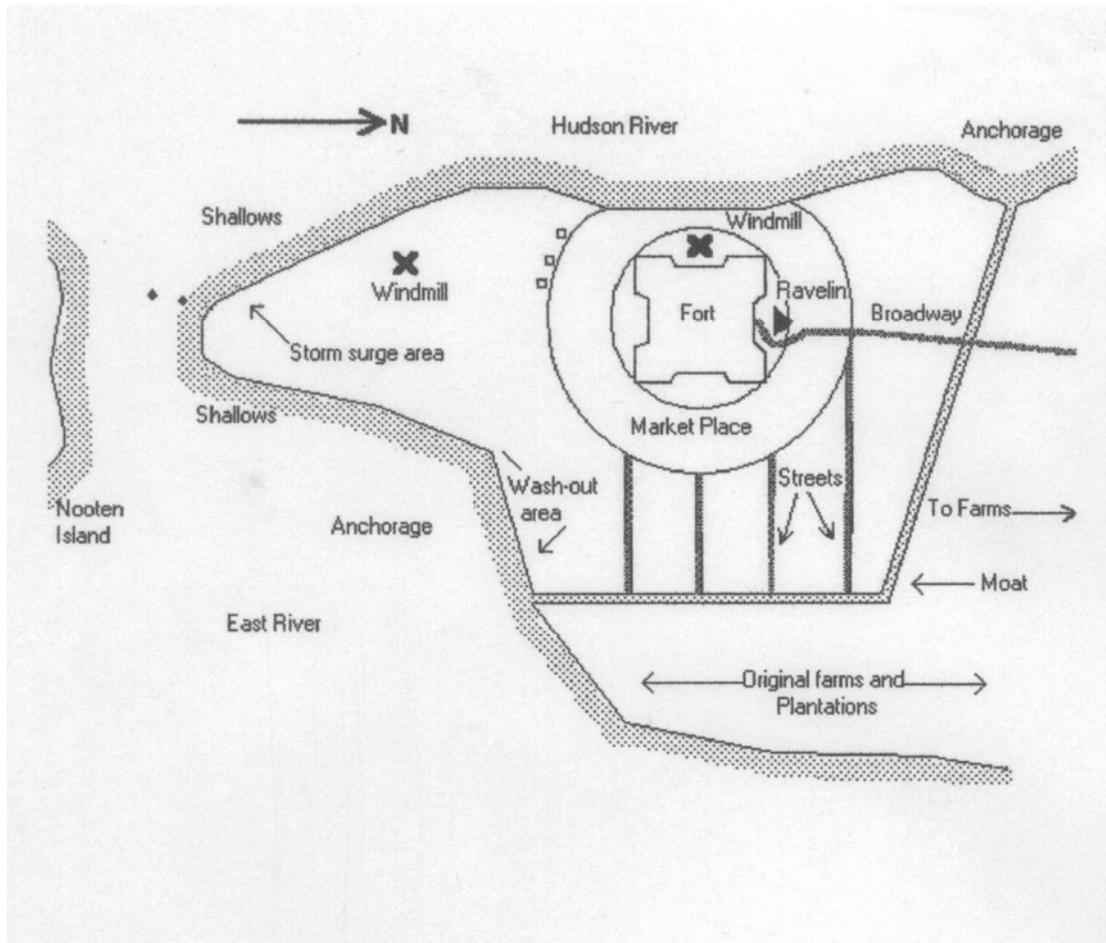
In almost two decades of effort that included the arrival of new colonists, the opening of limited trade to free merchants, and the establishment of patroonships, the houses and other buildings inside and outside Fort Amsterdam constituted the only substantial trading center along the North American coastline. Dutch ships from Rotterdam, Amsterdam, Hoorn, and other locations that made port at Fort Amsterdam had also put in at Jamestown, occasionally stopped in Maryland, and intended to lay over in New England before crossing the Atlantic again. In spite of the initial problems, Fort Amsterdam rapidly expanded into the settlement that would become New Amsterdam primarily through the slow process of development accomplished by artisan and

---

<sup>503</sup> See GAA NAC 915/213v., notary Barent Janszen Verbeeck, September 29, 1633 for an example of an injury that was protested when the worker returned to Amsterdam.

<sup>504</sup> The fort was always small, contrary to the claim made by Weider, and it always had only four bastions. For repairs and original shape see CM 1638, 562-563. See also Paul Meurs on the subject who cites Weider, "Nieuw Amsterdam op Manhattan 1625-1660," in *Vestingbouw overzee, militaire architectuur van Manhattan tot Korea*. Vestingbouwkundige bijdragen Stichting Menno van Coehoorn. Zutphen: Walburg Pers, (1996):19-31.

merchant colonists who brought their conception of a city into what the West India Company had intended as a fort-factory.



Fort Amsterdam as Planned

All was going much better in the colony and in the area around Fort Amsterdam when in 1643 careless acts and bad judgment pitted the Amerindians and the colonists against one another. Over a hundred died on each side of the conflict. Additional settlers boarded ships to return to Patria, one group going down in a wreck off England. The hostilities, the movement out of the colony, and the general atmosphere of discouragement created an opportunity for the English, allowing them to step into a colonial vacuum at Fort Amsterdam after the 1643 war. The numbers of English who had chosen to relocate to what had been a rising community may be seen by their presence in the marriage records where six English marriages took place in 1644, the largest number that would do so for the next few decades.

After 1643 the West India Company instituted a change in administration and a push to rectify the population loss, both efforts helping to rapidly bring Fort Amsterdam and New Netherland back to, and past, the population levels enjoyed earlier. By 1648 the fort was treated as a separate entity, the question arising whether it should be rebuilt as it had been, with four bastions, or enlarged to five.<sup>505</sup> By 1649 some of the colonists and residents of the city-like area around Fort Amsterdam petitioned for the right to have a municipal government in the context of other concerns about New Netherland.<sup>506</sup>

The trading success within and between the colonies prior to the war and the complaints and concerns of the settlers of New Netherland afterwards both led to the West India Company decision to make New Amsterdam officially a city in 1653.<sup>507</sup> This

---

<sup>505</sup> A. J. F. Van Laer, trans. and ed., *Council Minutes 1638-1649*, New York Historical Manuscripts Series (Baltimore: 1974), 562-563, 9 September 1648.

<sup>506</sup> Edmund B. O'Callaghan, trans. and ed., *Documents Relative to the Colonial History of the State of New York*, 15 vols., (New York, 1856-1891)1:249-262. The petition is part of a *Remonstrance*. The settlement was called a city at least as early as 4 July 1647. See *Council Minutes 1638-1649*, 389.

<sup>507</sup> Simon Hart, "The Dutch and North America in the First Half of the Seventeenth Century: Some Aspects," in *Medelingen van de Nederlandse Vereniging voor Zeegeschiedenis*, No. 20 (March 1970), 8.

necessitated a shift in the thinking of those who were now resident in an official city, not in a city-like community gathered at the base of a fort-factory.

One of the early planners who laid out a tidy though sparse version of the city shortly after it became officially New Amsterdam was Jacques Courtelyou. The famed Castello Plan is credited to him. Contrary to either how the city was at the time or how the West India Company wanted it to be, Courtelyou's personal vision was of a carefully measured, clean, open, wide avened and beautifully gardened ideal that did not consider the social impact of the number of small houses that would have to be taken down to realize the fantasy. According to Jasper Danckers, a visitor to the area in the 1670s, Jacques was learned, spoke three languages, had studied philosophy and several sciences, but unfortunately "he was a good Cartesian and not a good Christian, regulating himself, and all externals, by reason and justice only."<sup>508</sup>

Ultimately the city of New Amsterdam in New Netherland would become the consequence of the cultural world view of the northern continental European merchants and artisans who had imposed their urban concepts upon the West India Company's understanding of a colonizing fort-factory. In functional practice the city accommodated the needs of those who utilized it, adjusting to serve as a center of production and trade for individuals of multiple origins, to some degree resembling other contemporary plans by the West India and East India Companies while in other respects differing.<sup>509</sup>

The new city administrators promptly requested a weighhouse, and the resolution to establish it and its functions followed the municipal status of New Amsterdam almost

---

<sup>508</sup> Danckers, Jaspas, and Pieter Sluyter. *Journal of a Voyage to New York, 1679-1680*. Henry C. Murphy, trans. and ed. (Brooklyn: Long Island Historical Society, 1867), 127-128.

<sup>509</sup> Ronald van Oers, "Dutch town planning overseas during VOC and WIC rule (1600-1800), Ph. D. dissertation, Technische Universiteit te Delft, The Netherlands, 2000.

immediately in 1653, indicating that it was considered essential in the minds of the residents of the new city and it was intended to serve them as follows:

It ought to be ordered, that at the first opportunity a weighhouse be opened for the convenience of all and everybody, to weigh all wares, none excepted, which are delivered here, and to appoint somebody to weigh everything above fifty pounds, for which he is to receive a fee of one penny per pound, payable by both purchaser and seller, each one half or as they agree.<sup>510</sup>

The decision to establish a weighhouse may have been influenced by the values of the English as trading partners as much as by the values of the northern continental Europeans because the circumstances were certainly unique and distinctly different from customary practice in *Patria* in at least one respect, establishment by a company. Also, recalling the extraordinary emphasis the English put on stilliards and the high estimation placed on them in household inventories, an official city with a weighhouse on Manhattan Island may have been reassuring to the English colonists involved in the northern Atlantic World, acting as a draw for traders from Virginia, Maryland, and New England, and sounding less like a company venture. Economic success in the New Netherland colony was essential to the success of many of the settlers located elsewhere along the coast, and the weighhouse seems to have been created as much for their sense of what a city should have, how it should function, and what was required not only for its regulation of trade but also for its appearance of regulating trade.

In most cities in Europe merchant and artisan reputations were based on personal integrity and skill performance that included a reliable adherence to fair standards of weights. Many weighhouses in the Low Countries had an image of *Vrouw Justitia*, Lady Justice, over the door holding the scales that represented good measure, one way that

---

<sup>510</sup> Fernow, RNA i, 52, and 56, 10 February 1653. See also *Council Minutes* 1652-1654, 56 and 103, and O'Callaghan, *Calendar of Historical Manuscripts*, 130, for 18 February 1653, postponed.

justice could be perceived. Both the English and the northern continental Europeans believed literally and figuratively that “the measure you give is the measure you get back,” as a biblical verse from Luke in the New Testament admonishes.<sup>511</sup>

The people who chose to work in, relocate to, trade with, or visit New Netherland carried into the new setting the persistent cultural roots of the lands that they and their families had known, even as visitors. European concepts based on physical realities such as the technologies and skilled knowledge associated with forts, cities, houses, taverns, and weighhouses were firmly fixed in their minds and traveled with them out into the Atlantic World, as was the case with young Willem de Key who was encountered in an earlier chapter, the grandson of the architect Lieven de Key who built the weighhouse in Haarlem.

The weighhouse designed and built by Lieven de Key in *Patria* reasserted Haarlem’s previous status. The right to enjoy an increase in trade was the gift of the Prince of Orange in gratitude for withstanding the long Spanish siege and the subsequent terrible circumstances of surrender that Haarlem had endured. Shortly after throwing off Spanish control the city suffered a major fire that gutted a vital area where the cloth workers lived. The weighhouse was an urgently needed commercial focus for the rebuilding city, and it was erected in anticipation of a future intended to be in strong contrast to its past. The choice was made to build it on the River Sparne at a distance from the market place on which the cathedral and the city hall opened. With the

---

<sup>511</sup> Luke, Chapter 6, see verses 38-42, King James Version of the Bible.

weighhouse in the new location, the perspective of the city now looked north to the other cities of Holland as well as south to Rotterdam and Middleburg.<sup>512</sup>

In Europe, every weighhouse or set of weigh scales had a functional location reflecting the commercial emphasis of the city and the city's developmental history. A waterside location indicated the importance attached to goods carried by sea or river, while other European weighhouses were located near the city center, close to the town hall or the market square. Frequently the weigh scales were hung in the city hall itself, stressing the vital role they played in the urban economy. Occasionally they were set up in an old building that was solid and suited for weighing, as was true in the case of an early gatehouse converted into a weighhouse in the city of Amsterdam in its seventeenth century boom days. Usually the buildings were imposing structures, visible from a distance and solid to support the weigh beam, scales, weights, and the load being weighed.<sup>513</sup>

The weigh scales were a technology of control over the movement of goods past or through an urban center, providing the basis for assessing tariffs that benefited the city and provided income for the overlord, usually a bishop, prince, or duke. The scales also set public standards for weights. Each weigh right could be highly specific and differ substantially from that of another city with regard to the goods to which it applied or the amount that was subject to a tariff. Though some cities already had a weigh right, most

---

<sup>512</sup> C. H. Slechte and N. Herwijer, *Het Waagstuk: De geschiedenis van waaggebouwen en wegen in Nederland* (Amsterdam: De Bataafsche Leeuw, 1990), 59 and the illustration on 60. For a history of the city of Haarlem and its neighborhoods see Gabrielle Dorren, *Het soet vergaren. Haarlems buurtleven in de zeventiende eeuw*. Haarlem, 1998.

<sup>513</sup> Slechte, *Het Waagstuk*, 44-46.

of the cities in the Low Countries received the privilege of weighing during the fifteenth and sixteenth centuries.<sup>514</sup>

The new city of New Amsterdam on the tip of Manhattan Island was elevated in status both in practice and in the minds of its inhabitants by receiving the weigh right, though the nature of the “overlord” granting the permission was unique. It was the West India Company that gave the permission, not a duke, prince, or bishop. Indeed, the West India Company perceived itself as an overlord with “supreme jurisdiction” over everyone, possessing all first rights to raw materials without having “to beg these from their vassals and subjects.”<sup>515</sup> Granting the right to have a city or the right to a weighhouse may have been seen by both the company and the colonists as affirming the authority of the West India Company. On the other hand, the weigh scales had been set up much earlier in one of the company’s warehouses, one record referring to them in 1643 before the Amerindian war, and the colonists may have been delighted to have the devices out in the open, positioned under the control of the city fathers and not under the immediate supervision of the company.<sup>516</sup>

After the resolution to establish a weighhouse in New Amsterdam, several years went by before its construction was completed. It was finished by 1657 when a weigh master was appointed and it had been fully operational for some time by 1659 when Petrus Stuyvesant reported to the West India Company that the New Amsterdam city administrators had asked that all the tariffs from the city weigh house be allocated to New Amsterdam itself. Stuyvesant had decided to permit the city to receive twenty-five percent of the income without consulting the company. Unhappy about his independent

---

<sup>514</sup> Slechte, *Het Waagstuk*, 12-13.

<sup>515</sup> CM 1638, 573, 2 November 1648.

<sup>516</sup> Van Laer, *Reg. Prov. Sec.*, 2:144, item 63b.

decision, the company stated that it would be temporary until the actual total annual income had been determined.

Working at or around the weighhouse as a porter was a full time job, one that was highly visible and that required good character and reliable performance. The only reference to a hat associated with a laborer in New Netherland is one that calls Jan Janszen Gorter a “white hat porter,” an expression that calls to mind the white hats still worn by modern day cheese porters at the Alkmaar weighhouse.<sup>517</sup> Porters, like sawyers, were usually young and healthy and in some instances acted in pairs to transport goods. Unlike sawyers, they were subject to more town oversight and had to be approved for the position by the city, whether it was as a weighhouse porter or a porter for beer. Easily replaced by other eager contenders, the porters could not get away with any type of rowdiness.

Young Joost Goderis, who had married in the colony and had been a burgher in New Amsterdam since 1653, was appointed weigh master for the city on April 27<sup>th</sup>, 1657.<sup>518</sup> This position was not long term and it was probably achieved due to porter service he was already performing at the weighhouse. To prevent an abuse of power and to protect those whose goods were being weighed, the weigh master served for a specified term, in this case one year.<sup>519</sup> Apparently Joost conducted himself honorably in the position, returning to normal service at the end of his term.

Joost was another young man from Haarlem who had grown up observing Lieven de Key’s grand, new stone weighhouse in operation. Trained as a ribbon weaver and

---

<sup>517</sup> Van Laer, *Reg. Prov. Sec.*, Vol. 2, item 157a, 405. The Stedelijk Museum in Alkmaar displays a 1681 painting showing the cheeses being weighed.

<sup>518</sup> RNA i, 59 ff for burgher in 1653; RNA vii, 156, 27 April 1657, appointed weigh master.

<sup>519</sup> This information comes from personal communications with Dutch colleagues. The New Netherland documents never state a term but a period of one year may be inferred from a number of entries.

elevated to sales transporting goods by cart to other towns, Joost may have delivered or received goods at the Haarlem weighhouse since he had been working for the Bremen merchant Tieleman van Vleck as a carter.<sup>520</sup> But Joost's life's circumstances were markedly different from those of Willem de Key.

Joost belonged to a separate religious sect. Various members of his family were baptized as adults in Haarlem in the 1650s.<sup>521</sup> Joost had to be baptized at the Communion service in New Amsterdam on February 2, 1652 to satisfy the minister.<sup>522</sup> His "difference" was very public and he had been teased and ridiculed after he had arrived in New Amsterdam. Over time Joost proved himself to be a reliable, socially responsible public porter careful to take the well-being of his fellow porters into consideration. Somehow he managed to keep his previous religious differences a secret from the later English occupiers who would have had very strong negative reactions to even a hint of Anabaptist leanings.

There were still no guilds in New Amsterdam but workers conducted themselves as if guilds existed as discussed in an earlier chapter. Joost was elected an elder of the weigh house porters by the porter membership itself on July 8<sup>th</sup>, 1661, a position confirmed by the city administrators a few weeks later on August 1<sup>st</sup> making him foreman of the porters.<sup>523</sup> As foreman, Joost requested that the administrators of the city allow him to deduct six stuivers from each porter's income to create a support fund for the porters, which they permitted.

---

<sup>520</sup> GAHaarlem, NA volume 230, document ends on folio 16, notary Jan Davitse Colterman, Testamenten en Acten, 1646-1650. Document dated 17 March 1646.

<sup>521</sup> Elva Kathleen Lyon, "Joost Goderis, New Amsterdam Burgher, Weighmaster, and Dutch Master Painter's Son," *NYG&B RECORD*, Vol. 123, no. 4 (October 1992), 193-202.

<sup>522</sup> BDC 31.

<sup>523</sup> OM 2, 93, 8 July 1661 elected Elder; OM 2, 96, 1 August 1661 appointed Foreman.

The relationships between the weighhouse porters were similar to those of the leather workers, with fictive kin roles developing between them. Cryn Jacobszen became a weighhouse porter and was privileged to stand as a baptismal witness for the birth of Joost the foreman's child in 1663.<sup>524</sup> Later as Joost became more powerful he served as a witness for English sea captains.<sup>525</sup>

The vulnerability of weighhouse porters was demonstrated later by an incident that resulted in Joost losing his position. One of the workers he supervised, Frans Janszen, was caught stealing, and as the foreman, Joost was held partly responsible. Frans was whipped for his theft and Joost was sentenced to have to watch the whipping.<sup>526</sup> Both men lost their positions and new workers had to be selected.

Promptly after the English first took New Netherland in 1664, Joost swore the oath of allegiance. Thomas Delaval, an Englishman who had been a Dover merchant involved in trade with the Dutch at Amsterdam in *Patria*, was given an administrative position that eventually elevated him to mayor of the city.<sup>527</sup> Delaval selected Joost Goderis to be in command at the weighhouse.

Goderis was knowledgeable regarding the weighhouse and weigh scales, he had the respect of his colleagues, and he had suffered at the hands of the former urban administrators, making him an ideal candidate to supervise the scales. Further, Joost was the son of a widely known Dutch master painter, Johannes Goderis, giving him cachet

---

<sup>524</sup> BDC 68.

<sup>525</sup> For James Woodard, BDC 98, and John Hunt, BDC 112.

<sup>526</sup> O'Callaghan, *Calendar of Dutch Manuscripts*, 257.

<sup>527</sup> Delaval was a merchant in Dover as early as 4 July 1658 when he was dealing with Virginia merchants for tobacco through the port. GAA NA 2205, fol. 25, notary Adr. Lock.

among the English elite, a circumstance that may explain the fictive kin baptismal witnessing of the glass window artist Evert Duycking for a child of Joost Goderis.<sup>528</sup>

Joost's service as weighmaster under the English did not have an expiration date. The position was a grant, a mark of favoritism that could only continue as long as Joost made himself desirable and necessary to his employer Delaval. Apparently Joost Goderis became another darling of the English, remaining in charge of the weighing and tariff charges for a period of seven years, from 1666 until 1673.

The urban center of New Amsterdam that was later New York City had already arrived at what it would become before the 1664 takeover and before the English government first began to benefit from it in 1665. Well before the English arrived with their ships the city of New Amsterdam had metamorphosed from the original fort-factory into an urban center with a population of roughly three to four thousand people that swelled seasonally to an even larger number.

When the English took New Amsterdam, they acquired both the products they desired and the means of production. In the case of this particular urban center, those English who settled in as occupiers had an appetite for all that kept the city running smoothly and that generated the financial benefits of trade along the coast of North America. To those ends Thomas Delaval utilized the services of Joost Goderis to supervise the weigh scales and Thomas Coker married the daughter of the contractor Adolph Pieterszen van der Groeft. Yet another close relationship developed with the second governor of the Duke of York's colonial holdings.

In 1670 Governor Francis Lovelace of the colony of New York granted an island to his agent Isaac Bedloo, stating that Mr. Bedloo "hath made very good improvement

---

<sup>528</sup> BDC 43.

upon a Certaine Little Island in the Bay neare this Cittye” and that the governor expected him to do “further manuring and Improvement thereupon” with the hope that Bedloo would honor him by calling it Love Island.<sup>529</sup> Barely two years later Mr. Bedloo was given the task of oversight of the storm and water damaged road northward to Haarlem, the Mayor’s Court of New York City faulting the Haarlem Overseers and threatening them with fines, stating “Yea, that people wishing lately to travel over that road on horseback have been in danger of losing their lives by the neglectful keeping of the said road,” and that “many complaints have been lodged” and how “very ill it has been taken” that the Harlem Overseers had not performed their public duties as expected.<sup>530</sup> The rhetoric is redolent of the dyke and sewer maintenance rulings out of London in the case of the drainage conflict in South Holland. Obviously Isaac Bedloo had become a favorite of the administration, receiving special oversight privileges and responsibilities that had authority beyond that of the Harlem Overseers.

Isaac Bedloo the younger was accustomed to making “improvements,” he was inured to a general outcry regarding public works, and he was familiar with the politics of land and water management because in the 1630s his extended family had been associated with Cornelis Vermuyden and the fen draining projects in England.<sup>531</sup> This alone may have been enough to make him the darling of Francis Lovelace.

---

<sup>529</sup> Peter R. Christoph and Florence A. Christoph, eds., *New York Historical Manuscripts: Books of General Entries of the Colony of New York*, (Baltimore: Genealogical Publishing Company Inc., 1982), page 365, Document A: 576. The island had been called Oyster Island and is now known as Liberty Island.

<sup>530</sup> Bertold Fernow, ed., *The Records of New Amsterdam from 1653 to 1674 Anno Domini*, The Knickerbocker Press, The City of New York, NY 1897; Volume VI, “Minutes of the Court of Burgomasters and Schepens, May 8, 1666, to Sept. 5, 1673, Inclusive,” pages 359, 361-362, February 13, 1671/2 Old Style. Hereafter abbreviated RNA. Isaac was a burgher of New York City before 1665 and referred to as an alderman on July 30, 1667. RNA, Vol 6 p 88 and

<sup>531</sup> Moens, William John Charles, *The Marriage, Baptismal, and Burial Registers, 1571 to 1874, and Monumental Inscriptions, of the Dutch Reformed Church, Austin Friars, London, with a Short Account of the Strangers and their Churches*, King and Sons, Printers, Lyminton, GB, 1884, pages xxxv-xxxvi.

The Crown had promised special benefits to Isaac Bedloo the elder beyond his contractual income as one of Vermuyden's associates, but the public outcry against the fen draining in England rose to the level of scurrilous pamphlets and rioting that discouraged project participants and investors.<sup>532</sup> Isaac Bedloo the younger went first to London and then to Middleburg in the United Republic of the Netherlands where his sister was still residing years later.<sup>533</sup> Early in the 1650s English-speaking young Isaac was in the colony of New Netherland where he began actively trading tobacco with Virginians, and in 1653 he married Elizabeth de Potter who had been born in Batavia in the East Indies.<sup>534</sup>

Isaac the younger was just another technical expert hired by the New Netherland entrepreneur Cornelis de Potter, father of the young woman who would become Isaac's wife, and a man who had brought dozens of specialists into the colony beginning in 1651. Bedloo and de Potter had family connections in Bourdeaux in France where their networks traded in tobacco and refined sugar, and where they also advised on the manufacture of distilled liquors and invested in the great water projects underway.<sup>535</sup>

Isaac had a great deal of experience in trade and good mercantile connections that Lovelace may have wanted to promote and from which he hoped to benefit. In addition

---

<sup>532</sup> See Keith Lindley, *Fenland Riots and the English Revolution*. Ashgate, 1982.

<sup>533</sup> Evans, Thomas Greer, ed., *Records of the Reformed Dutch Church in New Amsterdam and New York: Baptisms from 25 December, 1639, to 17 December, 1730*. Printed for the Holland Society, New York Genealogical and Biographical Society, 1901. The November 3, 1669 baptismal entry for a child of Isaac Bedloo lists the witness "Bedloos Suster tot Middleburg." He also had a brother Erasmus. Isaac Sr. had not received payment for building the church for the workmen at Hatfield Chase and the widow of Erasmus sued for the money. One source claims that the church was destroyed by arson during rioting.

<sup>534</sup> MDC 18, intentions 1653, "Den 16 May. Isaac Bethloo, Van Calis in Vranckrijck, en Lijsbeth Potters, Van Batavia in Oostindien."

<sup>535</sup> Jan Adriaenszen Leeghwater undertook to drain the marshlands south of Bourdeaux in France in 1628 (Israel, p. 272). See Peter Voss, "A Community in Decline? The Dutch Merchants in Bourdeaux, 1650-1715," in C. Lesger and L. Noordegraaf, eds. *Entrepreneurs and Entrepreneurship in Early Modern Times: Merchants and Industrialists within the Orbit of the Dutch Staple Market*. Hollandse Historische Reeks XXIV. Den Haag: Drukkerij Smits B.V., p. 49.

to those mentioned, Isaac had a brother-in-law in the colony, Johannes Nevius, who had procured the right to the operation and income of the ferry connecting Manhattan Island to Brooklyn.<sup>536</sup>

Joost Goderis, Isaac Bedloo, and Adolph Pieterszen van der Groeft, either themselves or through relatives or by English connections, controlled the weighhouse, the Brooklyn Ferry, the highway to Haarlem, an island in the East River, and the construction of major urban infrastructures in New York City and in Haarlem. These were quite ordinary men, risen artisans, not members of the nobility or gentry, but the English who used their services perceived them as talented. Or, to use a word from the mouth of the Earl of Bellomont regarding a saw mill builder, each of these men was an “artist.”

In a sense what happened when the English took New Amsterdam was that they left the running of it to the experts who had lived there, using them the way an English man who wanted a silver goblet might use a guild stranger in London to produce it. The English did not truly “possess” the city, nor had they acquired it as a transferred technology. The skills to replicate the city they were occupying did not transfer to them but remained in the hands of foreign others, and no new cities as desired by Mr. Calvert appeared as a consequence. The mere presence of the English in what was now New York City may have acted to slow the desires for, or the process of, enlarging their own communities in their own colonial locations. Governor Berkeley’s effort to have Jamestown improved may have died an early death when news arrived that the English were now in political control of the largest city on the North Atlantic coast.

The English had the opportunity to serve an apprenticeship in how to create an urban center, and improvements to Jamestown and Boston should have followed logically

---

<sup>536</sup> RNA v, 252.

if they had learned from the experts and applied the knowledge acquired in other locations. Instead, Boston did not look to urban self-development until after 1677, and the area around Jamestown did not realize a large town until the establishment of Williamsburg towards the end of the century.

In New York City the appetites of the English were being satisfied by a city filled with what a recent English arrival might have called strangers, and they labored to produce what their conquering “hosts” desired under conditions that were preferable to those for the English in England. One contemporary colonial English man wrote favorably of the opportunities for artisans in the New York area in a treatise he published in London, trying to attract colonists to the locale by claiming “For Tradesmen there is none but live happily there, as Carpenters, Blacksmiths, Masons, Tailors, Weavers, Shoemakers, Tanners, Brickmakers, and so any other Trade.”<sup>537</sup> His comments imply that such craftsmen did not live as happily in the cities in England.

As the new colonial generations of what had been a northern continental European population began to appear, the children and grandchildren of a continuing urban experience spread to other communities and became the vectors for urbanization at new sites throughout the colonies, while English settlement newcomers tended to gravitate toward land ownership, husbandry, and the practice of their limited skills crafts.

---

<sup>537</sup> Denton, Daniel. *A Brief Description of New York: Formerly Called New-Netherlands*. London: John Hancock, 1670, 17.

## CONCLUSIONS

What Charles Wilson called “England’s Apprenticeship” may not have been an apprenticeship at all, on either side of the Atlantic. Training can only take place if there is an acknowledged skilled master, a willing student, and the means for one of them to communicate his or her techniques to the other, and the technologies and tools to perform the tasks must be available. The artisans in England tended to believe that their own crafts were of high quality and sufficient to the needs of their countrymen, as discussed by Michael Berlin.<sup>538</sup> Even under the pressure of the hardships during colonization and the high number of skilled northern continental Europeans available due to their accustomed mobility, there was no evidence of the training of the English in the skills of other Europeans in the colonies except in the case of the Scots and their saw mills. Instead the pattern was the same as in England. The English hired the foreign artisans to produce what they desired or they bought the products that gratified their appetites, but they did not serve as apprentices to sophisticated continental European craft knowledge either in England or in the colonies, a situation similar to that pointed out by Maxine Berg in the case of the skilled knowledge of Chinese porcelain manufacture.<sup>539</sup> Simple crafts such as sugar baking may be an exception.

At the level of the usual urban crafts, the cultural differences of the northern continental Europeans were enormous barriers to technology transfer for the English.

---

<sup>538</sup> Michael Berlin, “‘Broken all in pieces’: artisans and the regulation of workmanship in early modern London,” in Geoffrey Crossick, ed., *The Artisan and the European Town*, Historical Urban Studies Series. (Aldershot, England and Brookfield, Vermont: SCOLAR Press, 1997), 81.

<sup>539</sup> See again Maxine Berg, “In Pursuit of Luxury: Global History and British Consumer Goods in the Eighteenth Century,” *Past & Present*, Number 182, (February 2004): 85-142.

Neither the successful foreign method of craft groupings nor the resilient family networks of the foreigners were desired by the English or readily accessible to them, nor did the English attempt to place themselves as apprentices to the foreign artisans. Even the possibility of marrying a foreign woman who possessed the house, shop, tools, business acumen, and craft knowledge was not appealing to the majority of the English, and probably equally unappealing to the northern continental European woman.

In the American colonies, historians and archaeologists need to reconsider the origins of craft products at presumably English sites, tracing where possible the movement of northern continental European artisans and their offspring to locations that have always been considered to be the result of English settlement and cultural practices.

The multiple personal histories and reconstituted families of the northern continental European artisans in the colonial setting show patterns for the production of skilled knowledge and its practice that were closely tied to their distinctive style of kinship. The connection between guild and family as demonstrated by the practice of fictive kinship among northern continental Europeans deserves a much wider treatment. They were highly mobile yet they had extensive family networks, they practiced real and fictive kinship producing large networks, used partitive inheritance and gifting, were generally literate, grouped related crafts together, and had relatively short apprenticeships and periods of contract service. The *brede middenstand* in which they lived out their lives allowed for the development of risen merchants, challenging English understandings of class distinctions. There were too many differences for the English to grasp, even naming customs, and too much cultural adjustment would have been required

for the English to begin to become excellent craftsmen on the level of the artisans on the continent.

They solved the problem in England by allowing strangers in their cities, merely consuming their products while complaining about their different culture, their competition, and their numbers. The population of continental Europeans that was the source of talented strangers in London was also the source of the colonists in New Netherland, provoking the comment that they possessed the same manners and styles that were commonly seen in court. Stranger connections with London were so ordinary in New Netherland that the issue of non-English origins for some of the presumed English colonists must be examined more closely, and the rare apparently cross-cultural marriages also require more study to establish possible partner origins in stranger populations in English cities.

The English who were more socially sophisticated recognized and honored the expertise that included “Great Works,” freely interacting with those whom they believed to be true masters on a level far above that of their own common craftsmen and beyond that of the typical artisans of the northern continental Europeans. In New York City the Duke of Bellomont admired a mill builder as an “artist,” Governor Francis Lovelace enjoyed and preferred the projector’s relative Isaac Bedloo, Mayor Thomas Delaval maintained the master painter’s son Joost Goderis as supervisor of the weighhouse, and the Customs Officer Thomas Coker married into the family of the building contractor Adolf Pieterszen van der Groeft. The English involved in these cases were not as much apprentices to the experts as admirers of them or complicit with them in their works, acting in synergy with the artisans in an urban setting to their mutual benefit. Nor did the

English produce their own urban settings in their North American colonies until after they had gained permanent occupation of the single largest city on the coastline, New Amsterdam/New York, demonstrating again the desire to possess rather than to learn to produce.

Middlemen played a role in making the necessary skills and machines available to the English, as was true in the case of the sugar baker and for the saw mills. The method of hiring the sugar baker and the facile ease with which English citizenship could be obtained in the colonies created a colonial back door that was potentially viable for transferring skilled knowledge into England. Future studies should further examine that route to knowledge acquisition on both sides of the Atlantic for actual instances when English who had trained in the colonies managed to return to the homeland and to successfully practice their new skills there. There is some evidence to suggest that certain colonists applied for and obtained patents for new devices when they had the occasion to do so in *Patria*.

The saw mills proliferated throughout the North American colonies, with thousands of them on the streams and rivers by the 1670s when there were very few in England itself. Most of the wood coming into England was already milled in Norway before arriving, little of the raw material was available in the countryside, and there was an active opposition to “engines,” thus there was no impetus to develop saw mills in the English countryside. In the colonies the English managed to acquire the continental skills necessary to operate and even to recreate the colonial saw mills through Scottish middlemen whom they perceived as less different than the northern continental Europeans. Even so, the technology diffused slowly among them and several methods

for obtaining or producing wood, including saw mills of various scales, were in place and functioning in the same time frame in the several colonies.

Grand schemes that had succeeded in Europe, such as the wind driven saw mill, failed on the shores of the Hudson River not because the technology was poorly constructed or badly operated but because the landscape contained features that were better suited for the less expensive water driven style of saw mill that operated off mountain streams. The simpler water driven saw mill technology transferred to other entrepreneurs and cultures in the colonial setting, but not in the wind driven form in which it had initially transferred geographically, and changes occurred in the scale of the water driven technology itself possibly due to the influence of the size and productive capacity of the wind driven devices as well as the availability of the wood and the colonial need for the material for use and for export.

Since the English do not appear to have actually served an apprenticeship to the northern continental Europeans, the assimilation of foreign artisans on both sides of the Atlantic deserves closer attention. Hendrick Barentszen became Henry Barnes in England, and Adolf Pieterszen van der Groeft became Mr. De Grove in the colonies. The assessment of ethnic origins based on the appearance of names obviously does not reveal the northern continental European background of artisans in the colonies or in England.

Though there was considerable antagonistic political rhetoric regarding “the Dutch” in the colonies, there was not the level of resentment of the foreigners and their crafts that was constantly encountered in England.<sup>540</sup> Instead, in the colonies the foreign Europeans and all that they could accomplish made them the “darlings” of the English. If

---

<sup>540</sup> Lien Bich Luu, *Immigrants and the Industries of London, 1500-1700*. Aldershot England: Ashgate, 2005, especially Chapter 5 on reception and treatment.

they were not utilized as fully as they could have been as instructors in those skills, at least they were appreciated for how they made English colonization both possible and comfortable.

At the heart of the idea of the transfer of technology in the Atlantic World in the early modern period was the mobility of those who were skilled. Cities in Europe welcomed journeymen who would learn at the feet of their masters, and each journeyman faced choices for place of residence, a wife, and a career leading to becoming a successful artisan. The decision to extend that cultural mobility by participating in the European settling of distant lands was an extension of existing ideas, and the colonial environment wrought only slight changes on the techniques of the artisans whose experiences in the world of *Patria* offered sufficient preparation for what they encountered on the western rim of the Atlantic. Women proved to be as mobile as the men, often were just as skilled, and outnumbered them, exercising a degree of power in the urban setting of New Amsterdam/New York.

Examining the circumstances surrounding northern continental European artisans in the early modern Atlantic World proved to offer a window on European cultural distinctions as barriers to technology transfer. In the process the study uncovered little on the alteration of English customary behavior due to technology transfer. At the heart of the cases studied were the highly visible cultural differences of the parties involved and the considerable mobility of the northern continental cultural group that often included the globe, not just the Atlantic World. The role of middlemen proved to be a crucial one, especially in the rise of saw mills in New England and in procuring talented artisans from Europe for service in the colonies.

The colonies provided somewhat altered circumstances and should have offered the opportunity to acquire skilled knowledge more immediately and in a shared setting that was equally challenging to every colonist without regard to cultural differences. In New Netherland Pieter Stuyvesant was often amused regarding the elevated plans of new arrivals, saying that when they have the itch they will scratch it, meaning that necessity would put them to productive work. The same could be said of the English whose colonial encounters with reality sometimes shattered their dreams, whether of a religious utopia, large land holdings, or great wealth. The settlers who were English became somewhat more pragmatic in their settlements, using the colony of New Netherland for its products and services, some of them living with the northern continental Europeans in their city of New Amsterdam, and welcoming them to their colonial locations in Maryland or Connecticut. Yet they did not adjust to the presence of the northern continental Europeans enough to mix freely with them at all levels, and the pressure of the colonial setting did not drive them to the feet of the continental masters.

The results of this study would have been difficult to obtain, or even to observe, if limited to one side of the Atlantic or the other. Through the vehicle of the study of the geographic and cultural transfer of technology in the Atlantic World other themes emerged that have enlightened aspects of both the early modern period in Europe and the history of colonial North America. Early modern European studies need to look at England not for its long apprenticeship to its darling strangers, but to understand how it acquired the skilled knowledge to rise as a power without choosing to learn at the feet of the masters. Assimilation of the strangers may be one answer, and the forceful acquisition of the control of the means of production and the products may be another.

But the most tantalizing thought is that after the workers in England accepted the “engines,” the marginal existence of the compartmentalized English craftsmen predisposed them to the similarly monotonous but more regular world of the secure wages of mechanized industrial labor. In turn, the diversity of tasks, higher skills level, shorter apprenticeships, and the opportunities to rise to a merchant kept northern continental European artisans happily employed in their shops well past England’s Industrial Revolution.

## BIBLIOGRAPHY

### Primary Sources

Ampzing, Samuel. *Beschryvinge ende lof der stad Haerlem*. Haarlem Commissioners, 1903 publication of the 1628 document.

*A Volume Relating to the Early History of Boston Containing the Aspinwall Notarial Records*. Boston: Boston Record Commissioners, 1903.

Bland, Edward, *The Discovery of New Brittain*, London, 1651, as found in the Great Americana Series, Readex Microprint Corporation, USA, 1966.

Bradford, William. *Of Plimoth Plantation*. Boston: Wright and Potter, 1901.

Browne, William Hand, ed. *Proceedings of the Council of Maryland, 1636-1667*. Vol.3. Baltimore: Maryland Historical Society, 1885.

Christoph, Peter R., ed., *Administrative Papers of Governors Richard Nicolls and Francis Lovelace, 1664-1673*. Baltimore: Genealogical Publishing Co., Inc., 1982.

Christoph, Peter R. and Florence A. Christoph, eds., *New York Historical Manuscripts: Books of General Entries of the Colony of New York*. Vol. I, 1664-1673. Baltimore: Genealogical Publishing Company Inc., 1980.

Christoph, Peter R. and Florence A. Christoph, eds., *New York Historical Manuscripts: Books of General Entries of the Colony of New York*. Vol. II: 1674-1688. Baltimore: Genealogical Publishing Company Inc., 1982.

Comenius, *Orbis Sensualium Pictus*, 1657/1658.

Danckers, Jaspas, and Pieter Sluyter. *Journal of a Voyage to New York, 1679-1680*. Henry C. Murphy, trans. and ed. Brooklyn: Long Island Historical Society, 1867.

Darton, William. *Little Jack of all Trades*. 1804 and 1806.

Denton, Daniel. *A Brief Description of New York: Formerly Called New-Netherlands*. London: John Hancock, 1670.

De Vries, David Pieterszen. *Korte historiael ende journaels aenteijkenings*. 1630-1633.

Doorman, G. *Octrooien voor uitvindingen in de Nederlanden uit de 16e-18e eeuw*. 's-Gravenhage: Martinus Nijhoff, 1940.

Fernow, Berthold. trans. and ed. *Minutes of the Orphanmasters of New Amsterdam, 1655-1663*. New York: Francis P. Harper, 1902-1907.

Fernow, Berthold, ed., *The Records of New Amsterdam from 1653 to 1674 Anno Domini*, 7 volumes. New York: The Knickerbocker Press, 1897.

Gehring, Charles T., trans. and ed. *Council Minutes, 1655-1656*. New Netherland Documents Series. Syracuse: Syracuse University Press, 1995.

Gehring, Charles, trans. and ed. *Correspondence, 1647-1653*. New Netherland Documents Series. Syracuse: Syracuse University Press, 2000.

Gehring, Charles, trans. and ed. *Correspondence, 1654-1658*. New Netherland Documents Series, 2003.

Gehring, Charles T., and J. A. Schiltkamp, trans. and eds. *New Netherland Documents Volume XVII: Curacao Papers, 1640-1665*. New Netherland Documents XVII. Interlaken: Heart of the Lakes Publishing, 1987.

Gehring, Charles T., trans. and ed. *Delaware Papers: Dutch Period, 1648-1664*. New York Historical Manuscripts Series. Baltimore: Genealogical Publishing Co., Inc., 1981.

Gehring, Charles, trans. and ed. *Fort Orange Court Minutes, 1652-1660*. New Netherland Documents Series. Syracuse: Syracuse University Press, 1990.

Gehring, Charles, trans. and ed., *Laws and Writs of Appeal, 1647-1663*, New Netherland Documents Series, Volume XVI, part one. Syracuse: Syracuse University Press, 1991.

Hackluyt, Richard. *Cinque Ports*

Hakluyt, Richard, "Inducements to the liking of the Voyage Intended towards Virginia," as found in E. G. R. Taylor, ed., *The Original Writings and Correspondence of the Two Richard Hakluyts*, volume II (London, 1935).

Holy Bible, King James Version.

"House of Commons Journal Volume 1: 12 March 1621", *Journal of the House of Commons: volume 1: 1547-1629* (1802).

Jameson, J. Franklin, *Narratives of New Netherland: 1609-1664*, New York: Charles Scribner and Sons, 1909.

Kruimel, H. L., "De Klappers op de Inbrenregisters van de Weeskamer te Amsterdam," *Nederlandsch Archief voor Genealogie en Heraldik*, vol. 5 p. 76, (1947), Inbrenregister No. 30 (1657), folio 124, 6 September 1657.

Minutes of the Common Council of Albany, 1686-1704, Manuscript Room of the New York State Library, vol. 4, pp. 356-358.

Moens, William John Charles. *The Marriage, Baptismal, and Burial Registers, 1571 to 1874, and Monumental Inscriptions, of the Dutch Reformed Church, Austin Friars, London, with a Short Account of the Strangers and their Churches*. Lymington, England: King and Sons, Printers, 1884.

O'Callaghan, E. B. and B. Fernow, eds. *Documents Relative to the Colonial History of New York; Procured in Holland, England, and France*. Albany, New York: Weed, Parsons and Company, 15 volumes, 1853-1883.

O'Callaghan, E. B. trans. *Calendar of Historical Manuscripts in the Office of the Secretary of State, Albany, NY*. Volume I, *Dutch Manuscripts, 1630-1664*. Albany, New York: Weed, Parsons and Company, 1865.

*The Book of Trades, or Library of the Useful Arts*. London, Tabart & Company, 1804.

Pope, Charles Henry. *The Pioneers of Maine and New Hampshire, 1623 to 1660: A Descriptive List, Drawn from Records of the Colonies, Towns, Churches, Courts and Other Contemporary Sources*. Boston, MA: Charles H. Pope, publisher, 1908.

O'Callaghan, E. B., and Berthold Fernow, trans., *Documents Relative to the Colonial History of the State of New York*, 15 Vols. (Albany, New York: Weed, Parsons and Co., 1856-1887)

O'Callaghan, E. B., trans., *Calendar of Historical Manuscripts in the Office of the Secretary of State, Albany, N. Y., Volume I, Dutch Manuscripts, 1630-1664* (Albany, New York: Weed, Parsons and Company, 1865)

Pearson, Jonathan, trans., and A. J. F. van Laer, rev. and ed. *Early Records of the City and County of Albany, 1654-1678*, 4 Volumes. Albany, New York: J. Munsell, 1916-1919.

Pelletreau, William S., abstractor. *Abstracts of Wills 1665-1800, on File in the Surrogate's Office, County of New York*. New York: Collections of the New-York Historical Society, 1892-1973.

Pepys, Samuel, *Diary*

Purple, Samuel S., trans. and ed., *Records of the Reformed Dutch Church in New Amsterdam and New York: Marriages from 11 December 1639 to 26 August 1801* (New York: The New York Genealogical and Biographical Society, 1890),

Purple, Samuel S., trans., and Thomas Grier Evans, ed., *Records of the Reformed Dutch Church in New Amsterdam and New York: Baptisms from 25 December, 1639, to 27 December, 1730*. Collections of the New York Genealogical and Biographical Society, Vol. II. New York: New York Genealogical and Biographical Society, 1901; Upper Saddle River, New Jersey reprint, The Gregg Press, 1968.

Shaw, William A., ed., *The Publications of The Huguenot Society of London, Vol. XVIII, Denizations and Naturalizations of Aliens in England and Ireland, 1603-1700.*

“*Transactions and Collections*” Worcester, Massachusetts: American Antiquarian Society, 1857.

Van Laer, A. J., trans. and ed., *Correspondence of Jeremias van Rensselaer, 1651-1674* (Albany: The University of the State of New York, 1932)

Van Laer, A. J. F., trans. *Correspondence of Maria Van Rensselaer, 1669-1689.* Albany, New York: University of the State of New York, 1935.

Van Laer, A. J. F., trans. *Council Minutes, 1638-1649.* New York Historical Manuscripts Series. Baltimore: Genealogical Publishing Co., Inc., 1974.

Van Laer, A. J. F., trans. and ed., *Documents Relating to New Netherland: 1624-1626,* The Henry E. Huntington Library and Art Gallery. San Marino, CA: 1924.

Van Laer, A. J. F., trans., Kenneth Scott and Kenn Stryker-Rodda, eds., *Register of the Provincial Secretary, 1638-1642,* New York Historical Manuscripts Series. Baltimore: Genealogical Publishing Co. Inc., 1974.

Van Laer, A. J. F., trans. and ed. *Van Rensselaer Bowier Manuscripts.* Albany, New York: University of the State of New York, 1908.

Van der Donck, A. *Vertoogh van Nieu Nederlandt.* ‘s-Gravenhage 1650.

Van Wassenaer, Nicolaes. *Historisch verhael aldar gedenck-weerdigste geschedenissen die van de beginner des jaeres 1621...tot 1632 voorgefallen sijn.* Portions of this 21 page Amsterdam pamphlet may be found in English in J. Franklin Jameson, *Narratives of New Netherland: 1609-1664.* New York: Charles Scribner and Sons, 1909, 83-84.

#### Dictionaries (see abbreviations)

De Vries, M., te Winkel, L. A., et. al., *Woordenboek der Nederlandsce taal.* The Hague: Martinus Nijhoff, 1882- (on-going).

*Webster's Encyclopedic Dictionary of the English Language,* New York: Gramercy, 1989.

*Oxford English Dictionary* on-line

William Sewell's Dutch-English Dictionary, 1726, 3<sup>rd</sup> edition (1<sup>st</sup> edition appeared in 1691)

Van Baars, F. J. J. and M. E. Pieterse-van Baars, et. al., *Engels-Nederlands*. Prisma Woordenboeken. Utrecht: Uitgeverij Het Spectrum B. V., 1993.

Van der Schaar J. *Woordenboek van voornamen*. Utrecht, Netherlands: Prisma, 1998.

Visser, G. J., A. F. M. de Knecht, and C. de Knecht-Bos, *Nederlands-Engels*. Prisma Woordenboeken. Utrecht: Uitgeverij Het Spectrum B. V., 1993.

### Secondary Sources

Adas, Michael, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance*. Ithaca and London: Cornell University Press, 1989.

Anderson, Robert Charles. *The Great Migration Begins: Immigrants to New England, 1620-1633*. Boston: New England Historic Genealogical Society, 1995.

Anderson, Robert Charles, George F. Sanborn, Jr., and Melinde Lutz Sanborn, *The Great Migration: Immigrants to New England, 1634-1635*. Boston: New England Historic Genealogical Society, 1999.

Appelby, Joyce, Lynn Hunt, and Margaret Jacobs. *Telling the Truth about History*. New York and London: W. W. Norton & Co., 1994.

Appleby, Joyce Oldham. *Economic Thought and Ideology in Seventeenth-Century England*. Princeton: Princeton University Press, 1978.

Arber, Edward, and A. G. Bradley, eds., *Travels and Works of Captain John Smith, President of Virginia, and Admiral of New England, 1580-1631*. Edinburgh: 1910.

Backhouse, Marcel F. "The Strangers at work in Sandwich: Native Envy of an Industrious Minority 1561-1603." *Immigrants and Minorities* [Great Britain] Vol. 10, no. 3: 70-99

Bailey, Rosalie Fellows, "Emigrants to New Netherland. Account Book. 1654 to 1664," *NYG&B RECORD* 94:194, 199.

Bailey, Rosalie Fellows. *Dutch Systems in Family Naming, New York-New Jersey*. Washinton, D.C.: National Genealogical Society, 1986.

Bailyn, Bernard. *The New England Merchants in the Seventeenth Century*. Cambridge: Harvard University Press, 1955, 2<sup>nd</sup> printing 1979.

Bailyn, Bernard. *The Peopling of British North America. An Introduction*. New York:

First Vintage Books edition, 1986.

Barnes, Donna. *The Butcher, The Baker, The Candlestick Maker: Jan Luyken's Mirrors of 17<sup>th</sup>-Century Dutch Daily Life*. Hempstead, New York: Hofstra Museum, Hofstra University, 1995.

Basalla, George, *The Evolution of Technology*, Cambridge University Press, Cambridge, 1988.

Beedel, Suzanne. *Windmills*. New York: Charles Scribner and Sons, 1975.

Bennett, Judith M. *Ale, Beer and Brewsters in England : Women's Work in a Changing World, 1300-1600*. New York : Oxford University Press, 1996.

Berg, Maxine, "In Pursuit of Luxury: Global History and British Consumer Goods in the Eighteenth Century," *Past & Present*, Number 182, (February 2004): 85-142.

Berlin, Michael. "'Broken all in pieces': artisans and the regulation of workmanship in early modern London," in Geoffrey Crossick, ed., *The Artisan and the European Town*, Historical Urban Studies Series. Aldershot, England and Brookfield, Vermont: SCOLAR Press, 1997.

Biemer, Linda B. *Women and Property in Colonial New York: The Transition from Dutch to English Law, 1643-1727*. Anne Arbor: University of Michigan Press, 1983.

Blackburn, Robin. *The Making of New World Slavery: From the Baroque to the Modern, 1492-1800*. London and New York: Verso, 1997.

Blackburn, Roderick H. and Ruth Piwonka. *Remembrance of Patria: Dutch Arts and Culture in Colonial America, 1609-1776*. Albany, New York: Albany Institute of History and Art, 1988.

Boon, Piet. *Bouwers van de zee: zeevarenden van het Westfrieze platteland, c. 1680-1720*. Den Haag, 1996.

Boorsma, P., *Duizend Zaanse Molens*, Wormerveer, 1950.

Braudel, Fernand. *The Structures of Everyday Life: The Limits of the Possible*. New York: Harper and Rowe Publishers, Inc., 1981.

Braudel, Fernand. *Mediterranean and the Mediterranean World in the Age of Philip II*. Sian Reynolds, trans. New York: Harper & Row, 1972.

Brown, Alexander, ed., introductory summary titled "New Britain, 1608," in *The Genesis of the United States*. Volume I. Boston: 1890.

Brown, Kathleen M. *Good Wives, Nasty Wenches, and Anxious Patriarchs: Gender, Race, and Power in Colonial Virginia*, Chapel Hill and London: University of North Carolina Press, 1996.

Burke, Peter. *Popular Culture in Early Modern Europe*, London and New York: Harper and Row, 1978.

Carlson, Marybeth. "A Trojan horse of worldliness? Maidservants in the burgher household in Rotterdam at the end of the seventeenth century" in Kloek et. al., eds., *Women of the Golden Age, An international debate on women in seventeenth-century Holland, England, and Italy*. Hilversum: Verloren 1994, 87-96.

Carlson, Marybeth. "'There is no Service Here but my Service!' Municipal Attempts to Regulate Domestic Servant Behavior in Early Modern Holland," in Wayne te Brake and Wim Klooster, eds., *Power and the City in the Netherlandic World*. Leiden and Boston: Brill, 2006, 225-234.

Carney, Judith A. *Black Rice: the African Origins of Rice Cultivation in the Americas*. Cambridge, MA: Harvard University Press, 2001.

Carpenter, A. H. "Naturalization in England and the American Colonies," in *American Historical Review* 9 (January 1904): 288-303.

Cipolla, Carlo M., *Before the Industrial Revolution: European Society and Economy, 1000-1700*. New York: W. W. Norton & Co., 1994, 3<sup>rd</sup> edition.

Cohen, David Stephen. "How Dutch were the Dutch of New Netherland?" *New York History* 62, no. 1 (1981): 43-60.

*Colonial Williamsburg Research Review*, Vol. VII (Spring 1997)

Coombs, Rod, Paolo Saviotti, and Vivien Walsh, *Economics and Technological Change*. New Jersey: Rowman and Littlefield, 1987.

Conti, Flavio, *The Grand Tour: Homes of Kings*. New York: HBJ Press, 1978.

Coppens, J. C., et al., *Vierhonderd jaar houtzagen met wind*. Sprang-Capelle, 1996.

Cronon, William, *Nature's Metropolis: Chicago and the Great West*. New York: W. W. Norton & Co., 1991.

Cronon, William. "A Place for Stories: Nature, History and Narrative," in *The Journal of American History* (March 1992): 1347-1376.

Cronon, William. *Changes in the Land: Indians, Colonists, and the Ecology of New England*. New York: Hill and Wang, 1985.

Cutcliffe, Stephen H., in his review of the textbook *Major Problems in the History of American Technology, Technology and Culture* 40.3 (1999): 648-650.

Darby, H. C. *The Draining of the Fens*. Cambridge, UK: 1956.

Davids, Karel. *The Rise and Decline of Dutch Technological Leadership: Technology, Economy, and Culture in the Netherlands, 1350-1800*. Leiden: Brill, 2008.

Davis, Natalie. "Ghosts, Kin, and Progeny: Some Features of Family Life in Early Modern France," in *Daedalus*, 106/2 (1977): 87-114.

Dekker, Rudolf M. and Lotte C. van de Pol. *The Tradition of Transvestism in Early Modern Europe*. New York: St. Martin's Press, 1997.

de Vries, Jan. *The Dutch Rural Economy in the Golden Age, 1500-1700*. New Haven: Yale University Press, 1974.

Deceulaer, Harald, "Guilds and Litigation: Conflict Settlement in Antwerp (1585-1796)," in Marc Boone and Maarten Prak, eds. *Individual, Corporate and Judicial Status in European Cities*, Leuven-Appeldoorn: Garant, 1996, 171-207.

Deetz, James. *In Small Things Forgotten: The Archaeology of Early American Life*. Garden City, New York: Anchor Press/Doubleday, 1977.

Delbourgo, James, and Nicolas Dew. *Science and Empire in the Atlantic World*, New York: Routledge, 2008.

Delbourgo, James, Simon Schaffer, Lissa Roberts, and Kapil Raj. *The Brokered World: Go-Betweens and Global Intelligence, 1770-1820*. Uppsala Studies in History of Science, Volume 35, 2009.

Dickenson, Victoria. *Drawn from Life: Science and Art in the Portrayal of the New World*. Toronto, Canada: University of Toronto Press, 1998.

Dijksterhuis, E. J. *The Mechanization of the World Picture*. London and New York: Oxford University Press, 1969.

Dorren, Gabrielle. *Het soet vergaren. Haarlems buurtleven in de zeventiende eeuw*. Haarlem, 1998.

Driver, Harold F., *Indians of North America*, Chicago: University of Chicago Press, 2<sup>nd</sup> ed., 1969.

Enthoven, Victor. "Early Dutch Expansion in the Atlantic Region, 1585-1621," in *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585-1817*. Volume I

of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830*. Leiden and Boston: Brill, 2003.

Enthoven, Victor, and Martine Julia van Ittersum, "The Mouse that Roars: Dutch Atlantic History," in *Journal of Early Modern History*, Volume 10, No. 3, (2006): 221-230.

Epperson, Gwen, "The Ten-Eyck-Boel European Connection," NYG&B RECORD volume 118, no. 1 (January 1987).

Epstein, Stephan R. and Maarten Praak, eds., *Guilds, Innovation, and the European Economy, 1400-1800*. Cambridge and New York: Cambridge University Press, 2008.

Epstein, Stephan R. "Craft Guilds, Apprenticeship, and Technological Change in Preindustrial Europe," in *Journal of Economic History*, Vol. 58 No. 3 (1998): 684-713.

Everaert, J., and J. Parmentier, eds. *International Conference on Shipping, Factories and Colonization*. Brussels: Royal Academy of Overseas Sciences, 1996-1997.

Evjen, John O. *Scandinavian Immigrants in New York 1630-1674*. Baltimore: Genealogical Publishing Co., Inc., 1972.

Fabend, Firth Haring. *A Dutch family in the Middle Colonies, 1660-1800*. New Brunswick, New Jersey: Rutgers University Press, 1991.

Fabend "Relations Between Men and Women in New Netherland," in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America*, volume four of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830* as edited by Wim Klooster and Benjamin Schmidt. Leiden and Boston: Brill, 2005.

Fausz, Frederick. "Profits, Pelts, and Power: English Culture in the Early Chesapeake, 1620- 1652." *Maryland Historian* 14 (Fall/Winter 1983): 14-30.

Fischer, Claude S. *America Calling: A Social History of the Telephone to 1940*. Berkeley: University of California Press, 1992.

Fischer, David Hackett. *Albion's Seed: Four British Folkways in America*. New York: Oxford University Press, 1989.

Forbes, R. J., "Power to 1850," in C. Singer et al., *A History of Technology*, Vol. IV, Oxford: Oxford University Press, 1958.

Foster, Stephen. *The Long Argument: English Puritanism and the Shaping of New England Culture, 1570-1700*. Chapel Hill: The University of North Carolina Press, 1991.

Friedel, Robert. *A Culture of Improvement: Technology and the Western Millennium*. Cambridge, MA: MIT Press, 2007.

Frijhoff, Willem. "Neglected Networks: Director Kieft (1602-1647) and his Dutch Relatives," in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America*, volume four of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830* as edited by Wim Klooster and Benjamin Schmidt. Leiden and Boston: Brill, 2005, 147-204.

Frijhoff, Willem, *Wegen van Evert Willemsz. Een Hollands weeskind op zoek naar zichzelf, 1607-1647*. Nijmegen, Netherlands: SUN, 1997.

Gaunt, David, "Kinship: Thin Red Lines or Thick Blue Blood," in David I. Kertzer and Marzio Barbagli, eds., *Family Life in Early Modern Times: 1500-1789, Volume One of The History of the European Family*. New Haven and London: Yale University Press, 2001.

Gehring, Charles T. *A Survey of Manuscripts Relating to the History of New Netherland*, in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America*, volume four of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830* as edited by Wim Klooster and Benjamin Schmidt. Leiden and Boston: Brill, 2005, 287-307.

Gies, Frances and Joseph. *Cathedral, Forge and Waterwheel: Technology and Invention in the Middle Ages*. New York: Harper Collins, 1994.

Carolyn Gilman, *Where Two Worlds Meet: The Great Lakes Fur Trade*. St. Paul: Minnesota Historical Society, 1982.

Gimpel, Jean, *The Medieval Machine: The Industrial Revolution of the Middle Ages*. New York: Penguin Books, 1976.

Goodfriend, Joyce D. *Before the Melting Pot: Society and Culture in Colonial New York City, 1664-1730*. Princeton: Princeton University Press, 1992.

Goodfriend, Joyce D., *Revisiting New Netherland: Perspectives on Early Dutch America*, Brill, Leiden and Boston, 2005, 151

Goody, Jack. *The Development of the Family and Marriage in Europe*. Cambridge and New York: Cambridge University Press, 1983.

Goody, Jack. *The European Family: An Historico-Anthropological Essay*. Oxford and Malden, MA: Blackwell, 2000.

Grell, Ole Peter. *Dutch Calvinists in Early Stuart London. The Dutch Church at Austin Friars, 1603-1642*. Leiden: Brill, 1989.

Grell, Ole Peter. *Calvinist Exiles in Tudor and Stuart England*. Ashgate, UK and USA: 1996.

Groenhuis, G., *De Predikanten. De sociale positie van de Gereformeerde Predikanten in de Republiek der Verenigde voor +/- 1700*. Groningen: 1977.

Gruenfelder, John K. "The Lord Wardens and Elections, 1604-1628", in *The Journal of British Studies*, Vol. 16, No. 1 (Autumn, 1976), 1-23.

Gwynn, Robin, *Huguenot Heritage: The History and Contributions of the Huguenots in Britain*, Sussex Academic Press, Brighton, GB and Portland, Oregon, 1985, 2001 second edition.

Hackel, Heidi Brayman and Catherine E. Kelly, eds., *Reading Women: Literacy, Authorship, and Culture in the Atlantic World, 1500-1800*. Philadelphia: University of Pennsylvania Press, 2008.

Hacquebord, Louwrens, "Whaling Stations as Bridgeheads for Exploration of the Arctic Regions in the Sixteenth and Seventeenth Century" in J. Everaert and J. Parmentier eds., *International Conference on Shipping, Factories and Colonization*. Brussels: Royal Academy of Overseas Sciences, 1996-1997, 289-300.

Hacquebord, Louwrens, and P. van Leunen, eds., "De arctische walvisvaart" in *400 Jaar Willem Barentsz*. Harlingen: 1996.

Haks, Donald. *Huwelijk en gezin in de 17de en 18de eeuw. Processtukken en moralisten over aspecten van het laat 17de-eeuwse en 18de-eeuwse gezinsleven*. Assen 1982; Utrecht 1985 tweede druk.

Hart, Simon. "Onderzoek naar de samenstelling van de bevolking van Amsterdam in de 17e en 18e eeuw, op grond van gegevens over migratie, huwelijk, beroep en alfabetisme," in Simon Hart, *Geschrift en Getal*, Hollandse Studien 9 (Dordrecht: Amicitia in Bloemendaal, 1976), 115-182.

Hart, Simon. *Geschrift en Getal*. Hollandse Studien 9. Dordrecht: Amicitia in Bloemendaal, 1976.

Hart, Simon, "The Dutch and North America in the First Half of the Seventeenth Century: Some Aspects," in *Medelingen van de Nederlandse Vereniging voor Zeegeschiedenis*, No. 20 (March 1970).

Hatfield, April Lee. *Atlantic Virginia: Intercolonial Relations in the Seventeenth Century*. Philadelphia: University of Pennsylvania Press, 2004.

Hills, R. L. *Power from wind. A history of windmill technology*. Cambridge: Cambridge University Press, 1994.

Hindle, Brooke. "The Artisan during America's Wooden Age," in Carroll W. Pursell, Jr., ed., *Technology in America: A History of Individuals and Ideas*. Cambridge and London: The MIT Press, 1981, second printing 1991.

Hindle, Brooke, and Steven Lubar, *Engines of Change: The American Industrial Revolution, 1790-1860*. Washington, D. C. and London: Smithsonian Institution Press, 1986, third printing, 1991.

Hoff, Henry. "The deVries Family of Tappan, New York: A study in Assimilation," *The American Genealogist*, whole numbers 287-288, July/October 1997, Vol. 72, Nos. 3-4, 345 and 347.

Hoffman, William J. "Random Notes Concerning Settlers of Dutch Descent: Part I." *The American Genealogist*, whole number 114, Vol. 29, no. 2 (April 1953).

Howell, Martha C. *Women, Production, and Patriarchy in Late Medieval Cities*, Chicago and London: University of Chicago Press, 1986.

Howell, Martha. "Fixing Movable: Gifts by Testament in Late Medieval Douai," *Past & Present* 150 (1996).

Howell, Martha. *The Marriage Exchange: Property, Social Place, and Gender in Cities of the Low Countries, 1300-1550*. Women in Culture and Society Series. Paperback edition. Chicago: University of Chicago Press, 1998.

Israel, Jonathan. *The Dutch Republic: Its Rise, Greatness, and Fall, 1477-1806*. Oxford: Clarendon Press, 1995.

Jacobs, Jaap. *Een zegenrijk gewest: Nieuw-Nederland in de Zeventiende Eeuw* (A pleasant prospect: New Netherland in the seventeenth century). Leiden: Prometheus-Bert Bakker, 1999. See also the English version now available, *New Netherland: A Dutch Colony in Seventeenth-Century America*. Leiden and Boston: Brill, 2005.

Jeannin, Pierre. *Merchants of the Sixteenth Century*. New York: Harper & Row, 1972.

Keats-Rohan, K. S. B. *Prosopography: Approaches and Applications. A Handbook*, Coel Enterprises Ltd., 2007.

Kennedy, Lawrence W. *Planning the City upon a Hill: Boston since 1630*. Amherst, Massachusetts: University of Massachusetts Press, 1992.

Kennedy, Mark E. "Fen Drainage, the Central Government, and Local Interest: Carleton and the Gentlemen of South Holland," in *The Historical Journal*, Vol. 26, No. 1 (March, 1983):15-37.

- Kicza, John E., "Patterns in Early Spanish Overseas Expansion," *William and Mary Quarterly*. Third Series, volume 49, No. 2 (April 1992): 229-253.
- Kindleberger, Charles P., *World Economic Primacy: 1500-1990*. New York and Oxford: Oxford University Press, 1996.
- Kirk, R. E. G. and Ernest Kirk, "Returns of Aliens Dwelling in the City and Suburbs of London from the Reign of Henry VIII to that of James I," *Huguenot Society* two volumes in one called Vol. X, three parts, Aberdeen Scotland: 1900-1908.
- Kloek, Els. "Introduction," in Els Kloek, et. al., eds., *Women of the Golden Age, An international debate on women in seventeenth-century Holland, England, and Italy* Hilversum: Verloren 1994, 9-18.
- Kloek, Els, Nicole Teeuwen, and Marijke Huisman, eds. *Women of the Golden Age, An international debate on women in seventeenth-century Holland, England, and Italy*. Hilversum: Verloren 1994.
- Koke, Richard J. *American Landscape and Genre Paintings in the New-York Historical Society*, Vol. I. Boston: G. K. Hall, 1982.
- Koorn, Florence W. J. and H. Roodenburg, "Kopsters: Vrouwen in de Marge van de Gezondheidszorg," in *Spiegel Historiae*, 19(3), (1984): 125-129.
- Lamb, Martha J. *History of the City of New York: Its origin, Rise, and Progress*. Vol. I. New York: A. S. Barnes and Company, 1877.
- Lancaster, Lorraine, "Kinship in Anglo-Saxon Society-I," *British Journal of Sociology*, 9, (1958): 231-250.
- Lancaster, Lorraine, "Kinship in Anglo-Saxon Society-II," *British Journal of Sociology*, 9, (1958):359-377.
- Lesger, C. M. *Hoorn als Stedelijk Knooppunt. Stedensystem tijdens de late middeleeuwen envroegmoderne tijd*. Hollandse Studien 26. Hilversum: Uitgeverij Verloren, 1990.
- Lindley, Keith. *Fenland Riots and the English Revolution*. Ashgate, 1982.
- Loyn, H. R. "Kinship in Anglo-Saxon England," *Anglo-Saxon England*, 3, (1974).
- Luu, Lien Bich, *Immigrants and the Industries of London, 1500-1700*. Aldershot England: Ashgate, 2005.

- Lyon, Elva Kathleen. "Origins of Some New Netherland Families: Ennes—Barents—Goderis—Hibon—Lewis—Bradt," *NYG&B RECORD* Vol. 127, No. 4 (October 1996): 202-204.
- Lyon, Elva Kathleen. "Joost Goderis, New Amsterdam Burgher, Weighmaster, and Dutch Master Painter's Son," *NYG&B RECORD*, Vol. 123, No. 4 (1992): 193-202.
- Lyon, Elva Kathleen. "The Transfer of Technology from the Dutch Republic to New Netherland," in Everaert, J., and J. Parmentier, eds., *International Conference on Shipping, Factories and Colonization*. Brussels: Royal Academy of Overseas Sciences, 1996-1997, 333-342.
- Lyon, Elva Kathleen. "Power by Construction: Which Cities Where? Problems in Sixteenth Century Timber Supplies, Sawmills, and Labor," in Wayne te Brake and Wim Klooster, eds., *Power and the City in the Netherlandic World*. Leiden and Boston: Brill, 2006, 103-122.
- Lyon, Elva Kathleen. "The New Amsterdam Weighhouse," in *de Halve Maan*, Vol. LXIX, No. 1 (Spring 1996): 1-10.
- Macfarlane, Alan, in his Radcliffe-Brown Lecture in Social Anthropology, "On Individualism," in the *Proceedings of the British Academy*.
- Merchant, Carolyn. *Ecological Revolutions: Nature, Gender, and Science in New England*. Chapel Hill and London: University of North Carolina Press, 1989.
- Meurs, Paul. "Nieuw Amsterdam op Manhattan 1625-1660," in *Vestingbouw overzee, militaire architectuur van Manhattan tot Korea*. Vestingbouwkundige bijdragen Stichting Menno van Coehoorn. Zutphen: Walburg Pers, (1996):19-31.
- Marnef, Guido, *Antwerp in the Age of Reformation: Underground Protestantism in a Commercial Metropolis, 1550-1577*. Baltimore, MD: Johns Hopkins University Press, 1996.
- Merwick, Donna. *Possessing Albany, 1630-1710: The Dutch and English Experience*. New York: Cambridge University Press, 1990.
- Meyer, D. C. Jr., "De eerste houtzaagmolen," in *Eigen Haard* (1889): 358-360.
- Middleton, Simon. *From Privileges to Rights: Work and Politics in Colonial New York City*. Philadelphia: University of Pennsylvania Press, 2006.
- Mitchell, David M., "'It will be easy to make money': Merchant Strangers in London, 1580-1680," in C. Lesger and L. Noordegraaf, eds., *Entrepreneurs and Entrepreneurship in Early Modern Times: Merchants and Industrialists within the Orbit of the Dutch Staple Market*. Hollandse Historische Reeks 24. Den Haag: Drukkerij Smits B. V., 1995.

Mitchell, Laura J. *Belongings. Property, Family, and Identity in Colonial South Africa: An Exploration of Frontiers, 1725-1830*. New York: Columbia University Press, 2009.

Mitterauer, and Reinhard Sieder. *The European Family: Patriarchy to Partnership from the Middle Ages to the Present*. Chicago: University of Chicago Press, 1982.

Montias, John Michael. *Artists and Artisans in Delft: A Socio-Economic Study of the Seventeenth Century*. Princeton: Princeton University Press, 1982.

Morse, Jedidiah, *Geography Made Easy: Being an Abridgement of the American Universal Geography*, 10<sup>th</sup> edition, printed by J. T. Buckingham for Thomas Andrews, Boston, 1806.

Moyal, Ann. "The History of Telecommunication in Australia: Aspects of the Technological Experience, 1854-1930", in Nathan Reingold and Marc Rothenberg, eds., *Scientific Colonialism: A Cross-Cultural Comparison. Papers From a Conference at Melbourne, Australia, 25-30 May 1981*. Melbourne: Smithsonian Institution Press, 1981, 35-54.

Mumford, Lewis. *Technics and Civilization*. New York: Harcourt Brace and Co., 1934.

Narret, David, *Inheritance and Family Life in Colonial New York City*. Ithaca: Cornell University Press, 1992.

Nevinson, J. L. "Emanuel van Meteren, 1535-1612", *Huguenot Society's Proceedings*, Vol. XIX, No. 4 (1956): 128-145.

Nijgh, Mr. Y. H. M., "Montens," in *Jaarboek van het Centraal Bureau voor Genealogie*, 22 (1968): 49.

Norton, Mary Beth. "'Either Married or to Bee Married': Women's Legal Inequality in Early America," in Carla Gardina Pestana and Sharon V. Salinger, eds., *Inequality in Early America*. Hanover N.H. and London: Dartmouth College/University Press of New England, 1999.

Nye, David E. *Narratives and Spaces: Technology and the Construction of American Culture*. New York: Columbia University Press, 1997.

Ozment, Steven. *Flesh and Spirit: Private Life in Early Modern Germany*, Viking Press, 1999.

Palliser, D. M., *The Age of Elizabeth: England under the later Tudors, 1547-1603*. London: Longman, 1983.

Pearson, Jonathan. *Contributions for the Genealogies of the First Settlers of the Ancient*

*County of Albany, From 1630-1800*. Baltimore: Genealogical Publishing Co., Inc., 1978.

Peter Spier, *Of Dikes and Windmills*. Garden City, NY: Doubleday, 1969.

Pettigree, Andrew. *Foreign Protestant Communities in Sixteenth Century London*. Oxford: Clarendon Press, 1986.

Portinara, Pierluigi and Franco Knirsch, *The Cartography of North America, 1500-1800*. Greenwich, Connecticut: Brompton Books Corp., 1987.

Porter, Theodore M., *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton, New Jersey: Princeton University Press, 1995.

Postma, Johannes and Victor Enthoven, eds., *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585-1817*. Volume I of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830*, Leyden and Boston: Brill, 2003.

Postma, Johannes, "A Reassessment of the Dutch Atlantic Slave Trade" in Johannes Postmas and Victor Enthoven, eds., *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585-1817*. Volume I of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830*, Leyden and Boston: Brill, 2003.

Pursell, Carrol W. Jr. Presidential Address for the Society of the History of Technology meeting in Uppsala, Sweden on August 19, 1992, as published in *Technology and Culture*, July 1993, vol. 34 no. 3 (July, 1993): 637.

Pursell, Carroll W. Jr. *Technology in America: A History of Individuals and Ideas*. Cambridge and London: The MIT Press, 1981, 2<sup>nd</sup> edition 1991.

Rabb, Theodore K. *The Struggle for Stability in Early Modern Europe*. New York: Oxford University Press, 1975.

Reynolds, John. *Windmills and Watermills*. New York: Praeger Publishers, 1975.

Reynolds, Terry S. *Stronger than a Hundred Men: A History of the Vertical Water Wheel*. Baltimore, MD: Johns Hopkins University Press, 1983.

Richards, John F. *The Unending Frontier: An Environmental History of the Early Modern World*. Berkeley, CA: University of California Press, 2003.

Rink, Oliver A. *Holland on the Hudson: An Economic and Social History of Dutch New York*. Ithaca and London: Cornell University Press, 1986.

Roberts, Lissa L., Simon Shaffer, and Peter Dear, eds., *The Mindful Hand: Inquiry and Invention from the Late Renaissance to Early Industrialization*. Chicago: University of Chicago Press, 2008.

Robertson, James. "Stuart London and the Idea of a Capital City," *Renaissance Studies* (Great Britain) volume 15, No.1, (2001): 37-58.

Rosen, Deborah A. "Women and Property across Colonial America: A Comparison of Legal Systems in New Mexico and New York," *The William and Mary Quarterly*, vol. 60 no. 2 (April 2003): 355-381.

Roper, Lyndal. *The Holy Household: Women and Morals in Reformation Augsburg*. Oxford: Clarendon Press, 2001 reprint.

Sabean, David Warren. *Kinship in Neckarhausen, 1700-1870*. Cambridge: Cambridge University Press, 1998.

Sabean, David Warren, Simon Teuscher, and Jon Mathieu, eds. *Kinship in Europe: Approaches to Long-Term Developments (1300-1900)*. New York: Berghahn Books, 2007.

Schama, Simon. *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age*. New York: Knopf, 1987.

C. H. Slechte and N. Herwijer, *Het Waagstuk: De geschiedenis van waaggebouwen en wegen in Nederland*. Amsterdam: De Bataffsche Leeuw, 1990.

Schmal, H., "Patterns of Urbanization and De-urbanization in the Netherlands between 1650 and 1850," in Herman van der Wee, ed., *The Rise and Decline of Urban Industries in Italy and the Low Countries (Late Middle Ages-Early Modern Times)*. Leuven: Leuven University Press, 1988.

Schmidt, Benjamin. *Innocence Abroad: The Dutch Imagination and the New World, 1570-1670*. Cambridge: Cambridge University Press, 2001.

Schnurmann, Claudia. *Representative Atlantic Entrepreneur: Jacob Leisler, 1640-1691*, in Johannes Postma and Victor Enthoven, eds., *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585-1817*. Volume I of the series *The Atlantic World: Europe, Africa, and the Americas, 1500-1830*, Leyden and Boston: Brill, 2003, 259-283.

Schoor, Meindert. *Geschiedenis van Dokkum, hart van de noordelijk Oostergo*. Dokkum: Stichting Historia Doccumensis, 2004.

Scouloudi, Irene. *Returns of Strangers in the Metropolis, 1593, 1627, 1635, 1639: a Study of an Active Minority*. Huguenot Society of London, Vol. LVII, 1985.

Seely, Bruce E., "Historical Patterns in the Scholarship of Technology Transfer," *Comparative Technology Transfer and Society*, 1(1) (2003): 7-48.

Shapin, Steven, *A Social History of Truth: Civility and Science in Seventeenth Century England*, The University of Chicago Press, Chicago and London, 1994.

Shapin, Steven. "The Invisible Technician," *American Scientist* 77: 554-563.  
Shaw, John. *Water Power in Scotland, 1550-1870*. Edinburgh: John Donald Publishers Ltd., 1984.

Shaw, William A., ed., "Denizations and Naturalizations of Aliens in England and Ireland," *The Publications of the Huguenot Society of London*, Vol. XVIII, Lymington: 1911.

Smith, Pam H. *The Body of the Artisan: Art and Experience in the Scientific Revolution*. Chicago: University of Chicago Press, 2004.

Sneller, Agnes A. "Reading Jacob Cats," and the response of A. Th. Van Deursen, "Jacob Cats and the married woman," in Els Kloek, et. al., eds., *Women of the Golden Age, An international debate on women in seventeenth-century Holland, England, and Italy*. Hilversum: Verloren 1994, 21-38.

Spier, Peter, *Of Dikes and Windmills*, Doubleday and Co., Inc., Garden City, NY 1969.

Staudenmaier, John. *Technology's Storytellers*. Cambridge, MA: MIT Press, 1985.

Steinberg, Theodore. *Nature Incorporated: Industrialization and the Waters of New England*. New York: Cambridge University Press, 1991.

Stewart, Mart A. *"What nature suffers to groe": life, labor, and landscape on the Georgia coast, 1680-1920*. Athens, GA: University of Georgia Press, 1996.

Stine, Jeffrey K. and Tarr, Joel A. "At the Intersection of Histories: Technology and the Environment," *Technology and Culture*. (1998).

Stockham, Peter, ed. *Little Book of Early American Crafts and Trades*. New York: Dover Publications, Inc., 1976.

Stokes, I. N. Phelps. *Iconography of Manhattan Island, 1498-1909*. 6 vols. New York: Robert H. Dodd, 1915-1928.

Te Brake, William. "Review of Karel Davids, *The Rise and Decline of Dutch Technological Leadership: Technology, Economy, and Culture in the Netherlands, 1350-1800*." EH.Net Economic History Services, Mar 5 2009.

URL:<http://eh.net/bookreviews/library/1398>

Torrey, Volta. *Windcatchers: American Windmills of Yesterday and Tomorrow*. Brattleboro, VT: Stephen Greene Press, 1976.

Thirsk, Joan. *Economic Policy and Projects*. Cambridge, UK: 1978.

Thornton, John. *Africa and Africans in the Making of the Atlantic World, 1400-1800*. Cambridge: Cambridge University Press, 1998.

Thrupp, Sylvia. *The Merchant Class of Medieval London, 1300-1500*. Chicago: University of Chicago Press, 1948.

Ulrich, Laurel Thatcher. *The Age of Homespun: Objects and Stories in the Creation of an American Myth*. New York: Alfred A. Knopf, 2001.

Ulrich, Laurel Thatcher. *Good Wives: Image and Reality in the Lives of Women in Northern New England, 1650-1750*. New York: Oxford University Press, 1983.

Unwin, George. *The Gilds and Companies of London*. London, 1908.

Unwin, George. *Industrial organization in the Sixteenth and Seventeenth Centuries*. New York: A. M. Kelley, 1971.

Van Berkel, Klaas. *Isaac Beeckman en de mechanisering van het wereldbeeld*. Amsterdam: Rodopi, 1983.

Van der Pol, Lotte. "The lure of the big city. Female migration to Amsterdam," in Els Kloek, et. al., eds., *Women of the Golden Age, An international debate on women in seventeenth-century Holland, England, and Italy*. Hilversum: Verloren 1994, 73-81.

Van der Woude, Ad, Jan de Vries, and Akira Hayami. *Urbanization in History: A Process of Dynamic Interactions*. Oxford: Clarendon Press, 1990.

Van Deursen, Arie Theodore. *Plain lives in a golden age: popular culture, religion, and society in seventeenth-century Holland*, translated by Maarten Ultee. Cambridge University Press, New York, 1991.

Van Eeghen, I. H. "De Familie Schuylder/Schuyler in Amsterdam en Fort Oranje (Albany), *Centraal Bureau voor Genealogie*, Jaarboek, Deel 36, (1982).

Van Eeghen, Isabella Henriette. *De gilden; theorie en praktijk*. Bussum: C. A. J. van Dishoeck, 1965.

Van Goor, J., "Dutch Factories in Asia (1600-1800): Bridgeheads of Political, Economic, and Cultural Interaction" in J. Everaert and J. Parmentier, eds. *International Conference on Shipping, Factories and Colonization*. Brussels: Royal Academy of Overseas Sciences, 1996-1997, 71-92.

Van Heel, S. A. C. Dudok. "Twee figuren te veel: De familie Cat en hun memorietafel uit 1517," *Jaarboek van het Centraal Bureau voor Genealogie* 50 (1996).

Van Laer, A.J.F. in *The Dutch Settlers Society of Albany Yearbook*, Albany, N.Y., vol. IV 1928-1929.

Van Nierop, Henk. *The nobility of Holland: From knights to regents, 1500-1650*. Cambridge: Cambridge University Press, 1984.

Van Ruymbeke, Bertrand, "The Walloon and Huguenot Elements in New Netherland and Seventeenth Century New York: Identity, History and Memory," in Joyce D. Goodfriend, ed., *Revisiting New Netherland: Perspectives on Early Dutch America*, volume IV of The Atlantic World series, Brill, Leiden and Boston, 2005, 41-54.

Van Winkle, Edward. *Bergen Book. Year Book of the Holland Society of New York*, Vol. 2, 1914.

Van Zwieten, Adriana. "The Orphan Chamber of New Amsterdam," in *The William and Mary Quarterly*, 3<sup>rd</sup> Series, Vol. LIII, No. 2 (April 1996).

Van de Ven, G. P. van de. *Man-Made Lowlands: History of Water Management and Land Reclamation in the Netherlands*. Uitgeverij Matrijs, Utrecht, NL 1993.

Veldman, Ilja M., "Representations of Labor and Diligence in Late-Sixteenth-Century Netherlandish Art: The Secularization of the Work Ethic," in Wheelock, Arthur K. Jr., and Seeff, Adele, eds., *The Public and Private in Dutch Culture of the Golden Age*, (Newark: University of Delaware Press, 2000), 123-140.

Venema, Janny. *Beverwijck: A Dutch Village on the American Frontier, 1652-1664*, (Albany, New York: SUNY at Albany Press), 2003

Voorhees, D. W., C. Schnurmann, and H. Wellenreuther, eds., *The Jacob Leisler Papers: Reconstructing Atlantic Networks, 1639-1691* Philadelphia: University of Pennsylvania Press, forthcoming.

Voss, Peter. "A Community in Decline? The Dutch Merchants in Bourdeaux, 1650-1715," in C. Lesger and L. Noordegraaf, eds. *Entrepreneurs and Entrepreneurship in Early Modern Times: Merchants and Industrialists within the Orbit of the Dutch Staple Market*. Hollandse Historische Reeks XXIV. Den Haag: Drukkerij Smits B.V., 43-62.

Wallerstein, Immanuel. *Modern World System*. Part 2. New York: Academic Press, 1974.

Waters, Deborah Dependahl, ed. *Elegant Plate: Three Centuries of Precious Metals in New York City, Museum of the City of New York*. New York: Museum of the City of New York. Hanover, New Hampshire and London, England: Distributed by the University Press of New England, 2000.

Webb, Steven Saunders, *1676: The End of American Independence*. Syracuse: Syracuse University Press 1984, 1995 paperback.

Westra, Frans. "Lost and Found: Cryn Fredericx---A New York Founder" in *de Halve Maan*, published by the Holland Society of New York, Vol. LXXI, Number One, Spring 1998, 7-16.

Wheeler, Robert G. "The Master Craftsmen of the Seventeenth Century." *De Halve Maen* 38, no. 2 (1963): 9-10.

White, Richard. *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815*. Cambridge: Cambridge University Press, 1991.

White, Richard. *The Organic Machine: the Remaking of the Columbia River*. New York: Hill and Wang, 1995.

White, Richard. *The Middle Ground: Indians, Empires, and Republics in the Great lakes Region, 1650-1815*. Cambridge, UK: 1991.

Wilcoxon, Charlotte. "Ships and Workboats of New Netherland, 1609-1674," in *A Beautiful and Fruitful Place: Selected Rensselaerswijck Seminar Papers*. Nancy Zeller and Charles Gehring, eds., New Netherland Publishing, New York, 1991. 53-70.

Williams, Penry. *The Tudor Regime*. Oxford: Clarendon Press, 1979.

Wilson, Charles H., *England's Apprenticeship 1603-1763*. London and New York: St. Martin's Press, 1965.

Wilson, James Grant ed. *The memorial history of the City of New-York, from its settlement to the year 1892*. New York: New York History Co., 1892-1893.

Wrightson, Keith, *English Society, 1580-1680*, London: Unwin Hyman, 1982.

Yntema, Richard J. "Entrepreneurship and Technological Change in Holland's Brewing Industry, 1500-1580," in L. Noordegraaf and C. Lesger, eds., *Entrepreneurs and Entrepreneurship in Early Modern Times: Merchants and Industrialists Within the Orbit of the Dutch Staple Market*, Hollandse Historische Reeks XXIV (Den Haag: Drukkerij Smits B. V., 1995), 185-201.

## Websites

Jamestown

[http://research.history.org/Archaeological\\_Research/Research\\_Articles/ThemeTown/Jamestown.cfm](http://research.history.org/Archaeological_Research/Research_Articles/ThemeTown/Jamestown.cfm)

Loveland

<http://homepages.rootsweb.ancestry.com/~djmurphy/loveland/ctrefs.htm>

G. Helder

<http://www.angelfire.com/vt/sneuper/dokkumhuw.htm>

Nan Porsius

<http://www.bataviawerf.nl/014houtbatavia.htm>

## Dissertations

Degryse, Karel. "De Antwerpse fortuinen. Kapitaalaccumulatie, -investering en – rendement te Antwerpen in de 18de eeuw." Ph. D. diss., Ghent University, 1985.

Maika, Dennis J. "Commerce and Community: Manhattan Merchants in the Seventeenth Century" (Ph. D. diss., New York University, 1995).

Shattuck, Martha Dickinson. "A Civil Society: Court and Community in Beverwijk, New Netherland, 1652-1664" (Ph. D. diss., Boston University, 1993)

Shaw, Susan Elizabeth. "Building New Netherland: Gender and Family Ties in a Frontier Society" (Ph. D. diss., Cornell University, 2000)

Sukoharsono, E. G., "A Power and Knowledge Analysis of Indonesian Accounting History: Social, Political, and Economic Forces Shaping the Emergence and Development of Accounting" (Ph. D. diss., University of Wollongong, 1995).

Van Oers, Ronald. "Dutch town planning overseas during VOC and WIC rule (1600-1800), Ph. D. dissertation, Technische Universiteit te Delft, The Netherlands, 2000

Van Zandt, Cynthia. "Negotiating Settlement: Colonialism, Cultural Exchange and Conflict in Early Colonial Atlantic North America, 1580-1660" (Ph. D. diss., University of Connecticut, 2000).

Van Zwieten, Adriana. "A Little Land to Sow Some Seeds." Ph. D. diss., Temple University, Philadelphia, 2001.

## Curriculum Vitae

Elva Kathleen Lyon

### Education

1963-1966, BA

Syracuse University, Syracuse, New York.

Psychology major, Sciences minor.

1976-1977, MST

Union College, Schenectady, New York

Master's in Science Teaching.

Summer, 1990

IBIS Programme, Oxford University

Early Modern English History

1995-1998 and 2000-2001, MA

Rensselaer Polytechnic Institute, Troy, New York.

Science, Technology, and Society.

2002-2010, Ph. D.

Rutgers University, New Brunswick, New Jersey.

Early Modern History, History of Technology.

### Seminars, Research, and Teaching

July 2003-July 2005

Research Assistant, Thomas Alva Edison Papers, Livingston

Campus, Rutgers University, New Jersey.

September 2001-May 2003

Assistant Fellow and Graduate Fellow, Rutgers Center for  
Historical Analysis, "Industry and the Environment," Rutgers  
University, New Jersey.

Spring 2000

Columbia-Green Community College, adjunct faculty, statistics.

1968-1998

Educator of science, especially physics, from 1968-1998, both high and college  
levels.

### Publications

Lyon, Elva Kathleen. "Power by Construction: Which Cities Where? Problems in Sixteenth Century Timber Supplies, Sawmills, and Labor," in Wayne te Brake and Wim Klooster, eds., *Power and the City in the Netherlandic World*. Leiden and Boston: Brill, 2006, 103-122.

Lyon, Elva Kathleen. "The Transfer of Technology from the Dutch Republic to New Netherland," in Everaert, J., and J. Parmentier, eds., *International Conference on Shipping, Factories and Colonization*. Brussels: Royal Academy of Overseas Sciences, 1996-1997, 333-342.

Lyon, Elva Kathleen. "Origins of Some New Netherland Families: Ennes—Barents—Goderis—Hibon—Lewis—Bradt," *NYG&B RECORD* Vol. 127, No. 4 (October 1996), 203.

Lyon, Elva Kathleen. "The New Amsterdam Weighhouse," in *de Halve Maan*, Vol. LXIX, No. 1 (Spring 1996): 1-10.

Lyon, Elva Kathleen. "Joost Goderis, New Amsterdam Burgher, Weighmaster, and Dutch Master Painter's Son," *NYG&B RECORD*, Vol. 123, No. 4 (1992): 193-202.