A Question of Value:
The Problem of Natural, National, and Native Origins in the Currency Paintings of John Haberle

A thesis submitted by

Christine Garnier

In partial fulfillment of the requirements for the degree of

MASTER OF ARTS

in

Art History

TUFTS UNIVERSITY

May 2015

ADVISER:

Eric Rosenberg

Abstract

Since the publication of Alfred Frankenstein's *After the Hunt*, scholars have interpreted the trompe l'oeil currency paintings of John Haberle in relation to the arrest of William Harnett on counterfeiting charges. In the literature, Haberle's paintings are often tangentially referenced to period issues of forgery, consumerism, and lowbrow illusionistic tricks. Yet close observation of these paintings reveals a complex web of visual relationships that touch on larger issues of the value of representation in nineteenth-century society. This study explores how money functioned in tandem with the evolving theory of Social Darwinism, a tool through which many parallel discourses were threaded, interpreted, and measured in a discourse on national identity and bimetallism in the 1880s. I consider three case studies on how banknotes functioned as carriers of historicized national imagery by exploring topics of the circulation of landscape engravings through *Can You Break a Five?*, the influence of assimilation politics on the symbol of the American Indian Queen in *U.S.A.*, and the impact of Charles Darwin's natural selection theory on models of time and progress in the 1880s in *The Changes of Time*. This project counters the tangential interpretations of Haberle's paintings by closely examining his banknote compositions, placing the works within a historical context relating to a period emphasis on the role of origins and natural selection in nationalism.

Acknowledgements

I must begin first and foremost by thanking Eric Rosenberg for his encouragement, insight, patience, and advocacy from the inception of this project to the final draft. He provided much needed guidance, inspiration, and perspective over the past two years, particularly in moments of self-doubt. Thank you to Daniel Abramson and Emily Gephart for being part of my committee and providing valuable feedback and kind words of inspiration. I am also grateful for the chance to work with so many incredible scholars in the Department of Art and Art History as I develop as an academic, both within the classroom and externally. In addition, I also would like to thank Amy West, Rosalie Bruno, and Christine Cavalier for their constant reassurance throughout this process and program.

I would like to extend my gratitude to Dean Robert Cook, Laura Wood, and William H. Koster for supporting this project through a Tisch Library Graduate Fellowship. I am indebted to Chao Chen and Christopher Barbour who helped me examine the historical context of currency in surprising and innovative ways during the initial stages of this project. In addition, I would also like to thank Hillery York at the National Numismatic Collection under the National Museum of American History and the members of the Archives of American Art under the Smithsonian Institution for their hospitality while researching on the National Bank Note Program and John Haberle. I also would like to thank Edward Nelson, Elmar Mertens, and David Lopez-Salido for introducing me to the fields of monetary theory and economic history, particularly the subject of late

nineteenth-century banking panics that laid the intellectual groundwork for this thesis project.

I am deeply indebted to my family and friends who have supported me through this process. I must first thank my fiancée, Steve Hair, and my parents for their support and reassurance during moments of uncertainty and panic, of which there were many. Thank you to my friends who have supported my choice to pursue graduate work and reconfirm that decision in moments of self-doubt. More specifically, I would have never made it through this program without the help of my incredible cohort. You have been supportive since the first day of the program by providing moments of inspiration and comic relief. My training as a scholar of art history has been rewarding because of you.

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Introduction: The 'Con' Man

Trompe l'oeil still-life paintings were created with the intention to deceive. Often, viewers misconstrued a two-dimensional painted surface for reality, conflating the object and its representation. These representations subtly questioned the rapid changes occurring in a modern-industrial society, as shown by the display of banal commodities. The most popular theme was money, the period signifier of American material culture. The American trompe l'oeil still-life painter John Haberle showcased three, flat paintings of paper currency in the late 1880s that cemented his legacy as a master of illusionism. These include *Can You Break a Five?* exhibited at the National Academy of Design in January of 1889 (fig. 1), *U.S.A* at the Art Institute of Chicago in June of 1889 (fig. 2), and *The Changes of Time* at the St. Louis Exposition in 1891 (fig 3).[1] These three paintings were most likely in the same studio and at the same time. Consequently, the manager of Churchill's Saloon in Detroit purchased and displayed these paintings together, among other works by Haberle. Through the use of flat fiat money in three works of art, Haberle crafted visual tricks that were founded on contemporary issues of currency reform and philosophical debates on the origin of value.

The historical significance of these paintings went overlooked for almost eighty years until Alfred Frankenstein published his famous monograph on American trompe l'oeil, *After the Hunt,* in 1969. In this work, Frankenstein

[1] John Haberle Papers, Archives of American Art, Smithsonian Institution [roll 2813].

introduced Haberle in the art historical literature by framing his interest in money strictly in relation to the period problem of forgery and the famous arrest of William Harnett. In 1886, Harnett was arrested by the Secret Service on charges of counterfeiting for his realistic painting of a national banknote in *Still Life – Five-Dollar Bill* from 1877, the first American still life to focus solely on currency (fig. 4). This arrest elevated his name to the national level in the press, cementing his legacy in American art.[2] Frankenstein surmised that Haberle "was infuriated by [the] illegal status [of reproducing currency]," placing Haberle in relation to Harnett.[3] In an exhibition on currency still lifes, Bruce Chambers strengthened this association by noting that Haberle's interest in currency started in tandem with the peak of Harnett's fame, as proven by Haberle's creation of *Reproduction* (1886-7, fig. 5) and *Imitation* (1887, fig. 6).[4] Nicolai Cikovsky suggested that Haberle "hoped to capitalize" on the success of Harnett's painting and "flirt with criminality" through the continued use of the theme and illusionism.[5] It should not be denied that there is a correlation between Haberle's choice of theme and Harnett's arrest. However, thematic inspiration does not fully explain Haberle's appropriation, as indicated by the dramatic difference in

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[2] For a full report of the counterfeiting issue regarding both Harnett and Haberle, see Bruce Chambers, *Old Money: American Trompe L'oeil Images of Currency* (New York: Berry-Hill Galleries, 1988), 22-24.

[3] Alfred Frankenstein, *After the Hunt: William Harnett and Other American Still Life Painters 1870-1900* (Berkeley, CA: University of California, 1969), 116.

[4] Chambers, *Old Money,* 24-36.

[5] Nicholai Cikovsky, Jr., "'Sordid Mechanics' and 'Monkey-Talents': The Illusionistic Tradition," in *William M. Harnett*, edited by Doreen Bloger, Marc Simpson, and John Wilmerding (New York: Harry N. Abrams and the Metropolitan Museum of Art, 1992), 25-26.

composition between *Still-Life – Five Dollar Bill* and the three paintings within the scope of this study.[6]

This reading of Haberle in relation to Harnett limits historical analysis strictly to the theme of counterfeiting, relegating both Haberle and his paintings to a secondary status in the art historical canon.[7] Interpretations of these paintings often stop simply with the subject of money. In her essay "Money" from the Spring 2009 issue of *American Art*, Margaret Lovell observes that "money seems to close discussion: its terms are absolute, flat, unidimensional [sic]. It has face value and that's it."[8] She closes her essay with the observation that those who write on Haberle "do not single out these [paintings] for lengthy discussion and color illustration. Good for a semipatronizing chuckle, as at a well-tuned visual pun, they are usually passed over for more seemingly complex, and interesting, works."[9] The goal of this investigation is to counteract this trend in academic literature by closely analyzing the complex compositions of banknotes in these still lifes. This study explores how money functioned in tandem with the evolving theory of Social Darwinism, a tool through which many parallel discourses were

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[6] For example, Haberle's paintings *One Dollar Bill* and *Twenty Dollar Bill* (both from 1890) quote the exact format of Harnett's famous painting, while *Can You Break a Five?* and *U.S.A.* deter from this visual formula in regards to title, composition, and inclusion of non-monetary objects.

[7] Elizabeth Johns has already commented on how Frankenstein relegated American trompe l'oeil painters who were not Harnett to a secondary status, even ranking Haberle as the third best painter after Harnett and Peto in *After the Hunt.* Johns's references to Frankenstein's commentaries can be found in Frankenstein, *After the Hunt*, 7. For her full critique on the historiography of Harnett, see Elizabeth Johns, "Harnett Enters Art History," in *William M. Harnett*, edited by Doreen Bloger, Marc Simpson, and John Wilmerding (New York: Harry N. Abrams and the Metropolitan Museum of Art, 1992), 105.

[8] Margaret Lovell, "Money," *American Art* 23.1 (Spring 2009): 5.

[9] Lovell, "Money," 6.

threaded, interpreted, and measured in relation to national identity formation and bimetallism in the 1880s. The political debate on bimetallism from 1873 to 1896 raised questions about the importance of origins in the estimation of value and the volatile nature of representation in material culture. I will propose three case studies that examine how the physical and visual nature of these notes elicits a dialog on issues of visual mediation between citizen and national landscape, the sterilization of the Indian Queen from public imagery during the Indian Question, and the conflation of monetary and natural specie in scientific debate.

The Genuine Life of a Wit

Haberle's biography offers unique insight into how he might have interpreted the visual role of money in late-nineteenth century American society. Haberle was born to a family of German immigrants in 1856. He grew up in New Haven, Connecticut where he trained as a lithographer starting at the age of fourteen. He continued this career from 1874 to 1880, moving between New Haven, Providence, Montreal, and New York City in pursuit of employment. Haberle's associations with the Yale Peabody Museum of Natural History started as early as the summer of 1876, as confirmed by Peabody Curators Zelda Edelson and Barbara L. Narendra.[10] Haberle relocated to Montreal from 1878 to 1880 to work with a Catholic lithographer at an engraving firm. He was most likely a supervisor during this period while becoming active in the Catholic community in

[10] Zelda Edelson and Barbara L. Narendra, "John Haberle, A Great American Artist and His Links to the Peabody Museum," *Discovery* 20.2 (1987): 25.

his spare time, studying religious artworks at the local Cathedral.[11] He eventually returned to New Haven where he worked as a contracted illustrator and art instructor for most of his life.

It was through this early training as a lithographer that Haberle was exposed to financial imagery of the late-nineteenth century in a professional and critical capacity. His training coincides with the consolidation of the banking industry through the National Bank Note Program, which is discussed in length in the next section. Fragments of Haberle's sketchbooks contain cutout vignettes of ships, allegorical figures of progress, thriving farmers, savage Indian men, and beautiful native women which were often found on financial documents like deeds, stock certificates, and even regional banknotes (fig. 7). These engravings surrounded Haberle on a daily basis from an early age, not as estranged symbols but as reaffirming icons of the Union's industrial strength in a post-bellum world.

Because of his training as a lithographer, he also engaged with the influential work of Paleontologist Othniel Charles Marsh while working at the Peabody Museum of Natural History on the campus of Yale University. His business card lists his address as "Room 9 Peabody Museum," which was the location of the paleontology department.[12] While the Peabody employed Haberle in the 1870s periodically, his longest tenure at the museum was 1880 to 1884 as a fossil lithographer and exhibition preparator. During this period, Marsh attempted to prove Darwin's theory of natural selection through his study of extinct animal

[11] Alfred Frankenstein to Mr. J. Russell Harper of McGill University, June 17th, 1966. John Haberle Papers.
[12] See his business card in the collection of John Haberle Papers.

skeletons. Haberle was in a unique position to perfect his skills as a lithographer and learn about advance scientific research that was reshaping the modern society around him. It was during his time at the Peabody that Haberle started to become serious about his work as a trompe l'oeil artist.[13]

Haberle enrolled at the National Academy of Design in New York City from 1884 to 1885. At the Academy, he continued to develop his highly finished painting style of trompe l'oeil. He most likely returned to the Peabody Museum for stable employment after completing his studies.[14] This time in New York represents the artist's only formal training. After this period, he attempted to find jobs as a private instructor teaching drawing, painting, and sketching from nature. Haberle's sketchbooks are full of drawings of market scenes, landscapes, and his hands and feet. The absence of figure sketches after leaving the Academy indicates that he struggled to profit from his job as art instructor and likely continued to work as a scientific illustrator to support his family.[15]

Haberle included currency in his still-life paintings between the years 1886 and 1890. While his currency paintings are his most famous of works, Haberle focused on a variety of subjects in the guise of trompe l'oeil. This included still-life paintings of thermometers, baskets of fruit, classroom chalk slates, and artist palettes. In the 1890s he started his *Torn in Transit* series where he meditated on the issue of artistic representation and circulation. His largest and

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[13] Haberle's tenure at the Peabody is further discussed in Chapter 3.

[14] Gertrude Grace Sill, *John Haberle: Master of Illusion* (Springfield, MA: Museum of Fine Arts, 1985), 6-7.

[15] Frankenstein cites an article from 1898 that reveals that Haberle never afforded models, and thus trained on sketching his hands and feet. See Frankenstein, *After the Hunt,* 115.

most detailed paintings are *Grandma's Hearthstone* (1890) and *A Bachelor's Drawer* (1890-1894), two works of fairly large size that align well with the nostalgic interior still-life paintings of William Harnett and the rack portraits of John Peto, respectively. For this reason, these paintings are the most discussed in period art criticism and art historical literature next to his currency paintings, yet they elicit significantly more visual analysis due to their complex nature and grandiose scale.

Haberle gained fame in the national press for his faithful replication of currency and his illusionistic genre paintings. Haberle was crowned by the press as the master of illusion through the 1890s for both his painting *Imitation* and for *Grandma's Hearthstone*. Critics claimed that *Grandma's Hearthstone* was painted so well that the Detroit press ran stories about how the well-painted fireplace fooled even the saloon cat. Haberle's still-life compositions and painting technique become less precise in the late 1890s when his eyesight started to fail. He continued a full-time career as a professional artist for most of his life until he died in 1933 after a thrilling voyage overseas to see the sights of Europe. In his eulogy, the pastor remarked, "Mr. Haberle was ever seeking the meaning of things, the meaning behind nature, the meaning of life, the meaning of death."[16] Over the course of his artistic career, Haberle carefully explored the relationship of representation to the world around him through the style of trompe l'oeil.

[16] Eulogy of John Haberle, February 6, 1932, John Haberle Papers.

Inflated Representation

Banknotes and stamps were a unique subject in American still life painting in the nineteenth century, representing a clear thematic break from modern European art.[17] These bills were either included as the main subject of the still life or as a smaller piece in a larger composition, often within the context of masculine leisure, a theme already explored by David Lubin.[18] Chambers and Edward Nygren have explored the complexities of the presence of money itself, providing detailed analysis of the contemporary financial climate of Industrial America, the masculine cult of consumerism, the implications of Social Darwinism in relation to the theories of Thorstein Veblen, and the role of money as a measure of moral and social worth.[19] Yet more needs to be done in relation to the aesthetic value of the notes, particularly the nationalistic images that appear in Haberle's paintings.

Money was not only a unique theme in American art, but also a central political problem during the nineteenth century. In the antebellum period, private

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[17] Martin Battersby expands on this analysis in *Trompe L'oeil: The Eye Deceived* (New York: St Martins, 1974), 142.

[18] For more information on Nicholas Alden Brooks, see Frankenstein, *After the Hunt,* 148-150 and David Lubin, *Picturing a Nation: Art and Social Change in Nineteenth-Century America* (New Haven, CT: Yale University, 1994), 56.

[19] For a full historiography of nineteenth-century American still-life painting, see Chad Mandeles, *Meaning of the Art of William M. Harnett* (PhD Diss, New York: City University of New York, 1995), particularly chapters 1 and 2. For a general discussion on the nuances of economic politics during this period and trompe l'oeil painting, see Edward Nygren, "The Almighty Dollar: Money as a Theme in American Painting," *Winterthur Portfolio* 23.2 (Summer/Autumn, 1988), 130; Chambers, *Old Money,* 15 and 32-36; and John Wilmerding, "Notes of Change: Harnett's Paintings of the Late 1870s," *William M. Harnett,* edited by Doreen Bolger, Marc Simpson, and John Wilmerding (New York: Harry N. Abrams, 1992), 149-152.

banks were responsible for issuing their own promissory notes in the form of paper currency, which often caused discrepancies between the face value of notes and their exchanged value due to the high rate of bank failures.[20] Lack of banking regulation and only partial market integration of currency caused bouts of hyperinflation, leading to banking panics from the 1830s through the Panic of 1857. According to literary historian Joseph Conway, by 1860 there were over ten thousand different styles of paper currency circulating in the United States; around forty percent of that money was counterfeited, causing problems of speculation, instability, and inflation.[21] Congress passed the National Banking Acts of 1863 and 1864 towards the end of the Civil War to nationalize the American currency system, stabilize the U.S. economy, and attract capital flows deterred by conflict. To accomplish this, strict counterfeiting regulations were implemented to regulate a newly nationalized currency program, as certain banknotes, particularly five-dollar bills, were highly susceptible to forgery.[22]

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[20] Many interesting issues in design arise from this program. One issue is the problem of honoring the face value of a bill. Usually paper currency would decrease in value the further it exchanged from the issuing bank, creating a discrepancy between face value and market value. This happened because merchants were more skeptical if they could actually exchange paper currency for hard specie (gold or silver coinage) for worry that either the issuing bank had collapsed or the note was counterfeit. Banks tried to hedge against this instability in value (caused by spatial factors) by creating intricate designs that showed the appearance of stability. Such design mechanisms are discussed by Jennifer Roberts in *Transporting Visions: The Movement of Images in Early America* (Berkeley, CA: University of California, 2014), 119-126.

[21] Joseph Conway, "Making Beautiful Money: Currency Connoisseurship in the Nineteenth-Century United States," *Nineteenth-Century Contexts* 34.5 (December 2012): 428.

[22] For these reasons, the Treasury seized Harnett's painting and kept it on file as a superb act of counterfeiting. In addition, the National Bank Note Program relied on centralized power and authority for the regulation currency. In 1878, the

Paper currency or greenbacks were issued to help with circulation of the newly nationalized currency that visually promoted a stable Union in the midst of economic instability.

The goal of the National Bank Note Program was to ensure the stable face value of monetary specie *and* advertise a national identity that bridged social and moral divergences created by the Civil War. In *The Making of National Money,* Eric Helleiner contends that the ultimate goal of territorial currencies in the nineteenth century was to strengthen national identities. Currency played a critical role in the overall narrative of nationalism during this period, as imagery engraved on the surface of money would widely circulate to the far reaches of expanding national boundaries. Paper notes were the most viewed objects and carried powerful statements in support of the State. The notes that appear in Haberle's paintings index a critical shift in visual representations of America, from the localized allegories of progress in the antebellum period to generalized origin stories in during Reconstruction.[23]

Currency designers placed visual authority not solely in political portrait busts but in the origin of the nation's identity, its strongest asset and source of national and native value. Eric Hobsbawm asserts that developed nations started

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Bureau of Engraving and Printing was granted a full monopoly on currency production in the United States for the purposes of implementing anti-counterfeiting measures and to protect the value of the newly 'sound' American money. For a more in depth analysis of the political and technical ramifications of this monopolization, see Franklin Noll, "The Untied States Monopolization of Bank Note Production: Politics, Government, and the Greenback, 1862-1878," *American Nineteenth Century History* 13.1 (March 2012): 15-43.

[23] Eric Helleiner, *The Making of National Money: Territorial Currencies in Historical Perspective* (Ithaca, NY: Cornell University, 2003), 104-7.

to establish national dialectics between what is American and 'un-American' in the midst of domestic challenges to political rule during this era. In the 1880s, assuming an American identity was presented as an act of choice through the application of citizenship on behalf of the immigrant worker. Citizenship was seen as part of "a machine for political socialization," as exhibited through the introduction of the Pledge of Allegiance in schools in the 1880s.[24] The government used the mode of printed currency to maintain authority through the promotion of a national identity both in the money market and beyond. The political imagery on financial documents that Haberle collected over his lifetime visually supported national identity construction, placing him at the center of this nationalizing crusade as a lithographer.

Yet this monetary campaign for national stability was undermined by a spell of economic volatility. The Gilded Age is defined by America's emergence as the world's greatest industrial power. As a result, citizens witnessed the growing pains of an expanding economy, experiencing the largest gains and biggest losses during the Long Depression and the two-decades of subsequent recovery.[25] In the 1880s alone, Americans witnessed rapid growth in labor, fixed investment, and rail incomparable to the decades before.[26] Economic fluctuations

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[24] Eric Hobsbawm, "Mass-Producing Traditions: Europe, 1870-1914," *The Invention of Tradition* (Cambridge, UK: Cambridge University, 1983), 280.

[25] Economists define the Long Depression as a global price recession, beginning with the Panic of 1873 through the spring of 1879. Yet, the symptoms of this Depression continued well through the 1880s and 1890s as the working-class majority attempted to recover from deflationary spells, resulting in the constant fluctuation of prices over the next decade.

[26] For more information, see Carl Degler, *The Age of the Economic Revolution: 1876-1900* (Glenview, IL: Scott, Foresman and Company, 1977), 1-3.

were often linked to regulatory problems in the money market. Symptoms of these problems manifested as dramatic changes in gold stock, defaults on resumption payments, and bank failures in the midst of unprecedented industrial expansion.[27] Financial collapse sparked one of the longest running political debates in the history of the nation, engulfing entire presidential platforms in the form of the bimetallist debate.

The political climate of the 1870s through the election of 1896 was marked by a deep divide between gold-standard Republicans and free-silver Democrats who argued over the fixed ratio of gold to silver stipulated by the National Banking Acts.[28] Tension arose between established Eastern businessman and Western industrial speculators on which material specie was better for the health of the national economy. Gold-standard advocates believed gold was the most stable commodity because of its rare and revered nature globally; this belief undergirded conservative economic policies that were thought to normalize

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[27] Ben Bernanke provides an overview of the gold standard during the Long Depression, and references to the bimetallist debate in American visual culture from that moment through the Great Depression. See Ben Bernanke, *The Federal Reserve and the Financial Crisis: Lectures* (Princeton, NJ: Princeton University, 2013), 1-28. Regarding resumption payments, the problem of paper currency being backed by gold was the shortage of gold stock within US banks. All legal paper tender allowed the holder to reclaim the hard specie value of that paper money in the backing currency (usually gold), causing stock shortages were caused amongst banks and often failures during runs. For more information on the economic nuances of the consolidation of the money market, issue of resumption payments, the promise of silver, and the inflationary pressures of gold stock, see the first four chapters of Milton Friedman and Anna Schwartz's *A Monetary History of the United States: 1867-1960* (Princeton, NJ: Princeton University, 1963).

[28] The amount of gold to silver in circulation was fixed at a ratio of 1:14.5, which gives a clear indication that the silver specie base would have afforded for economic expansion that the West needed.

economic growth, and thus quell the problem of inflationary instability. Free-silver advocates believed that the inclusion of a secondary form of specie afforded the economic flexibility to accommodate unpredictable growth spurts, particularly as most economic expansion was occurring along the Western frontier. An expanded monetary base provided the hard specie for smaller banks to open and operate within remote locations of the country.

Haberle must have maintained his own political position in the bimetallist debate. Based on his analysis of Haberle within the context of the bimetallism, Chambers deduces that Haberle shared the philosophy of 'sound money' under the gold-standard platform.[29] This is unsurprising as Haberle lived in New England, an area that was predominantly in favor of the gold standard unlike the rest of the country as seen in the free-silver cartoon "The Silver Dog with the Golden Tail" (fig. 8). At the heart of this political debate around bimetallism lay deeper questions about the moral structure of social value systems. This issue of currency not only revealed issues of representation in a modern society, but also raised questions about the importance of origins in regard to the practical material that backed currency and the moral and philosophical implications of that choice. Bimetallism became a platform to inadvertently discuss larger issues social of progress and modernity in relation to this problem of origins, whether material, racial, or national.

Operating behind this political dialog on monetary origins were the scientific assumptions of Charles Darwin's natural selection theory and their

[29] Chambers, *Old Money,* 36-37.

application to social structures. In his *On the Origin of Species by Means of Natural Selection*, Charles Darwin introduced the theory that species evolve over the course of generations through a process of natural selection. Darwin's theories characterized evolutionary changes as violent and driven by chance, challenging the traditional scientific practice of ordered evolution by divine providence.

While Darwin published his *Origin of Species* in 1857, his evolutionary theories were not critically received and publically debated in America until 1873, the year of the first post-war banking panic.[30] Darwin's work was reprinted in condensed paperback copies for the general public and applied to issues of market structure and socioeconomic class (fig. 9). Darwinian theory was quickly applied as a tool to help explain and tame economic fluctuations. As a result, individualism and laissez-faire economic policies promoted the heterogeneous criteria of Darwin's evolutionary theory. The preface to the 1889 Annual Brooklyn Ethical Association Proceedings commented on the pervasive reach of evolutionary ideas within American society.

> The word is in every mouth. […] Even in its biological aspects, the doctrine of Evolution is seen to touch the great problems of religion and philosophy – of origin and destiny. […] Reaching forward, it touches and illuminates the pressing problems of ethics and sociology, offering to the careful student wise instruction for his guidance in all the practical affairs of life.[31]

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[30] Examination of Darwin's correspondence reveals that he did not receive a high volume of letters from Americans until 1873. Other authors have made similar observations. See Charles Darwin, *The Correspondence of Charles Darwin: 1873*, edited by Fredrick Burkhardt, vol. 21 (Cambridge, UK: Cambridge University, 2014) and chapter one of Kathleen Pyne, *Art and the Higher Life: Painting and Evolutionary Thought in Late Nineteenth-Century America*. (Austin: University of Texas, 1996).

[31] "Preface," *Evolution: Popular Lectures and Discussions before the Brooklyn Ethical Association* (Boston: James H. West, 1889), iii.

Haberle was actively entrenched in this discussion on origin and destiny while working at Peabody Museum from 1875-1884, during the height of the nineteenth-century debate on both natural selection and banking reform.

The presence of one-, five-, and ten-dollar bills in his paintings does not represent mere pocket change to an immigrant like Haberle, but the weekly income of a low-wage laborer in 1888.[32] These bills and the technique of trompe l'oeil play to a constructed viewer whose social worth is determined by a rigid class structure, a topic that falls beyond the scope of this study but is prevalent to a discussion of Social Darwinism.[33] It is the multiplicity of worth generated by a heterogeneous class structure that complicates a uniform interpretation of value.

This problem of currency and its origin of value brought to light other philosophical and ethical concerns regarding economic expansion, often interpreted through the lens of Social Darwinism or in strong reaction against a heterogeneous hierarchical structure. For example, strong political pressure to maintain rapid economic growth, promoted by 'survival of the fittest' policies,

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[32] The average weekly wage for 60 hours a week for a laborer in 1880 was $8.10, by 1890 it was only $9.06. See Clarence D. Long, *Wages and Earnings in the United States, 1860-1890* (Princeton, NJ: Princeton University, 1960), 94-96.

[33] In its deception through its reception, trompe l'oeil posed a threat to elite class control over visual representation that was waning in late-nineteenth century society. Paul Staiti implies that the trompe l'oeil painting depended on social stratification amongst its viewers. He identifies trompe l'oeil as a 'con' for the lower class, outside of the order of the "genteel order that held art to be polite, elite, intellectual, moral, and sacred." Haberle's use of trompe l'oeil is not only a challenge to the use of art construct progressive social environments, but challenges predetermined social structures associated with style in the American art world. See Paul Staiti, "Illusionism, Trompe l'Oeil, and the Perils of Viewership," *William M. Harnett, e*dited by Doreen Bolger, Marc Simpson, and John Wilmerding (New York: Harry N. Abrams, 1992), 42.

uncovered the inhumane treatment of Indian tribes during the close of the frontier, particularly by those invested in silver mining in the West.[34] Both critique and support of Social Darwinist assumptions were openly discussed under the guise of bimetallism, as will be explored in these three case studies. The inflationary nature of paper currency from the previous period was applied to these matters, often as a signal of unsustainable political programs that supported expansionist goals. If the value of paper currency was volatile, could the nationalistic imagery that it carried also fall into question? Could it too be just as inflated as the value of American currency itself?[35] The volatile nature of currency in question due to unstable origins of value undermines the primary arguments held by proponents of Social Darwinism.

Haberle's portrayal of disintegrating bills indicates the volatility of representation at large in a consumerist society. Haberle captures the extremely poor condition of notes in circulation, as evident from his faithful rendering of bills, including the tears, creases, and disintegration of these objects of value.[36] Paper currency backed by an identifiable material, such as gold or silver, was a

[34] For more information, see Carl Degler, *The Age of the Economic Revolution: 1876-1900* (Glenview, IL: Scott, Foresman and Company, 1977), 1-3 and 126-131.

[35] This is one of the underlying reasons why counterfeiting is such a large topic in currency paintings. However, its direct link to inflationary pressures remains to be fully addressed.

[36] For a through discussion of the reform and redemption process within the United States that failed to take worn notes out of circulation, see George A. Selgin and Lawrence H. White, "Monetary Reform and the Redemption of National Bank Notes, 1863-1913," *The Business History Review*, 68.2 (Summer 1994): 205-243.

prime example of the period interest in the origins of "natural" or intrinsic value.[37] These bills suggest a discrepancy between face value and intrinsic value, mirroring the divergence of political rhetoric and the realities of economic growth from the period. The unstable connection between face value and natural value shown in these paintings is a gesture to the larger problem of representation.

Haberle played with this problem of origin and object through trompe l'oeil techniques, closely examining "the limits of representation."[38] Upon close inspection, the viewer finds layers of visual puns and indexical observations subjectively constructed by Haberle. Johanna Drucker was the first to place Haberle within a proto-modern context of image appropriation for political and social critique, particularly raising the question of presentation through circulation.[39] This problem is complicated by Haberle's clear interest in the relationship between text and representation that will be explored in chapters 1 and 2.

Haberle often tested the relationship of image to word, suggesting a flawed structural system of language and representation. Robert Chirico investigated Haberle's use of text as a way to bridge epistemological issues with

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[37] See Michael O'Malley, *Face Value: The Entwined Histories of Money & Race in America* (Chicago: University of Chicago, 2012), 94.

[38] Thomas Quick, *American Still-Life Painting of the Nineteenth Century*, (New York: Godel and Co., 2008), 7 and 22.

[39] Johanna Drucker, "Harnett, Haberle, and Peto: Visuality and Artifice among the Proto-Modern Americans," *The Art Bulletin* 74.1 (March 1992): 38 and 42. In addition, both Frankenstein and Chambers characterize trompe l'oeil in relation to surrealism. See Frankenstein, *After the Hunt,* 115 and Chambers, *Old Money,* 16.

contemporary concerns.[40] This is evident in *The Slate* from 1895 where Haberle included a cartoon figure of a cat and the phrase "but the cat can" written in faded chalk underneath (fig. 10). Jennifer Greenhill's study of the mechanisms of the modern joke reveal that Haberle was acutely aware of the semiotic mutability of word and image in their representation through her discussion of *The Slate* and her analysis of his signature.[41] This study extends Greenhill's exploration to consider how Haberle engaged both the imagery and text on paper currency to form conceptual relationships between money and social issues.

Due to the political climate, Haberle most likely entered this social dialog on the origin of value as an artist and proponent of the gold standard by testing the limits of visual representation. Haberle's personal investment in these issues becomes plausible when considering his background as a commercial lithographer and as a scientific illustrator functioning at the heart of debates on Darwinian evolutionary theory. Yet how he engaged with these issues was unique. It was not as critical as a cartoonist; it was subtle like that of a confidence man.

Truth Behind a Con

Haberle's counterfeiting persona helps frame his engagement with the images and text that will be explored in this study. It is through the guise of counterfeiting that Haberle's paintings guide the viewer to unconsciously meditate on deeper issues within American society. The viewer needs to be tricked to communicate a critique about the visual meaning of money. Trompe

[40] Robert Chirico, "Language and Imagery in Late Nineteenth-Century Trompe l'Oeil," *Arts Magazine* 59 (March 1985): 113-114.
[41] Jennifer Greenhill, *Playing Straight: Art and Humor in the Gilded Age* (Berkeley, CA: University of California, 2012), 151-152.

l'oeil techniques transform bill from as a means of monetary utility to a form of art where a social interpretation can be reached.

To understand Haberle's engagement with currency as an image, his con man persona needs to be reinterpreted. Haberle was well aware that he was operating within a parallel realm to other high profile forgers of the period by producing currency paintings, as evident from the replication of the counterfeit warning on the back of a dollar bill in *U.S.A*. (fig. 11).[42] Allusions to these practices of forgery in *Can You Break a Five?, U.S.A,* and *The Changes of Time* are not as pronounced as in some of Haberle's other currency paintings. In his first currency painting *Reproduction* (1886-1887), Haberle portrays himself as a master illusionist and counterfeiter through the appropriation of a ten-dollar silver-treasury note. He includes two paper clippings in the lower left corner that read "John Haberle the Counter—" and "A counterfeit. A remarkable painting of

[42] Printed on the back of each bill was a statement that guaranteed the face value of legal tender notes and a notice of the penalties of counterfeiting according to federal law. The warning stipulated that any tampering, imitating, counterfeiting, or even the possession of any impression plates that would be used to create a false paper currency production would result in a large fine and/or up to fifteen years in a labor intensive prison. Haberle carefully copied this notice in *U.S.A*., and thus was aware of the risk involved in creating his trompe l'oeil paintings. For more information on period counterfeiting practices and motivation, see Stephen Mihm, *A Nation of Counterfeiters* (Cambridge, MA: Harvard University, 2007), 260-304. Additional material on the problem of counterfeiting, particularly references to great counterfeiters in American history during this period like Emanuel Niger can be found in Murray Teigh Bloom, "The Money Maker," *American Heritage*. 35.5 (1984): 98-101; Michael Germana, "Counterfeiters and Con Artists: Money, Literature, and Subjectivity," *American Literary History* 21.2 (2009): 296-305; and Steve Fraser, "United We Scam," *The Nation* 286.3 (2008): 25-29. For information on the use of photography in counterfeiting, see B. G. Underwood, *Underwood's List of Counterfeit and Stolen National Banknotes*, 1.6 (Washington, DC: A. S. Pratt & Sons, April 1878), 1.)

a ten-dollar [silver Uni]ted States' bill. A […] would humbug Barnum" (fig. 12), an article created by his own imagination.[43] Haberle includes a tin-plate self-portrait photograph slightly to the right of an engraving that mimics a newspaper cartoon. The engraving shows a man at a table in the act of forging something, with a dagger pointed above his head. The dagger hangs in midair, alluding to the sword of Damocles. In the legend, Damocles changes positions with King Dionysius for a day. The King has a sword hung over the head of Damocles by a strand of horsehair while he is temporarily on the throne. The sword came to represent the proverb, 'with great fortune and power comes great responsibility.' While Haberle establishes a counterfeit persona in *Reproduction*, he sends a subtle message that this persona is constructed for a larger social good.[44]

Instead of viewing Haberle as a counterfeiter, he can be framed as a confidence man. A con man is someone who cheats, tricks, and swindles someone by means of a confidence game or a scam. In Herman Melville's *The Confidence Man* from 1857, he portrays the main character, a con man, not as someone

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[43] Many historians have discussed the fraudulent qualities of P. T. Barnum's famous shows from this period. The most throughout work is Robert Cook's *The Arts of Deception* (Cambridge, MA: Harvard University, 2001). It should be noted that Jennifer Greenhill believes that this early painting might have been made in 1888, as the clippings were never printed in a newspaper. See Greenhill, *Playing it Straight*, 155.

[44] This direct allusion to the problem of counterfeit will reappear in his painting *Imitation* from 1887, and *A Bachelor's Drawer*, where he openly marks a piece of fractional currency as a counterfeit, even though experts "claimed it to be genuine." It should be noted that Haberle seems to have thought very little of the con man and his role in society, as expressed through letters to his wife Sadie while in New York in 1895. In one of his letters he claims that the warm, cheap beer is not even "good enough for a con." John Haberle to Sadie Haberle, June 21, 1895. John Haberle Papers. Thus, it seems characteristic that his counterfeiting persona would be in effort for the greater good.

invested in profit through the construction of a scam, but as someone who reveals the true, biased nature of the people he meets.[45] It is within the framework of Melville's con man that that Haberle can lead the viewer to a reach a subjective, undefined truth through the trick of trompe l'oeil. These trompe l'oeil paintings were to act as "betting" paintings that elicited tactile interaction to test the limits of both representation, but also modern perception, often within the confines of masculine saloon culture.[46] Through the extreme realism of trompe l'oeil, Haberle

[45] See Herman Melville, *The Confidence Man* (New York: Prometheus Books, 1995).

[46] Paintings of paper notes were often displayed in male social settings for intellectuals, including bars, bookstores, and saloons. Mr. Marvin Preston purchased all three paintings that fall within the scope of this study: *The Changes of Time* (1888)*, Can You Break a Five?* (1888)*,* and *U.S.A* (1889)*.* (According to period directories, Mr. Marvin Preston's saloon was located on 125 Jefferson Street, close to the monument to boxer Joe Louis added almost a hundred years later. See *Detroit City Directories,* vol. 1 (Detroit: J. W. Weeks, 1880), 674. Information about Marvin Preston is also sourced from Harriet G. Warkel, "John Haberle; Museum Accession," *American Art Review* 15.5 (2003): 185.) As one of Haberle's few collectors, Preston was a prominent member of Detroit society, owner of a wholesale and retail wine and liquor distribution company, and manager of Churchill's Saloon located at the center of the city. These paintings were exhibited in Mr. Preston's saloon that was "hung in leather and tapestry, elegant in every respect" (Armond H. Griffith to John Haberle (January 31, 1900), Detroit Museum of Art. John Haberle Papers [roll 2813]). Historian of monetary culture Marc Shell noted that the most popular venue for trompe l'oeil paintings of currency was the saloon, a secular institution that played a key role in the exhibition and distribution of nineteenth-century America art for the bourgeoisies. (See Marc Shell, *Art & Money* (Chicago: University of Chicago, 1995), 87. For more information about the saloon see David Lubin, *Picturing a Nation: Art and Social Change in Nineteenth-Century America,* (New Haven, CT: Yale University, 1994), 295-307). Artists like Haberle were aware that this monetary theme would appeal to a male viewer, and thus it became associated with the lifestyle of a modern American businessman and bachelor. (See Sill, *John Haberle,* 10; Lubin, *Picturing A Nation,* 281; and Quick, *American Still-Life Painting,* 20. For more information about the stereotype of the American businessman in relation to art, see Sarah Burns, *Inventing the Modern Artist* (New Haven, CT: Yale University, 1996), 19-45.) Counterfeit money was not far removed from the

addresses the phenomena of overstressed vision in modern society as a mental exercise to help the viewer adapt to modern life.[47] Michael Leja suggests that the trompe l'oeil paintings of Haberle should be interpreted as tools to prevent visual deception for the modern viewer in an age of variable and fabricated significations.[48] Based on the analysis of Paul Staiti, the construction of a flat, elaborate "web of entangling illusions" make the viewer lose "his mental bearings" while putting him in a position to consider the visual worth of currency

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American bachelor stereotype; such associations suggested a life of speculation, instability, and loose morality to older generations.

[47] The stylistic choice of trompe l'oeil naturally initiates close looking by the viewer. In period newspaper articles, journalists told amusing tales of viewers who attempted to snatch paper bills from the surfaces of trompe l'oeil paintings. Such reactions not only implicate the artist as a counterfeiter, but also transform the viewer into a thief as he tries to peal the bill off of the canvas surface. Many art historians have suggested this viewer relationship, including Meredith Davis, "Fool's Gold: American Trompe L'oeil Painting in the Gilded Age," (PhD diss., Columbia University, 2005), 120. Numerous periodicals from Haberle's time period suggest how viewers are deceived by Haberle's paintings. Many contemporaries of Haberle have commented on the impressive reproductive work shown in his trompe l'oeil paintings. One of the most popular news clippings that Haberle included in his paintings was the article, "The Picture Fooled the Cat" from the *Detroit Tribune* on June 4, 1900. In this, the journalist discusses the illusionistic quality of Haberle's *Grandma's Hearth.* In the article, the saloon cat's reaction is described to illustrate Haberle's talent. "The cat noticed the light and the blazing fire and went over to examine it. After looking the situation over critically for a few minutes she made up her mind it was all right and settled herself down before the fire to snooze. She became part of the picture." See John Haberle Papers. The director of the Art Institute of Chicago, N. M. R. French, wrote to Haberle about *Reproduction* stating "I rather think we have sold your picture called "Reproduction," only the purchaser can scarcely believe that it is honestly done. […] The trouble is you have done it too well, and the doubts expressed are very amusing." See N. M. R. French to John Haberle, July 10, 1888, John Haberle Papers. For additional commentary about viewer reactions to trompe l'oeil paintings see Paul Staiti, "Con Artists: Harnett, Haberle, and their American Accomplices," *Deceptions and Illusions* edited by Sybille Ebert-Schifferer (Washington, DC: National Gallery of Art, 2002), 91-103; and Cook, *The Arts of Deception,* 222-3 and 232.

[48] Michael Leja, *Looking Askance: Skepticism and American Art from Eakins to Duchamp* (Berkeley: University of California, 2004), 136-137.

outside of its economic context.[49] By entering into this "charmed zone," the aura of an object lost in technological reproduction is rediscovered, providing an intense visual correspondence between viewer and object through the removal of modern distraction.[50] Haberle tricks the viewer into carefully studying the complex relationships made by these bills through illusionism. This ultimately reveals unsavory relationships between national imagery and the political reality, as will be explored in the following case studies.

In *After the Hunt,* Frankenstein wrote, "Haberle's game is to bestow fantastic consequence on the inconsequential."[51] The following three case studies will explore how Haberle's study of representation unearths parallel discourses on money and national identity through the framework of Social Darwinism. In the first chapter, I will reconsider *Can You Break a Five?* in relation to the physical nature of a bill in circulation, and how the pioneer symbol helps reveal the changing relationship of citizen to the national landscape during the 1880s. This epistemological shift between citizen and representation parallels a semiotic structure between hard specie (object) and paper currency (symbol). This examination of mutable national imagery will continue into the second chapter on *U.S.A.*, where I will consider the role of the Indian Queen on the ten-dollar bill. I interpret her visual removal from the painting in relation to period rhetoric on native assimilation within the context of financial vignettes. Arguments for

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[49] Paul Staiti, "Illusionism, Trompe l'Oeil, and the Perils of Viewership," *William M. Harnett, e*dited by Doreen Bolger, Marc Simpson, and John Wilmerding (New York: Harry N. Abrams, 1992), 38.
[50] Staiti, "Illusionism," 40.
[51] Frankenstein, *After the Hunt,* 115.

cultural assimilation were founded upon Charles Darwin's theory of natural selection, a central debate in which Haberle operated as a scientific illustrator. The last chapter reinterprets Haberle's largest currency painting, *The Changes of Time*, within the context of scientific illustration and evolution in the field of natural history. He presents a condensed history of American monetary specie in a moment when the term specie and species were easily interchanged, equating money with race. I will reconsider Haberle's temporal narrative in relation to a degenerative understanding of progress based on period gold-standard political rhetoric. These three studies explore the distorted relationship between origin and visual representation, questioning the social worth of paper currency in American society.

The American trompe l'oeil still-life painter elevates banal pieces of material culture to the status of art, enticing the viewer to consider the object's visual value beyond its utilitarian function. Currency is a unique object of study that bridges realms of science, culture, and history together in one unified sphere. Haberle employs currency to raise questions about the contemporary state of modern society by alluding to the interconnected visual history of money, science, national identity, and American origins. This study explores the dynamic cultural implications of currency in American visual culture in the paintings *Can You Break a Five?, U.S.A,* and *The Changes of Time* beyond the issue of counterfeit currency.

Chapter 1: Pioneer Velocity

John Haberle poses a riddle to the viewer with a deceptively simple composition and beguiling title in *Can You Break a Five?* from 1888 (fig. 1). Haberle painstakingly copied the engraved vignette of a pioneer on the five-dollar bill, an image that was disseminated throughout the Union as part of the National Bank Note Program.[1] Could Haberle's casual inquiry through this title have more significance beyond a simple financial transaction? The issue of origins not only relates to monetary value; it parallels an American fascination with the legacy of the pioneer. This banknote vignette was disseminated during a period when the American citizen's relationship to the national landscape became heavily mediated by commerce through image and word. In this chapter, I argue that *Can You Break a Five?* operates within the complex framework of national identity construction by commenting on the shifting relationship between citizen and landscape. Art mimics the pioneer experience through its circulation, reinterpreting the origin experience for national identity. Haberle's inclusion of a newspaper clipping and a pair of broken spectacles illustrate the intricacies of circulated national imagery and its impact on semiosis.

The presentation of the five-dollar note is central to *Can You Break a Five?* This bill was reprinted numerous times between 1875 and 1890, parenthetically marking Haberle's interest in flat, two-dimensional trompe l'oeil compositions. The five-dollar bill covers a disintegrating one-dollar note in an X

[1] The entire numismatic history of this bill can be sourced in Robert Friedberg, *Paper Money of the United States*, 4th ed. (Chicago: Follett Publishing, 1962), 19-20.

pattern. Worn stamps mirror the layered notes above in reference to retired forms of fiat, a topic further discussed in chapter three. On the far left of the canvas, spectacles hang from a small nail in the illusionistic wall, mimicking the vertical display of the painting. One lens is cracked all the way through as if to imply two ways of seeing, while the other lens is missing altogether. Haberle's iconic newspaper clipping connects the banknotes to the glasses. The headline "Imitation" reminds the viewer of his confidence man persona developed in *Reproduction*, pointing to the art of reproduction inherent to painting itself.

The painting was exhibited at the Pennsylvania Academy of Fine Arts in Philadelphia during the month of January in 1889 before it was sold to Haberle's notorious Detroit patron, Mr. Marvin Preston, who also purchased *The Changes of Time* and *U.S.A*. Only passing references have been made to the painting in the literature on Haberle. Gertrude Grace Sill interprets this painting as another variation on Haberle's counterfeiting theme, particularly the allusion to Harnett's famous *Still Life – Five Dollar Bill* through the use of the same note.[2] Yet the composition defies Harnett's straightforward presentation of paper currency. It is minimalistic yet complex when all four objects are read together: two banknotes, a newspaper clipping, and a pair of spectacles. These objects interact with the prefabricated iconography of the five-dollar bill, alluding to systems of circulation and mediation for nationalist imagery during the post-bellum period.

[2] Gertrude Grace Sill, *John Haberle: Master of Illusion* (Springfield, MA: Museum of Fine Arts, 1985), 8 and 41-42.

The Pioneer as the Origins of American Expansionism

Haberle chose to faithfully copy the central vignette on the five-dollar bill in a moment when the pioneer was canonized as a national icon in American visual culture. The 1880s represented a pivotal decade in the history of the new nation. Individuals of all social and political backgrounds were aware of the closing of the American frontier in the wake of the Civil War. Writers, historians, and politicians started to ruminate on how the close of the frontier would affect the nation as a whole. The end of Western expansion would finally define the borders of the new nation. This process would also alter the relationship of citizen to the land, and thus how his national identity was formed. The vignette on the front of the five-dollar bill reflects the crystallization of the pioneer as a national icon of evangelization measured by economic progress.

General concern over the close of the frontier and the subsequent impact on national identity and economic expansion gained a voice and platform in the early 1890s. In 1893, Haberle attended the World Columbian Exposition in Chicago.[3] At the World's Fair, a historian from the University of Wisconsin by the name of Dr. Jackson Frederick Turner delivered an essay entitled "The Significance of the Frontier in American History," often referred to as the Frontier Thesis. In this speech, Turner defined the American frontier as the point between savagery and civilization, acting as the cornerstone to American progress, identity, and democracy. This resolved national claims to the land, skirting the

[3] See Haberle's exhibition postcards from the World's Fair in the John Haberle Papers, Archives of American Art, Smithsonian Institution.

presence of the American Indian as the nation's true native, as further discussed in chapter 2. He stated,

> The frontier is the line of most rapid and effective Americanization. The wilderness masters the colonist. It finds him a European in dress, industries, tools, modes of travel, and thought. It takes him from the railroad car and puts him in the birch canoe. It strips off the garments of civilization and arrays him in the hunting shirt and the moccasin. It puts him in the log cabin of the Cherokee and Iroquois and runs an Indian palisade around him. Before long he has gone to planting Indian corn and plowing with a sharp stick; he shouts the war cry and takes the scalp in orthodox Indian fashion. In short, at the frontier the environment is at first too strong for man. He must accept the conditions which it furnishes, or perish, and so he fits himself into the Indian clearings and follows the Indian trails. Little by little he transforms the wilderness, but the outcome is not the old Europe, not simply the development of Germanic germs, any more than the first phenomenon was a case of reversion to the Germanic mark. The fact is, that here is a new product that is American.[4]

Turner characterized this process as the way to distance the nation from European influence and form an independent modern identity. Turner hypothesized that the frontier acted as a "crucible" where "immigrants were Americanized, liberated, and fused into a mixed race" completely distinct from the nation's English colonizer.[5] He presented the American public with a defined historical account of the creation and origins of an American identity based solely on the frontier experience. The product of the frontier was the pioneer, the original prototype of the modern American who decried European traits while maintaining Caucasian heritage under the hierarchical structure of Social Darwinism.

Turner's description neatly summarizes forty years of American frontier mythology. Art Historian Angela Miller interprets early paintings of the

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[4] Frederick Jackson Turner, *The Frontier in American History* (New York: Henry Holt and Company, 1920), 3-4.

[5] Turner, *The Frontier in American History,* 15 and 23.

frontiersmen as a moment in history when "Americans enacted their historic destiny, valued not for itself but as a measure of the resourceful independence and fortitude of the American pioneer, who typified the new nation."[6] Both Turner and Haberle operated in a world that was fascinated by the frontier story, as evident from the rise of archeological digs in the West and the formation of frontier collecting societies.[7]

The appearance of Turner's frontiersman on the front of the five-dollar bill falls within this visual culture of American origins (fig. 13). Like the landscape traditions of the past that promoted the potential of the American terrain, the pioneer vignette emphasizes the promise of the frontier through the presence of trees, three figures, a dog, and a log cabin. At the center, the man wears a simple pair of trousers, billowing tunic, scarf, and embroidered vest. His hat is generic with a wide brim and a feather. His vest hangs open, and his sleeves are rolled up as if to indicate that he is well into his journey. An axe and a shotgun lay at his

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[6] Angela Miller, "The Fate of Wilderness in American Landscape," *American Wilderness: A New History*, edited by Michael Lewis (Oxford, UK: Oxford University, 2007), 102.

[7] These elements framed the American Pioneer as the instigator of American modernity. Many of Turner's sentiments are echoed in the monthly periodical *American Pioneer* that started in the 1840s in Cincinnati, Ohio, which was dedicated to collecting and publishing visual material from early settlements and "successive improvement of the country." See John S. Williams, *The American Pioneer: A Monthly Periodical devoted to the Origins of the Logan Historical Society; or, to collecting and publishing sketches relative to the early settlement and successive improvement of the country*, vol. 1 (Cincinnati: R. P. Brooks, 1842), 3-5. In addition, there are many interesting connections between the collected histories of the pioneers at this time period and N. A. Brooks's *Full of Old Curiosities* (1890), which makes more explicit reference to the role of the "Old Curiosity Club," a group of art collectors who met to muse over their findings. See Bruce Chambers, *Old Money: American Trompe L'oeil Images of Currency* (New York: Berry-Hill Galleries, 1988), 63-65.

feet as the basic tools of civilization. A woman stands to the left, wearing a plain dress and a shawl covering her head while she cradles a baby. The environment reflects the potential for change through the inclusion of a log cabin in the background on the left and the fallen tree at the bottom right, two indicators that the land is being cleared for settlement and farming. The newborn baby's identity will be shaped almost entirely by the American wilderness; only his parents will be able to give him a glimpse into the past world from which they came, without material objects to reference except their clothing. The family and loyal hound gaze into an open expanse as suggested by the tree line along the edge of the vignette. These figures are shown in the midst of settlement and becoming a true American citizen as described by Turner.

This vignette design in *Can You Break a Five?* was informed by pioneer folklore. Dawn Glanz's iconographic study of American frontier imagery traces the origins of pioneer symbolism to a period of mass migration in the 1840s during the initiation of American expansionist policies after the close of the Mexican-American War. The pioneer was the first symbol of civilization in the West, over the trappers and cowboys who first explored the region. The pioneer represented a worker for progress and civilization who was often shown clearing forest area for settlement and farming, as seen in pioneer vignette created by the American Banknote Company for financial documents (fig. 14). The pioneer with the same white shirt and brimmed hat is shown with a rising sun to his back, illuminating the form of his axe as buffalo scatter.

Statehood eligibility was determined by the permanence of settlements within Western territories, which justified American political claim to these lands.[8] The log cabin and pioneer family operated as a symbol of settlement. According to Richard White, frontier cabins became a symbol of self-reliance and individualism after the Presidency of William Harrison (March to April 1841) who was born in a log cabin. Log cabins were thought to be ideal housing for the strong American individual, and thus a signifier of American progress.[9] Haberle quotes this pioneer vignette during the closure of the American frontier while final political issues of statehood were debated. Montana, Washington, and the Dakotas entered the Union the same year that *Can You Break a Five?* was exhibited. The pioneer became a figure of national identity for the Christian nation during a time of territorial expansion.

The frontier not only became a site for state formation but also entered into the debate between natural history and theology within the scientific community around Darwinian evolution. Scholar Rochelle L. Johnson notes that the American landscape functioned as a metaphor for unregulated American progress in the nineteenth century, acting as the country's origin and industrial

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[8] Dawn Glanz, *How the West was Drawn: American Art and the Settling of the Frontier* (Ann Arbor, MI: UMI Research, 1982), 55-63.

[9] For more information see Richard White's discussion of "An American Log-house" from George Henri Victor Colot's *Voyage dans l'Amerique septentrionale* in "Frederick Jackson Turner and Buffalo Bill," *The Frontier in American Culture*, ed. By James R. Grossman (Berkeley, CA: University of California, 1994), 21.

potential in light of Social Darwinism.[10] Darwin's introduction of chance into evolutionary theory challenged the role of religion within society. Religious advocates transformed the image of the pioneer into a symbol of divinely inspired progress to challenge socially agnostic applications of natural selection.

Starting in the 1850s, visual depictions of the American pioneer family often referenced the Holy Family, suggesting that the settlement of the frontier was closely linked to evangelization. Artists often depicted a triune family in the wilderness, recalling the Flight into Egypt. The most famous allusion to this biblical narrative is George Caleb Bingham's *The Emigration of Daniel Boone* (c. 1851), a history painting of the famous frontiersman in the moment of crossing through unsettled landscape (fig. 15). Art Historians David Lubin and Michael Shapiro observe that Bingham strategically positioned Boone and his wife, Rebecca, on a white steed to mirror religious paintings of the Flight into Egypt, unifying historical fact, Christian iconography, and national progress. Lubin characterizes Rebecca not only as a religious figure with her covered head and blue robe, but also as the essential pioneer woman who is unflinching and central to the development of the American story. Such biblical references indicate that pioneer settlements were not only about the economic need to acquire land but also an act of providence.[11]

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[10] Rochelle L. Johnson, *Passions for Nature: Nineteenth-Century America's Aesthetics of Alienation* (London: University of Georgia, 2009), 95-101 and 113.

[11] See both Michael Edward Shapiro, *George Caleb Bingham* (New York: Harry N. Abrams, 1993), 88; and David Lubin, *Picturing A Nation: Art and Social Change in Nineteenth-Century America* (New Haven, CT: Yale University, 1994), 56.

Providential tones undergird the vignette design even more so than Bingham's history painting through the inclusion of a newborn baby wrapped in a white garb. The wife's simple white shawl and youthful face reflects Bingham's construction of Rebecca through the sweetness of the Virgin and the strength of the pioneer woman. The vignette designer fabricated a visual hybrid from other pioneer imagery present in American popular culture at this moment. Undertones of salvation coupled with the frontiersmen's role as deliverer of civilization reflect intertwined philosophies of Christian evangelization and evolutionary progress of Haberle's era.

This composition of the pioneer family exudes religious notions of manifest destiny developing at the end of the 1880s. In *Our Country* from 1885, Reverend Josiah Strong emphasized the moral responsibilities of Christians to evangelize throughout the Western frontier and beyond the country's borders. Strong compared the nineteenth century to the Incarnation and Reformation, speaking of the need for pioneers of the West to create stable religious environments like the pilgrims did in New England. Strong urged western settlers to exploit the emerging power and money of these territories "in the way that will best honor God."[12] Andres Stephanson interprets *Our Country* as a religious version of manifest destiny, promoting the idea that God and history were "fused into a design of progressive, linear evolution of the fittest."[13] It was the role of

[12] See Josiah Strong, *Our Country* (New York: Baker & Taylor, 1891), 232.

[13] Andres Stephanson, *Manifest Destiny: American Expansion and the Empire of Right* (New York: Hill and Wang, 1995), 79. By the 1890s, imperialistic notions were firmly imbedded in American culture through the vocabulary of Darwin's evolutionary theories. Margaret Walsh has indicated that Turner used Darwin's

America as the fastest growing economy to spread the word of salvation both at home and beyond the nation's borders. Stephanson reveals that commercial venture and evangelization were closely aligned from the early 1880s through the turn of the century.[14] As a devote Catholic who worked on religious iconography as a lithographer, Haberle would have recognized these cues within the pioneer vignette.[15]

The connection between the evangelizing pioneer family and its presence on the five-dollar is intriguing in this context. The folds in the five-dollar note repeat the image of a cross throughout the surface of the bill. The most pronounced cross is to the right of the male's head. Through the prefabricated image of the pioneer family and dramatic creases on the note, Haberle might have explored the connection of evangelization and commerce.

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evolutionary hypothesis as a type of early social science to advance theories of geographical determinism. See Margaret Walsh, *The American Frontier Revisited* (Atlantic Highlands, NJ: Humanities Press, 1981), 13. Turner's characterization of the frontier, particularly his emphasis on repetitive development, echoes evolutionary characteristics proposed forth by Darwin and confirmed by Marsh and Spencer the decade before. Turner opens his speech by presenting a cycle characteristic of the frontier in determining an inherently American character trait: "American social development has been continually beginning over again on the frontier. This perennial rebirth, this fluidity of American life, this expansion westward with its new opportunities, its continuous touch with the simplicity of primitive society, furnish the forces dominating American character." See Turner, *The Frontier in American History*, 2-3.

[14] Stephanson, *Manifest Destiny,* 79-80 and 90-95.

[15] Haberle was a devout Catholic, actively aware of the tension between Protestants and Catholic evangelization of the West. Before finding employment at Yale, Haberle worked in Montreal under the tutelage of a Catholic lithographer. In Montreal, he tediously studied the artworks and stained glass windows of the Cathedral. See Unknown Letter to Mr. Harper of McGill University, 1966. John Haberle Papers, Archives of American Art, Smithsonian Institution.

The individual pioneer was not the only agent in frontier evangelization, but also the economic market itself. In his speech, Turner interchanged the individual pioneer with the abstract concept of the American economic institution. Turner claimed that one trait of America's national identity was the ability for economic institutions to master the wilderness, turning "the primitive economic and political conditions of frontier life into the complexity of the city life."[16] Both the pioneer individual and the market acted as parallel origins of national history and modernity. Turner stated that the primary economic force driving western expansion was the mining of rare materials and the construction of the transatlantic railroad. While this enterprise was marketed as a tool of progress, the real understandings of the railroad were strictly for profit, as critiqued in Victor Dubreuil's *Safe Money* from 1898 (fig. 16).[17] Turner conflated the prerequisites for a national identity with Adam Smith's elements of a market economy (i.e. the abundance of free land draws cheap labor and attracts investment capital) by claiming that Pioneer traits were as "real and important as per capita wealth or industrial skill."[18] In his classic study on American expansion, Albert Weinberg comments, "It was in the fervent appreciation of the pioneer movement that there were forged all the links uniting individualism and expansionism. Among such links was the conception of the economic value of expansion to the individual."[19]

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[16] Turner, *The Frontier in American History*, 2.
[17] See Edward Nygren, "The Almighty Dollar: Money as a Theme in American Painting." *Winterthur Portfolio* 23.2 (Summer/Autumn, 1988): 144.
[18] Turner, *The Frontier in American History,* 21. In addition, see Turner's commencement address from 1910 in *The Frontier in American History*, 269.
[19] Albert K. Weinberg, *Manifest Destiny: A Study of Nationalist Expansion in American History* (Baltimore: John Hopkins, 1935), 116.

To Turner, the figure of the pioneer not only represented the historical individual, but the successful mix of American ingenuity and her abundant resources. Art mediated a relationship between the historical pioneer and the modern viewer during this period, replicating the identity formation process in the market sphere.

The Role of Art in Imitating the Pioneer

Haberle's faithful allusions to the pioneer within the framework of trompe l'oeil painting reflect a tension between the modern city-dweller and the 'wild' American environment that embodied the nation's identity. The symbol comes to replace the experience, altering the modern American's understanding of national identity. Miller contends that representations of the American landscape were far more powerful in communicating a national identity to the viewing public than the actual first-hand wilderness experience, particularly on eastern seaboard in the 1870s.[20] American print culture became a surrogate for Turner's pioneer amongst mass waves of immigration that fed into urban centers of industry instead of perpetuating Western expansion. Haberle's unique placement of a newspaper clipping with the singular heading "Imitation" mirrors the diagonal created by the five-dollar note containing the pioneer vignette. This subtle visual unlocks the relationship between landscape and text that supplemented the pioneer experience.

While Turner made his remarks after Haberle composed his currency paintings, the ideas were incubated within a society that feared the demise of American power at the close of the frontier starting in the 1880s. Turner

[20] Miller, "The Fate of Wilderness in American Landscape," 92.

concluded his essay with an imperialistic vision in response to period reactions that the close of the frontier would stunt American growth. Turner said,

> He would be a rash prophet who should assert that the expansive character of American life has now entirely ceased. Movement has been its dominant fact, and, unless this training has no effect upon a people, the American energy will continually demand a wider field for its exercise. But never again will such gifts of free land offer themselves.[21]

Haberle evoked the image of the pioneer in this painting at a unique crossroad in the symbol's development. The pioneer by construction is defined in relation to the unsettled landscape fading from existence, yet the symbol is revived within the economic market on legal tender.

There is an intimate connection between the nationalized landscape and paper money in the history of American currency. In the eighteenth century, Benjamin Franklin believed that paper money would retain its face value if it were backed by land and not hard specie.[22] While land did not enter the bimetallist debate at this time, a period connection seems to exist through a myth about the painter Ralph Albert Blakelock. A colorist painter of landscapes, he struggled to support his family as a painter. It is rumored that on the eve of the birth of his youngest son and desperate for money, Blakelock went mad while selling a painting well below his asking price. Some say he designed a million dollar note and attempted to cash it at a major bank in New York City the next morning, other writers say he violently tore up the money in the street and was sent directly to the asylum. Historians claim that Blakelock kept occupied in the

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[21] Turner, *The Frontier in American History,* 37.

[22] For more information on Franklin's theorizing of the paper bill, see Thomas Levenson, "Benjamin Franklin's Greatest Invention," *American History* (October 2010): 31.

hospital by "painting million-dollar bills, decorated with landscapes, and giving them to such friends as visited him."[23] In this myth, the iconic American landscape was placed at the center of the most valued bill as part of a set of nationalizing images on currency, acting as the most valued icon of the National Bank Note Program if it were actualized.[24] While this was a fabrication, it confirms a cultural connection between banknotes and the economic value of national landscape painting during this time.

The relationship of the American citizen to the national landscape was changing while Haberle painted *Can You Break a Five?* With the closure of the frontier, the iconic landscape transformed from a site of identity formation to a tourist attraction heavily regulated by commerce. In the late 1880s, social groups were founded to teach pioneer skills to a younger generation in the fear that survival techniques would be lost. Historian Shari Huhndorf interprets the rise of groups like the Boy Scouts and the Boone and Crockett Club (founded in 1888) as a way for modern men to combat threats to their masculinity amidst a general fear of a nation without expansionism.[25] Yet these groups still operated within the

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[23] Robert M. Coates, "Blakelock," *New Yorker* 23 (May 3, 1947): 75. For more information about Blakelock's mental collapse, see Abraham Davidson, *Ralph Albert Blakelock* (University Park, PA: Pennsylvania State University, 1996), 22-27. The relationship between Blakelock and Haberle deserves more attention, but fell beyond the scope of this project. There is a unique relationship between colorist works and Haberle's choice of high-finished, linear forms in trompe l'oeil that should be further explored.

[24] Beatrice Van Rensselaer Adams who exploited Blakelock's mental state to inflate the value of his paintings on the market most likely fabricated this myth. Dorinda Evans, "Art and Deception: Ralph Blakelock and His Guardian," *American Art Journal* 19.1 (1987): 42-48.

[25] Shari Huhndorf, *Going Native: Indians in the American Cultural Imagination* (Ithaca: Cornell University, 2001), 65-76.

confines of a modern society, failing to recreate the isolated experience of the pioneer that was essential to the Frontier Thesis.

Iconic sites in the American landscape developed in the later half of nineteenth century, transforming into commercial centers that overshadowed the sublime. For example, the iconic image of Niagara developed as a nationalistic emblem. It is not a coincidence that Frederick Edwin Church's depiction of the falls also became the top grossing painting of the period. Gail Davidson, Elizabeth Johns, and Elizabeth McKinsey trace the visual transformation of Niagara Falls from its initial state of a sublime vista to a popular tourist site during the 1870s and 1880s. Davidson explores the development of Niagara from a site of exploration to commodification, citing Arthur Lumley's caricature of the falls in *Niagara Seen with Different Eyes* from 1873, which shows a spectrum of personal reactions to the falls instead of a uniform and pristine encounter with the sublime (fig. 17).[26] Lumley's cartoon shows how the consumption of the American landscape became a subjective experience. Landowners, once dependent on farming, were able to charge admission to their land, profiting from excursions to scenic overlooks. Johns maintains that city-dwellers viewed their interactions with nature as "window[s] to the unknowable." Tourism allowed the modern American

[26] Gail Davidson, "Landscape Icons, Tourism, and Land Development in the Northeast," *Frederic Church, Winslow Homer, and Thomas Moran: Tourism and the American Landscape*, edited by Gail Davidson (New York: Bulfinch Press and the Cooper-Hewitt National Museum of Design, 2006), 21.

to explore the mystery of nature and the origins of the nation through activities such as fishing, berry picking, and hiking.[27]

McKinsey interprets these excursions within the rising world of the leisure class. These mediated jaunts were classified as luxury goods, defining the tourist's relationship with the landscape in terms of the market economy instead of the sublime. Visual depictions of these sites shift in relation to the figures included. Instead of showing pioneers, hunters, explorers, and Indians at the site, artists included "strolling couples, gamboling children, and men of fashion."[28] This modern incursion into the American landscape is no longer for the purpose of identity formation, but a market production supported by the adept investor. Excursions as collected and purchased experiences become indicators of modern identity formation. This represents a shift in identity formulation from being defined by physical traits and skills to experiences determined by their economic and market value.[29]

The railroad mediated and accelerated this experience even further by connecting the middle-class American city-dweller to the sublime landscape. Private investors poured money into independent rail lines to remote destinations.

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[27] Elizabeth Johns, "Cities, Excursions into Nature, and Late-Century Landscapes," in *American Victorians and Virgin Nature,* ed. T. J. Jackson Lears (Boston: Isabella Stewart Gardner, 2002), 78.

[28] Elizabeth R. McKinsey, *Niagara Falls: Icon of the American Sublime* (Cambridge: Cambridge University, 1985), 135 and 141.

[29] This is a common theme that runs through the work of trompe l'oeil artists from this period. The most forthright manifestation of this idea is in the rack paintings of John Frederick Peto. As a collection of personal objects (letters, receipts, newspaper clippings, photos, etc.), rack paintings of shallow depth acted as a portrait of the patron. Instead of showing the physical features of a man's face, his material refuse from the bottom of his desk drawer would come to define his character in this modern, yet fringe, type of painting.

Rail depots promoted trips to America's greatest treasures. A trade card promoting the Boston and Maine Railroad shows a bustling station of anxious modern women and men conversing about the adventure they are about to have; names of the destinations literally float above the crowd (fig. 18). While this image expresses the middle-class urge to experience the American "frontier" firsthand, it also signals how regulated the experience was. Through the rigid structure of the timetable, rail extended the modern city to these sublime sites, depriving the viewer of a truly isolated experience of the landscape. The landscape became part of an advertisement campaign rather than a unique site of national identity. The train modernized and commercialized Turner's 'Americanization process,' replacing the intimate relationship of migrant and landscape with this rapid and mediated form of technological transportation.

Guidebooks provided an additional level of mediation between the modern citizen and the American landscape. Local, regional, and national rail lines published guidebooks for their passengers that narrated the experience of travel, providing a commercial memento of the trip. In *To the Rockies and Beyond, or a Summer on the Union Pacific Railroad and Branches* from 1879, Robert Strahorn narrated the riders' experience of the West while on the Union Pacific Railroad with engravings of sparsely populated vistas. These images emphasized the railroad's ability to penetrate the last frontier within the continental United States, often showing only a glimpse of a train's presence, dwarfed by mountainous vistas (fig. 19). Block prints of small towns, as in "Scenes in Salmon River Region," echo Turner's sentiments that the American landscape is able to craft

social identities through the environment (fig. 20). These engraved portraits of a town show the topological icon of Mount Easter behind a wide thoroughfare of a mineshaft, single- and two-story structures. This triad depicts the resources of the land, the labor available in the growing town, and the capital of the silver mines that provided the roots for a growing economy. A wide boulevard and double story buildings elicit city-planning formulas of the period, particularly the defining characteristics of Haussmannization from only decades before. These engravings visualize the potential of frontier towns to develop into self-sustained metropolis as in the Frontier Thesis. The Union Pacific Railroad is boldly advertised at the base of these images, acting as the main facilitator of this progress in the West.

Guidebook engravings linked the pioneer spirit of the final frontier with contemporary mining ventures that provided precious metals of silver for the nation's money market, all made possible by the Transcontinental Railroad. Mining towns and the railroad were interpreted as the first sign of civilization. Mining initiatives for gold and silver were an active magnet for immigrants to travel west to famous mining valleys in Colorado, Montana, and Idaho by the 1880s, supporting territorial bids for statehood. Rail trips were not only seen as opportunities to experience the sublime American landscape but also to find new ventures to invest in, echoing the shift from geographical to economic traits to define a national identity. Thus, the visual promotion of the railroad as the key driver of American expansion was threefold: to emphasize the important connection between silver and the railroad, to promote tourist destinations out

West only reachable by the railroad (and promote final settlement), and to attract railroad investment despite the contagion caused by the Northern Pacific Railway during the panic of 1873 and the Great Railroad Strike of 1877.[30] These guidebooks not narrated the railroad experience that replaced the pioneer while promoting the railroad and frontier as an economic investment.

This visual material became a surrogate for the modern city-dweller's interaction with nature, as most of these guidebooks were distributed as promotional material. In addition, popular magazines printed engravings of iconic sites that were then circulated in high volume throughout the country, including *Scribner's*, *The Century*, and *Frank Leslie*. Geologists, tour guides, storytellers, and essayists wrote text to supplement picturesque images, enhancing the experience for the viewer in his or her own domestic realm. Curator Floramae McCarron-Cates examines one of the more popular periodicals from this time, *Picturesque America,* which promoted the frontier experience through engraved images by national landscape painters such as Thomas Moran and Frederic Edwin Church (fig. 21). She writes,

> This vocabulary of images registered deeply in the collective memory of Americans and served as surrogates for travel. While an increasing number of travelers crisscrossed the country in the years following the Civil War, many others journeyed vicariously through the printed medium and came to recognize panoramic sights unknown only a few years before. [… These edited] images … reinforced collective ownership of the land in

[30] Images of the railroad bringing success and progress to the west were highly popular during the 1860s, as seen in the visual trope "*Westward the Course of Empire Takes Its Way."* This is strongly shown in John Gast's *Spirit of the Frontier* from 1872 and Frances F. Palmers, "Across the Continent: Westward the Course of Empire Takes its Way" from 1869.

> the memories of Americans [… stirring] national pride and [instilling] a sense of belonging.[31]

Engraved depictions of landscapes became an accurate symbol for the nation during this period in American history.[32] These engraved and circulated images effectively replaced the individual pioneer experience.

In the preface to *Picturesque America,* editor William Cullen Bryant resituated art as a pioneer over the artist and American citizen. Bryant wrote, "Art signs to carry her conquest into new realms," playing off of Turner's pioneer rhetoric.[33] The pencil and pen become personified pioneers, while the individual agent or "artist" is referenced only once. Art imitates the pioneer through circulation. Inherently through the dispersion of these images, art becomes a surrogate for the immersive pioneer experience in Turner's nationalizing process. Art reverses Turner's process identity formation. The images of the frontier now travel to the Eurocentric city dweller, providing national immersion through the proliferation of edited engravings of the frontier. Americans no longer had to travel into the wild to find their national identity, but could do so within the confines of the industrial city.

The pioneer vignette on the five-dollar bill is part of this visual campaign by nature of its circulation. Haberle was clearly interested in the circulation of nationalistic imagery as more directly explored in his *Torn in Transit* series

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[31] Floramae McCarron-Cates, "The Best Possible View: Pictorial Representation in the American West," *Frederic Church, Winslow Homer, and Thomas Moran: Tourism and the American Landscape*, edited by Gail Davison (New York: Bulfinch Press and the Cooper-Hewitt National Design Museum, 2006), 75.

[32] McCarron-Cates, "The Best Possible View," 103 and 107.

[33] William Cullen Bryant, "Preface," *Picturesque America* (1874), edited by William Cullen Bryant (Secaucus, NJ: Lyle Stuart, 1974), i.

created in the five-year period following *Can You Break a Five?*[34] Similar to his currency paintings, Haberle portrays a flat landscape painting that is wrapped in butcher paper and tied with string as in *Torn-in-Transit* from around 1890 (fig. 22). The passage of time is clear from the partial railroad stickers that record the painting's journey, while large sections of the butcher paper have been ripped away to reveal the unharmed landscape. The series plays off of the Renaissance construct that a painting acts as a window onto nature by placing it within the framework of motion, reflecting the rapid developments of modern society and its effects on the viewer's engagement with visual material.[35]

Like landscape engravings, currency's worth depended upon its ability to circulate, carrying national imagery in support of the Union, and supplementing the frontier experience with the market. In *The Making of National Money,* Eric Helleiner shows that the ultimate goal of territorial currencies was to strengthen national identities. The imagery engraved on money would widely circulate to the far reaches of national boundaries, being the most viewed and powerful statement of the nation and reinforcing this nationalistic propaganda on a daily basis.[36] The pioneer's role is to communicate this national identity to a wide ranging public through the semiotic structures of image and language on the bill, removing the pioneer from his original context on the frontier.

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[34] Haberle's Torn in Transit series has largely gone overlooked within art historical literature, and should also be contextualized within this culture of national imagery circulation.

[35] Jennifer Greenhill, *Playing it Straight: Art and Humor in the Gilded Age* (Berkeley, CA: University of California, 2012), 159.

[36] Eric Helleiner, *The Making of National Money: Territorial Currencies in Historical Perspective* (Ithaca, NY: Cornell University, 2003), 104-7.

Like the published images of landscape, text narrates the visual imagery on the five-dollar bill. The statement, "the United States will pay the bearer five dollars," guarantees the face value of that piece of paper, and thus its economic and social worth. Yet the printed phrase also defines the symbolic face value of the pioneer vignette, as it is physically placed in the center of the text. The monetary and visual worth within the vignette image are mutually dependent because of their interlocking display. Their visual existence is defined in relation to one another in this semiotic structure of representations. Thus, the visual symbols of national identity during this period become regulated through the circulation and commodification of engravings, including the five-dollar bill of the pioneer.

A Problem of Remainders

The relationship between text and image points to a larger problem of representation in the nineteenth century that trompe l'oeil painters explicitly explored through their still-life paintings. This national imagery takes on a spectrum of meaning because there is no predetermined context in which these vignettes are read. Paper money was associated with conceptual problems of semiotics debated in the public arena under the issue of bimetallism, providing Haberle with a semiotic structure to understand the relationship between paper money and its painted representation. Through the worn state of the bill and the spectacles, Haberle's newspaper heading "Imitation" not only calls into question if this bill is a counterfeit, but what its face value truly signifies in relation to the visual imagery on the surface. Haberle's choice of the currency denominations in

the prime number five and the unit one plays up the problem of symbolic indivisibility, particularly through his use of legal tender notes.

This crisis of representation becomes central to the bimetallist debate that questioned the relationship between paper currency's marketed value and its ground value in gold and silver. Paper money was developed as a promissory note; it was a record of debt that could be cashed in for hard specie of silver or gold, a seemingly more stable commodity and a 'universally' accepted mode of transaction. In his address to the Democratic Republican General Committee in 1840, Colonel Benjamin Faneuil Hunt considered gold to be the "measure of all other property in every quarter of the globe," and that paper currency could only act as a substitute for hard specie.[37] Hunt's comments reflected an overwhelming dislike of paper currency in the antebellum period, particularly because it was prone to counterfeit and was usually only accepted at the issuing bank.

The mechanization of currency production reflects the antebellum need for art to function within the market economy as a means of transaction that prevented unauthorized duplication. Jennifer Roberts discusses the development of mechanized engraving systems like the geometrical lathe to prevent

[37] Benjamin Faneuil Hunt, "Speech of Col. Benj. Faneuil Hunt, of Charleston, South Carolina, delivered at the request of the Democratic Republican General Committee, at the Mass Meeting of the Mechanics and Working Men of New-York, in Reply to the Doctrines of Daniel Webster, on the Currency and a National Bank," (1840), 3. Nineteenth-Century Pamphlet Collection, Tisch Special Collections, Tufts University.

replication.[38] Anti-counterfeiting measures insured the stable value of currency within the money market. According to Roberts,

> Each banknote needed to testify to contradictory forms of value: reference value and object value. The banknote had to produce a credible *reference* to the ground of its value – either the exact quantity of specie that it supposedly represented or, more generally, the solidity of political body that guaranteed that representation.[39]

Both the authority or controller of money and the financial value of the note needed to communicate stability. Notes that did not have embellished imagery on the front were considered to be cheap or fake. Producers often refused to accept paper currency at face value because the design did not exhibit any aesthetic value. Design became a key element of creating and maintaining the face value of currency during this period of rising financial instability. Inflationary pressures from the overproduction of paper currency sparked the Banking Panic of 1857, which only increased fears around paper currency and counterfeit.

It became popular to include the image of hard specie coins on the front of paper notes from 1857 through the Civil War when the velocity (or rate of circulation) of hard currency was low due to the hoarding of gold and silver. Visually portraying the coins that the note represented assured its authenticity. For example, the five-dollar note issued by the Huguenot Bank of New Platz, New York from 1861 includes the engraved image of five coins in the main vignette of

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[38] Roberts's study discusses the use of machine based engraving for financial documents as a way to hedge against counterfeiting. The general idea was that by creating such intricate designs, no human would ever have the patience to replicate the engraved lines. See Jennifer Roberts, *Transporting Visions: The Movement of Images in Early America* (Berkeley, CA: University of California, 2014), 120-122.

[39] Roberts, *Transporting Visions*, 124.

the bill (fig. 23). Not only is the face value of the paper bill made explicit through the representation of hard specie, but also through an ornate design with depictions of putti between an Indian Princess and a modern man of industry. Paper currency was no longer validated by its aesthetic value alone, but also through the symbolic representation of hard specie. This shift created two diverging value systems of actual worth and performed worth. This tradition continued into the First Charter Period of the National Bank Note Program with gold certificates.[40] The aesthetic value of the banknote was overshadowed by an indexical semiotic system.

Silver and gold certificates dependent on an equation of representation to its metallic currency value. A century later, Joseph Beuys would critique this flat semiotic structure in *Kunst=Kapital* from 1979 (fig. 24). While this work is an open commentary on the nature of the twentieth century art market, it also alludes to a symbolic and spatial collapse of visual imagery. [41] By writing in words a direct indexical relationship between art and money on the front of a banknote, the figural presence of the portrait is obscured and its representational value as an art object is lost. No longer is the face of the work important, only its value. In his philosophical study on the value of money, Marcel Hénaff characterized commercial money as cut off from any purely symbolic value independent of its

[40] For more information see Friedberg, *Paper Money of the United States*, 132.
[41] Miller has also suggested this spatial collapse of subject and surface in the design of banknotes. See Angela Miller, *Empire of the Eye: Landscape, Representation, and American Cultural Politics, 1825-1875* (Ithaca: Cornell University, 1993), 192.

role as an exchange medium because of its circulation.[42] This inhibits the interpretation of an engraved vignette outside of its monetary function.

Haberle specifically chose not to include a silver or gold certificate in this painting, acting against a strictly indexical interpretation of paper currency and monetary origin.[43] The legal tender note that he does show did not carry this injective relationship, but suggests an abstract value. Because there was no direct allusion to hard specie, legal tender was a first step towards irredeemable paper currency. Mary Poovey claimed that it is the challenge of every credit system to communicate its validity as self-evident through visual means, eventually calling into crisis the question of representation itself.[44] The legal tender system exacerbated this question, becoming a symbol of instability and inflation. By displaying this note, Haberle raises both the monetary and semiotic question: is a sign valuable without the existence of its object? Haberle posed this question more directly in a painting created around the same time as *Can You Break a Five?* In *What's It Worth?* (1889), he shows a deteriorating and obsolete confederate note that lost all monetary value after the Civil War (fig. 25).[45] In this

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[42] Marcel Hénaff, *The Price of Truth: Gift, Money, and Philosophy*, translated by Jean-Louis Morhange and Anne-Marie Feenberg-Dibon (Stanford: Stanford University, 2010), 306.

[43] It should be noted that Haberle was using five-dollar silver certificates in his other paintings from this time period, particularly in *The Changes of Time*. Thus this was a conscious decision on his part.

[44] Mary Poovey, *The Financial System in Nineteenth-Century Britain* (New York: Oxford University, 2003), 80-173 and 287.

[45] Gertrude Grace Sill discovered *What's It Worth?* in the early 2000's and published an article on the finding of the painting. In it, she suggests that the painting might be a compendium to his *U.S.A.* that is also the sparse presentation of a U.S. banknote of the same size, palate, and depicts the same split board in the background. For more information, see Gertrude Grace Sill,

painting, value is no longer dependent upon the existence of a tangible material like silver or gold, but on spectral concepts that are volatile and shifting, like political institutions. This relationship resists an indexical value structure that defines worth intrinsically. When *Can You Break a Five?* is considered in relation to this other painting, it becomes clear that the title prompt is about the divergence of face value and worth.

To understand how this divergence impacts the imagery on the bill, the problem needs to be reconsidered in light of the bimetallist argument. The problem of face value and worth becomes a hallmark pro-gold critique of paper currency from this period. The American cartoonist Thomas Nast used satire to critique these issues of indexical representation in his cartoons from the 1870s. Nast was a pro-gold standard advocate who worked for the Harper's organization, the largest publishing house to decry the free-silver platform. Pro-gold advocates viewed both silver and paper currency to be a volatile money stock that caused dramatic swings in the monetary supply, leading to surges of inflation. This inflation threatened economic growth that would heal the scars of the Civil War and prevent working class riots. Morton Keller characterizes Nast's greenback cartoons as personal responses to economic instability. Nast viewed free-silver groups, including Populists and labor organizers, as threats to the traditional economy; instead conservative policies were promoted to ensure peace and unity

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"Three Rediscovered Paintings of Currency by John Haberle," *Magazine Antiques* 172.5 (November 2007): 141.

in the post-bellum world.[46] In three critical cartoons, Nast visualized the discrepancy between the face value paper currency and its actual worth.

"Inflation is 'as easy as lying'" from 1874 depicts a man (the capitalist consumer) tearing a paper bill in half, suggesting to a shopkeeper (the producer) that his paper bill is now worth twice as much as before (fig. 26). The figure of Capital is quoted as saying "By dividing this One Dollar it becomes Two, which makes more money. I pay you these 'Two Dollars' for Wages, you see." The spontaneous generation of paper money by tearing of a bill in half critiques the idea that paper money did not need to be backed by hard specie, and thus could easily cause inflation. In the cartoon Labor responds, "But when I go to buy Bread I find it only worth one; so I don't see it." Even though Capital gives Labor a pay increase from one to two dollars by breaking the bill in half, the price of bread will rise because there is an oversupply of money within the market. This cartoon sadistically plays off the phrase "can you break a five?" by showing Capital physically causing inflation by ripping a dollar bill in half, thus devaluing the purchasing power of the bill. Through the title, Haberle is raising this problem of overproduction and face value that causes inflation in the market economy, which is also mirrored in the visual saturation of the modern viewer to the national landscape.

Nast critiqued the unstable construction of paper bills as a sign for hard currency within a semiotic and economic system. Money was often associated

[46] Morton Keller, *The Art and Politics of Thomas Nast* (London: Oxford University, 1975), 243-6. For period account of Nast's symbolic constructions of paper currency and inflation, see Arthur Barlett Maurice, "Thomas Nast and His Cartoons," *The Bookman* (March 1902): 15-19.

with ghostliness, which indicated a problem of substance through the lack of an actual object for paper money to signify.[47] In "A Shadow is not a Substance" (1874), Nast applies period rhetoric that defined paper money as a 'shadow currency,' often showing the greenback as a ghostly presence, without any physical or tangible form (fig. 27). Haberle's careful placement of the fragments of a one-dollar bill, particularly the disconnected corners on the left, allude to the concept of 'shadow currency' through the creation of a ghostly outline.

Nast employed this inflationary rhetoric to challenge larger issues of authority through decree and representation in the modern era. In his "Milk Tickets for Babies" from 1876, Nast shows his iconic rag doll baby as a symbol for inflation (fig. 28). Surrounding this lifeless figure are paper drawings of representations. By "acts" of the creator, the representation is declared to become its referential object instead of only a signification. Nast includes "This is 'cow' by the act of the artist" directly next to "this is money by the act of congress," alluding to the semiotic relationship of object, image, and word in art. Nast's cartoons satirically raised period questions of representation itself beyond currency. Not only does representation not equate to reality in Nast's cartoons, it also explicitly states that value is not equated to representation. Haberle's choice of a legal tender note with a clear representative of national identity within the

[47] For more information see Marc Shell, *Money, Language, and Thought: Literary and Philosophic Economies from the Medieval to the Modern Era* (Baltimore: John Hopkins University, 1982), 6. While Shell's semiotic investigations of paper currency reveals the problems around representations, he fails to consider how Haberle might attempt to either resolve or expand upon the problem of constructed national symbols on currency. See Marc Shell, *Art & Money* (Chicago: University of Chicago, 1995), 74-79.

center plays on this problem of inherent worth or value to representation and is declared state, as seen in Nast's cartoon. The phrase "The United States will pay the bearer five dollars" suggests a connection between the promise of money and the promise of the bearer of wealth, the pioneer. While Nast's engagement with monetary problems of representation strictly functioned within the parameters of the bimetallist debate, his critique of representation and word are echoed in Haberle's painting.

For the pioneer to survive as a sign in this system, the symbol must function in accordance with the dominant sign to which it is attached. Thus, the pioneer as a symbol must operate within the utilitarian function of money, and thus signify within that structure of both reproduction and circulation. Imitation naturally implies the existence of an original image or origin, but also the reproduction or copy of it. According to Gilles Deleuze, the mere act of replication opens up a procreative space of difference between each copied image.[48] Yet this generative space can quickly change the interpretive parameters, which alters the relationship between sign and object under Charles Peirce's theory of signs by adjusting the interpretant.[49] Reproduction allows the copy to be

[48] Gilles Deleuze, *Difference & Repetition*, translated by Paul Patton (New York: Columbia University, 1994), 1-27.

[49] The interpretant communicates the contextual relationship between object and sign. Charles Pierce theorized on the role of interpretation parameters in semiotics during this period, see Albert Atkin, "Peirce's Theory of Signs." *The Stanford Encyclopedia of Philosophy*, ed. by Edward N. Zalta (Summer 2013): <http://plato.stanford.edu/entries/peirce-semiotics/>. Accessed April 7, 2015. The idea of a generative space becomes important in the replication of an image under the theory of Stephen Bann. See Stephen Bann, *Parallel Lines: Printmakers, Painters and Photographers in Nineteenth-Century France* (New Haven, CT: Yale University, 2001), 11.

interpreted with different spatial, social, and cultural parameters than the original as already explored through landscape imagery. In "The Work of Art in the Age of Mechanical Reproduction," Walter Benjamin considers the impact of the reproduction on the viewer's reception.

> Technological reproduction can place the copy of the original in situations which the original itself cannot attain… It might be said as a general formula that the technology of reproduction detaches the reproduced object from the sphere of tradition. By replicating the work many times over, it substitutes a mass existence for a unique existence. And in permitting the reproduction to reach the recipient in his or her own situation, it actualized that which is reproduced.[50]

Benjamin makes clear that reproducibility alters the cultural traditions and parameters in which the image was produced. Thus the production and reception of vignettes in the National Bank Note Program were never aligned in the midst of the geographical, cultural, and social stratification of the country. The power of the pioneer as a national, unified symbol is lost through the dissemination of the banknote, producing a multiplicity of subjective signification instead of embodying a singular, universal truth.

The broken spectacles in Haberle's painting indicate the lack of a unified vantage point that national imagery relies upon, indicating the multiplicity of contexts in which this symbol is interpreted. The utilitarian function of these glasses is for reading text, which was shown to mediate the relationship between the subject and the object during this period. Yet this relationship or reading is no longer possible considering the state of the glasses. One spectacle is cracked

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[50] Walter Benjamin, "The Work of Art in the Age of its Technological Reproducibility" (1939) *The Art of Art History*, edited by Donald Preziosi, 2nd ed (Oxford: Oxford University, 2009), 437-438.

directly down the diameter of the round glass lens, mirroring the fold down the center of the five-dollar note. This split in the lens suggests double vision, possible alluding to the use of bifocals to concurrently see what is up close and distant. This reflects the duality of the pioneer's immersive experience as the object and the removed interpretation through the vignette. It also reflects more than one vantage point for this imagery, emphasizing the subjective nature of the bill's imagery, even though it is uniform in its initial replication.

The complex relationship between the spectacles and banknotes elicits the problematic nature of the pioneer vignette on paper currency. The interpersonal and subjective interaction of the viewer with this note implies multiplicity of meaning that rebuffs a singular, national perspective. This takes placed within framework of engraved landscape imagery and textual narration during this period. The reversed relationship between citizen and landscape alters the experience from the sublime to that of a subjective and measured commodity. Access to this imagery as a nationalizing force becomes dependent on income, and thus the pioneer's interpretation as a symbol is subject to the rigid heterogeneous class structures espoused by advocates of Social Darwinism. In addition, the sustained relationship of citizen to landscape through visual material was only made possible through the guaranteed velocity of images during this period, as evident from the worn state of the legal tender note. Haberle's *Can You Break a Five?* operated within this shifting relationship of subjective viewer to icon in the 1880s, challenging an indexical relationship of citizen to national identity.

Chapter 2: Selling America

Haberle continues to grapple with the problem of representation through a greenback and a ten-dollar bill in *U.S.A* (fig. 2). This chapter will consider not what is visible in the painting, but also what is implied through the concealment of a vignette on the ten-dollar bill. By studying the iconographic legacy of the Indian Queen as a construction of national identity, her removal embodies the pictorial result of reconciling a nation's promise of enlightened progress while still projecting native, non-European origins.[1] As a result, the native becomes a site of assimilation portrayed on financial material, as informed by political policy during the Indian Question.[2] In this chapter, I explore how the complex shifting ground between native and material origins under the framework of Social Darwinism inform Haberle's composition of *U.S.A*.

The painting reads as simplistic without close analysis. Upon close investigation, Haberle's design hinges on the spatial relationship two banknotes and a newspaper clipping with the heading "Imitation." The acronym title suggests the official name of the United States of America, referencing the

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[1] The figure in this vignette has been called the Indian Queen by followers of numismatics. However, numerous scholars use the terms Indian Queen, Indian Princess, and Pocahontas interchangeably. While these are different terms inherently, I will not address the slippage between the status of Queen and Princess in this study. However, this power struggle is central to the development of this figure in nineteenth-century American visual culture.

[2] I will follow in the footsteps of Lester Olson by distinguishing between Native Americans – the people, tribes, and ethnic groups inhabiting North American prior to European contact to the present – and Indians, the Eurocentric constructed identity based solely on external convictions and not crafted in any way by Native Americans. See Lester Olson, *Emblems of American Community in the Revolutionary Era: A Study in Rhetorical Iconology* (Washington, DC: Smithsonian Institution Press, 1991), 13.

political body of the nation and insurer of the face value of banknotes. Three denominations of currency are layered on top of each other, with a one-cent stamp to the top left, the dollar greenback in the middle, and the ten-dollar note on the bottom. The *sawhorse-reverse* pattern is prominently displayed on the back of the dollar bill.[3] The pattern is the inspiration for the painting's name, as the slogan "United States" and "of America" is written inside of the X, with the letters U, S, and 'of A' intertwined above and below the design. The crossing of the one and ten dollar notes mirrors the sawhorse-reverse pattern, heightening the importance of this visual design. What remains of the ten-dollar bill seems to be in question, as the corners on the left are detached from the rest of the note and only the bottom-right corner peaks out from below the one-dollar bill. Exposed is the lower half of a vignette illustrating the presentation of the Indian Queen, an early modern allegory of America, to the Old World (fig. 29).[4] Haberle faithfully copied every engraved line of the vignette as a testimony of his ability to duplicate what should not be reproduced.

The current literature on *U.S.A.* focuses strictly on the public's reception of the painting. The formal specifications of *U.S.A.* have been overlooked by a larger debate on counterfeiting, similar to *The Changes of Time* and *Can You Break a Five?* Alfred Frankenstein was the first historian to interpret *U.S.A.*

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[3] This design was included on one-dollar notes from 1874 through 1917 when the banking system was restricted under the Federal Reserve. For more information about the sawhorse-reverse pattern, see Robert Friedberg, *Paper Money of the United States: A Complete Illustrated Guide with Valuations*, 4th edition (Chicago: Follett Publishing, 1962), 38.

[4] Of course, this interpretation of the continent implies a strictly European understanding of the world, which is neither universal during this period nor in the early modern period when these representations were constructed.

strictly in relation to issues of provenance. The painting was first shown at the Art Institute of Chicago's Annual Exhibition of 1889, during which an art critic accused Haberle of pasting notes onto the canvas, covering the bill with a "thin scumble of paint" to conceal the edges of the paper note. The journalist claimed that "glass [had] been put over the 'painting' since the writer of this picked loose an edge of the bill."[5] Haberle consulted a lawyer about these slanderous defamations, knowing too well the punishment for forgery was fifteen "years in the Atlanta prison."[6] He arranged for the painting to be examined by experts in the presence of the journalist and reporters of a competitive paper, the *Chicago Daily News,* who confirmed in print on July 3, 1889 that the painting was genuine. He eventually broke even on the painting, selling it for the cost of the materials, lawyer fees, and trip expenses to and from Chicago.[7] Because of this antidote, Sill interpreted *U.S.A.* strictly in relation to the issue of counterfeiting.[8] In a similar fashion, the only analyzed portion of the painting is the counterfeit warning found on the back of the dollar bill, first shown in the New Britain catalog of 1962 (fig. 30).[9] Frankenstein characterized *U.S.A.* as a message to the Federal Government that read, "put that in your pipe and smoke it."[10]

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[5] Quoted from Alfred Frankenstein, "Haberle: or the illusion of the Real," *Magazine of Art* 41 (October, 1948), 224.

[6] John Haberle to Vera Haberle*,* September of 1925. John Haberle Papers, Archives of American Art, Washington, DC.

[7] See Frankenstein, "Haberle: or the illusion of the Real," 224 and John Haberle to Vera Haberle, September of 1925, John Haberle Papers.

[8] Gertrude Grace Sill*, John Haberle: Master of Illusion* (Springfield, MA: Museum of Fine Arts, 1985), 17.

[9] *Haberle: Retrospective Exhibition,* exhibition catalog, January 6-28, 1962 (New Britain, CT: New Britain Museum of American Art), 7.

[10] Frankenstein, "Haberle: or the illusion of the Real," 224.

While this open challenge to authority is evident in the act of reproducing national currency in paint, Haberle removed key indicators of power that would suggest a candid act of forgery. One of the problems with this interpretation is the clear absence of the engraved portrait of Senator Daniel Webster on the lower left corner of the ten-dollar bill. This engraving was usually altered in subtle ways for counterfeiters to identify a fellow con, and also to jokingly mock the institution of the Treasury as Webster was adamantly against the use of paper currency since the Jackson Administration in the 1830s.[11] As other counterfeit artists were known to do, Nicholas Alden Brooks accentuated the engraved lines of the Webster portrait in his *A Ten-Dollar Bill*, particularly the jawline of his face, as a mockery of political authority (fig. 31).[12] The exclusion of the Webster portrait indicates that the ten-dollar bill in *U.S.A.* might signal an issue beyond counterfeiting.

Similarly, the bottom portion of the ten-dollar bill, the location of the official signature of the Treasurer of the United States, is missing (fig. 32). The letters "yma" are clearly visible, indicating that this bill was produced while Albert U. Wyman was the interim treasurer between 1876 and 1877, and then

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[11] In a speech in New York, Webster said "I am for a solid specie basis for our circulation, and for specie as a part of the circulation, so far as it may be practicable and convenient. I am for giving no value to paper, merely as paper. I abhor paper; that s to say, irredeemable paper, paper that may not be converted into gold or silver at the will of the holder." See Daniel Webster, "A Reception in New York: A Speech to Niblo's Saloon, New York, 15th of March 1837," *The Great Speeches and Orations of Daniel Webster* (New York: Little, Brown, and Company, 1879), 440.

[12] See Museum of Fine Arts, Boston, Museum label for Nicholas Alden Brooks, *A Ten Dollar Bill* (2008.106), Art of the Americas Wing, Boston, MA. http://www.mfa.org/collections/object/a-ten-dollar-bill-513281. Accessed March 30, 2015.

again from 1883 to 1885. The signature of the Treasurer became the official hallmark of face value on a paper note, one which counterfeiters proudly copied. In addition, the state of the ten-dollar bill is also in question. The detached corners at the top left signal that more of the bill may be missing. Is enough left to pass as currency?

The real value of the dollar greenback is also in question with the removal of the face value guarantee. A Franklin stamp covers the iconic statement "This Note is a Legal Tender at its Face Value," the definitive statement that legitimizes the representational value of the note (fig. 33). These indicators of value play off the problem of representation and paper currency in the nineteenth century, as previously discussed in chapter 1. Face value implies a differential between the value printed on the currency and the intrinsic value, indicating that the visual imagery is superficial. These indicators interact with the concealment of the vignette, opening a dialog on the role of the native as a national signifier only at face value.

The Kaleidoscopic Indian Queen

The covering of the native in the vignette is linked to reality of the Indian Queen as an unstable signifier of the nation. The vignette of the presentation of America to the Old World on the ten-dollar bill unwraps layers of political, cultural, and ethnic value systems attached to the national emblem of the Indian Queen. Haberle plays with the relationship between words and images by covering the vignette up with the edge of the one-dollar bill, marked with the phrase "Columbian Banknote Co." This subtle, yet intentional, act raises

questions about the signification of the vignette underneath, and its meaning beyond this superficial appearance.

The vignette shows a detailed image of a court scene, displaying six distinct figures (fig. 34). A man in the foreground is shown with his back towards the picture plane and his head turned in profile. He wears a dark, heavy cape recalling early modern dress of Christopher Columbus from contemporary murals and sculpture.[13] He leans forward towards a woman seated in a simple throne. The woman is sumptuously dressed, wearing a high collar and a diadem of feathers. The woman's dress and central placement is a hallmark of Europa. She sits inquisitively with her hand rested against her chin, looking not at the man who addresses her but at the female figure to the left. The other three male figures on the far right curiously look at the same figure of the Indian Princess. One of these men is dressed in courtly robes with a long nose, beard, and pointed hat; he could be a court ambassador of Asia as indicated by his hat or simply a generic advisor. A man in armor peers out from behind Europa's throne. The third figure wearing an exotic turban sits on the ground with legs crossed, smoking a hookah pipe while blowing out a puff of smoke, a detail Haberle faithfully copied in *U.S.A*.

All scrutinize the Indian Princess who averts their gazes by humbly looking down at the ground. She is dressed in an a-lined tunic with feathers around her shoulders and topping her diadem. Long, dark hair cascades down her back. She seems to be looking down at her hand, which her presenter holds

[13] See Sebastiano del Piombo's portrait of Christopher Columbus from 1519 for an example of this heavy, dark cover coat. Columbus was depicted in similar attire in the Columbus Monument in Madrid created in 1885.

firmly. These figures are enclosed in a detailed architectural space, including a staircase, a rug under the feet of all the figures except the Princess, tapestry patterns on the wall behind the throne, and the edge of a throne canopy seen over the heads of the solider and adviser. The composition shows the Indian Princess as a passive outsider in her presentation at court.

The choice of the Indian Queen as a signifier of a stable national identity proves troublesome and contradictory based on her iconographic history. Originally, the Indian Queen was the allegorical representation of the Americas, as designed by Cesar Ripa in his *Iconologia* from 1603 (fig. 35). She is often shown as nude or bare breasted to emphasize her savage state, stepping on a severed head to suggest cannibalism, while holding a bow and arrow to illustrate her primitive warfare tactics. [14] The symbolic meaning of the Indian Queen was localized during the colonial period to represent the British colonies. American

[14] Early modern constructions of the continents had strict formulations to maintain a world balance. Europe was always shown as the superior continent, as indicated by her elaborate dress and crown fit for rule over the most civilized of people. In comparison, America was shown with a few feathers in a small diadem, a symbol that became a key attribute of her personification. The representative of Asia was always sumptuously clothed, while Africa was often attired in elegant dress common to the Moors. Ripa's iconic standards for the continents act as a visual key for the vignette. Instead of presenting four allegorical female figures to represent the continents, the designer historicized the scene of presentation, possibly in reference to the presentation of Pocahontas at the court of King James I. The enthroned figure suggests a historical version of Europa or Britannia. The adviser with the pointed hat fills the role as representative of the Asian continent, similar to the robed Moorish ambassador who most likely represents the Africa. Through most of the early modern period up to the late nineteenth century, the Ottoman Empire controlled most of Northern Africa, justifying this Moorish or Islamic reference. See John Higham, "Indian Princess and Roman Goddess: The First Female Symbols of America," *Proceedings of the American Antiquarian Society* 100 (Worcester, MA: American Antiquarian, 1990), 48.

cartoonists manipulated this allegorical image to strengthen a familial resemblance with Britannia, thus producing a sense of victimization during the political escalation that lead to the Revolutionary War. The native's skin was often bleached to reflect an English colonizer, as seen in the vignette.[15] The myth of Pocahontas developed as a national origin story after the Revolutionary War, linking the Indian Queen to the historical figure from Virginia. The image of the Indian Queen came to signify the nation, its agricultural economy, and Jeffersonian ideals native to Virginia during the Early Republic period. The image of the Indian Princess appeared as part of national insignia, including on coins, medals, and even paper currency.[16] Hugh Higham argues that allegorical female

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[15] Lester Olson explores how British cartoonists manipulated the body of the Indian Queen to project an unruly image of the British colonies, distancing America from her British counterpoint Britannia through differences of skin tone. To counter this disparity overseas, American press editors often altered English prints by adding clothing to Indian Queen and lightening her skin color to re-emphasize a familial connection to the mother country, as if the Indian Queen were an equal to Britannia, and thus her mistreatment would be equated with victimization. The Indian Queen's racial features were often lighter than other depictions of Indians from this period, making her ethnically equivalent to the Anglo-Saxon or European race. In the vignette, the Indian Queen's skin is the same tone as her presenter, emphasizing this racial connection. The full coverage of the Indian Queen's body in the vignette reflects this tradition of equalization from the colonial period. In addition, her diadem is larger and more pronounced, challenging the authority of Europe. See Olson, *Emblems of American Community in the Revolutionary Era*, 76-120. For more information about the 'Americanization' of the Indian Queen figure, see E. McClung Fleming, "Symbols of the United States: From Indian Queen to Uncle Sam," *Frontiers of American Culture,* edited by Ray B. Browne (West Lafayette, IN: Purdue University, 1968), 1-7.

[16] E. McClung Fleming's study of U.S. iconography reveals that President Thomas Jefferson was instrumental in the design of Pocahontas on Congressional Medals, which was the first official instance of an allegorical symbol of the nation. Jefferson developed a description based off of Ripa's Indian Queen and eighteenth-century references to Pocahontas in histories of the State of Virginia. The Indian Queen was to embody the principles of liberty and pastoral living.

figures like Columbia and the Indian Queen proclaimed permanence, assuring "Americans that their perilous experiment was founded on eternal truths."[17] The role of the Indian Queen was to help reconnect a national body politic to the organic roots of the nation, apart from the euro-centric, classicized traditions of Columbia and Liberty.[18] The symbolic formulation and subsequent transformation of the Indian Princess represents a hybrid form of the American native seen in this vignette.

Yet it is during the Early Republic stage that the Indian Queen becomes associated with sexual availability. In *Playing Indian*, Philip Deloria summarizes the problem; the Indian Queen had the right gender to embody the nation's new transformation to a civilized Republic, yet her native associations prevented her from functioning as an effective national icon. Her otherness through heritage and gender suggested fertility, and thus sexual availability in an age of colonial

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Jefferson sent these written descriptions to the French Royal Academy in Paris to design and mint the medals. See E. McClung Fleming, "Symbols of the United States: From Indian Queen to Uncle Sam," 9. For more information on eighteenth century see Helen Carr, *Inventing the American Primitive* (New York: New York University, 1996), 31-34. Also see E. McClung Fleming, "From Indian Princess to Greek Goddess the American Image, 1783-1815," *Winterthur Portfolio*, 3 (1967), 39. These medals show the Indian Queen as classicized, bare-breasted, and wearing a feathered skirt and feathered crown, similar to Ripa's design for the Indian Queen of the fourth-continent. For a thorough analysis of the transformation of the Indian Queen to the Indian Princess, see E. McClung Fleming, "The American Image as Indian Princess 1765-1783," *Winterthur Portfolio* 2 (1965): 65-81. It is from Jefferson's hybrid description that the Indian Queen begins to take on the form of Pocahontas.

[17] Higham, "Indian Princess and Roman Goddess; The First Female Symbols of America," 74. It should be noted that male icons projected heroic achievements. The image of Pocahontas is unique because she fills both roles, as her heroic deed of saving John Smith is raised to the level of a heroic male figure during this period.

[18] Higham, "Indian Princess and Roman Goddess; The First Female Symbols of America," 75-76.

conquest, particularly through foreign investment.[19] The vignette portrays the Indian Princess as sexually available through her passive stance. The European Queen's gaze toward the Princess is eroticized. Because of this suggested availability, classical allegorical figures like Columbia and Victory were developed starting in the 1790s to accompany and eventually replace the Indian Queen.[20] Columbia's neoclassical features communicated sophistication, enlightenment, and independence that resisted colonization as opposed to the racially different, yet more native Indian Queen.

The first replacement of the Indian Queen comes during the Indian Removal programs of the Jackson Administration. Historicizing the Indian Queen as the figure of Pocahontas resolved the problem of colonial possession, removing any symbolic agency of the contemporary native. The revival of the Pocahontas story from the 1830s through the 1880s created a unique tension between national, unified origins and regional interests. Pocahontas and her story became a popular romanticized subject for theatrical plays in the 1830s, which stressed her role as the native and maternal figure of the country that predated the pilgrims. She was seen as a challenge to New England's claim as the origin of the nation and reinvigorating Sectionalist tensions that lead to the Civil War.[21] Yet these

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[19] Philip Joseph Deloria, *Playing Indian* (New Haven, CT: Yale University, 1998), 53. This is another issue that is more explicitly associated with the Indian woman in nationalistic landscape painting from Mexico. See Felipe Santiago Gutiérrez's *La Cazadora de los Andes (The Huntress of the Andes)*, c. 1891 from the Museo Nacional de Arte, Mexico City, Mexico.

[20] Hugh Honour, *The European Vision of America* (Cleveland: Cleveland Art Museum, 1975), 113.

[21] During the 1850s through the Civil War, sectionalists adopted Pocahontas as their political figurehead. The Indian Queen acted as a symbol that opposed

plays simultaneously critiqued Indian removal policies. Playwrights decried removal policies as a thinly veiled justification to seize land for gold and silver mining in support of the nation's currency interests.[22] This intertwined history of Indian Removal for currency advancement continued after the Civil War into the 1870s. The Indian Queen's fusion with the Pocahontas story represents a symbolic fracture national identity through her specific political and geographical associations by the post-bellum period.[23]

New England's claims as the nation's geographical origin through the founding myth of the Pilgrims. Robert Tilton illustrates that the Pocahontas story was critical to racial constructions of otherness in the South amongst Confederates. This is exemplified by her presence on the flags of numerous Confederate Virginian Cavalry units, including this flag of a cavalry regiment of South Virginia with Pocahontas reclining in front of John Smith's coat of arms. Following Ripa's symbolic formula, Pocahontas is shown with a crown of multicolored feathers, silver bangles, and exotic dark hair. Influential separatists used the image of Pocahontas to claim power through noble Indian blood, predating English claim to New World territories, and undermining industrial lifestyles of the North. See Robert S. Tilton, *Pocahontas: The Evolution of an American Narrative* (Cambridge, UK: Cambridge University, 1994), 169-173.

[22] See Susan Scheckel, *The Insistence of the Indian: Race and Nationalism in the Nineteenth-Century American Culture* (Princeton, NJ: Princeton University, 1998), 60-66.

[23] This regional tension around the image of Pocahontas as historical Indian Queen continues into the Reconstruction period, as evident from romanticized histories of the founding of Virginia, and the revival of historical plays. These sources were seen to be early histories to educate new generations on national origin stories, similar to banknote programs but under a different authority. Books like Edward Eggleston's *Pocahontas* from 1879 clearly state the intention of such novels as a way to "attract young people to the early history of our own country." See Edward Eggleston and Lillie Eggleston Sellyk, *Pocahontas, including an account of the early settlement of Virginia and the adventures of Captain John Smith* (New York: Dodd, Mead & Co., 1879), xi. The story does not end with the presentation of Pocahontas at court and her death in England, but extends to an attempted massacre of colonists by an Indian tribe, described as genocide or an extermination of whites, almost as if to provide justification for the contemporary practices of the US Government in the West. It was through these stories that Pocahontas continued to be the ancestral justification for aristocratic families of the South, as her son (the

Despite her sectionalist associations, the historicized Indian Queen reappears on the ten-dollar bill during the National Bank Note Program of the late 1860s and 1870s during the Indian Question and the close of the American frontier. The Indian Queen vignette was created in dialog with other financial engravings, particularly the replication of John Gadsby Chapman's *Baptism of Pocahontas* (1840) on the reverse of banknotes of the First Charter period from 1863 through 1875.[24] The original oil painting captured one moment in a larger epic on the Indian Princess and her relations with English colonizers. Pocahontas is well known for her rescue of Captain John Smith from execution by her father, the chief of the Powhatan tribal people. By throwing her body over Smith, she intervened and saved the Captain's life while fostering more amicable relations between colonizers and natives. Eventually she was kidnapped and held for ransom to force Powhatan to sign a treaty with the English. The legend claims that she fell in love with John Rolfe while being captured, and decided to convert to Christianity, changing her name to Rebecca Rolfe as an act of religious and

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product of Pocahontas and her husband John Rolfe), was said to return to American and "… from him descended some of the most respectable families of Virginia" (see Eggleston, 270). Others like John Esten Cooke cemented regional claim to Pocahontas by deeming her the "pride of the Southern land" (see John Esten Cooke, "A Dream of the Cavaliers," *Harper's New Monthly Magazine* 32, 128 (January 1861), 252-4). Cooke, through his constructed persona of pilgrim Anas Todkill, attempted to continue the connection of Pocahontas to the Southern region of the country through his novel *My Lady Pokahontas: A True Relation of Virginia*, published in 1885. The English Puritan evokes name of Virginia in relation to the Indian Princess is evoked no less than once every two pages, rejecting Pilgrim claims to founding directly from a northern source. See John Esten Cooke, *My Lady Pokahontas: A True Relation of Virginia, writ by Anas Todkill, puritan and pilgrim* (Boston: Mifflin, 1885).

[24] Chapman died in New York in 1889 and was a member of the National Academy of Design. While the institution was large, Haberle might have met him or at least known of him while studying there from 1885-1887.

political integration. Chapman's painting captures the scene of her conversion (fig. 36). She is shown kneeling in a hall in front of a minister with Rolfe standing directly behind. Her body is bathed in the color of purity, while the English and her native people look on. A spotlight focuses on her at the moment of conversion, illuminating her dark skin while her tribe is left in the shadows.

Baptism of Pocahontas provides the main context of the Indian Queen within the visual culture of currency in the 1880s. In *The Insistence of the Indian*, Susan Scheckel surveys period problems that arose when the Indian was incorporated into the definition of national identity in the nineteenth century. Through her analysis of 1830s guidebooks for the U.S. Capitol Building, Scheckel considers the role of Chapman's *Baptism of Pocahontas* in relation to citizen formation. The Capitol was transformed into a living history of the nation during the Early Republic, representing the symbolic heart of the country. Citizens were urged to visit the site as part of their national identity formation. Eight paintings were hung at the center of the Capitol Rotunda. These canvases highlighted significant moments in the creation of the nation state, including the *Landing of Columbus* by John Vanderlyn, *The Declaration of Independence* by John Trumbull, *The Discovery of the Mississippi by De Soto* by William Powell, and *Baptism of Pocahontas* by Chapman. Monumental history paintings of the nation's origins were intended to mediate the citizen's identity formation during public tours.[25] While the imagery was supposed to unify the viewing public, the entire campaign was produced out of regional disparity and contention.

[25] Scheckel, *The Insistence of the Indian*, 127-152.

The nation's mission to civilize the American native was on display as part of this national identity program. All of these paintings, excluding the Trumbull, include depictions of American Indians that subtly suggest the need for cultural enlightenment and assimilation by their European conquerors.[26] Chapman's painting promotes the Christianization of the Indian Queen through the story of Pocahontas, reframing the origin of the nation as simultaneously Christian and non-European. Faith Andrews Bedford exposes that political rhetoric regarding American Indians dictated the formal result of the painting. Before Congress commissioned Chapman, congressmen declared the Indian to be entirely divorced from civilization and thus savage or inhuman under Jackson's Indian Removal campaigns. Chapman's study went beyond the racial origins of a national identity. He was told to produce "hallowed" and magnifying images that glorified assimilation and resisted the founding figure of the pilgrim, yet displaced the Indian Queen from her successors.[27] Chapman's image solidified Pocahontas's place as a uniquely native and also strictly historical Indian Queen who was appropriated in financial culture.

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[26] A closer analysis of these images shows the assimilation of American Indians through conversion. The most obvious is Chapman's painting, however in the right hand corner of the Vanderlyn exists a group of natives, one of which bows before a cross of silver being held in the background, just to the right of Christopher Columbus's head. Similarly, in the Powell painting, natives passively watch the entrance of De Soto and the raising of a crucifix in the foreground on the right. These paintings establish a clear relationship of divine conqueror over the native peoples of the land who would be identified as the origins of the American identity in conjunction with the pioneer during the 1830s and forward.

[27] Faith Andrews Bedford, "The Baptism of Pocahontas," *Magazine Antiques* 175.1 (Jan 2009), 141.

After the Civil War, this imagery was revived not within the political confines of the Capitol, but by being disseminated through the veins of the nation's growing financial system as part of the National Bank Note Program. Banknotes could function as a 'trickle-down' educational system for national identity construction. The chief clerk of the U.S. Treasury, Spencer. M. Clark, described the educational benefits of this financial program in 1863.

> A series properly selected, with their subject titles imprinted on the notes, would tend to teach the masses the prominent periods in our country's history. The laboring man who should receive every Saturday night, a copy of the 'Surrender of Burgoyne' for his weekly wages, would soon inquire who General Burgoyne was, and to whom he surrendered. This curiosity would be aroused and he would learn the facts from a fellow laborer or from his employer. The same would be true of other National pictures, and in time many would be taught leading incidents in our country's history, so that they would soon be familiar to those who would never read them in books, teaching them history and imbuing them with a National feeling.[28]

Politicians justified the reproduction of this imagery as part of a broader national education program through art. During the First Charter Period from 1863 through 1875, the American Banknote Company of New York was commissioned to transcribe the Rotunda paintings for the reverse of the $10, $20, $50, and $100 notes (fig. 37).[29] Chapman's painting of *Baptism of Pocahontas* appeared on the

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[28] S. M. Clark to Secretary Chase, March 28, 1863, Press Copies of Official and Miscellaneous Letters Sent, 1862-1912, Vol. 1 of 346. Records of the Bureau of Engraving and Printing, Record Group 318, USNA. Quoted in Eric Helleiner, *The Making of National Money: Territorial Currencies in Historical Perspective* (Ithaca, NY: Cornell University, 2003), 106. It should be noted that the "Surrender of Burgoyne" was engraved and printed on the back of the $500 note, a note that is disproportionate to the wage earnings of a working class laborer during the period.

[29] However, it should be noted that the face value of these bills was equivalent to $180-$2,000, sums that would not have been exchanged during regular

reverse of the twenty-dollar bill (fig. 38). These images were intended to travel to the periphery of the nation and read as a unit as per their original placement in the Rotunda. This is signaled, for example, with the design of the five-dollar bill. The bill presents abridged scenes of these national origin stories, with *Columbus Discovering Land* on the left and the *Presentation of the Indian Queen to the Old World* on the right, which becomes redesigned on the ten-dollar bill from 1869 through 1880 (fig. 39).[30] The two-dollar legal tender note includes a vignette of the Capitol Building on the front to reiterate the origin of this imagery and its backing authority. The appearance of these images on the front of notes helped reassemble the disjointed engravings from their original sources, which remained united by the physical space of the Capitol Rotunda architecture.

Following in the tradition of Chapman, other characterizations of American Indians on financial papers from this period echoed the importance of history in relation to the nation's identity. The American Banknote Company issued a series of Indian vignettes under the category "The First Americans" that included chieftain busts, agrarian scenes, and another interpretation of the Indian Queen (fig. 40). Included in the set was a vignette capturing the moment when Pocahontas intercedes to save John Smith; her billowing white cape, bleached skin, and Grecian diadem replace her feathered crown, native gown, and exotic physical features (fig. 41). Pocahontas is transformed to recall the allegorical

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transactions either. All estimations were calculated with Morgan Friedman, *The Inflation Calculator*. <www.westegg.com/inflation>. Accessed April 24, 2015.

[30] Friedberg, *Paper Money of the United States*, 22.

figure of Liberty, sacrificing her ethnicity to become an embodiment of assimilation.

This racial transformation of the native to a white, Christian icon mirrors the period development of racial evolution and classification systems under Social Darwinism. John Higham argues that the production of assimilation icons on national banknotes was to "overcome the division between whites and Indians," legitimizing "the organic connection between the American nation and the people who had preceded its formation who were now fading away."[31] In her analysis on the gendering of Indian stereotypes, Elizabeth Bird suggests that the Indian Queen was stripped of her native racial associations and shown as a "gentle, noble, nonthreateningly erotic, virtually a white Christian, yet different, because she was tied to the native soil of America."[32] This final transformation of Pocahontas from native to classicized figure happens during the 1870s and 1880s through currency.[33]

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[31] Higham, "Indian Princess and Roman Goddess," 78-79.

[32] Elizabeth S. Bird, "Savage Desires: The Gendered Construction of the American Indian in Popular Media." *Selling the Indian: Commercializing and Appropriating American Indian Cultures*, edited by Carter Jones Meyer and Diana Royer (Tucson, AZ: University of Arizona, 2001), 79.

[33] It is in this moment that depictions of the Native American on monetary currency are relegated to a strictly historical role. Lady liberty, once dawning a headdress of feathers to indicate her status as the Indian Queen of the West, looses her crown for a Grecian diadem on the one-dollar silver coin between 1871 and 1873. The bust of liberty on the three-dollar gold coin holds onto this tradition slightly longer until 1889, the same year Haberle produced *U.S.A*. By this moment, all references Jefferson's symbolic construction of the Indian Queen equating Liberty are purified of racial distinctions, only showing the neoclassical traditions what would eventually come to dominate the white-washed World's Fair of 1893. The last remaining references are of the presentation of the Indian Queen and the generic bust of an Indian Chief on the five-dollar silver certificate from 1899.

This classicization of the Indian Queen during is problematic as her iconographic signifiers align closely with the figure of Columbia. As mentioned before, the figure of Columbia and Victory had already replaced the image of the Indian Queen in most popular visual culture except that of financial imagery up to the late nineteenth-century. These figures were able to embody an imperialistic sense of evolution that the native seemed to contradict. For example, Columbia embodies the force of advancement in John Gast's *American Progress* (1872, fig. 42). Columbia signifies the nation, its progress, and subsequent conquering of territories. Her star diadem and white fluttering garment recalls the classicizing forms of the national female figure. Gast shows Columbia as a spiritual force and leader who brings the trapper, pioneer, farmer, railroad, and the telegraph into unchartered territory. Simultaneously she forces out the Indian and bison through her powerful embodiment of Manifest Destiny. Columbia, and not the Indian Queen, represented the future of the nation, relinquishing any indication of non-European origins.

This replacement of Columbia for the Indian Queen as a national symbol of origin and destiny is alluded to in Haberle's careful arrangement of the one-dollar bill. The Indian Queen's body is covered just enough to obscure the vignette; she is replaced by the printed phrase "Columbian Banknote Co." on the greenback. A painted pen mark crosses out the word "banknote," displacing the word "Columbian" or 'Columbia' over the concealed body of the Queen (fig. 43). The precise placement of the phrase "Columbia" over the Indian Queen's body seems intentional considering Haberle's subtle allusions to visual and structural

representation throughout the corpus of his work. While this relationship between image and text is not as lighthearted in his other works, like *The Slate* that is discussed in the introduction, it suggests a misidentification between the Grecian image of Columbia and the native body of the Indian Queen.

This problematic pairing reveals the heart of the nation's identification as both former colony and contemporary colonizer. On the one hand, the Indian Queen was intentionally constructed as a national signifier that projects a separate native origin for national identity completely removed from the influence of the former tyrant colonizer, the British Empire. Yet, she cannot embody the ideals of enlightened progress accepted by the Old World. Her counterpoint Columbia embodies the ideals of the contemporary colonizer, personifying America not as a former colony but as a potential and active colonizer herself on the international stage. This happens in a moment when industrial prowess and imperialistic intensions were emerging in political debate during the 1880s. Thus to conflate these two desperate identifications, the Indian Queen's body becomes a site for symbolic assimilation through financial material, the origin and ultimate justification of American imperialistic policies.

Currency, Assimilation, and Conspiracy

Historicized representations of the Indian Queen inadvertently reflected government assimilation policies of the period. The image of the Indian and the promise of currency were closely tied together by economic expansionist policies justified by Social Darwinism starting in the 1870s and climaxing with the Dawes Act of 1887. The visual assimilation of the Indian Queen and her racial

sterilization in financial imagery prevent obvious contradictions between the national emblem and key political programs that supported American industry.

In response to the Indian Question of 1870s, political programs were justified as actions to protect U.S. currency interests in the West, veiled under the abstract concept of progress. Congressman William Windom of Minnesota delivered an address to the House of Representatives in January of 1869 on the Indian Question and spoke in favor of funding the Northern Pacific Railroad. He initially elaborated on the expense of 'annihilating' Indians, claiming that the government was spending almost two million dollars to 'eradicate' one savage. Windom claimed that the Indian's resistance endangered the building progress of the transcontinental railroad, an artery of the American market. In this speech, Windom characterized the railroad as a singular and immediate civilizing agent for Indian cultures not only as a tool to stimulate immigration, but also as a means of developing the nation's sources of monetary specie, particularly the silver mining industry. He claimed that the railroad would supply the gold and silver for the nation. In fact, Windom provided evidence that America's silver production would double the specie holdings of Europe, ensuring the exportation of American hard specie to the rest of the world.[34] By 1873, Congressman Oaks Ames claimed that the "steady and copious flow of British capital" invested in Colorado and Utah mines had "pacified" the Indian.[35] Investment into the railroad

[34] William Windom, "Northern Pacific Railroad," House of Representatives, 5 Jan 1869 (Washington, DC: U.S. Government, 1869), 11 and 15-21.

[35] Oakes Ames, "Defense of Oakes Ames against the charge of Selling to Members of Congress Shares of the Capital Stock of the Credit Mobilier of America, with intent to bribe said Members of Congress," Speech given to the

only increased during the 1880, affording white settlers full control over Western land, ending the Indian Question.[36] Political rhetoric of the period supported an inverse relationship between the contemporary Indian and fiscal success. This relationship would be recognized in the ethnographic work of Lewis Henry Morgan, who theorized on the relationship between the savage and market through the framework of eugenics.

The Indian Queen on financial documents mirrored assimilation arguments set forth by anthropologists by the end of Reconstruction. Late-nineteenth century sociology was significantly influenced by Sir Francis Galton's exploration of eugenics following Darwin's *Origins of Species*. Galton's coined the term eugenics in his book, *Inquiries into Human Faculty and Its Development* from 1883, but was publishing material on issues of inheritance as early as 1869.[37] Galton believed that civilization should assert dominance over natural evolution to direct and control chaotic outcomes, as is done in the physical world. Galton's ideas of artificial selection were seen as a practical response to Darwin's unbridled natural selection, and thus applied to studies of race and ethnicity during this period.[38] Studies on ethnography focused primarily on controlling

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House of Representatives, (25 Feb. 1873), 18. Nineteenth-Century Pamphlet Collection, Tisch Library Special Collection, Tufts University.

[36] According to Carl Degler, 21,000 miles of track were laid n 1885 and 1886 alone, representing two-thirds of the track that existed before the Civil War. See Carl Degler, *The Age of the Economic Revolution: 1876-1900* (Glenview, IL: Scott, Foresman and Company, 1977), 3.

[37] For his definition of eugenics, see Francis Galton, *Inquiries into Human Faculty and its Development* (London: J. M. Dent, 1908), 17.

[38] For more historical background on Galton, see David J. Galton and Clare J. Galton, "Francis Galton: and Eugenics Today," *Journal of Medical Ethics* 24.2 (April 1998), 99.

physiognomic features to promote racial assimilation. Anthropologists started to appropriate biological characteristics of assimilation and correlate them with cultural evolution.

Morgan mapped cultural progress onto biological models of evolution with key elements of society, particularly the treatment of property. In his ethnographic study *Ancient Societies* from 1877, Morgan conducted scientific studies on the Native American that operated as a compendium to Darwinian evolutionary theory. Instead of examining native assimilation through the slow biological process of natural selection, Morgan argued that primitive peoples could be civilized in a short span of time by altering their social understanding of property, particularly through the concept of money.[39] Morgan's assumptions depended on a model where property ownership and class structures were mutually exclusive.[40] This implied that while the native could be integrated into the market by accepting a universal, numerical value system, he could still preserve his native social structure, challenging heterogeneous social structures proposed by supporters of Social Darwinism. Morgan formed his assumption in a moment when American class structures were solely determined by material wealth due to Industrialization and speculation. Thus, his challenge to a heterogeneous system was overlooked, and thus inverted to support class stratification. While Morgan did not advise nor support later policies of the U.S.

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[39] Lewis Henry Morgan, *Ancient Society, or Researches in the Lines of Human Progress from Savagery through Barbarism to Civilization* (Chicago: Charles H. Kerr, 1907), 549-563.

[40] Mason Hersey, "Lewis Henry Morgan and the Anthropological Critique of Civilization," *Dialectical Anthropology*, 18.1 (1993), 61-63.

Government, his arguments provided justification for assimilation programs guided by hierarchical definitions of property.[41] The presentation of the Indian Queen to the Old World operates within this framework as an instance of native assimilation through her presence on the universal symbol of economic property, currency.

Morgan's theories of assimilation were practiced at the Philadelphia Centennial Exposition of 1876 through ethnographic displays of the American Indian.[42] In *All the World's A Fair*, Robert Rydell interprets the Exposition as a means to address the "social and economic problems of the 1870s by equating material gain and human dignity," all formulated around the value of progress and patriotism through the body of the American Indian.[43] Spencer Baird, the head curator of U.S. exhibitions under the Smithsonian Institution, exploited the fair as a platform to proclaim the extinction of the Indian within a century without assimilation. Baird relegated the role of the American Indian to a passive actor on the American stage en route to extinction through the display of an 'archive' of Indian culture. However, Native American tribes that practiced white customs were barred from display excluding prime examples of assimilation that did not reflect Morgan's hypothesis of assimilation by economic (or industrial)

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[41] For information on early assimilation programs from 1881 that were set in place to test Morgan's theories, see Jane E. Simonsen, *Making Home Work: Domesticity and Native American Assimilation in the American West, 1860-1919* (Raleigh, NC: University of North Caroline, 2006), 77-79

[42] It should be noted that while *Ancient Societies* was published a year after the opening of the 1876 exposition, Morgan had publically presented his research and his theories were already well known.

[43] Robert Rydell, *All the World's a Fair: Visions of Empire at American International Expositions, 1876-1916* (Chicago: University of Chicago, 1984), 18-19.

integration. Viewers only encountered the primitive weaponry of specific tribes, casting the Indian as the Noble Savage in the moment of annihilation.[44] This visual display relegated the Indian to a historical figure in relation to American's progressive history, ignoring the active Indian battles occurring on the Western front. To the Eastern public, assimilation of the Indian was the only option for survival and the vignette reflects the virtues of Westernization through the typical Renaissance court scene.

The historicized Indian cemented his fate under ethnographic applications of Darwinian natural selection. Gustav Klemm (1802-67) mapped Darwin's theory of natural selection onto cultural studies, claiming that "active" cultures would prevail while "passive" cultures would die out. Baird's displays visually proclaimed the passive nature of the American Indian. This docility is also expressed in the ten-dollar vignette. As representative of a native, the Indian Queen is submissive, looking down towards her feet, failing to meet or return the gazes of the court. Her stance is defined in strict contrast to her male presenter, who stands erect, moving forward in contrapposto as if to embody historical progress. This male figure was most likely interpreted as the husband of Pocahontas, John Rolfe, who sets up a male to female binary that Klemm's argument depended upon. In addition, Klemm proposed the concept of *Volkerehe*,

[44] Rydell, *All the World's a Fair,* 20-24. For more analysis on the construction of public information of the exhibition, see Shari Huhndorf, *Going Native* (Ithaca: Cornell University, 2001), 27-32. For more information on the revival of the Noble Savage, see Leland Donald, "Liberty, Equality, Fraternity: Was the Indian Really Egalitarian?", *The Invented Indian: Cultural Fictions and Government Policies*, edited by James A. Clifton (New Brunswick, NJ: Transaction, 1990), 148-162.

or the marriage of peoples, as a tool of cultural assimilation and progress. He theorized that civilizations only grew from the combinations of masculine-active and feminine-passive figures, clearly reflecting a European colonial model.[45] While Klemm distanced himself from genetic mixing of skin tones, this presentation of passive and active figures is also captured through implied racial contrast of the figures. The Indian Queen's political, social, and ethnic survival is dependent upon this relationship of matron to master. Thus, both the creation and reception of the vignette was informed by contemporary sociological assumptions influenced by Darwinian theory.

The passive Indian would be compared indirectly to the Anglo-Saxon race through material value under the guise of the bimetallist debate, as opposed to racial or ethnic aesthetics. Free-silver advocates pushed for the reinstatement of silver as a national currency; the paper bills like those in *U.S.A* would have been redeemed for silver due to the rarity of gold during this period. In his speech "Money Answereth All Things" to the Senate in 1889, Mr. William Morris Stewart of Nevada argued that success of the Roman Empire was solely based on the nationalization of all regional gold and silver mines, placing the world's stockpile of material wealth exclusively under Caesar Augustus. Nations only "decay" and civilizations are only destroyed when "their gold and silver

[45] For more see Chris Manias, "The Growth of Race and Culture in Nineteenth-Century Germany: Gustav Klemm and the Universal History of Humanity," *Modern Intellectual History* 9.1 (April 2012): 16-21.

disappeared."[46] Monetary wealth becomes the only distinction between a passive and active culture. Stewart stated, "The constant efforts of nations to acquire money by conquest and the devices to provide money for defense show that the necessity for money to national existence has been universally recognized."[47] Stewart argued that America was the next Roman Empire because of the nation's abundant silver reserves. America was to become the cradle of a new civilization that "surpasses the glory of antiquity" because of its material wealth and not its native origins.[48] Throughout the bimetallist debate, money and other traditional forms of property became the only determining factor between civilization and savagery within the political arena, replacing racial factors on the surface. This represents a shift in national political rhetoric while Haberle was painting *U.S.A.*, possibly influencing his perception of the vignette imagery and its relation to monetary value. Politicians no longer located the origins of the nation in the Pocahontas myth but through material sources of silver and gold that represented the civilized origins of an emerging American Empire. Thus, the image of the native could no longer be justified as the stable origin of a civilized nation.

Haberle might have been thinking about these issues in the aftermath of the Dawes Act of 1887. This piece of legislation acted as the "Indian Answer," granting the government authority to survey land and divide it into allotments for tribal nations, enforcing the concept of private property as a way to assimilate the

[46] William Morris Stewart, "Money Answereth All Things," Speech given to the Senate of the United States. 2 Jan. 1889, (Washington, D.C.: U. S. Government, 1889), 4.
[47] William Morris Stewart, "Money Answereth All Things," 4.
[48] Stewart, "Money Answereth All Things," 5.

Indian American culture. Haberle started to paint *U.S.A.* during the first implementations of this property-focused assimilation policy, an issue that already attracted significant criticism for a decade. The removal of the Indian Queen in *U.S.A.* not only reflects the assimilation of the Indian in American culture but also the political and social cultural that prompted this transformation.

The malignant portrayal of Indians was decried by a few literary scholars from this period, both in response to the politics behind Indian treatment and social prejudice that supported it. In his last novel, *The Confidence Man* of 1857, Herman Melville wrote a chapter on the contradiction of the pure "Indian-hater," employing satire to characterize this figure as a hypocritical, backwards creature that fails to learn from his native, pacifistic friend of the American Indian. Melville links the Indian-Hater directly to the frontiersmen and trapper, creating an interesting dynamic in relation to his the American settler.[49] This subversive critique of anti-native tendencies became vocalized once more, specifically aimed at the unethical actions of the government towards Native Americans and the overt abuse of federal authority.

In *A Century of Dishonor* from 1881, Helen Hunt Jackson focused on the failure of the government to maintain treaties with Indian Nations from the 1870s, particularly the promise of money for the cession of land.[50] She extoled the frontiersmen and politician as unscrupulous land hoarders, who only respond to

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[49] See Herman Melville, *The Confidence Man* (1857) (New York: Prometheus Books, 1995), 176-185. For more information about American settlement during this period, see chapter 1.

[50] Helen Hunt Jackson, *A Century of Dishonor: A Sketch of the United States Government's Dealings with Some of the Indian Tribes* (New York: Harper & Brothers, 1881), 28.

political might and power. She often refers to the pioneer as a "gold-seeking settler," acknowledging the direct relationship between expansion and monetary specie.[51] Jackson made numerous allusions to assimilation and expansionist policies as political cover-ups to hide the horrors of the real status of the Indian. She concluded her study with, "Every crime committed against the Indian is concealed or palliated. Every offense committed by an Indian against a white man is borne on the wings of the post or the telegraph to the remotest corner of the land, clothed with all the horrors which the reality or imagination can throw around it."[52] Jackson's rhetoric around a cover-up is reflected in the physical concealment of the Indian Queen's body.

Haberle's greenback acts as a symbolic placeholder for the figure or agent of authority. In *U.S.A.,* the one-dollar bill replaces the Indian Queen in the vignette image of the presentation at court to the Old World. The shift in political rhetoric from native origins to material origins during the bimetallist debate helped in the removal of the national figure of the Indian Queen. Ethnicity was no longer the superficial justification of class stratification, but socioeconomic worth. In the midst of mass immigration and social strife, Haberle might have been aware that ethnicity could no longer support or translate as a national identity. Her representation is sterilized by commercial pursuits within the international market through economic transitions.

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[51] Jackson, *A Century of Dishonor*, 30. See Jackson, 337 as an example reference to the gold rush.

[52] Jackson, *A Century of Dishonor,* 340. Jackson claims that the Indian Question operated as a chance for the Government to "cover itself with the luster of glory," alluding to claims of progress that clearly had financial intensions, as seen by the statements of Representative Windom. See Jackson, 31.

Instead, the greenback acts as the new sign for national identity because it can be supported within the context of the rising consumerist culture in America. In a subtle way, the bill is what is presented to the Old World instead of the allegorical figure. This reflects political intentions for the United States to become the leading industrial producer of the world. Distinct native origins apart from Europe are overshadowed by economic prominence in this period, which was dependent upon a stable monetary system and protectionist tariffs. Silver and gold production for monetary specie would become the new international signifier of the United States, through its circulation abroad.

Through his composition, Haberle's painting mediates between the allegorical figure of the nation and the emerging caricature of the businessman with the greenback in *U.S.A*. By the late 1880s and early 1890s, the dollar rose to the level of a national symbol, not only of commerce but also of national identity. In *National Types: America* (c. 1890), George B. Bridgman presents a caricature of the American businessman. He is marked with two key symbols: a sack of greenbacks and the train of progress in the background (fig. 44). Bridgman's characterization does not reference the nation's origins like the Indian Queen. Instead he plays off of modern cartoon rhetoric around the corrupt speculator. His top hat, long-coat, and cane all signify the general characteristics of the American businessman that Haberle occasionally studied in sketches between the years of 1884 and 1886 while attending the New York Academy of Design. Haberle's sketches present the slender man in the contemporary business suit, looking down at a newspaper with through a pair of spectacles, suggesting the daily routine of

the financial analyst and speculator (fig. 45). The businessman and his expertise in the market symbolized the nation's economic potential, not the past.[53] This caricature reflected Haberle's audience, the middle-class American male whose livelihood depended upon industrial production and speculation in the international market.

The dollar not simply a measure of the moral and social worth of the businessman, as already discussed by Edward Nygren, but also of his position within the international realm as a signifier for the United States of America.[54] The reference to the American businessman raises the question of how Social Darwinism impact on the market informed visual display, as explored in this chapter. Haberle's witty title, *U.S.A.*, plays on these issues of a national identity construction through both the title and composition. This composition reveals larger questions around national representation through the tension created between the Indian Queen and the dollar bill. Compositionally and symbolically, the dollar bill alludes to the problem of the Indian Question and the political response that was motivated by business. These political programs impacted this signifier of native and national origins. Through economic justifications, the

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[53] Of course, the speculator was not always characterized in the most positive of light, even in relation to Bridgman's depiction. Max Nordau's description of the speculator in his chapter "The Economic Lie" describes speculation as "one of the most intolerable and revolting manifestations of disease in the economic organism…. The speculator plays in the economic world the role of a parasite. He produces nothing, he does not even perform questionable service of mediator, performed by the merchant." Of course, his critique takes an anti-Zionist turn, calling for the abolishment of inheritance rights. See Max Nordau, *The Conventional Lies of Our Civilization* (Chicago: Laird & Lee, 1886), 209-210.

[54] Nygren, "The Almighty Dollar," 130.

Indian Queen is assimilated to a passive role to the point of extinction within the painting itself. Native origins are no longer needed as the power of the economic market took control of both national identity construction and the nation's political agenda through the bimetallist debate and the Indian Question. Haberle slyly signals the malleable nature of national symbols in the midst of a consumerist culture dominated by the face value of money.

Chapter 3: The Currency of Natural Selection

The Changes of Time from 1888 is considered to be Haberle's most famous currency painting and an exemplar of American illusionism (fig. 3). Numerous art historians have studied the temporal relationships created between these banknotes, comparing *The Changes of Time* to American history paintings of the early nineteenth century. Yet, Haberle was involved in the evolutionary paleontological work of Professor Othniel Charles Marsh at the Yale Peabody Museum of Natural History, informing his artistic training, constructions of time, and understanding of Social Darwinism. In this chapter, I will argue that Haberle's composition of *The Changes of Time* reflects practices of scientific illustration that were employed to help visualize Darwinian concepts of natural selection and historical progress, subsequently reinforcing bimetallist rhetoric.

Haberle transforms a closed cabinet door into a flat stage for a collecting taxonomy in *The Changes of Time*. The viewer is presented with a blue-grey wooden door; the wear of the cabinet is evident from the stripped paint along edges of the wooden panels. Two hinges that resemble butterflies mark the edge of the door on the right side, while the keyhole on the left is a hybrid of butterfly wings and a lion face.[1] The cupboard key dangles from a string attached to the teeth of the lion. The surface of the door is cluttered with unsuspecting items including paper currency, an envelope, a photograph of the artist, and a cigarette

[1] Frankenstein identifies these two hinges as a butterfly on the bottom and two scrolls back to back on the top. While this may have some validity, the comparison between the two still suggests an abstracted shape of a butterfly. See Alfred Frankenstein, *After the Hunt: William Harnett and Other American Still Life Painters* (Berkeley, CA: University of California, 1969), 118.

card of a pin-up girl. The center of the composition is defined by a seemingly random collection of overlapping, tattered banknotes. The bills are arranged in such a way that no engraved portrait is obstructed, including the fairly contemporary figures of Jefferson Davis and Ulysses S. Grant. Two colonial notes are separated from this main group, located in the upper corner. Haberle hints to his con man persona by including a magnifying glass and a legible scrap of newspaper, which references the painting *Imitation* from 1887.[2] Eleven stamps are scattered in the bottom left corner, mimicking the central group of paper notes. Coins are strewn throughout the painting, including one that seems to have slipped to the bottom of the frame. A wooden frame of carved Presidential portraits borders the cupboard door, recounting the political history of the United States and also imposing uniformity throughout the painting. The cigarette card and Haberle's photographic portrait are placed on a diagonal, mocking the formality of the presidential caricatures. Haberle signed his work in the lower

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[2] During the 1880s, numerous numismatic societies printed pamphlets on how to identify a counterfeit bill. The banknotes that show up most often in Haberle's paintings are the legal tender notes most common to counterfeit, including the five, ten, and twenty-dollar banknote. According to George Burnham's *American Counterfeits: How Detected and How Avoided* from 1875, the easiest way to tell that a bill was counterfeited was by examining the back of the note, the least checked part of fiat money, which happens to be the least shown side of banknotes in Haberle's paintings. The exception is *U.S.A.* from 1889. In addition, Burnham suggests the use of a magnifying glass to examine the regularity of engraved lines, crosshatching, surface quality, and constructed shadows in vignettes on dubious notes. The broken magnifying glass in *The Changes of Time* gently signals these anti-counterfeiting practices; its cracked surface also alludes to the deceptive quality of trompe l'oeil painting. This awareness around banknote fraud highly informed public reception of Haberle's paintings, limiting critical reception strictly to issues of reproduction. See George Pickering Burnham, *American Counterfeits: How Detected, and how Avoided* (Boston: A. W. Lovering, 1879), 18-21. The only currency painting in which Haberle predominantly shows the back of a banknote is *USA* (1889).

right corner by painting a realistic envelope that includes his home address in New Haven, Connecticut, where he lived for most of his career.

Historical Construction and Scientific Illustration

Haberle's title directly points to the temporal nature of monetary development through his witty pun on change, or fractional currency, and time. The title alludes to the problem of historical representation during the modern period, particularly in relation to shifting scientific frameworks of human evolution and the implications for understanding destiny or progress. Through the display of money, Haberle alludes to the subjective realities of historical interpretation.

Art Historians Robert Chirico, Meredith Page Davis, Anne Trubek, and Gertrude Grace Sill each suggest that *The Changes of Time* is a modern interpretation of history painting told through banknotes from the colonial period to the present.[3] Haberle develops a nonlinear, temporal narrative through the seemingly random or chance placement of these banknotes on the cupboard door. Trubek explores this self-reflexive historicism by indicating that the notes be read from top to bottom and left to right to construct a history.[4] However, the Presidential frame imposes an alternative temporal structure that challenges Trubek's historical model. The years that each President was in office are included at the bottom of the painted roundels. The roundels are organized in a

[3] It should be noted that Chirico's comment is a short, passing reference. See Robert Chirico, "Language and Imagery in Late Nineteenth-Century Trompe l'Oeil," *Arts Magazine* 59 (March 1985): 112.

[4] Anne Trubek, "Picturing Time: American Realism and the Problem of Perspective," (PhD diss., Temple University, 1998), 102-3.

nonlinear way, alternating between the right and left side of the decorated caricature of George Washington at the top. This forces the viewer to read from right to left across the surface of the painting.

These conflicting constructions of time are only exaggerated by Haberle's witty inclusion of his portrait photograph at the location of an un-carved roundel and the cigarette card next to the caricature of Andrew Jackson. Sill claims that Haberle's arrangement of currency and the inclusion of the two photographs make an irreverent juxtaposition with the architectural formality of the presidential portraits and frame, offering a clear critique of the seriousness and sophistication of history painting and its seemingly objective façade.[5] Haberle's allusions to the preservation of presidential legacies on paper currency point to larger issues of constructing historical narratives, providing a social critique of the dying practice of history painting in the United States. This critique uniquely plays into the proliferation of aesthetic styles, photography, and the rise of scientific illustration during this period that overshadow monumental American history painting of the antebellum period.

In her dissertation on currency in American still-life painting, Davis expands on Sill's observations by considering *The Changes of Time* in light of America's history of counterfeit currency. Davis explores how Haberle recreates a history of American monetary economics through his pile of currencies at the center of the composition. Notes from the Continental Congress (1774-1789) are located at the bottom of the pile, greenback and Confederate notes are found in

[5] Gertrude Grace Sill, *John Haberle: Master of Illusion* (Springfield, MA: Museum of Fine Arts, 1985), 14-15.

the middle (1861-1865), and the silver-backed note is placed on the very top (1878-1923). Instead of presenting a continuous history of monetary economics in the United States, Haberle highlighted fragments of America's material past through these specific bills. Davis claims that Haberle included colonial currency from Connecticut to comment on the history of counterfeiting in the American monetary tradition. Haberle critiques money as signifier of state authority, origin, and sovereignty through this historical presentation, as he has done before in *Can You Break a Five?* and *U.S.A.*[6] Political agency is undermined through the style of trompe l'oeil through the act of replication. Haberle destabilizes paper currency as a signifier of authority by framing defunct banknotes within the authoritarian presence of the Presidential roundels. He amplifies this ironic relationship by exaggerating the deteriorating state of the notes, emphasizing the inflationary effects of time and consumer culture on the importance of historical narratives.[7] These effects inflate historical personas and their links to national identity, emphasizing the malleable and subjective nature of political portraiture through the engraved vignettes.

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[6] Meredith Paige Davis, "Fool's Gold: American Trompe L'oeil Painting in the Gilded Age" (Ph.D. diss., Columbia University, 2005), 199. Economic historian Edwin Perkins has commented on the rarity of such notes in New England, claiming that paper money only represented five percent of the purchasing power in circulation. Perkins claims that the deflation of paper money throughout the colonies in the 1740s and 1750s largely became an umbrella for political issues instead of truly reflecting structural economic problems. See Edwin J. Perkins, *The Economy of Colonial America* (New York: Columbia University, 1980), 105-6 and 118.

[7] Davis, "Fool's Gold: American Trompe L'oeil Painting in the Gilded Age," 178-195.

While Haberle does construct a chronicle of monetary history through the presentation of banknotes, he ambiguously alludes to larger issues of history and evolution through his title "The Changes of Time." Haberle painted this during an epistemological shift in how human history was constructed, interpreted, and exercised in the public arena. Theoretical explorations of time were explored in the field of natural history in which Haberle worked as a scientific illustrator. Before Charles Darwin published his theories on human evolution, natural history was guided by the belief in divine and ordered creation. In *On the Origin of Species by Means of Natural Selection,* Darwin disturbed the rational ordering of human history by founding his theory of evolution strictly on chance. The inclusion of chance undermined predetermined, linear constructions of history and narrative used within traditional forms of art making.

Haberle's development as an artist is rooted in a mode of artwork that depended upon the guise of objectivity as a scientific illustrator. Haberle worked as a lithographer under Marsh at the Peabody Museum of Natural History. Zelda Edelson and Barbara L. Narendra confirm Haberle's associations with the Museum from 1876 through 1884.[8] Haberle's sketchbooks while he was at the Peabody contain drawings of animal studies, including a sketch of a "brown + red bat," drawn to scale three-quarters of life size (fig. 46). In another drawing, Haberle sketched different versions of birds, including a dead bird on the ground, which may have influenced an early painting called *Trompe l'Oeil: Yellow*

[8] Zelda Edelson and Barbara L. Narendra, "John Haberle, A Great American Artist and His Links to the Peabody Museum," *Discovery* 20.2 (1987): 25.

Canary from 1883 (fig. 47 and 48).[9] Edelson and Narendra believe that Marsh's great collection of bones supplemented formal anatomy lessons for Haberle.[10] The precision of his trompe l'oeil paintings is connected to this scientific training as a lithographer under Marsh. In fact, it was while at Yale that Haberle developed an interest in trompe l'oeil as seen in some of his early sketches, including *Trompe L'oeil with Bird* from 1882 (fig. 49). Similarly, Haberle's experience as a preparator most likely made him sensitive to the placement and position of items in his work, as already demonstrated in chapters 1 and 2. Haberle's experience as a lithographer and preparator at the Peabody supplemented his formal training as a young artist, most likely shaping his personal theories on composition and artistic reception. By reconsidering Haberle's placement of currency in light of his scientific training and Darwinian constructions of time, a more pointed interpretation of *The Changes of Time* can be made within the context of Social Darwinism.

Collecting Specie(s)

Haberle's use of the cupboard theme might signal an alternative interpretation of banknotes through the inclusion of other objects in the still life. The cupboard still life in American trompe l'oeil painting often suggested unique relationships between objects, repeating forms in various ways to reinforce an overarching theme. By examining the inclusion of butterfly hinges, the placement

[9] Haberle's choice of a dead canary while at the Peabody is intriguing, as the canary were used in coal mines to test for dangerous levels of methane or carbon monoxide. The dead canary symbolizes a scientific warning of some kind in relation to work; could it have been related to Haberle's work at the Peabody?

[10] Edelson and Narendra, "John Haberle," 29.

of Haberle's currency can be reinterpreted in relation to the amateur practice of specie collection that enforced Darwinian theories of natural selection within the United States.

The Changes of Time represents one of the few cupboard works that Haberle painted in his lifetime; John Peto and William Harnett were better known for this subject in trompe l'oeil still-life painting. These three artists turned their attention to the flat surface of a door in the late 1880s. The theme is a natural choice for trompe l'oeil painters as it provides a flat surface that mimics the wall the painting is hung upon, but conceals what is within the cupboard itself. This concealment plays off of the viewer's natural curiosity to open the door, possibly disturbing the objects curiously hung on the surface.

Peto in particular focused on the theme of cupboard doors between the years of 1885 and 1894, acting as a temporary break from his famous rack paintings.[11] Peto's *The Old Violin* from 1890 is a typical cupboard painting in composition and motif (fig. 50). John Wilmerding has analyzed Peto's intentional repetition the forms throughout the work.

> Although we accept a generally central placement of forms, with the violin framed first by the music sheet and then by the door, the eye soon notes the pulls against symmetry. The vertical break in the door is just to the right of center, and all the hanging objects crisscross in slight diagonals. At the same time Peto unifies the whole through certain details echoing

[11] Drucker narrowed the specific chronological period of Peto's cupboard studies to this time frame. See Johanna Drucker, "Harnett, Haberle, and Peto: Visuality and Artifice among the Proto-Modern Americans," *The Art Bulletin* 74.1 (March 1992): 44.

> one another. For instance, the f-holes of the violin have visual cousins nearby in the key, keyhole plate, and iron hinges.[12]

The repetition of the signature f-hole shape of the violin reinforces the theme of music, visually suggesting a relationship between the instrument, music sheet, key, and cupboard. Cupboard paintings usually enforce a clear theme through the repetition of formal devices, a subject that requires more attention within art historical literature. Peto and Harnett created cupboard paintings for specific patrons as a way to showcase particular themes or personal narratives through the patron's material possessions. Due to personal nature of the imagery, these paintings were displayed in private spaces, as established by Johanna Drucker.[13] Haberle did not paint *The Changes of Time* for a specific patron, nor did he know the exact audience who would receive the work. Yet Haberle's choice of the cupboard theme in *The Changes of Time*, considered in light of Peto's *The Old Violin*, signals that this painting might not be a straight forward reading of monetary history as originally suggested by Davis and Sill.

Since Haberle was working in the same tradition as Peto, the collection of objects in *The Changes of Time* should be considered as one unified set as opposed to disconnected forms. The most profuse objects of banknotes, stamps, coins, letters, and photographs all suggest the relationship of circulated items of personal value. However, this reading excludes the magnifying glass, the mysterious frame of the presidents, a hybrid keyhole, and the butterfly hinges.

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[12] John Wilmerding, *Important Information Inside: The Art of John Peto and the Idea of Still-Life Painting in Nineteenth-Century America* (Washington, DC: National Gallery of Art, 1983), 146.

[13] Drucker, "Harnett, Haberle, and Peto," 42-44.

Why include these seemingly disparate, yet strangely specific references, if not to communicate a more complex message? The presence of these objects signals a subject matter beyond the subject of economic history without denying or rejecting the accounts of Davis and Sill.

Haberle includes all of these seemingly disparate objects during a moment when collecting is rising from an amateur pastime to a sustainable profession through marketing campaigns and collector shops. While *The Changes of Time* needs to be analyzed in relation to the complex history of collecting, particularly in relation to the cigarette photo and numismatics, it falls beyond the specific scientific scope of this study.[14] Instead, I want to focus on Haberle's depiction of

[14] To help foreground these issues of collecting, numismatics and the collecting of cigarette cards had a unique history in relation to the reception of a consumerist material culture. It should be noted that Numismatics developed not only as a popular collecting practice but also as a profession during the post-bellum era. Collectors started to price rare monetary coins, stamps, and banknotes above face value. Numismatics developed as an independent discipline with the founding of the American Numismatic Society in 1858, an organization dedicated to dissecting monetary symbols and educating the public about their meaning. The science of numismatics grew in the 1870s and 1880s under the National Bank Note Program. By 1891, regional organizations strengthened collecting networks to form the American Numismatic Association headquartered out of Chicago, providing a platform for amateur and professional collectors to publish iconographic studies of this emerging visual science. Numismatic historians of this period believed that documenting the visual canon of American currency provided insight to the development of the nation during this period of financial, industrial, and social 'growing pains.' For more information about the establishment of official numismatic organizations in relation to nation building, see Eric Helleiner, *The Making of National Money: Territorial Currencies in Historical Perspective* (Ithaca, NY: Cornell University, 2003), 108-110. There was a push for the study of monetary signs within the scientific community as early as 1857. For a commentary on numismatics and the study of monetary symbols before the National Bank Note Program, See Marc Shell, *Art & Money* (Chicago: University of Chicago, 1995), 8. Haberle alludes to the emerging practice of numismatics as an amateur science in the United States through his visual history of American currency.

butterfly hinges as an allusion to how collecting informed a public understanding of natural history and Darwinian natural selection (fig. 51).

Butterfly collecting offered a unique way for amateurs and professionals to engage in both a scientific and aesthetic exploration of the world in tandem with the practice of financial speculation. William Leach's historical exploration into nineteenth-century American Lepidoptera reveals the close association of butterfly collecting and the study of natural history. Leach focuses on how butterfly collectors helped bring Darwinian evolutionary theory to America through the study of hybridization amongst subspecies. Through this material, collectors developed complex systems of classification to explain the element of chance in natural selection.[15] Most American researchers and publishers in the

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In addition, cigarette cards were collectable items amongst working-class men and their families. By the 1880s, collectable cards were a popular and successful marketing trick to keep customers loyal to a company's product. According to Alan Blum, department-store founder Aristide Boucicault developed the first collectable set of picture cards in 1853. Manufactures of other products started to adopt this brand technique in the wake of Boucicault's success. By 1880, several American tobacco companies sold cigarette cards with their products. The photograph portrait of a woman in *The Changes of Time* is a fairly tame example of a cigarette card pin-up. Usually these cards portrayed "buxom women in bathing attire. It was hoped that such sensuous images would build brand loyalty as smokers collected their entire series." (See Alan Blum, "A History of Tobacco Trading Cards from 1880s Bathing Beauties to 1990s Satire," *Tobacco and Health*, edited by Karen Slama (New York: Plenum, 1995), 923.) These sets of cigarette cards became visual folios of working and middle-class collectables, acting as a disjointed compendium to the elite art collecting practices of the nineteenth-century.

[15] Lepidoptera was an emerging natural science that depended upon clear systems of classification, particularly in relation to North American breeds. The process of collecting extends beyond the simple amalgamation of objects, but requires intricate systems of classifying, categorizing, and display. This issue of both collecting and display was most likely at the forefront of Haberle's consciousness in a parochial and scientific way as an exhibition preparator at the Peabody during the tenure of the taxonomic theorist Addison Emery Verrill.

field ardently promoted Darwin's theories of survival of the fittest and eugenics, particularly explored through the practice of breading to produce new hybrid species.[16]

Darwin's theory of natural selection impacted scientific understanding of time and narrative in natural history, particularly in relation to Lepidoptera. William Henry Edward included visual displays of butterfly transformation from the egg to maturity in his 1884 scientific study, *The Butterflies of North America*. Edward hired artists Mary Peart and Lydia Bowen to create visual prototypes that showed the stages of transformation from the ovum of the tiger swallowtail in *Papilio III* (fig. 52). The life of the butterfly is visually mapped from egg to chrysalis in the bottom half of the illustration plate with the lowercase letters A-G marking stages of development. Once transformation occurs, Peart and Bowen show three different hybrid female subspecies, including the iconic orange- and black-striped pattern of the tiger swallowtail on the right. Period Lepidopterist Augustus Grote commented that nature does not follow a linear form of narrative. As in Peart and Bowen's diagram, Scientists and their illustrators knew that linear

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As a zoologist and curator at the Peabody, Verill became well known for his exhibition methods for presenting the natural histories of different species. (Verrill became most noted for his 'sound' systems of classification for corals and coruscations that he implemented in his exhibitions from 1870 through 1894. For more information see Wesley R. Coe, *Biographical Memoir of Addison Emery Verrill: 1839-1929,* (Washington, DC: National Academy of Sciences, 1929), 28-33.) By working in a similar environment, particularly in relation to exhibition design, Haberle was aware of complex taxonomy systems and how they could be simplified in their presentation to a general public. This experience might have impacted his careful groupings of bills, stamps, and coins in *The Changes of Time*.

[16] William Leach, *Butterfly People: An American Encounter with the Beauty of the World* (New York: Pantheon Books, 2013), x-xxi and 19-25.

narratives of development included in exhibits and collecting guides could only approximate specie development.[17] It is through the methodical placement of stages in *Papilio III* that Peart and Bowen signal the problems of a linear narrative in natural history.

This provides an interesting juxtaposition for temporal constructions of history through paper currency in *The Changes of Time*. The overlapping and somewhat circular placement of the notes in the center of the painting challenges the linear historical narrative used in the tradition of history painting. This overlapping nature mirrors the various stages of development in *Papilio III.* In addition, both works only present pinnacle stages of growth and change, whether in a species of butterfly or in money.[18] Natural historians like Edwards often hired

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[17] See Leach, *Butterfly People,* 153.

[18] It should also be noted that there is a temporal dimension to this evolutionary question as well. The physical changes of notes not only symbolizes an unstable passage of time through the layering of aged paper, but a conscious viewer like Haberle was aware of the temporal connections to evolutionary proofs. The decorated border displays an ordered and fixed understanding of time as measured by the term limits of the Presidential office; these static intervals exaggerate the temporal inconsistency of the paper currency. Scientists struggled to fully understand the temporal ramifications of natural selection. While paleontologists were trying to identify evolutionary traits over thousands of years, Robert Richards and Keith Bennet confirm that there was a public conception that evolutionary traits manifested much faster than in reality. See Robert Richards, "Darwin's Theory of Natural Selection and Its Moral Purpose," *The Cambridge Companion of the "Origin of Species"*, edited by Michael Ruse and Robert J. Richards (Cambridge, UK: Cambridge, 2009), 64; and Keith Bennet, "Darwin and Time," *The Cambridge Encyclopedia of Darwin and Evolutionary Thought* (Cambridge, UK: Cambridge University, 2013), 124-129. The use of trompe l'oeil technique plays off of these temporal problems, defying a linear construction of history by flattening space and narrative to a two-dimensional surface. Jean Baudrillard speaks to this aesthetic choice by asserting that trompe l'oeil is naturally divorced from any narrative action. "Here all is artifact; the vertical field constitutes objects isolated from their referential context as pure signs." Trompe l'oeil defies construction of time,

illustrators to visualize complex classification and evolutionary sequences.[19] This compositional method of display would have been known amongst artists from this period who trained as scientific illustrators.

The butterfly not only signals a connection to natural selection and composition, but also the rise of collecting as a primary profession for Lepidopterists during this era. Demand for exotic butterflies grew in Europe (particularly in Germany) and America during the 1870s and 1880s as collecting, butterfly trading, and experimental farming became a legitimate profession. According to Leach, butterfly farming often resulted in the genetic mutation of certain breeds from those found organically in nature, offering more opportunities to discover new species. It is during the emergence of a butterfly market that many ethnologists and lepidopterists started to describe butterfly communities and

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even when suggested as in *The Changes of Time*, echoing the strained understandings of evolutionary time by paleontologists like Marsh. See Jean Baudrillard, "The Trompe-L'oeil," *Calligram*, edited by Norman Bryson, (Cambridge, UK: Cambridge University, 1988): 53-55.

[19] Both professional and amateurish investigations into natural history supported a market for scientific illustration for numerous realistic American painters, including Titian Peale, another American still-life painter from the 1830s. I am not aware of any connection or comparison that has been made between the Peale family of trompe l'oeil painters and the emergency of trompe l'oeil painting in the 1880s. However, interesting parallels exist between Titian Peale's work on butterflies as explored by Leach and Ellery Foutch and Haberle's scientific lithographs of the Peabody, as both trained to work as professional artists in the field of natural history, and both have connections to the hyperrealist style of trompe l'oeil. See Leach, 6-7 and Ellery Foutch, "Temporality, Metamorphosis, Perfection in Nineteenth Century Art and Natural History," (Brown Bag Works-in-Progress Seminar, McNeil Center for Early American Studies, University of Pennsylvania, 2009), 1-13. There exists an interesting parallel between trompe l'oeil and its revival during a period of aestheticization in American art that strangely parallels the critical shift from "natural theology" and Darwinian evolution at this time period that Kathleen Pyne explores in *Art and the Higher Life: Painting and Evolutionary Thought in Late Nineteenth-Century America* (Austin: University of Texas, 1996), 11-47.

farms as 'species economies,' conflating butterflies as both a species but also as a collectable piece of property.[20] This double meaning of the butterfly as subject of scientific study and object of monetary gain changes the presentation of the banknotes at the center of the painting. Haberle inclusion of butterfly hinges signals that currency too might have more than one interpretation, like the butterfly.

The intermingling of monetary specie and natural species was not limited just to the Lepidoptera, but part of a parallel linguistic structure that developed over the course of the nineteenth century. Money linguistically and visually operated at the heart of American culture starting in the colonial period through the bimetallist debate. As a result, classification techniques of the monetary system were applied to social categories of race, class, and gender. These classification systems were used to establish the origins of modern values, causing slippage and confusion between the monetary term of specie and the scientific term of species.

For example, Historian Michael O'Malley explores how inextricably intertwined monetary history and perceptions of race were in American culture during the colonial period. In his book *Face Value,* O'Malley compares how paper money, an object entirely dependent upon authority alone and lacking any origin of value, closely paralleled racial slavery, which also lacked a stable gauge in terms of market value. O'Malley keenly observed that the monetary term 'specie' developed alongside the biological term 'species,' within the confines of

[20] Leach, *Butterfly People,* xviii and 16.

the slavery market, enforcing racial differentiation through physiognomy and skin color as opposed to skill. Such classification helped enforce the idea of life-long indentured servitude.[21] This study indicates a shift in classification that continues into the late nineteenth century, particularly in relation to evolutionary traits and progressive development supported by Social Darwinism.

The term currency itself was defined with evolutionary rhetoric by this period. In 1866, Webster's dictionary defined currency as "(2) A continued course in public opinion, belief or reception; a passing from person to person, from age to age."[22] While this sources the secondary definition of currency as an accepted quality, as was Darwinian thought, it reflects the idea of inheritance. The circulation of currency is conflated with its evolutionary development as both a monetary mechanism and cultural symbol. This definition of currency mirrors the passing of evolutionary traits that were part of Haberle's paleontological research under Marsh.

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[21] Michael O'Malley, *Face Value: The Entwined Histories of Money and Race in America* (Chicago: University of Chicago, 2012), 11-43. Marc Shell also alluded to the connection between currency and specimen classification in his discussion of the "Gold-Bug" by Edgar Allen Poe from 1843, a critical look where the bug on a fictitious island is classified as a *Dukatenscheißer*, or a "shitter of ducats." See Marc Shell, *Money, Language, and Thought: Literary and Philosophic Economies from the Medieval to the Modern Era* (Baltimore: John Hopkins University, 1982), 9-11.

[22] Noah Webster, Chauncey Allen Goodrich, and John Walker, *A Dictionary of the English Language,* 10th ed. (London: George Routledge & Sons, 1866), 255. By 1898 after the United States adopted the gold standard, dictionaries included a separate definition for metallic currency and paper currency, citing the issues of the bimetallist debate. See Robert Hunter and Charles Morris, *Universal Dictionary of the English Language* (New York: P. F. Collier, 1898), 1405.

Haberle's painting enforces the same heterogeneous structure of specie diversification that undergirded racial segregation through three different forms of currency: stamps, coins, and banknotes. Darwin used a charting technique to help track the variations of a species to a common ancestor, simultaneously showing how certain lines of descendants become extinct through natural selection (fig. 53). Haberle's inclusion of three different types of specie in *The Changes of Time* echo the key element of Darwinian natural selection that supported Social Darwinist ideologies on class. While all of these monetary devices have the same origin of value in hard specie (gold or silver), their use becomes antiquated with the evolution of new forms of currency. For example, Haberle's layering of banknotes shows monetary development up to the most recent issuance of paper currency, the five-dollar silver note and the twenty-five cent fractional bill. If the compositional language of Darwin's species tree is applied to Haberle's painting, the creation of the fractional bill represents a new shoot or variation in the species tree. For example, this would be illustrated as a^6 and f^6, two variations of currency that share a dominant parent trait of the material paper. This split creates two child species with the silver-note following the parent species (a^6) in full denomination and the second child representing fractional currency (f^6). This new form is related to the parent specie of paper currency, yet has a different trait and function than a regular banknote. Such variation in paper currency signified that the American financial system was still in development, with the newest versions of American currency at the forefront of this composition.

The inclusion of coins and stamps in addition to banknotes suggests that financial institutions were intimately involved in a process of natural selection in the money market. Paper currency visually overcrowds the pictorial surface, pushing stamps and coins off to the margins as if echoing violent notions of the 'survival of the fittest.' Through the National Bank Note program, two different types of 'specie' would essentially become extinct in an attempt to standardize the monetary system. Haberle acknowledges this extinction through the presentation of faded, worn stamps in the bottom left corner. According to John Jay Knox, 'postage currency' or stamps were issued in place of fractional currency during the Civil War. The same profile silhouettes of Presidential portraits were used on paper money and stamps, connecting them as legal forms of tender.[23] Haberle's repetition of the engraved portrait of George Washington is shown both on the two-cent stamp and the twenty-five cent fractional note, suggesting a shared familial trait and thus the same origin of value. Yet one version outlives the other in terms of its economic value in the market. Postage currency was replaced by an 'improved' form of paper fractional currency under the National Banking Act, leaving stamps to become an extremely rare form of currency during the 1880s.[24]

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[23] John Jay Knox, *A History of the Various Issues of Paper Money by the Government of the United States* (New York: Charles Scribner's Sons, 1884), 103.

[24] While distinct, this issue of stamps versus commercial paper currency elicits an interesting connection with Marcel Hénaff's discussion of 'archaic' or 'savage money,' as originally defined by evolutionists. Ethnologists have made a clear distinction between ceremonial money in a culture, like cocoa beans of the Aztecs or cowrie shells of native African tribes, and the commercial currencies that succeed in the process of modernization. Haberle was producing these currency works at the very start of a dialog on the origins of the notion of currency, which only really produced iconic texts in 1914. See Marcel Hénaff,

Species extinction was as central to Darwin's natural selection as survival. Darwin addressed how competition and abundance lead to progressive evolution, while rarity leads to degeneracy and extinction.[25] In his *Origin of Species*, Darwin wrote, "…as new species in the course of time are formed through Natural Selection, others will become rarer and rarer, and finally extinct. […] We see the same process of extermination amongst our domesticated production, through the selection of improved forms by man."[26] Haberle displays this struggle not through animal species like the biologist, but through the lens of the American consumer by placing the most active and prolific form of specie, paper currency, at the center of the composition, while outdated stamps fade in the corner. Thus there is a clear connection between the extermination of the stamp and the survival of the paper currency in Haberle's painting that operates on both a biological and market level.

The Price of Truth: Gift, Money, and Philosophy, translated by Jean-Louis Morhange and Anne-Marie Feenberg-Dibon (Stanford: Stanford University, 2010), 296-300. In relation to this anthropological work, American currency history has a unique past as, due to European dominance in its identity, had no ceremonial currency as the origin of its monetary system. It could be argued that stamps held this symbolic position as a product of the Civil War, and the final cementing of the nation-state.

[25] In his speech, "The Descent of Man," Cope stated "There is progressive evolution and also retrogressive evolution; progressive and degeneration. The competition of the struggle for existence compels excellence. The absence of it tends to inactivity and degeneracy." See Edward D. Cope, "The Descent of Man," *Evolution: Popular Lectures and Discussions before the Brooklyn Ethical Association* (Boston: James H. West, 1889), 165.

[26] Charles Darwin, *The Works of Charles Darwin: Origins of Species* (1876), vol. 16 (New York: New York University, 1988), 89-90.

Scientific Skepticism

Haberle was well attuned to scientific controversy over Darwin's theory of natural selection while at the Peabody Museum, which most likely sullied his personal views of natural selection and its social application. Issues of forgery, counterfeiting, and fraud were not just limited to American currency; they also extended to the scientific realm in relation to evolution theory.[27] Haberle's experience at the Peabody Museum placed him at the center of a debate over the validity of scientific discovery to support natural selection theories.

Haberle worked at the Peabody Museum in the midst of a heated scientific debate referred to as the 'Bone Wars' or the 'Great Dinosaur Rush.' During the 1870s and 1880s, paleontologists across the country raced to discover new types of extinct animals by heavily speculating in private digs, resulting in an ad hoc fossil market. Darwin and his colleagues believed that the only way to demonstrate his theory of evolution and natural selection was through the collection and study of fossils.[28] Driving this speculation was Marsh and his 1880

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[27] While photography is not the scope of this, it plays an important dialog within debates on scientific precision and artistic freedom. In relation to fraud, Michael Leja's chapter on William Mumler and fraudulent spiritual photographs is an excellent example of an act of deception that preyed off preconceived value systems in American society. See Michael Leja, *Looking Askance: Skepticism and American Art from Eakins to Duchamp* (Berkeley: University of California, 2004), 21-58.

[28] Darwin believed that paleontology was the key to proving his evolutionary theories. Marsh approached Darwin about his work in 1873, which was received warmly. By the second edition of *Origin of Species* released in 1876, Darwin's language concerning natural selection becomes less ambiguous and more assertive. According to letters in the Peabody Museum archive, Darwin attempted to study Marsh's vertebrate fossil collection in 1878. See Charles Darwin to O. C. Marsh, January 25, 1973 in *The Correspondence of Charles Darwin: 1873*, vol. 21 (Cambridge, UK: Cambridge University, 2014), 54-55;

discovery of *Hesperornis regalis,* an extinct bird with reptile traits (including teeth and long-legs for swimming) (fig. 54). Edelson and Narendra believe that Haberle was the engraver who prepared the lithographic stone of the *Hesperornis regalis* for publication in *Odontornithes: A Monograph on the Extinct Toothed Birds of North America*. Four lithographs from Marsh's book were found in Haberle's Connecticut home, a sign that his study of the species continued outside of his work at the Peabody.[29] Supporters of evolution theory believed Marsh's discovery cemented a connection between ancient dinosaurs and modern Aves. Biologist and Peabody Fellow Thomas Huxley wrote that Marsh's research "completed the series of transitional forms between birds and reptiles, and removed Mr. Darwin's proposition… from the region of hypothesis to that of demonstrable fact."[30] Such evolutionary proof became central to debates in the sciences, philosophy, and sociology. This discovery peaked a scientific desire to discover new forms of specie and trace their development through bone specimens, fueling a debate between Darwinian modes of evolution and

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Charles Darwin to O. C. Marsh, July 14, 1878 in *O. C. Marsh Correspondence Collection, MS 343*.8.327, Peabody Museum of Natural History, Yale University. For more information about the language changes in Darwin's monograph, see Jim Endersby, "Appendix 1: An evolving *Origin*," in Charles Darwin, *On the Origin of Species*, ed. Jim Endersby, (Cambridge, UK: Cambridge University, 2009), 386.

[29] Edelson and Narendra, "John Haberle," 27-8.

[30] Huxley is quoted in David Rains Wallace, *Neptune's Ark: From Ichthyosaurs to Orcas* (LA, CA: University of California, 2007), 27. Huxley was at Yale working with Professor Marsh from 1875-1885. In addition, Darwin acknowledged this accomplishment as well in a letter to Marsh from 1880. Darwin said, "Your work on these old birds and on the many fossil animals of N. America has afforded the best support to the theory of evolution which has appeared within the last 20 years." See Charles Darwin to Othniel Marsh, August 31, 1880 in *O. C. Marsh Correspondence Collection*, Peabody Museum of Natural History, Yale University.

conservative evolution theories based on designed order. Haberle's involvement in the project placed him at the nexus of this scientific debate and its social implications.

In the 1880s, Marsh regularly showed exhibitions of extinct animal skeletons at the Peabody Museum in support of natural selection. Marsh brought railcar-loads of fossils to the museum from western archeological sites to be cataloged, diagramed, and reconfigured into full skeletons. A large staff was hired to conduct research on this collection, often never receiving credit for the work done; this explains the absence of Haberle's name from Marsh's scientific papers.[31] Haberle wrote in a letter to his daughter, "My best time before I took up the brush was while I was at the Yale Peabody Museum, drawing the old fossils which Prof. Marsh was having made for publication."[32] Haberle's active involvement in Marsh's classification process might have exposed him to the reality of discovering new species, particularly their hybrid construction that would lead to public scrutiny if exposed.

The most notorious clash among scientists on this subject of specie assimilation was a feud between Marsh and a colleague, Dr. Edward Drinker Cope who ascribed to a designed evolution framework. In 1869, Marsh accused Cope of constructing his *Elamosaurus platyurus* incorrectly by placing the mammal's skull at the tail during the opening reception of Cope's exhibit in Philadelphia. From that point, these two scientists singled out the other's work as

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[31] Charles Schuchert, *Biographical memoir of Othniel Charles Marsh, 1831-1899* (Washington, DC: National Academy of Sciences, 1938), 16.

[32] John Haberle to Vera Haberle, September of 1925. John Haberle Papers, Archives of American Art, Smithsonian Institution.

fraudulent and plagiarized in the press, despite the fact that each was publishing their material so rapidly that error was inevitable.[33] Years later it became known that Marsh constructed paleontological hybrids, mixing bones from two species of dinosaur to construct his Brontosaurus that went on display in 1885; this was a project in which Haberle was most likely involved.[34] One of Marsh's students at Yale told the *New York Herald* in 1889, "In science as well as in fiction, a well-connected tale can be built upon very slight foundations."[35] Peabody staff was aware that most of Marsh's newly found species were fabricated.

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[33] Marsh often collected information against Cope to prove that he misassembled his skeletons. Cope openly started to question if Marsh's work was plagiarized starting in 1888, culminating in a public scandal in the *New York Herald* from January 12-26, 1890. For more information see James Penick, "Professor Cope Vs. Professor Marsh," *American Heritage Magazine* 22.5 (August 1971), accessed November 1, 2014, <http://www.americanheritage.com/content/professor-cope-vs-professor-marsh>; and Elizabeth Noble Shor, *The Fossil Feud between E. D. Cope and O. C. Marsh* (Hicksville, NY: Exposition, 1974), 65-218.

[34] For more information on Marsh's Brontosaurus and paleontological hybrids, see David Rains Wallace, *The Bonehunter's Revenge* (Boston: Houghton Mifflin, 1999), 158-161.

[35] Quoted in Wallace, *Neptune's Ark*, 27. In addition, it should be noted that many of Marsh's colleagues have spoken about how difficult it was to work with Marsh. Many of his former students accused Marsh of denying them due credit for their scientific work. Marsh was known to become openly hostile toward other scientists, alienating himself from co-workers, attacking small errors, outing scientific 'imposters,' and identifying 'humbugs.' While this is only tangential, Marsh's adamant desire to detect fraud has an interesting connection with Haberle's currency works, particularly through his crafted persona of a counterfeiter while working under this prestigious scientific personality. Even the term 'humbug' was used both in this fossil debate as well as to describe paper currency as early as the 1830s in America. Such similarities speaks not only to a larger concern about modern vision and blindly accepting contemporary theories, but also to possible issues of translation that Haberle was keenly aware of, as seen in the construction of puns in his painting titles. For more information see Charles Emerson Beecher, "Othniel Charles Marsh," (New Haven, CT, 1899), 6; Schuchert, *Biographical memoir of Othniel Charles*

In the end, the battle between the two scientists came down to an issue of economics, demonstrating Darwin's natural selection theory in the fossil market. Paleontology digs would frequently fail as money quickly dried up during this period of economic instability.[36] Marsh was able to corner the vertebrae market easily through the backing of his uncle and railroad tycoon, George Peabody. Unlike Marsh, Cope had to speculate in Western mining ventures to finance and manage his own private digs out West. Marsh's "businesslike" approach to this ad-hoc bone market gave him an advantage to outproduce Cope, cementing both his name and proof of natural selection in the scientific cannon.[37] The intense scientific debate and economic realities of nineteenth-century paleontology affected Haberle's daily activities at the Peabody Museum, presenting a clear and personal parallel between matters of biology and economy.

Degenerative Selection

Haberle never publically vocalized his opinions about evolutionary theory; however it is evident that such theories and their manifestation in modern society were at the forefront of his mind from his personal letters and one known painting. Robert Chirico's examination of *Time and Eternity* (1890) reveals a reference to natural selection and Social Darwinism through Haberle's inclusion of a text citing Bob Ingersoll, a prominent lawyer, atheist, and public speaker who

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Marsh, 12. For language used to describe money during this period, see Shell, *Money, Language, and Thought*, 130.

[36] Wallace, *The Bonehunters' Revenge,* 178.

[37] Schuchert, *Biographical memoir of Othniel Charles Marsh*, 31. From 1877 to 1892, Marsh discovered eighty new species, while Cope was only able to produce 56. See "Othniel Charles Marsh," *The evolution wars: A guide to the debates* (2008). <http://search.credoreference.com.ezproxy.library.tufts.edu/content/entry/abcevolve/othniel_charles_marsh/>.

propounded Darwinism in America (fig. 55).[38] Haberle, a devout and active Catholic, must have disagreed with the application of Darwin's theory to progressive social programs that affected daily American life. In a letter to his wife, Sadie, Haberle wrote about his discomfort in using Darwin's natural selection to justify human progress. Reflecting at a zoo in New York during lunch in 1895, he professed,

> … while trying to enjoy these little bivalves my mind naturally turned to the Darwins and I thought how much more nature favored the ape than the man – How much? Why have they not legs as well – armes [sic] and hands as well – yes and more they have a tail that can accomplish as much as the arms and legs of some of us. Had nature added to these wings I think the monk would be the most perfect of creatures. Is he not as intelligent as some of us?[39]

Haberle plays with the concept of hybridization through his addition of wings to monkeys. This is very similar to the merging of butterfly wings and a lion's head in the cupboard lock. In doing so, Haberle references the role of chance in

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[38] See Chirico, "Language and Imagery," 114. In addition, Haberle included a photographic picture of a crying baby tied into its high chair in *A Bachelor's Drawer* with a book of baby names listed above. While the connection to fatherhood is most evident, the picture strangely quotes Darwin's "Ginx's Baby" from *The Expression of the Emotions in Man and Animals* (1872). This inclusion might act as a commentary on the manipulation of photography to capture 'objective' scientific truths. See Charles Darwin, *The Expression of the Emotions in Man and Animals* (Chicago: University of Chicago, 1965), 153. For more information see Sabine Flach, "Communicating vessels: On the development of a theory of representation in Darwin and Warburg," *Darwin and Theories of Aesthetics and Cultural History*, edited by Barbara Larson and Sabine Flach (Burlington, VT: Ashgate, 2013), 118-120. For an in depth discussion of the art historical implications of Darwin's use of photography, particularly on the effectiveness of photography to capture aspects unobserved by the naked eye have interesting temporal implications for trompe l'oeil painting, see Phillip Prodger, *Darwin's Camera: Art and Photography in the Theory of Evolution* (Oxford: Oxford University, 2009).

[39] John Haberle to Sadie Haberle, June 12, 1895, John Haberle Papers, Archives of American Art, Smithsonian Institution.

Darwin's theory of natural selection through this random addition, one that would upset the hierarchy between man and ape over time.

Haberle believed that man's social progress was not a remedy, but the root of modern plight. He wrote in a letter to his daughter, "Despotism and bigotry have ruled too long. Adam probably excaped [sic] such discomforts as chicken pox, measles, mumps, etc. Evolution – there is nothing that man does not ape after. Who made disease-producing bacteria?"[40] For Haberle, Social Darwinism did not aid in man's development, but provoked ape-like inclinations that would cause his ultimate demise. This critical statement not only confirms Haberle's mastery of Darwinian theory, but also undermines social applications of Darwinism to racial and socioeconomic classifications.

Haberle's display of certain banknotes demonstrates the racial classifications justified under the theory of natural selection. Social Darwinism linked economic, intellectual, and national progress to racial classifications. Historian Cynthia Russett discusses the interchangeable nature of natural selection and economic theory in America. Theorists like Herbert Spencer believed that evolution and progress were synonymous under Social Darwinism.[41]

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[40] John Haberle to Vera Haberle, September 1925, John Haberle Papers.

[41] Haberle would have come into direct contact with Spencer's theories on natural selection while at Yale It should be noted that Spencer and Huxley were close in regards to their personal philosophies on natural selection from the 1860s, and thus Huxley would have openly propounded Spencer's beliefs while Huxley was at Yale. Huxley formed the "X Club" as a dining group of nine individuals who met regularly to discuss likeminded theories regarding natural selection. While the group primarily met in London, Huxley and Spencer most likely kept in communication while Huxley was at Yale working with Marsh. For more information see Ruth Barton, "'An Influential Set of Chaps': The X-Club and

Industrial tycoons adopted social Darwinist theories to promote cutthroat forms of capitalism. Social Darwinism was often used to solidify the Anglo-Saxon race as the "main impetus to the progress of civilization," particularly in the business world.[42] In 1889, Cope discussed the overlap between biological and economic evolution in an address to the Brooklyn Ethical Association entitled "The Descent of Man." Cope claimed that man is actively involved in natural selection through intellectual pursuits, particularly in business where competition plays a central role. Industrialization does not free man from the forces of nature but adds a new element in the evolutionary struggle. Cope finished his address by proclaiming, "And since men are not made 'equal,' even if they are 'free,' the first of power never can be equally distributed, and so long as that is the case, natural selection must operate."[43] Cope's statement clearly references racial tensions after the Reconstruction period by referencing both equality and freedom in relation to power distribution. Under Social Darwinist assumptions, racial stratification was determined by socioeconomic factors within the marketplace.

This link between race and economic value plays out in the choice of notes, particularly as Haberle chose notes that only included portrait vignettes as opposed to the national origin stories shown on legal tender notes. The portrait vignettes display prominent Anglo-Saxon political leaders in American history, bolstering claims to white supremacy justified under new heterogeneous

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Royal Society Politics 1864-85," *The British Journal for the History of Science* 23.1 (March 1990): 53-81.

[42] Cynthia Eagle Russett, *Darwin in American: The Intellectual Response 1865-1912* (San Francisco: W. H. Freeman, 1976), 92 and 89-95.

[43] Cope, "The Descent of Man," 169-170.

evolutionary models.[44] By only showing one unified strata for paper currency that is based on a white American model, it is implied that the origin of currency, and also civility, is racial. Furthermore, Haberle's choice to layer the greenback, Confederate note, and silver-note on top of each other creates an abstracted racial relationship in relation to a temporal narrative. According to O'Malley, greenbacks were conflated with African American soldiers during the Civil War, implying a racial connection to the monetary specie. Thus, the inclusion of Jefferson Davis on the Confederate Note, prominently next to and in front of the vignette portrait of Abraham Lincoln, signals this support of a superior race in relationship to the covered greenback below.[45] However, this conflated hierarchy is challenged with the introduction of the silver note.

Haberle's support of the gold standard is critical to the interpretation of socioeconomic hierarchies in *The Changes of Time*. If Haberle were truly

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[44] As evident from his other currency paintings, Haberle did have access to a variety of other banknote imagery that included vignettes of landscape, industry, and Native Americans. The inclusion of Native Americans on national currency provides an alternative race to include in the monetary history, but was actively excluded. This choice might also have been guided by Marsh's clear bias in his choice of specimen. By only presenting the pinnacles of banknote development in *The Changes of Time*, Haberle subtly plays off of Marsh's displays of evolutionary changes. Marsh's main assistant for ten years, Charles Breecher, criticized Marsh for being highly selective when illustrating the evolutionary changes of a species. Breecher wrote, "… he seems to have had a just conception of relative values, for it will be found that he plucked the most luscious plums from the paleontological tree, and left chiefly the smaller or unripe and imperfect fruit untouched." See Beecher, "Othniel Charles Marsh," 4.

[45] See O'Malley, 81 and 99-105. In addition, Davis was alive and active during this moment when Haberle painted *The Changes of Time*. As mentioned in an earlier footnote, he published *The Rise and Fall of the Confederate Government* in 1881 where he continued to vocalize his pro-slavery sentiments well after the end of the war.

portraying a dominant strain of specie through paper currency, he would have ended his monetary narrative with a gold certificate in accordance with pro-gold instructional books that examined the origins of money. While overt applications of natural selection to American economic theory did not appear until Thorstein Veblen's *The Theory of the Leisure Class* in 1899, instructional books often alluded to natural selection and its role within the market.[46] For example in *Robinson Crusoe's Money,* David Wells explains the origins of economic development through a fictional tale of a small island.[47] Wells characterized the invention of money as the moment of civilization and progress.[48] He contracted the American illustrator Thomas Nast to visualize the final stage of monetary progress as adopting the gold standard. Nast's cartoon "The Survival of the Fittest" depicts a hen in the form of a gold coin on the top of a pile of political refuse (i.e. law books, bills, etc.; see fig. 56).[49] Such rhetoric must have resonated with Haberle, as he was most likely in support of a gold standard. If money was a product of evolution as characterized by David Wells and Thomas Nast, and gold its crowning champion, then the appearance of silver (and paper currency) destabilizes this progress.

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[46] See Russett, *Darwin in American*, 83-96.

[47] This book was published in 1876, the same year that the second edition of Darwin's *Origin of Species* was released.

[48] After the main characters settle on a single commodity or "intermediate object" that should be used for exchange, Wells boldly proclaims "And the moment this was done, civilization on the island took a long step forward, and the first great embarrassment growing out of the attempt to exchange exclusively by direct barter was removed." See David Wells, *Robinson Crusoe's Money* (New York: Harper & Brothers, 1878), 21. The civilizing moment created currency is further discussed in chapter three in relation to the image of the pioneer.

[49] For an investigation into this cartoon, see O'Malley, *Face Value,* 116-117.

This distinction between gold and silver note is critical in the bimetallist discourse, as politicians attempted to determine which form of hard specie was capable of promoting human progress. Pro-gold advocates claimed that silver would be the undoing of Western civilization. For example, during the President's veto of the Silver Bill from 1878, Representative Gilbert C. Walker of Virginia boldly reminded the Christian nation that Christ was betrayed by silver.[50] Politicians employed the same rhetoric over this period to impressive the evils of silver coinage. In 1893, Representative Joseph Henry Walker claimed that free-silver coinage was "a rebellion against human progress," stating that such regression in material things would lead to the demise of intellectual or moral progress.[51] This direct correlation between the free-silver advocate and the unhinging of human development is supported through the trompe l'oeil aesthetic of the painting.

Haberle's aesthetic choice of trompe l'oeil falls within a larger framework of Social Darwinism and the arts during this period. Kathleen Pyne has explored how aesthetics operated as a "means of progressive social improvement" through the construction of sensuous environments like those of John La Farge. Viewing aestheticized styles like those of Thomas Dewing was interpreted as leisurely

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[50] Gilbert C. Walker, "President's Veto of the Silver Bill," Remarks to the House of Representatives (February 28, 1878), 6. Nineteenth-Century Pamphlet Collection, Tisch Special Collections, Tufts University.

[51] Joseph Henry Walker, "Why the Purchase Clause of the Act of July 14, 1890, (Called Sherman Law) Should be Repealed, and Why Free Coinage of Silver Would be Unjust. Free Coinage a Rebellion against the Progress of Man," Remarks to the House of Representatives (August 23,1893), 4-5. Nineteenth-Century Pamphlet Collection, Tisch Special Collections, Tufts University.

therapy to help modern man keep pace with industrial development.[52] Trompe l'oeil also acts as a tool of Social Darwinism within this interpretation of aesthetics, but as a critical test on the development status of the viewer. Michael Leja argues that trompe l'oeil painting was used as a way to define the civilized/intellectual from the primitive/tricked individual through this act of deception, reinforcing social differentiation.[53] This heterogeneous hierarchy is not only defined by educational and racial status, but also by political affiliation within the bimetallist debate.

Haberle must have surmised a viewer's reaction to a silver dollar note would be dependent upon his stance within the bimetallist debate. While Haberle originally displayed *The Change of Time* in a public art exhibition, he must have assumed that this painting would end up in a saloon for a male audience like other trompe l'oeil paintings of the period. In as such, he also must have surmised the drunken state of the patrons. Haberle knew of the outrageous stories of intoxicated 'gentleman' that grabbed and picked at tromp l'oeil currency paintings from newspaper articles that commented on his work, including the clipping in *The Changes of Time*. Only a believer in free-silver would have fallen for a con based on a silver note, thus creating a spectacle out of the viewer and reinforcing pro-gold rhetoric on the degrading qualities of silver.

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[52] The relationship of trompe l'oeil aesthetics and Darwinism needs to be considered at greater length. See Pyne, *Art and the Higher Life*, 48-83 for a discussion of John La Farge and how is work can be interpreted through the lens of social development for a discussion on sensuous interiors and their purported impact on intellectual and evolutionary development. For information on rest cures and the work of Thomas Dewing, see Sarah Burns, *Inventing the Modern Artist* (New Haven, CT: Yale University, 1996), 120-158 and Pyne, 135-219.

[53] Leja, *Looking Askance,* 136-137.

In 1889, Cope stressed that the promise of human progress lay in the fact that man was still "in a condition of plasticity or variability."[54] Trompe l'oeil currency paintings affirmed this condition by tricking the viewer and enforcing social hierarchies. Haberle's art caters to the drunken man who reveals his true, underdeveloped during a state of inebriation. Yet these hierarchies are not only class dependent, but also operate in relation to political debates through the unique parallel of the silver note as the most-developed currency in America and the uncivilized, ape-like impulse to snatch the bill. This connection reinforces gold-standard rhetoric that conflated monetary systems with specie development, supported by Social Darwinist conjectures. Through his scientifically informed composition, Haberle's placement of currencies suggests a parallel between the development of man and money informed by natural selection. The silver note acts as a signal for the regression of man in his contemporary state of consumerism.

[54] Cope, "The Descent of Man," 164.

Conclusion

George Simmel wrote in 1900, "The meaning of money lies in the fact that it will be given away."[1] Money functioned at the heart of American politics and culture in the post-bellum era. Paper currency acted as a signifier of economic value while carrying nationalistic imagery that connected the destiny of the nation to the native origins of the United States. The bimetallist debate was a symptom of a deeper concern regarding the role of origins within American culture prompted by Darwin's theory of natural selection, particularly in relation to race and nationalism.

John Haberle's compositions, titles, and trompe l'oeil rendering of banknotes provide insight into scientific and political debates on natural selection and assimilation within late nineteenth-century America, extending beyond issues of market consumerism, masculine culture, and forgery. Trompe l'oeil subverts the utilitarian role of paper currency, raising financial vignettes to the level of fine art to be reassessed at an aesthetic level. Haberle's paintings created a space for the viewer to slow down and reconsider the visual role of money within society, as a symbol of progress and social hierarchy that was informed by cultural evolution theories. Haberle's use of trompe l'oeil goes beyond issues of counterfeiting to question the role of representation in modern society through the complex relationships formed between the text and vignettes of the paper bills, as indicated by the inclusion of the same newspaper clipping entitled "Imitation" in

[1] Georg Simmel, *The Philosophy of Money* (1907) (London: Routledge & Kegan, 1978), 512.

Can You Break a Five?, U.S.A., and *The Changes of Time.* While this study has engaged with this issue of text and representation, more work needs to be done to hone Haberle's unique theory on semiosis within the context of his entire oeuvre.

Haberle created his currency paintings during a period when monetary specie, interpreted through the lens of Social Darwinism, was used to justify progressive campaigns of expansion and social development. Deeper anxieties about the fate of American culture at the close of the frontier are prompted by the economic and visual intention of these bills. Money maintains its symbolic value as a circulated object, upon which it becomes a heterogeneous measure for cultural progress. Haberle's currency paintings frankly present the viewer with the social tool upon which species, races, and national identity is measured in *Can You Break a Five?, U.S.A,* and *The Changes of Time*.

Haberle directly engaged with the problem of national identity in *Changes of Time?* and *U.S.A.* through the inclusion of legal tender notes of the National Bank Note Program, bills that specifically promoted the importance of national origins to unify the nation. Bimetallist rhetoric intensified the context of national origin vignettes by emphasizing the importance of natural value, a subjective source guised as a scientific phenomenon. Haberle engages with the conflation of money and national origins through his rendering of the pioneer and Indian Queen vignettes. Settlement of the frontier, and the subsequent removal of Native Americans under the Indian Answer, was justified as a way to expand the money supply through gold and silver mining and cement heterogeneous classifications of national identity. It is through the framework of the bimetallist debate that

Haberle's work operates within the contradictory framework of national origins justified under Social Darwinism.

Haberle's suspicion about the application of natural selection theory to culture are suggested in his largest currency painting, *The Changes of Time,* within the historical context of bimetallism. By reexamining this work in relation to scientific illustrations of species development, Haberle's compositions seem to become more central to his work than previously discussed. The curious slippage between monetary specie and natural species during this period uncovers how the bimetallism was used to promote an Anglo-Saxon version of progress in America, while still maintaining a nationalist identity apart from Europe. Yet Haberle ends his historical narrative with a silver dollar certificate, a signal of degeneration instead of triumph.

Haberle's trompe l'oeil compositions of money probe the Social Darwinist constructions of native origins, national identity, and heterogeneous class structures that dominated the bimetallist debate during the post-bellum era. This study only starts to contextualize the visual potency of currency within nineteenth century visual culture, and issues related to its representation. More research needs to be done to truly understand how the American public received financial vignette engravings, how circulation impacted this reception, how trompe l'oeil techniques can be read within the framework of Social Darwinism, and how currency paintings operate within a larger theoretical framework of semiotics in Haberle's trompe l'oeil oeuvre.

Appendix of Figures

Figure 1 – John Haberle, *Can You Break a Five?*, 1888. Amon Carter Museum, Fort Worth, TX.

Figure 2 – John Haberle, *U.S.A*, 1889. Indianapolis Museum of Art, Indianapolis, IN.

Figure 3 – John Haberle, *The Changes of Time*, 1888. Manoogian Collection, Grand Rapids Art Museum, Grand Rapids, MI.

Figure 4 – William Harnett, *Still Life – Five Dollar Bill*, 1877. Philadelphia Museum of Art, Philadelphia, PA.

Figure 5 – John Haberle, *Reproduction*, 1886-87. Portland Museum of Art, Portland, ME.

Figure 6 – John Haberle, *Imitation*, 1887. National Gallery of Art, Washington, DC.

Figure 7 – John Haberle's sketchbooks of engraved vignettes. Source: John Haberle Papers, Archives of American Art, Smithsonian Institution.

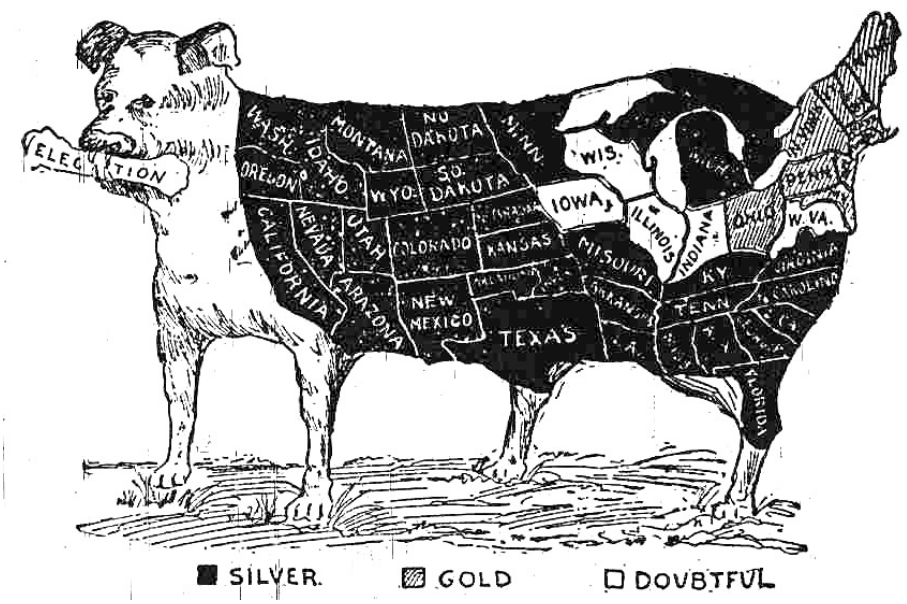

Figure 8 – Anonymous, "The Silver Dog with the Golden Tail: Will the tail wag the dog or the dog wag the tail?" From the *Salt Lake Utahnian*, republished in the *Boston Globe* on 13 September 1896.

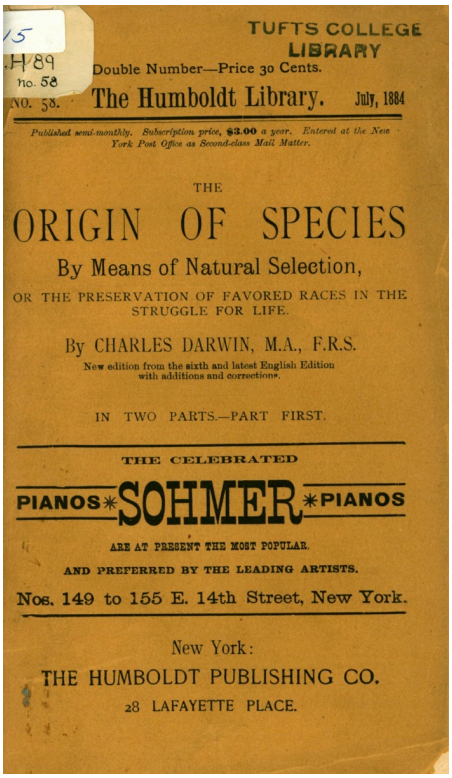

Figure 9 – Frontispiece of Charles Darwin, *The Origins of Species by Means of Natural Selection* (New York: Humboldt Publishing, 1884).

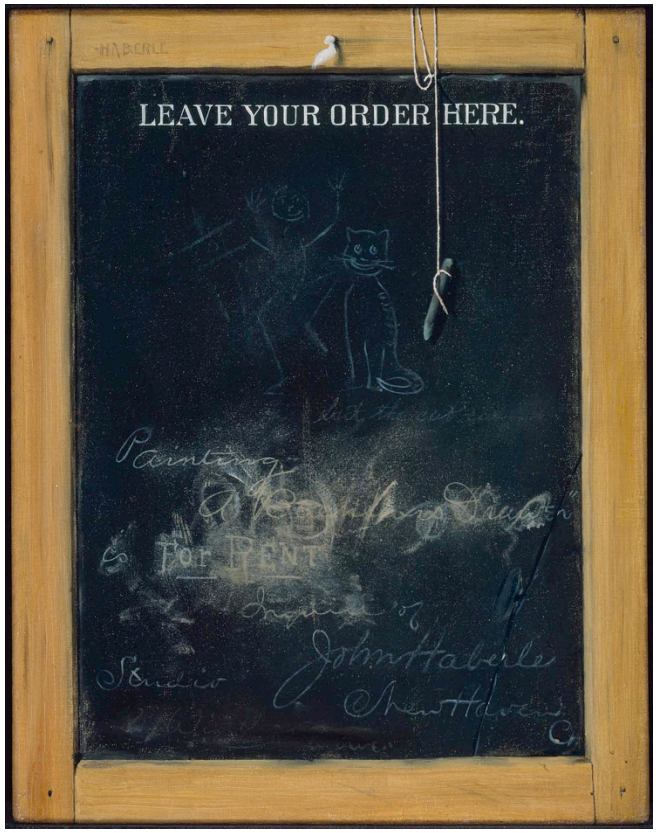

Figure 10 – John Haberle, *The Slate*, c. 1895. Museum of Fine Arts, Boston, MA.

Figure 11 – Detail of the legal warning on the reverse of the five-dollar banknote. Numismatics Collection, National Museum of American History, Washington, DC.

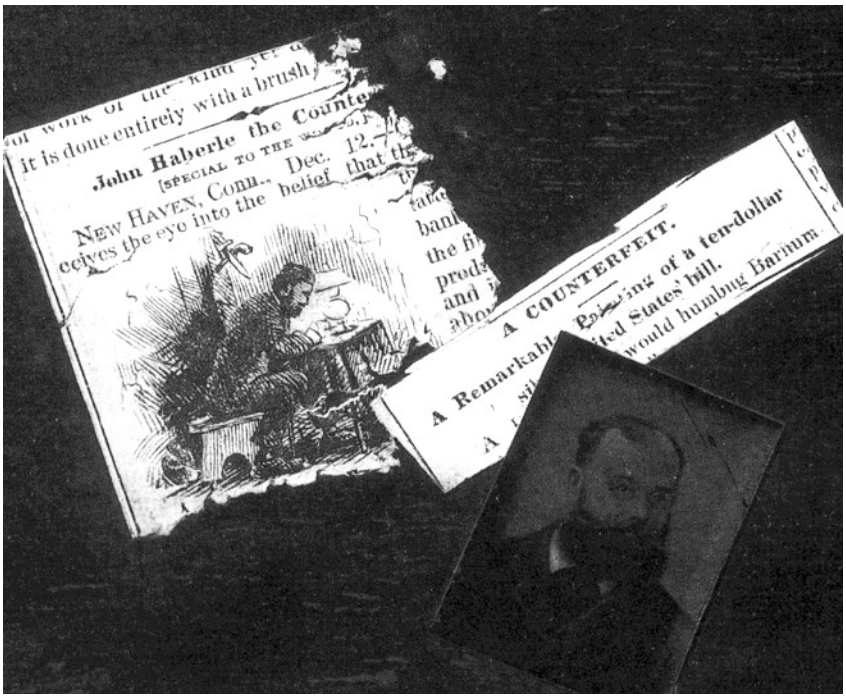

Figure 12 – Detail of John Haberle, *Reproduction*, 1886-87. Portland Museum of Art, Portland, ME.

Figure 13 – Detail of five-dollar banknote vignette of the Pioneer and his family, c. 1870. Source: Numismatic Collection, National Museum of American History, Washington, DC.

Figure 14 – Pioneer vignette from the American Bank Note Company, c. 1870. Source: Numismatic Collection, National Museum of American History, Washington, DC.

Figure 15 – George Caleb Bingham, *The Emigration of Daniel Boone*, 1851. Mildred Lane Kemper Art Museum, Washington University of St. Louis, MO.

Figure 16 – Victor Dubreuil, *Safe Money*, 1898. Corcoran Gallery of Art, Washington, DC.

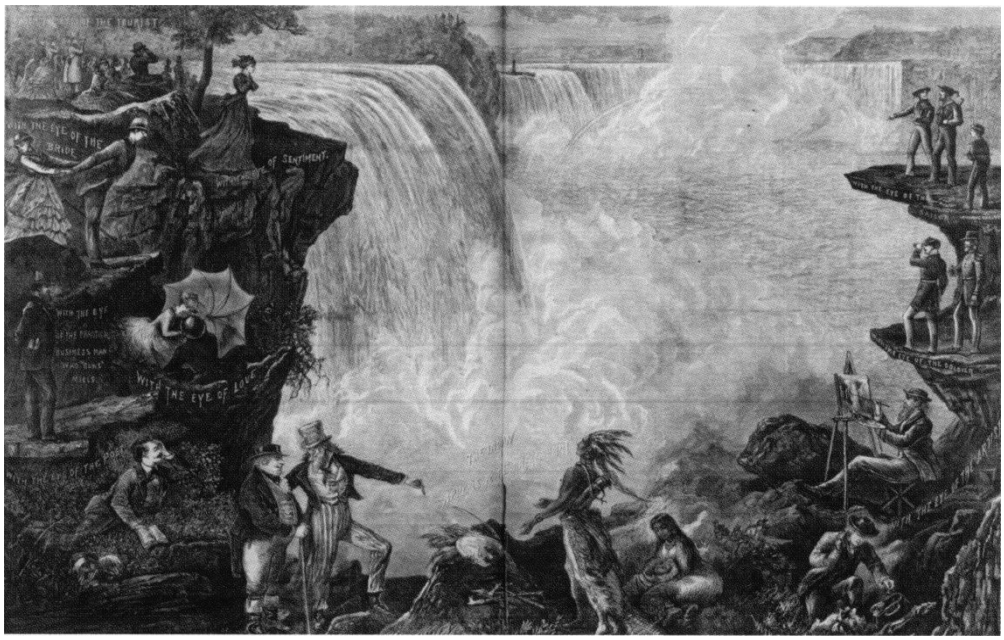

Figure 17 – Arthur Lumley, *Niagara Seen with Different Eyes*, in *Harper's Weekly*, August 9, 1873. Wood engraving. Source: Gail Davidson, "Landscape Icons, Tourism, and Land Development in the Northeast," *Frederic Church, Winslow Homer, and Thomas Moran: Tourism and the American Landscape*, edited by Gail Davidson (New York: Bulfinch Press and the Cooper-Hewitt National Museum of Design, 2006), fig. 25.

Figure 18 – *Tradecard: Boston & Maine Depot for the Boston and Maine Railroad*, n.d. Lithograph. Source: Gail Davidson, "Landscape Icons, Tourism, and Land Development in the Northeast," *Frederick Church, Winslow Homer, and Thomas Moran: Tourism and the American Landscape* (New York: Cooper Hewitt Design Museum, 2006), fig. 61.

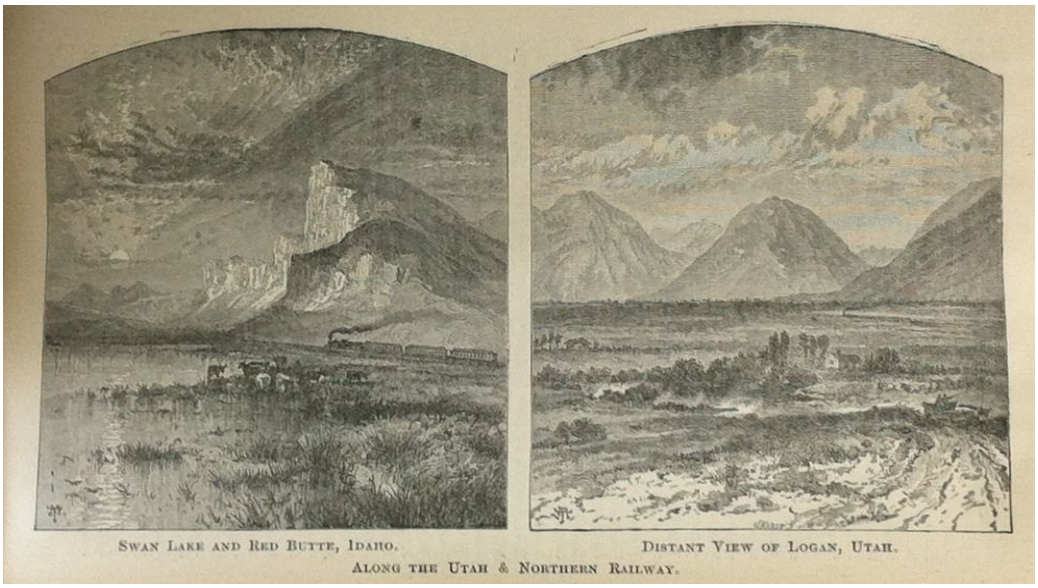

Figure 19 – "Swan Lake and Red Butte, Idaho" and "Distant View of Logan, Utah," c. 1879. Source: Robert E Strahorn, *To the Rockies and Beyond, or a Summer on the Union Pacific Railroad and Branches*. Omaha: The New West Publishing Company, 1879. Nineteenth-Century Pamphlet Collection, Tisch Library, Tufts University.

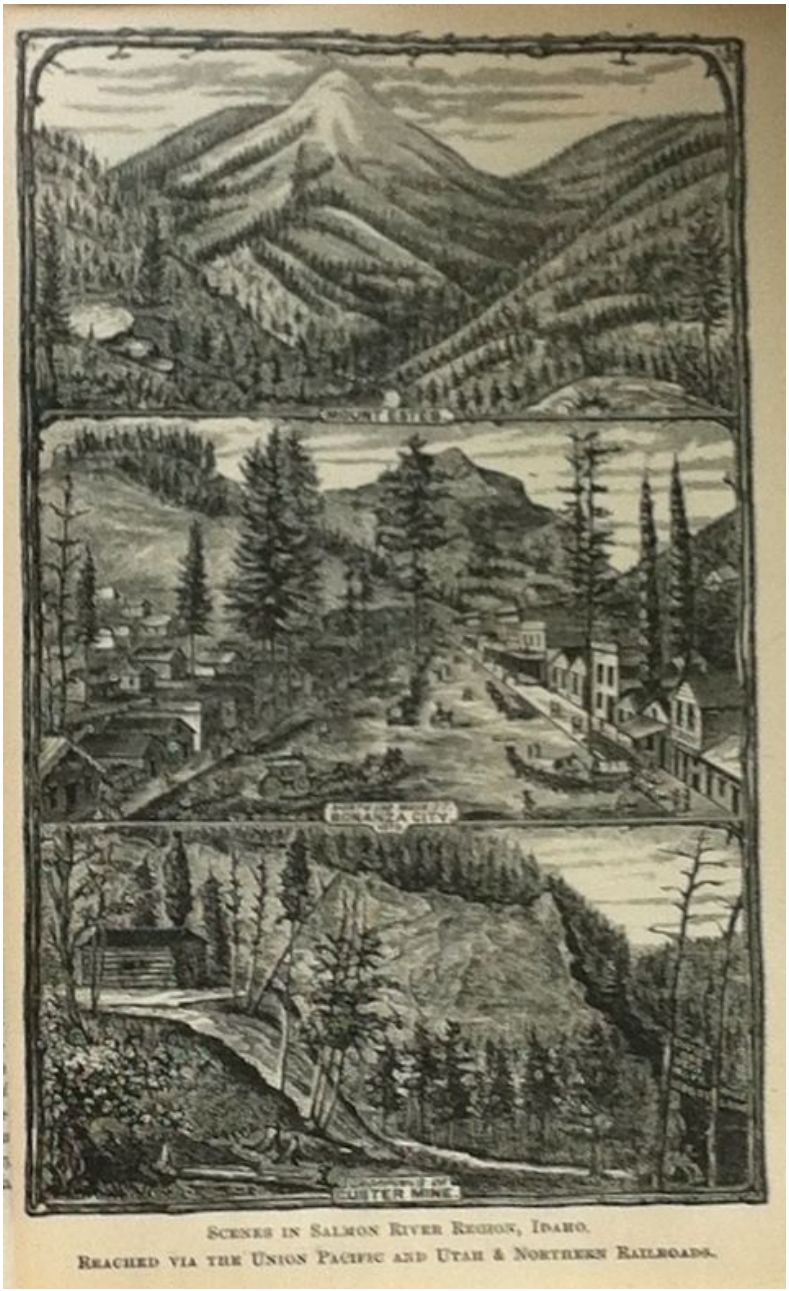

Figure 20 – "Scenes in Salmon River Region, Idaho. Reached via the Union Pacific and Utah & Northern Railroads," c. 1879. Source: Robert E Strahorn, *To the Rockies and Beyond, or a Summer on the Union Pacific Railroad and Branches*. Omaha: The New West Publishing Company, 1879. Nineteenth-Century Pamphlet Collection, Tisch Library, Tufts University.

Figure 21 – Advertising pamphlet for *Picturesque America* (before April 25, 1888). Source: John Johnson Collection (24), Bodleian Library, University of Oxford.

Figure 22 – John Haberle, *Torn-in-Transit*, 1890-1895. Brandywine River Museum, Chadds Ford, PA.

Figure 23 – Five-Dollar Note issued by Huguenot Bank of New Platz, New York (1861). Source: D. C. Wismer, *New York Descriptive List of Obsolete Paper Money* (New York: J. W. Stowell Printing Company, 1931), 133 [no. 1362].

Figure 24 – Joseph Beuys, *Kunst = Kapital*, 1979 © 1994 Artists Rights Association (ARS), New York/VG Bild-Kunst, Bonn.

Figure 25 – John Haberle, *What's It Worth?*, 1889. Source: Gertrude Grace Sill, "Three Discovered Paintings of Currency by John Haberle." *Magazine Antiques* 172.5 (November 2007), 139.

Figure 26 – Thomas Nast, "Inflation is 'as easy as lying,' *Harper's Weekly*, 23 May 1874.

Figure 27 – Thomas Nast, *A Shadow is not a Substance*, 1876. Source: David Wells, *Robinson Crusoe's Money* (New York: Harper & Brothers, 1876), 58.

Figure 28 – Thomas Nast, *Milk Tickets for Babies*, 1876. Source: David Wells, *Robinson Crusoe's Money* (New York: Harper & Brothers, 1876), 97.

Figure 29 – Detail of ten-dollar vignette. John Haberle, *U.S.A.*, 1889.

Figure 30 – Detail of counterfeiting statement on the one-dollar bill. John Haberle, *U.S.A.*, 1889.

Figure 31 – Nicholas Alden Brooks, *A Ten-Dollar Bill*, 1889-1893. Museum of Fine Arts, Boston, MA.

Figure 32 – Detail of Treasury Secretary signature. John Haberle, *U.S.A.*, 1889.

Figure 33– Detail of stamp and "Face Value" slogan. John Haberle, *U.S.A.*, 1889.

Figure 34 – Vignette of "America being presented to the Old World" on the $10 National Banknote, 1869-1880. Designed by the Columbian Banknote Company, Chicago, IL. Bureau of Engraving and Printing, Washington, DC.

Figure 35 – Cesar Ripa, *America* from *Iconologia*, Rome, c. 1603.

Figure 36 – John Gadsby Chapman, *Baptism of Pocahontas,* 1840. Capitol Rotunda, U. S. Capitol Building, Washington, DC.

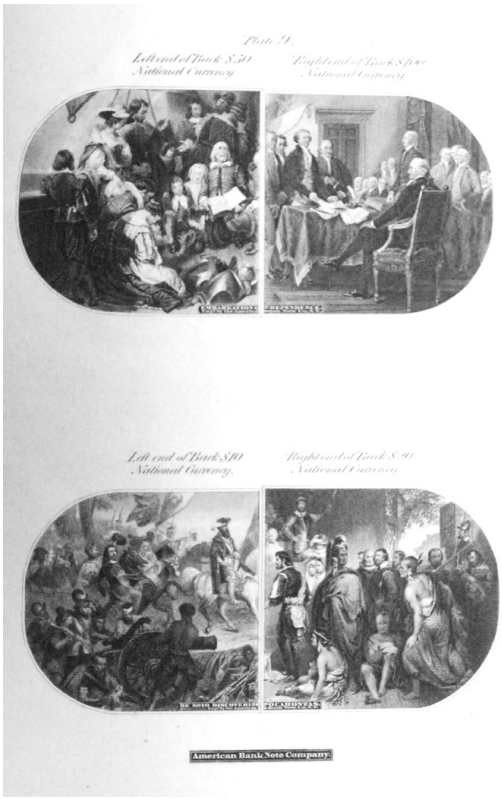

Figure 37 – Reverse sample of Capitol Rotunda paintings, c. 1870. The American Bank Note Company, New York, New York. National Numismatic Collection, National Museum of American History, Washington, DC.

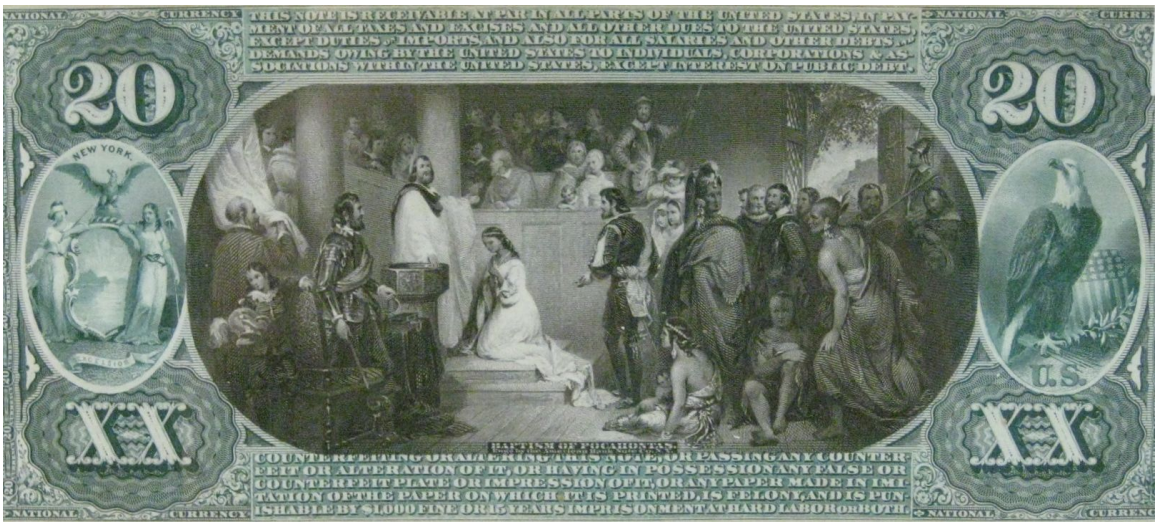

Figure 38 – Reverse of the twenty-dollar bill showing *Baptism of Pocahontas*, c. 1875. The American Bank Note Company, New York, NY. National Numismatic Collection, National Museum of American History, Washington, DC.

Figure 39 – Front of the five-dollar national banknote of the First Charter Period showing *Columbus Discovering Land* on the left and *Presentation of America to the Old World* on the right. National Numismatic Collection, National Museum of American History, Washington, DC.

Figure 40 – "First Americans," c. 1870. The American Banknote Company, New York, NY. National Numismatic Collection, National Museum of American History, Washington, DC.

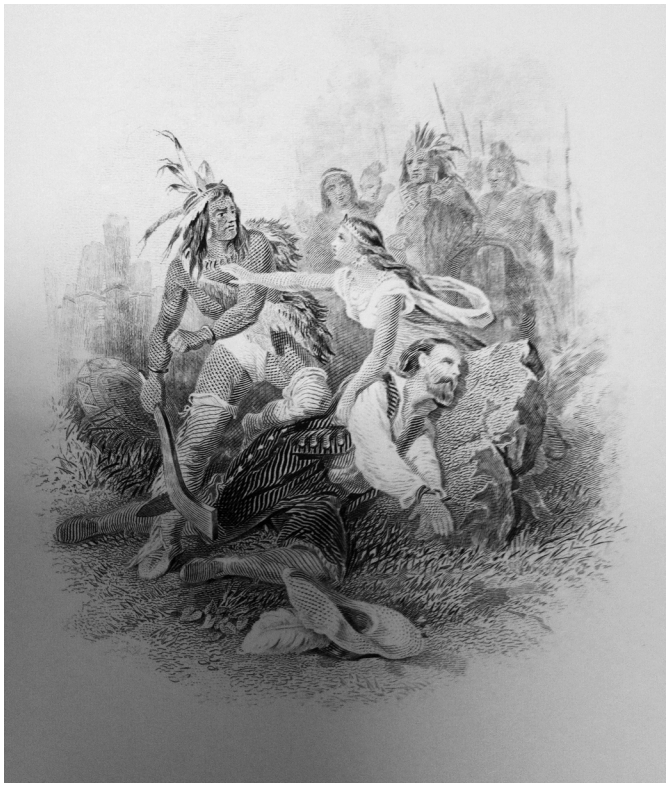

Figure 41 – The Rescue, c. 1870. The American Banknote Company, New York, NY. National Numismatic Collection, National Museum of American History, Washington, DC.

Figure 42 – John Gast, *American Progress,* 1872. Source: Prints and Photographs Division, Library of Congress, Washington, DC.

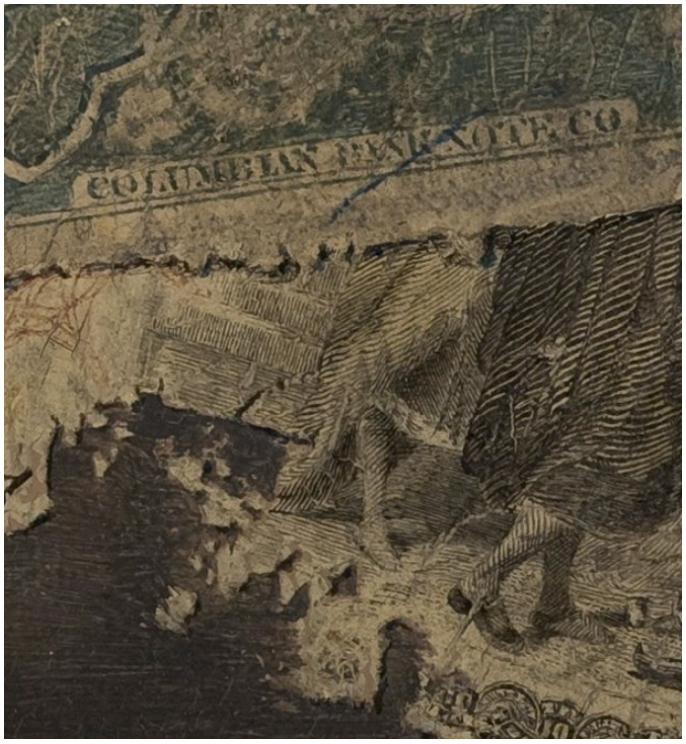

Figure 43 – Detail of Columbian Banknote Co. insignia. John Haberle, *U.S.A.*, 1889.

Figure 44 – George B. Bridgman, *National Types: America*, c. 1890. Amon Carter Museum, Fort Worth, TX.

Figure 45 – John Haberle, *Businessman*, c. 1884. John Haberle Papers, Archives of American Art, Smithsonian Institution [roll 3753, slide 40].

Figure 46 – John Haberle, *Brown + Red Bat*, c. 1880. Source: John Haberle Papers, Archives of American Art, Smithsonian Institution [roll 3753, slide 454].

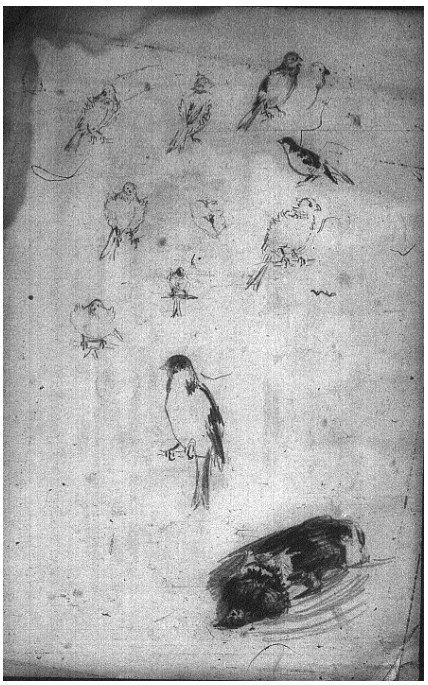

Figure 47 – John Haberle, *Sketches of Birds*, c. 1880. Source: John Haberle Papers, Archives of American Art, Smithsonian Institution [roll 3753, slide 453].

Figure 48 – John Haberle, *Trompe l'Oeil: Yellow Canary*, 1883. Yale University Art Gallery, New Haven, CT.

Figure 49 – John Haberle, *Trompe l'Oeil with Bird*, 1882. Source: Gertrude Grace Sill, *John Haberle: Master of Illusion* (Springfield, MA: Museum of Fine Arts, 1985), 7.

Figure 50 – John Frederick Peto, *The Old Violin*, c. 1890. National Gallery of Art, Washington, DC.

Figure 51 – Details of butterfly hinges. John Haberle, *The Changes of Time*, 1888.

Figure 52 – Mary Peart and Lydia Bowen, *Papilio III*, c. 1884. Source: William Henry Edwards, *The Butterflies of North America*, vol 2. (Boston: Houghton and Mifflin, 1884), 34.

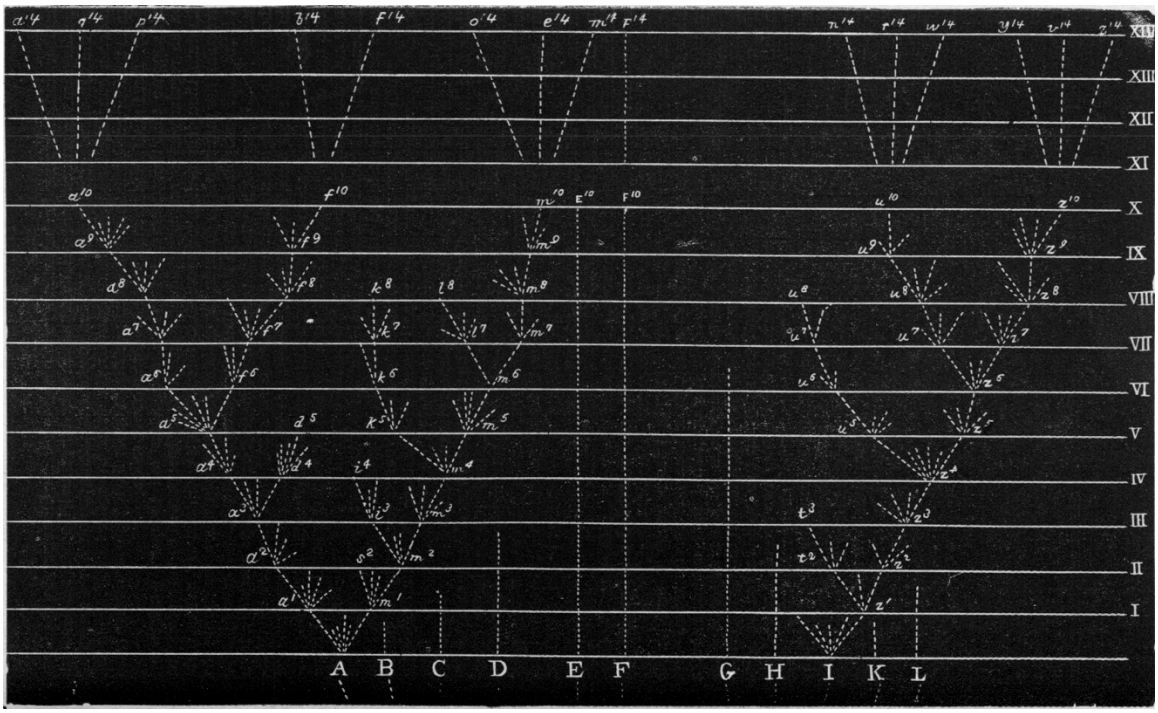

Figure 53 – Charles Darwin, Natural Selection Chart, c. 1857. Charles Darwin used this diagram to explain the probable effects of the action of natural selection through divergence of Character and Extinction, on the Descendants of Common Ancestors. The horizontal axis represents different types of common species present in one nation's environment, while the vertical axis represented by roman numerals suggests large passages of time, each interval representing generations of the species existence on earth. Each tree is marked by various intervals (a', a'', a''') that represent variations on the original parent species (A). Modifications or splits occur as well, as marked by the difference between a' and m' by phase I under parent species (A). These continue up until time period XIV at the top, where parent species (A) is replaced by eight new species, including a^{14}, p^{14}, b^{14}, e^{14}, and m^{14}. Subspecies along the way, including the K, I, and D strand, die out at earlier intervals, showing the impact of natural selection on species strands. The same exercise is produced in strain I, producing six new species by the fourteenth period. This was the only visual reproduced in the condensed version of his *Origins of Species* for an American audience, and thus must have been influential in translating Darwin's theories to other social and cultural phenomena. See Charles Darwin, *The Origin of Species by Means of Natural Selection*, vol. 1 (New York: Humboldt Publishing, 1884), 51.

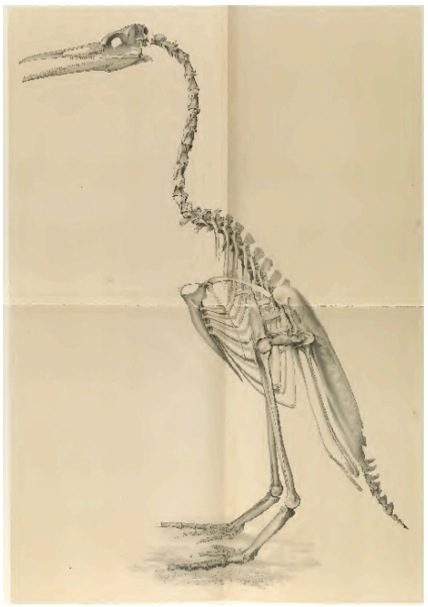

Figure 54 – Othniel Charles Marsh, *Hesperornis regalis*, 1880. Source: *Odontornithes: A Monograph on the Extinct Tooth Births of North America*, part of the *Memoirs of the Peabody Museum of Yale College*, vol. 1 (New Haven: Yale College, 1880), 317.

Figure 55 – John Haberle, *Time and Eternity*, c. 1890. New Britain Museum of American Art, New Britain, CT.

Figure 56 – Thomas Nast, "The Survival of the Fittest," 1876. Source: David Wells, *Robinson Crusoe's Money* (New York: Harper & Brothers, 1878), 52.

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