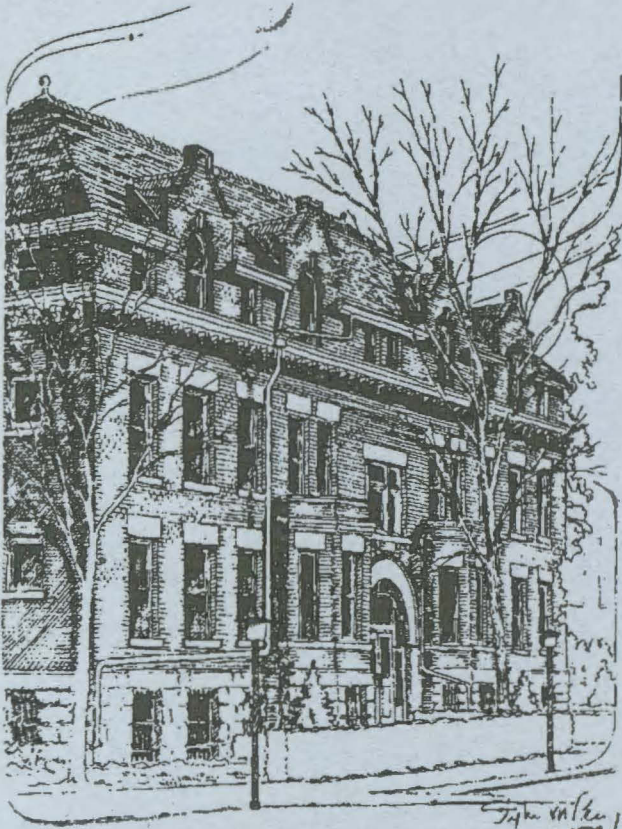


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EDITOR'S INTRODUCTION

I would first like to express how pleased I am to be the editor of this tenth volume of the *Fairmount Folio*. After examining several other issues of this journal I have been made aware of how much effort and time has gone into its making. The care taken by previous editors has set an excellent example for me to follow. I am proud to carry on the tradition.

Second, I would like to thank the editorial board, consisting of Dr. Robert Owens, Dr. George Dehner, and Katherine Paige. The time taken out of busy schedules to read submissions and select the papers that went into this volume is very much appreciated.

I would also be amiss if I did not thank Dr. Owens and Dr. Dehner, as well as Dr. Ariel Loftus, for meeting with the authors of the selections and offering suggestions for revisions. Again, I know how busy you all are. I'm sure the authors appreciate your help as much as I do.

Next, my thanks to everyone who submitted papers for this edition of the *Fairmount Folio*. Something that may not be generally known is that papers that are printed in the *Folio* often go through an editing process. Since the time between the selection and printing processes is limited, papers that are chosen should require minimal editing and should not detract from a student's schoolwork. Some of the papers submitted were interesting but simply required more editing than time allowed for. With this in mind, I hope that students will be encouraged to continue to submit to the *Folio*.

Last, but certainly not least, many thanks to Dr. Helen Hundley for overseeing yet another edition of the *Folio*. Countless hours of hard work go into these papers, and the *Folio* provides a great opportunity for students to be able to appreciate the fruits of their labor. Dr. Hundley's efforts continue to make this possible every year. Her dedication and enthusiasm for this project has been very encouraging.

On behalf of everyone who contributed to the making of this edition of the *Folio*, I hope you enjoy it.

Sara DeCaro
April 8, 2008

Pilgrimage and its Effects on San Paolo fuori le mura during the Middle Ages
Alisa Cotter

The purpose of this paper is to examine the history of San Paolo fuori le mura (Saint Paul's Outside the Walls), the basilica in Rome dedicated to St. Paul, and to demonstrate the overall impact that pilgrimage had on the development of the church and its interior ornamentation. Several factors played a key role in this basilica's significance as a pilgrimage destination throughout the Middle Ages. I will argue that the various methods employed by the papacy to promote its own supremacy from the time of Constantine were used purposely to attract pilgrims to the city. Political and economic gains were the incentives for the church's attempts to make Rome into a pilgrimage center.

In order to accommodate the number of pilgrims who visited St. Paul's burial site throughout the year, what was originally a small memorial chapel was, by the fifth century, transformed into a large, elaborate basilica. High-ranking church officials and members of imperial families were most often the patrons of such large scale building projects. The relationship between these two groups highlights the political support given to the church. The Emperor Constantine (307-337 C.E.) initiated this important relationship when he acknowledged Christianity and aligned himself with Sylvester, the bishop of Rome during his reign. Over the course of the next several centuries other bishops would find ways to assert Rome's primacy as the center of the Christian world. One of the most significant examples of the use of papal authority was the creation of the first Christian Jubilee inaugurated by Pope Boniface VIII in 1300 C.E., which caused an overflow of pilgrims traveling to San Paolo fuori le mura during this period.¹ The commitment on the part of the pilgrims traveling to San Paolo fuori le mura, and the frequency with which it was visited, was noticed by church leaders in Rome. From very early on St. Paul's status was promoted by the top of the church hierarchy. As soon as Christianity acquired imperial recognition under Constantine, Rome became a destination for holy journeys second only to Jerusalem.²

After his own conversion Constantine gave Christians a distinctly improved status in Rome, compared to the persecutions that they had previously suffered.

¹ Dickson describes the full weight of Boniface's issuing of the Christian Jubilee when he says, "the Jubilee was a medieval religious revival that was unlike any other pilgrimage in Christendom." Gary Dickson, "The Crowd at the Feet of Pope Boniface VIII: Pilgrimage, Crusade and the First Roman Jubilee (1300)," *Journal of Medieval History* 25 (1999): 286.

² Debra Birch, *Pilgrimage to Rome in the Middle Ages Continuity and Change* (Rochester: Boydell Press, 1998), 23; Herbert Kessler and Johanna Zacharias, *Rome 1300: On the Path of the Pilgrim* (New Haven: Yale University Press, 2001), 1-2.

According to Eusebius, Constantine's conversion to Christianity occurred as he marched to Rome in 312 C.E.³ Praying for divine approval before the battle at the Milvian Bridge, Constantine had a vision of the Chi-Rho symbol in the sky accompanied by a prophecy indicating the symbol's divine properties.⁴ He believed it would aid in the battle against his enemy Maxentius and had the image placed on the shields of all his soldiers. He won the battle and proclaimed his triumph as having been divinely ordained.⁵ Due to his victory, Constantine issued the Edict of Milan (313 C.E.), which allowed the Christians to worship their god alongside the variety of pagan cults in Rome, thus beginning the gradual transformation of the ancient pagan Rome into the center of Western Christendom.⁶ Prior to Constantine's decree of toleration, Christians visited the spot believed to be the site of St. Paul's burial by locating the *cella memoriae* that had been placed there.⁷ As stated above, due to the vast numbers of pilgrims now allowed to come and worship in Rome alongside the burial sites of important Christian martyrs, the need arose for their shrines to be built up.

To demonstrate his munificence, Constantine began erecting places for Christians to gather and worship the Christian god who had favored him in his battle against Maxentius. Scholars disagree concerning what Constantine actually constructed at the site known as St. Paul's burial. However, the general consensus seems to be that Constantine built only a small memorial church rather than a grand basilica.⁸ That Constantine did construct something at the site is clear from a number of sources.⁹ For instance, the fifth century Acts of St. Sylvester, which contains a legendary account of Sylvester and Constantine's relationship, marks the date that a structure patronized by Constantine was built

³ Philip Schaff and Henry Wace, eds., "Eusebius: Life of Constantine," in *Nicene and post-Nicene Fathers*, vol. 1 (Peabody: Hendrickson Publishers, 1994), 481-560.

⁴ Schaff and Wace eds., *Nicene and post-Nicene Fathers*, vol. 1, 490-494.

⁵ An inscription found on the Arch of Constantine, dedicated in 315 C.E., has been used to support the claim that his victory over Maxentius as having been divinely ordained: "To the Emperor Caesar Flavius Constantine Maximus/ Pius Felix Augustus, the Senate and the Roman People,/ Since through divine inspiration and great wisdom/ He has delivered the state from the tyrant/ And his party by his army and noble arms,/ Dedicate this arch, decorated with triumphal insignia." See Michael Maas, *Readings in Late Antiquity: A Sourcebook* (New York: Routledge, 2000), 105.

⁶ "Each individual one of those who share this same wish to observe the religion of the Christians should freely and straightforwardly hasten to do so without any anxiety or interference."

Lactantius, *De Mortibus Persecutorum*, trans. J. L. Creed (Oxford: Clarendon Press, 1984), 48.4-5.

Compare Philip Schaff and Henry Wace, eds., "The Church History of Eusebius," in *Nicene and post-Nicene Fathers*, vol. 1 (Peabody: Hendrickson Publishers, 1994).

⁷ Andrea Braghin, *The Jubilee Guide to Rome: The Four Basilicas The Great Pilgrimage* (Collegeville: The Liturgical Press, 1998), 62.

⁸ Kessler and Zacharias, *Rome 1300*, 159; Birch, *Pilgrimage to Rome*, 34-35.

⁹ June Hager, *Pilgrimage A Chronicle of Christianity Through the Churches of Rome* (London: Weidenfeld, Nicholson, 1999), 199.

and dedicated, closely linking his building programs to Sylvester, the bishop of Rome (314-335 C.E.).¹⁰

The Acts of St. Sylvester, among other accounts like it, helped to promote Constantine's own image as a devout believer in the teachings of Christianity. The legend describes Constantine having had a vision of Peter and Paul, who directed the emperor to go to Sylvester in order to be cured of leprosy. Constantine was miraculously cured and was baptized by Sylvester. Afterwards he allegedly gave a substantial amount of authority to the office of the bishop in addition to numerous allotments of land and property.¹¹ Culminating with the reputation accorded to Constantine in the mid-eighth century text known as the Donation of Constantine, Roman bishops displayed an aura of superiority. The purpose of the Donation of Constantine document was clearly to reinforce the papacy's legitimacy and authority later on.

The earliest Christian basilicas in Rome surrounded the city, situated just outside its walls. This was purposely done, in part because of regulations against burials within the city.¹² However, these outlying sites also functioned as a form of early Christian propaganda, as anyone leaving or entering the city would have come into contact with them. In addition, because Paganism continued to exist in Rome, political reasons also likely governed the decision to build these basilicas outside of the city. Because Constantine placed a great deal of his energy into the establishment of Constantinople, Rome was left largely unattended, to be run almost entirely by the senatorial class. These upper-class persons continued to worship the ancient pagan deities. Thus, it is fair to conclude that Constantine had little influence over the development of Rome into a large Christian city.

This changed when the Emperor Theodosius (379-395 C.E.) banned Paganism completely and made Christianity the official state observed religion. In turn, Theodosius commissioned a large scale rebuilding of San Paolo, turning the site into an elaborate basilica, but its reconstruction was left incomplete when he died. A dedication found on the triumphal arch inside the church declares the basilica to have been completed by his son, Honorius (395-423 C.E.).¹³ The Spanish writer Prudentius (348-413 C.E.) in his *Liber Peristephanon*, describes the glory of the renovated San Paolo fuori le mura carried out by Theodosius and his son. In it he gives a firsthand account of the grandeur a pilgrim would have observed coming upon the great basilica: "The splendor of the place is princely, for our good emperor dedicated this seat and decorated its whole extent with great wealth. He laid plates on the beams so as to make all the light within golden like the sun's radiance at its rising, and

¹⁰ Christopher Bush Coleman, *Constantine the Great and Christianity* (New York: AMS Press, 1968).

¹¹ Jacobus de Voragine, *The Golden Legend*. trans. Granger, Ryan and Helmut Ripperger (New York: Arno Press, 1969), 74.

¹² Lucilius, *The Twelve Tablets*. trans. E. H. Warmington. In *Remains of Old Latin*, Vol. 3 (Cambridge: Harvard University Press, 1935), X.1.

¹³ The building project that these two emperors patronized stood until the early nineteenth century, when in 1823 the basilica was mostly destroyed by fire.

supported the gold-panelled ceiling on pillars of Parian marble set out there in four rows. Then he covered the curves of the arches with splendid glass of different hues, like meadows that are bright with flowers in spring” (XII 47-54).¹⁴

After Theodosius’ proclamation granting official imperial patronage to Christianity it continued to flourish through the fourth century until the fall of Rome in 410 C.E. when the Visigoths attacked the city. The city fell further into decline prior to succumbing to the Ostrogoths in 476 C.E. The eminence with which the papacy in Rome was recognized throughout the Middle Ages went through several periods of ups and downs, which the church in Rome actively worked to overcome in order to establish and maintain its dominance.¹⁵

During the fifth century the Roman church began promulgating the cult of the Christian saints and martyrs in an attempt to establish its preeminence. According to Birch, “Rome was the richest of all the cities in the West in relics and shrines and thus the development of the cult of saints undoubtedly enhanced the city’s importance as a pilgrimage center.”¹⁶ The church in Rome gained popularity by emphasizing the intercessory powers of Christian saints and martyrs, largely because of what the city personally had to offer to a pious pilgrim, particularly because it controlled the shrines of two important Christian martyrs. While some sources claim that it was Pope Damasus (366-384 C.E.) who initiated the organization of the cult of the saints and martyrs, others claim that it was Pope Leo I (440-461 C.E.).¹⁷ However, it can be concluded that by the time of Leo I the cult of saints and martyrs reached a peak in its effectiveness.

At the basilica of San Paolo fuori le mura, in order to mark the revived image of the papacy, Leo I commissioned papal portraits to be placed in roundels lining both sides of the nave beginning with St. Peter. It was also during this time that fresco paintings were commissioned to run along each side of the nave.¹⁸ These frescoes included, on the right side of the nave, forty scenes illustrating important stories from the Old Testament. On the nave’s left side were forty scenes representing moments of St. Paul’s life, scenes largely adapted from the Acts of the Apostles. Such an iconological program as that commissioned for San Paolo fuori le mura, sheds light on the various functions of religious art at this time. Art produced during the Middle Ages was displayed with certain intentions. Art could serve both religious and political agendas. Political statements were often represented intertwined with religious imagery.

¹⁴ Prudentius, *Perstephanon*, trans. H.J. Thomson (Cambridge: Harvard University Press, 1949), 326-327, note a.

¹⁵ Webb *Churches and Catacombs*, xvii-xviii.

¹⁶ Birch, *Pilgrimage to Rome*, 23.

¹⁷ Webb, *Churches and Catacombs*, xx.

¹⁸ Kessler and Zacharias, *Rome 1300*, 167-174; Luba Eleen, “The Frescoes from the Life of St. Paul in San Paolo fuori le mura in Rome: Early Christian or Medieval?” *Canadian Art Review* 12 (1985): 251-259.

Such propaganda, observed by the lay community, was intended to convey an important message, and to foster certain reactions. These images aided the faithful in understanding the important doctrines and decrees that had been determined at ecumenical councils. They were also used to promote the status of particular individuals. In the case of the papal portraits the viewer would clearly recognize the authority inherited by the current pope from each prior pope, traced back to St. Peter.¹⁹

The church in Rome was again affected by the various invasions of the fifth and sixth centuries. As a consequence of the economic and political instability created by the invasions, the building of new churches began to diminish.²⁰ However, renovations and gifts, mostly from wealthy patrons, continued to be given to the church throughout this time. In the case of San Paolo fuori le mura, the most significant donation came from Emperor Theodosius' daughter, Galla Placidia (388-450 C.E.) who funded the large, elaborate mosaic on the triumphal arch.²¹ The commissioning of this large mosaic took place with the support of Pope Leo I, who, as stated above, played an important role in the establishment of the cult of saints. St. Paul and St. Peter are shown on either side of the arch, demonstrating the equality of each. Pairing these two saints together aided the church in Rome in communicating the city's ancient ties to the earliest Christian martyrs, co-founders of the church itself.

When Rome's popularity as a pilgrimage destination created by the promotion of the cult of saints and martyrs began to wane, the papacy worked to develop a new method to reassert its dominance. Beginning with Pope Gregory the Great (590-604 C.E.) the papacy launched another attempt to regain its authority, this time, by emphasizing the primacy of holy relics. In order to substantiate claims professing the healing powers of a saint's relics, papal authorities looked to Acts 19:11-12 "God was performing extraordinary miracles by Paul's hands, so that even facecloths or handkerchiefs that had touched his skin were brought to the sick, and the diseases left them, and the evil spirits came out of them." This was used as an early example of the use of relics.²² By the Second Council of Nicaea in 787 C.E. it was mandatory for every church to have a saint's relics before it could be consecrated.²³ The power of this declaration made the pilgrimage to Rome immediately appealing. According to Newbigin, "relics were replicated all over Europe and held in great

¹⁹ Kessler and Zacharias, *Rome 1300*, 164-165.

²⁰ Webb, *Churches and Catacombs*, xxi.

²¹ Kessler and Zacharias, *Rome 1300*, 167.

²² Webb, *Churches and Catacombs*, 212; Eleanor Vernon, "Romanesque Churches of the Pilgrimage Roads," *Gesta* 1 (1963): 12.

²³ "We decree therefore that relics shall be placed with the accustomed service in as many of the sacred temples as have been consecrated without the relics of the Martyrs. And if any bishop from this time forward is found consecrating a temple without holy relics, he shall be deposed, as a transgressor of the ecclesiastical tradition." Philip Schaff and Henry Wace, eds., "The Seven Ecumenical Councils," in *Nicene and post-Nicene Fathers*, vol. 14 (Peabody: Hendrickson Publishers, 1994), 560. See also Wilfrid Bosner, "The Cult of Relics in the Middle Ages," *Folklore* 73 (Winter, 1962): 236.

esteem...Roman relics were the 'parent' relics, and all other relics derived from them."²⁴ Thus, once again great throngs of pilgrims began to make the journey to Rome, and one of the most popular destinations was San Paolo fuori le mura because it preserved the relics of St. Paul.

In order to promote a particular pilgrimage destination, itineraries produced at this time were used to publicize what a particular city had to offer, as well as functioning as guidebooks for those set to travel.²⁵ These itineraries were used as an important publicity tool in order to combat competition between other pilgrimage sites. These booklets listed what special indulgences were given to pilgrims who visited certain sites in Rome.²⁶ One such text, the *Stacions of Rome*, specifically records the benefits of going to San Paolo fuori le mura.²⁷ Its author asserts that visiting San Paolo daily for a year was equal, in terms of indulgence, to traveling to St. James' in Spain (125-128; F. J. Furnivall, 146). During the later part of the Middle Ages pilgrimage badges also began to gain popularity. The purpose of these badges was two-fold. According to Birch, these badges were "a good means by which pilgrimage centers advertised themselves," in addition to also being a communicative means for pilgrims to express their personal dedication.²⁸ By filling Rome with relics and by promoting and highlighting the history of the city in its itineraries the papacy drew in continual economic growth in the city of Rome.

Specific churches were inherently more appealing than others if they possessed a notable saint's relics. In order to control and accentuate the pilgrim's experience, St. Paul's crypt, located in the transept of the church, experienced several stages of remodeling throughout the Middle Ages.²⁹ Much of the information about such renovations comes from the *Liber Pontificalis*, which was begun in the sixth century to record the events of each pope's pontificate. While Sixtus III (432-440 C.E.) was pope, the Emperor Valentinian is recorded to have added an elaborate *confessio* at the pope's request.³⁰ Less than a century later, Symmachus I (498-514 C.E.) is said to have commissioned artwork to be placed behind the *confessio*.³¹ One of the most significant changes made to the crypt in the history of the basilica occurred during the

²⁴ Nerida Newbigin, "Del grasso di Lorenzo un'ampolletta': Relics and Representations in the Quest for Forgiveness in Renaissance Rome," *The Journal of Religious History* 28 (February, 2004): 59; Birch, *Pilgrimage to Rome*, 26.

²⁵ Birch, *Pilgrimage to Rome*, 38; Hager, *Pilgrimage*, 188; Newbigin, "Relics and Representations," 52-53.

²⁶ Birch, *Pilgrimage to Rome*, 194-196.

²⁷ Hubert believes this English poem "was one of a class of documents which evidently formed part of an organized propaganda to attract pilgrims to Rome." J.R. Hulbert, "Some Medieval Advertisements of Rome," *Modern Philology* 20 (May, 1923): 404; Hager, *Pilgrimage*, 179-180.

²⁸ Birch, *Pilgrimage to Rome*, 77-79.

²⁹ For a general overview concerning the changes that pilgrimage churches went through see Vernon, "Romanesque Churches of the Pilgrimage Roads," 12.

³⁰ *Liber Pontificalis*, 37.

³¹ *Liber Pontificalis*, 47; Anna Maria Cerioni, *The Basilica of Saint Paul Outside the Walls*, (Rome: Pontificia Amministrazione, 1991), 41.

pontificate of Gregory the Great. He is responsible for altering the crypt in such a way as to allow mass to be given over St. Paul's body. According to the *Liber Pontificalis*, Pope Gregory is said to have done the same at St. Peter's basilica.³² Also, Leo III (795-816 C.E.) added a flight of stairs that made the crypt more accessible.³³ Pilgrims devoutly made the trip to San Paolo fuori le mura because they were allowed an unusual closeness to the martyr's body. They could lower strips of cloth into holes made on the lid of the saint's tomb, thereby, making contact with St. Paul.³⁴ The significance of this act is directly connected to the passage related above from the Acts of the Apostles.

In 1300 C.E. Pope Boniface VIII issued a papal bull that instituted the first Christian Holy Year, the first Jubilee. This was by far the most decisive method used by the church during the Middle Ages to encourage pilgrims to come to Rome. Indulgences were awarded to the pilgrims who made the long and difficult journey to Rome.³⁵ In Boniface's decree he specified that each pilgrim would be required to visit San Paolo fuori le mura in addition to St. Peter's.³⁶ Dickson notes that a pilgrim's complete repentance of sins "was a prerequisite for the receipt of the indulgence."³⁷ Other requirements included visiting the sites each day for a predetermined length of time. For those who lived in Rome it was thirty consecutive days, while it was fifteen days for those who had made their way to Rome.³⁸ According to Lisa Jardine, indulgences were "marketed with increasing energy by a clergy for whom raising money for the Church had become a legitimate activity...the individual 'bought' salvation, an intangible asset, whose efficacy depended on their trust in the Pope and his Church in Rome."³⁹

After Boniface convened the first Christian Jubilee changes were quickly made by succeeding popes. For instance, Boniface had originally declared the Jubilee to be celebrated every hundred years doubling its Old Testament ancestor.⁴⁰ However, the span between each celebrated Holy Year was quickly shortened, each pope using a different set of circumstances in order to validate their pronouncement.⁴¹ Eventually the Christian Jubilee was to be celebrated

³² *Liber Pontificalis*, 63; Birch, *Pilgrimage to Rome*, 36.

³³ Kessler and Zacharias, *Rome 1300*, 177.

³⁴ Kessler and Zacharias, *Rome 1300*, 179; Newbigin, "Relics and Representations," 54, n. 22, 56.

³⁵ Birch, *Pilgrimage to Rome*, 194-196; Dickson, "The Crowd at the Feet of Pope Boniface VIII," 289; Kessler and Zacharias, *Rome 1300*, 1.

³⁶ Kessler and Zacharias, *Rome 1300*, 158; Webb, *Churches and Catacombs*, 207-213.

³⁷ Dickson, "The Crowd at the Feet of Pope Boniface VIII," 286, 294.

³⁸ Newbigin, "Relics and Representations," 54, n. 21; Braghin, *The Jubilee Guide to Rome*, 7.

³⁹ Lisa Jardine, *Worldly Goods: A New History of the Renaissance* (London: Macmillan, 1996), 335-336; Newbigin, "Relics and Representations," 52.

⁴⁰ Leviticus 25: 1-55. Dickson argues against the Christian Jubilee's associations with the Old Testament. Dickson, "The Crowd at the Feet of Pope Boniface VIII," 285; Hager, *Pilgrimage*, 186; Kessler and Zacharias, *Rome 1300*, 2; Braghin, *The Jubilee Guide to Rome*, 5.

⁴¹ Boniface IX (1389 C.E.) changed the celebration of the Jubilee from one hundred years to every thirty-three years "in deference to the length of Christ's life on Earth." Nicholas V (1447-1455 C.E.) then decreased the intervals again, this time to twenty-five years. Hager, *Pilgrimage*,

every twenty-five years. Also, additional churches were added to the list of sites pilgrims had to visit in order to qualify for indulgences. In 1350 C.E. Pope Clement VI (1342-1352 C.E.) added the Lateran and in 1390 C.E. Pope Urban VI (1378-1389 C.E.) added Sta. Maria Maggiore.⁴² Considering the Christian Jubilee and the quick changes made to the frequency with which it would be celebrated, and the number of churches a pilgrim had to visit, it seems likely that the primary motivation for such changes is closely linked to economic benefits.⁴³ The revenue created by the mass amounts of pilgrims visiting Rome in order to gain their indulgence generated a great deal of wealth.

Thus it is clear that there is an important link between the politics and piety of the city of Rome throughout the Middle Ages. Although I have only given a brief description of their relationship and more research needs to be done, it is already clear that the theme is pertinent to understanding the usefulness of pilgrimage to the economic and political history of the city. For instance, although the Donation of Constantine has been discovered to be a forgery this does not lessen its importance in history, as it clearly demonstrates the papacy's attempts to control their image, and reveals its political and economic motives.⁴⁴ In addition, the papacy's ulterior motives do not detract from St. Paul's appeal to the devout throughout the Middle Ages. The fame of St. Paul has been constant since shortly after his death. His story inspired the faithful, and his letters served as guides cherished by the pious believers of Christianity. However, we see that St. Paul's influence and dominance as an early Christian martyr was used for two very distinct purposes: to understand the message of Jesus, and to sell the message of Jesus.

188. Braghin also adds that Clement VI (1342-1352 C.E.), in 1343 ordered the Jubilee to be celebrated every fifty years. Braghin, in contrast to Hager, notes that it was Urban VI (1378-1389 C.E.) who was responsible for changing the Jubilee to thirty-three years, and Paul II (1464-1471 C.E.), who, in 1470, set it at twenty-five. Braghin, *The Jubilee Guide to Rome*, 10-11.

⁴² The churches a pilgrim is required to visit and frequency with which the Jubilee is celebrated has remained the same since the end of the Middle Ages.

⁴³ Birch, *Pilgrimage to Rome*, 201.

⁴⁴ Lorenzo Valla, *The Falsely-Believed and Forged Donation of Constantine*, trans. Olga Zorzi Pugliese (Toronto: Centre For Reformation and Renaissance Studies, 1985).

The Hard Winter of 1886 and 1887
Dwan Green

It has been almost thirty years since the author of this paper, while enroute to the Black Hills, met an aging rancher, probably in his seventies, during the late 1970s. It was late June in the Pine Ridge and Toadstools (badlands) of northwestern Nebraska. Meeting Albert Meng was one of those things that happened for no reason and I had no idea just how much it would alter my life. I was not really lost (maybe just confused) and he let me drive my old International Scout all over his ranch. The International Harvester slogan of the day was “scout the America others pass by” and I was determined to do my best.

The old rancher was an incredible storyteller, and I was treated to tales of the Cheyenne Outbreak, the death of Crazy Horse, the Battle of Warbonnet Creek (the site I had been looking for) and what he called “The Winter of the White Death.” What followed was a most dramatic account of the hot and dry summer of 1886 when prairie fires swept parched grasslands and blackened them beyond repair. Tiny creeks and small rivers became only ribbons of water or vanished altogether. By late summer there were no longer enough beaver to dam and hold the precious water. By fall most animals had thicker coats than normal and wild fowl headed south earlier than usual. The warning signs had been there. From November through February bitter cold continued, with blizzard after blizzard, until the snow lay packed to six feet on the open range. Temperatures were said to have dropped to -40°F, -50°F and even -60°F. White snowy owls were said to have come down from Hudson Bay, the first time in white mans memory. Coulees and breaks where cattle may have survived were full of hard crusted snow. Wolves and coyotes grew fat feasting on half frozen cattle stuck in drifts. Starving pronghorns lost their fear of man and wandered into settlements. Meng described ranchers imprisoned in their homes by arctic temperatures that could do little or nothing to save weakened stock. Some, he said, tried to fight the blizzards to save a portion of their herds and lost their lives in “white outs”, sometimes only feet from their doors. I could almost see the thousands of half frozen cattle floating down high plains rivers when winter’s grip finally broke.¹ I never saw Albert Meng again.

¹ Albert Meng, conversation with author, Montrose, NE., June 22, 1978.

There have been many hard northern winters; the winter of 1919-1920, 1935-1936, 1948-1949, and 1967-1968, were extreme. The terrible winter of 1886-1887 is most often remembered because of the tremendous destruction to livestock that occurred. Although the winter of 1885-1886 had been a mild one in both Montana and Dakota Territories, it had been severe in Texas and the southern plains.

In western Kansas, January of 1886 is considered the worst on record with stock losses up to 85 percent along with the loss of settler lives. In some areas cattle were grazed at four times what the range could handle.²

Cheyenne County, Kansas lies as far northwest as one can go without stepping foot in either Colorado or Nebraska. Among many tragic occurrences on the plains of the county occurred on January 7, 1886, when Isaac Cherry and two other men lost their lives in the fiercest blizzard on record in the county. When they headed for Goodland, the sun was shining with no danger in sight as far as the weather was concerned. Only miles before their planned stop for the night, "a furious blizzard came upon them from the north." From all reports Mr. Cherry died on a sled and the other two men strapped him to the seat and tried to guide the team. Three days later, the three men and team were found dead. Mr. Cherry was on the sled and the horses were also frozen to death but standing upright.³ Kansas and eastern Colorado had two hard winters in a row. For some the first one was a warning and as 1886 rolled on, many northern stockmen prayed for a both mild summer and open winter for 1886-1887.

The temperature the following summer was reported at 108°F in Miles City, Montana (Miles City often reaches 110°F in late July or August). Range fires were more numerous than usual. Streams as large as Rosebud Creek stopped flowing. Grasshoppers formed dark clouds on the grasslands. Any autumn rains came too late to save the grass. Plains cottonwoods grew thicker and tougher bark, while cattle put on thicker and shaggier coats. On October 22, a huge prairie fire was accompanied by high northwesterly winds, which charred twenty square miles of prime prairie grassland near North Platte, Nebraska. Besides the rangeland, 1,500 tons of hay had been lost, along with many miles of fencing.⁴ To this point the weather had been warm, dry and clear, with greater extremes of both heat and cold.⁵ The Nebraska Weather Service at Doane College, (Crete), reported the temperature for the month had been about three degrees above normal with less rain fall since 1878, being about half the expected amount. North Platte ranged from 77.8°F to 25.6°F, with Dodge City from 86.4°F to 28.3°F.⁶ There had been only small amounts

² Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press Inc., 1979), 83.

³ *Cheyenne Land and its Heritage* (St. Francis, KS: St. Francis Herald, 1972), N.P.

⁴ United States Signal Service: *Monthly Weather Review* (Washington, D.C.: Government Printing Office, 1886), 295.

⁵ *Ibid.*, 301.

⁶ *Ibid.*, 291.

of snow in Montana and Wyoming.⁷ Wellington, Kansas reported the driest November during the previous eight years.

On November 15, North Platte endured a snowstorm from early evening until late the next day, with forty mile per hour winds and snowdrifts from six to eight feet deep. By November 16 and 17, Omaha reported fourteen inches of snow, with some trains delayed.⁸ Dodge City, Kansas recorded a range from 73°F to 7.3°F degrees for November of 1886.⁹

In Dakota a severe drought had begun during late June and lasted through November 1. In addition, the region had suffered from many prairie fires that devastated much ground cover.¹⁰ Fort Robinson, located in far northwestern Nebraska, recorded an extreme range of between 72°F to -13°F during November. Fort Meade, situated just north of the Black Hills, had also plunged to -13°F.¹¹ The Nebraska Weather Service reported an extreme range of highs and lows with the highest snow depth for November, all having fallen during the storm of November 16 to 18.¹² By December 18, Fort Keogh (Miles City, MT.) had dropped to -30°F, while having reached a pleasant 55°F. In Dakota, Fort Yates posted a frigid -44°F, and Fort Niobrara, located just below Dakota, plummeted to -18°F.¹³

The mercury in the southern plains did not fare much better and in southern Kansas, Wellington reported a record of -20°F on January 3.¹⁴ On February 1, the Signal Service at Fort Assinaboine, Montana, near Havre, submitted a reading of -55.4°F. An unofficial -63°F was reported from a ranch in eastern Montana. At Helena the mercury ranged from -61.0°F to -40.5°F, a range of 101.5 degrees in only one month.¹⁵ While it is often extremely cold in this region, these February readings were a full ten to twenty degrees below the normal extremes.¹⁶

From Huron, in eastern Dakota, “during the first decade of the month many trains on the Chicago and Northwestern Railroad were delayed.” On February 11, the road to the east of Huron became completely blocked by heavy compact snow, and on February 13 no trains arrived from the east or west. The track between Huron and Chicago remained closed until the end of the month. The snow was said to be too compact to yield to the force of snowplows. “The continued succession of ‘blizzards’ and deep snow, with very low temperatures even for this region, have been disastrous to every interest,

⁷ Ibid., 287.

⁸ Ibid., 317.

⁹ Ibid., 326.

¹⁰ Ibid. North and South Dakota achieved statehood in 1889.

¹¹ Ibid., 329. The Signal Service was part of the War Department and post surgeons often reported weather.

¹² Ibid., 331.

¹³ Ibid., 351.

¹⁴ United States Signal Service: *Monthly Weather Review* (Washington, D.C.: GPO, 1887), 11.

¹⁵ Ibid., 43.

¹⁶ Ibid., 42.

especially along the line of the Northern Pacific Railroad in Dakota and Montana, where heavy mortality among cattle had occurred.” On February 3, the mercury at Poplar River, Montana, hit -44.6°F, with strong westerly winds prevailing. The monthly average temperature for Poplar River was a brutal -8.5°F. “Numbers of cattle in the vicinity were said to have perished from cold.”¹⁷ It was feared that both settlers and herders lives would be lost. On February 8, at a stage station near Valentine, Nebraska, a severe snow storm was reported with winds at 52 miles per hour all day and drifts of four to ten feet deep. A soldier and five settlers froze to death only six miles from the station.¹⁸ Although the northern and central plains could be a land of savage extremes in many seasons, summers were usually mild.

During the early years of ranching, Montana was a wonderful, healthful country for cattle. Fresh air, clear water, and moderate summer heat with ample forage kept stock strong and disease resistant, though when the range became overstocked, contagious disease appeared. Most rainfall fell during late May, June and July, being sufficient to insure a good stand of native grasses. Billings and Miles City, Montana receive only around twelve inches of rain, while Fort Robinson and the Indian reservations of Dakota, west of the Missouri, average about sixteen inches of rain annually. Due to long northern days and little August rain, by fall grass was cured standing on the stem and considered equal to the finest hay. Two of the greatest dangers were summer droughts that prevented growth and a deep snowfall that crusted. Although either could be disastrous, it seldom happened. The best ranges were already at the saturation point. Over 100,000 head had been driven to Montana from the south. By 1886, prices were very low and many cattle that would have been sold were held over on the range, depleting forage.

In such dry country, where grass was everything, there had always been great danger from dry lightning. Cowboys become very skilled firefighters and were formed into fire brigades. The prime method of fighting fires was to kill a steer, cut its back, tie ropes to front and hind feet, attach it to saddle horns and drag the carcass along the burning grass. The blood and moisture from the entrails of the steer would smother the fire.¹⁹

Much of the vast grasslands were still in the public domain; giant herds (some owned by foreign interests) fattened on lands belonging to the American people. A stockman could neither buy nor lease from the government, but could claim possession of his range by simply publishing the limits of the range and brand in the nearest newspaper. The only problem was enforcing it.²⁰ By late 1886 and early 1887, many open range cattle would be alone and far from care.

¹⁷ Ibid., 44.

¹⁸ Ibid., 29. Valentine is just below South Dakota.

¹⁹ James M. Hamilton, *History of Montana: From Wilderness to Statehood* (Portland, OR., Binford and Mort Publishers, 1957), 396.

²⁰ Bruce Nelson, *Land of the Dakotas* (Lincoln: University of Nebraska Press, 1964), 208.

During the first week of February 1887, a man received a letter from a friend living on a 5,000 acre ranch in central Montana's Judith Basin, near Lewistown. "Were having the worst weather ever heard of in this country. For the last six days the mercury has been from 20 to 40 below zero and storming most of the time...It is so cold that when an animal lies down their legs freeze... I think from 25 to 40 percent of the cattle in this range will die." In the same letter he advised his friend to "sell an interest in your Texans...and you had better do it for I think you will lose all that are not fed, and a large percent of those that are fed." On the very day the letter was written the temperature plunged to a Siberian -55.4°F at Fort Assinaboine in north central Montana and -40.5°F at Helena.²¹

For the stockmen of Montana, much like those in other areas, the winter of 1880-1881 had been a rough one, but the heavy snow produced a fine crop of grass. This was the first warning that stockmen should provide shelter and feed, but was laughed down in the rush to capitalize on the huge beef boom. Ranchers knew they needed to divert all the water they could to meadows in order to raise ample quantities of hay. A few large outfits did begin haying operations and small irrigation projects, but most just gambled. Many felt a loss of 5 to 10 percent was not all that bad. Many "pilgrims" from Texas and the Midwest were brought in late in the season and were too weak, unfit by breeding or acclimation to endure a hard northern winter. To make matters worse, some were not accustomed to foraging for themselves.²²

By Valentine's Day it was thought a loss of 75 to 80 percent was possible on the Musselshell (flows between the Yellowstone and Missouri, then north into the Missouri). The good news was that only 10 percent had been lost so far in the Judith Basin, however, there were very heavy sheep losses.²³ Sheep could switch from range to range much faster than cattle, but required greater care.²⁴ Musselshell ranchers were "falling cottonwood trees for horses to feed upon." Another rancher on Wolf Creek in northeast Montana had lost about three hundred heifers he had bought in the fall of 1886. The Signal Corps reported snow had fallen in the "northern slope" region, which included Deadwood, Cheyenne, North Platte, Fort Laramie and Montana stations, all but three days in February. By March of 1887, it became apparent that the imported cattle had been a horrible gamble. One rancher said he did all in his power to save them and many died while being fed and sheltered. He had no doubts of the outcome of those out on the range.²⁵ In the spring of 1887, the Chinook they called "Gentle Annie" arrived one month and thousands of cattle too late. The snow finally melted and the hide buyers fought over the remains

²¹ Barbara F. Rackley, "The Hard Winter 1886-1887," *Montana, The Magazine of Western History* 21 (1971): 50-51.

²² *Ibid.*, 52.

²³ *Ibid.*, 58.

²⁴ Samuel P. Hays, *Conservation And The Gospel Of Efficiency: The Progressive Conservation Movement, 1890-1920* (Pittsburgh: University of Pittsburgh Press, 1999), 54.

²⁵ Rackley, "The Hard Winter 1886-1887", 58.

of once great herds. Many of the old, weather-beaten skeletons were ground up into meal for fertilizer, while the choice ones went for buttons, combs and fancy bone knife handles.²⁶

After "Gentle Annie," ranch manager Granville Stuart thought "the rancher with a good body of hay and from one to two hundred head of cattle was the man that profited", for "in the spring he was able to buy cattle cheap." As a result, recalled one old-timer in Wyoming, "In some instances the little cattlemen of the 80's remained in business and are the big men of today."²⁷ Stuart estimated his losses at 60 percent. This placed him in the group of large outfits with the heaviest losses. The terrible winter marked the end for Stuart and his herd.

From Helena, Montana, Kaufman and Stadler inquired of their foreman in the Judith Basin the extent of their losses. One of the outfit's young riders was Charley Russell, a then little known cowhand from Missouri. On a postal card he painted a skeleton of a starving steer and a grimly waiting coyote that was first known as "Waiting on a Chinock." This was later re-named "The Last of Five Thousand."²⁸

On September 3, 1887, the *Yellowstone Journal* reported: "The small stockmen are very much encouraged this year. Their cattle were within reach all the time and loss was nominal. This winter they will more than ever before close herd them, having learned by experience that care and plenty of hay is the proper care."²⁹

The view from Wyoming was that winter losses and stock shrinkage were part of the open range system. During a hard winter a cow might drop from 1,100 to 800 or 900 pounds and "the usable meat in a typical steer was only about 55 percent of its body weight."³⁰ It was thought better to lose three or four head out of one hundred than to cut, put out hay, provide shelter, hire herders and other hands to haul feed and cut holes in the ice. As noted before, the winter of 1880-1881 had been a bad one and cattle were dying from lack of feed and water in several parts of Wyoming. By February of "81" many were browsing on shade trees and dying in the streets of Laramie, yet, this was quickly forgotten over the next few years. The popular image of cowboys trailing cattle down from high summer pastures after the first heavy snowfall to sheltered areas near the home ranch was likely to belong to the smaller outfits.

One major cause of stock loss rarely mentioned was the difficulty of open range cattle to find water. In 1885, Governor Warren of Wyoming stated "probably four times as many cattle die for want of water as for want of food." Once again in 1887, Governor Thomas Moonlight reported, "I am convinced

²⁶ Wayne Gard, *The Great Buffalo Hunt* (Lincoln: University of Nebraska Press, 1959), 296.

²⁷ Leland Stuart, "The Winter of 1886-1887 - The Last of Whose 5,000?" *Montana, The Magazine of Western History* (Winter 1988): 37-38.

²⁸ Nelson, *Land*, 218.

²⁹ Stuart, "The Winter of 1886-1887," 34.

³⁰ William Cronon, *Nature's Metropolis Chicago and the Great West* (New York: W. W. Norton & Company, 1992), 236.

from conversations with practical cattlemen and what I have seen that losses from want of a sufficiency of water are greater than from [want of a] sufficiency of food.”³¹ Ice shards cut the legs of the cattle seeking water where they broke through the ice. Many anxious and thirsty cattle followed them, only to be forced into holes and drowned or frozen to death. Most that survived the frozen rivers, lost too much strength, could hardly stand, and finally died from exhaustion or were stalked by wolves and coyotes. Some were picked to death by birds of prey. To many in Wyoming, Montana and Dakota, this was known as “The Big Die Up.”³²

On February 5, the *Yellowstone Journal and Livestock Reporter* concluded the impact of an early February storm might be extremely disastrous to Wyoming ranges. A letter printed in the *Laramie Daily Boomerang* described a winter equally harsh in Wyoming. Lander had recorded a mid-January temperature of -30°F. A record snowfall buried Laramie. Between Lander and Rawlins four feet of crusted snow supported stagecoaches. Cattlemen in the Big Horn basin who usually supervised their herds were driven off the ranges by Christmas. In valleys where cattle had always sought the protection of cut banks and cottonwood groves, deep snows had covered their natural shields. Only months earlier settlers near Buffalo at the foot of the Big Horns were certain the coming winter would be a mild one.³³ In addition to the seasoned residents, open range ranching had become quite popular among British upper classes, as both an investment and a vocation. A number were drawn to the Tongue and Powder Rivers of the Thunder Basin region of eastern Wyoming and Montana. Most would fail in the crisis of 1886 and 1887.

The Swan Land and Cattle Company was one of a few well know cattle outfits that was founded in Scotland by Alexander Swan with \$3,000,000 in capital and managed from Edinburgh and London, although operated out of Chugwater in eastern Wyoming. Going into the winter of 1886, the company listed 113,000 head and controlled over 600,000 acres of Wyoming and Nebraska range. During its heyday, it was one of the largest ranches in the west. The brutal months that followed reduced their number to 57,000 and the outfit went into bankruptcy, reduced inventory and capital. In 1893, they ran around 40,000 head and in 1904, switched to sheep.³⁴

Although Montana and Dakota suffered more than Wyoming, (many estimates ran from as low as 15 percent to only a few at almost 100 percent) cattle that survived were in very poor condition and brought little when sold. Many had suffered bloody and swollen noses along with frozen ears and tails. In addition, the 1887 calf crop was very small. Many ranchers held on to stock

³¹ T. A. Larson, *History of Wyoming* (Lincoln: University of Nebraska Press, 1978), 190-91.

³² Harold E. Briggs, “The Development and Decline of Open Range Ranching in the Northwest,” *The Mississippi Valley Historical Review* 4, no. 20 (1934): 521-536.

³³ Stuart, “The Winter of 1886-1887,” 37.

³⁴ Work Projects Administration, *Wyoming A Guide To Its History, Highways, And People* (New York: Oxford University Press, April, 1941), 290.

until the fall of 1887 and were finally forced to sell very low to satisfy creditors.³⁵ In the fall of 1887, after an extensive tour through the Territory, Governor Moonlight thought the “day of the vast herds is coming to a close.” He felt the cattle industry would continue to be important, “but instead of one man or one company owning 10,000, one hundred men will own them. The day of great losses, too, will then be over. Honest cattlemen concede this. It is inevitable.”³⁶

The hard winter supported thoughts of many small ranchers in both Montana and Wyoming who fed, bred and herded their cattle for a decade prior to 1886-1887. That winter experience also confirmed the fears of many large outfits that worried about both overstocked ranges and harsh weather. “Closer herding” and ample feed in winter seemed to be the cure. To the east, things looked a lot better after the winter of 1886-1887.

During 1886-1887, the Nebraska Sandhills were not hit as hard as the surrounding country and most ranchers were seasoned westerners that understood the value of haying, which was as much a part of the cowboy’s life as riding the range. Cowboys put up hay for a couple of months in summer and fed it for the long months of winter. Many of the lush, lower mixed grass pastures were cut and stored for winter. Following the frigid winter of 1886-1887, short horns, Herefords and Angus replaced the Texas long horns in the vast Sandhills. The rolling grass and yucca-carpeted hills are well watered that occupy the western two thirds of the state north of the Platte River and are largest formation of dunes in North America. Shallow, narrow, and winding rivers like the three forks of the Loop, Dismal, Snake and Niobrara Rivers either did not freeze completely or were easier to break through for stock. The Dismal and some other streams are fed by 52°F springs. Fenced lands replaced the open range and “closer herding” practices kept losses very low.³⁷ To the west, the Pine Ridge escarpment, between the White and Niobrara Rivers country, was known as “the garden at the end of the Sandhills.”

Edgar Beecher Bronson, who sold his huge Deadman Ranch that straddled the Nebraska-Wyoming border between the White and Niobrara Rivers, remembered “the year 1882...marked the dead line between good times and bad.” Bronson felt the signs were so plain that any rancher could read them. In his book, *Reminiscences of a Ranchman*, first published in 1908, Bronson describes four impending clouds “that the cow-weatherwise were quick to recognize meant early injury and ultimate ruin to their business.” First, tremendous profits were attracting investment from the east and abroad. Annual trail drives from Texas, Utah, Oregon and Washington were doubling, which insured ranges would soon become horribly overcrowded and profitable breeding and fattening would no longer be possible. Second, emigrant farmers, known as “grangers,” were arriving by the hundreds from the east and south.

³⁵ Larson, *History of Wyoming*, 190-91.

³⁶ Stuart, “The Winter of 1886-1887,” 37. Montana and Wyoming achieved statehood in 1890.

³⁷ James C. Olson, *History of Nebraska* (Lincoln: University of Nebraska Press, 1957), 198.

To Bronson settlers meant fences and valleys along watercourses would be occupied and enclosed. He believed the free range would be over and ranchers should move on to the northwest or leave the business. Third, news of railway extensions from the Union Pacific, the Chicago, Burlington & Quincy railroads, and west from the Missouri River meant the coming of thousands of settlers, and “the instant extinction, immediately upon their arrival in our midst, of the of the free range industry.” “And then, fourth, under the law of weather averages, we were about due for a winter of still falling, deep lying, long staying snow, such as there, was sure to come at intervals, and when it came, wiped out whole herds.” There had no been no killing winter weather on his vast Deadman Ranch since a March blizzard in 1878. He noted that both the winters of 1885-1886 and 1886-1887 were quite severe.³⁸ Bronson’s ranch was on Deadman’s Creek, five miles south of Fort Robinson.³⁹ The year after he sold his ranch, the cattlemen of eastern Montana met to discuss the problems of range overcrowding. This group would become the Montana Stock Growers Association.⁴⁰

Ranching and homesteading began around Medora in the early 1880s when the Northern Pacific Railroad pushed its track to the tiny Dakota badlands town. Like so many other northern ranges, the cattle boom was devastated by a deadly combination of drought, grasshoppers, and widespread fires during the summer of 1886. A few of the first reports had been optimistic and for some cattlemen the full amount of loss was not known until the summer roundups. By late summer of 1887, the *Mandan Pioneer* estimated losses at 75 percent. The Medora newspaper, *The Badlands Cow Boy*, went out of business in 1887.⁴¹ After the Siberian-like winter released its grip, a rancher from Medora noted: “one had only to stand by the Little Missouri River bank for a few minutes and watch the grim procession going downstream to realize the full depth of the tragedy that had been enacted within the past few months.” The “grim procession” was made up of the bodies of tens of thousands of dead range cattle. At times, dead, bloated cattle drifted up against cut banks and forced streams from of their banks. It marked the end of many of the great cattle barons.⁴² By 1889, Medora was deserted.

One smaller Medora rancher who eventually sold his remaining few hundred survivors never to return was Theodore Roosevelt. In the fall of 1886 Roosevelt lost his bid for Mayor of New York City. That winter he was married in England and honeymooned there. Reports of the hard winter and horrible stock losses brought him back to Medora to survey the situation. From Medora

³⁸ Edgar B. Bronson, *Reminiscences of a Ranchman* (Lincoln: University of Nebraska Press, 1962), 293-295.

³⁹ Thomas Buecker, *Fort Robinson and the American West 1874-1899* (Norman, OK: University of Oklahoma Press, 2003), 121.

⁴⁰ Stuart, “The Hard Winter 1886-1887,” 41.

⁴¹ National Park Service: Department of the Interior, *Theodore Roosevelt National Park: Elkborn Ranch* <http://www.nps.gov/thro/historyculture/elkborn-ranch.htm>, November 14 2007.

⁴² Nelson, *Land*, 218.

he wrote to his friend, Henry Cabot Lodge: “Well, we have had a smashup all through cattle country of the northwest. The losses are crippling. For the first time I have been utterly unable to enjoy a visit to my ranch. I shall be glad to get home.” To his sister he added: “I am bluer than indigo about the cattle; it is even worse than I feared: I wish I was sure I would lose no more than half the money (\$80,000) I invested out here. I am planning to get out of it.” Sometime between 1890 and 1892 he abandoned his Elkhorn Ranch. In May of 1892 the *Dickinson Press* reported, Roosevelt still had 1,000 head in the Little Missouri Badlands.⁴³

By the early 1890s open range had vanished from all but northeastern Montana. The big outfits of the boom period were gone and ranching practices had undergone a complete change. After the brutal winter hay was carried to cattle during the cold months and ranchers built barns, shelters and corrals where they stacked hay. Still, only six years after the disastrous winter, southern drives resumed and the regions ranges were restocked even more than before, but the huge one man or one outfit herds were gone forever.⁴⁴

How did those confined on northern plains reservations, with near total dependence on stock raising fare? As late as the mid 1880s many Northern Cheyennes in southeast Montana and Sioux on western Dakota reserves huddled in canvas tents as there were no longer bison available for traditional teepees (most were gone in the north by 1883) and many had not yet built log homes. Some on Montana reservations had built log homes, but awaited doors and windows.

“They said the bones of cattle that starved that winter could be seen for years afterwards, in one place along the river between Birney and Ashland. Two or three hundred had crowded in under some rock cliffs and died.”⁴⁵ In his annual report, written in autumn of 1887, Indian Agent R.L. Upshaw stated: “the loss of Indian ponies and cattle last winter, which was unparalleled in severity aggregates at least 250 head. The loss to the agency herd of cattle did not exceed 5 percent, but the agency stock had hay to feed on.” Upshaw added that outfits off the reservation had suffered losses at 30 to 60 percent.⁴⁶ When the settlers on the Tongue River suffered such dramatic losses, the Cheyennes had a difficult time too. An Indian named Wolf Tooth said it was the only time when the Indians failed to reach the agency at Lame Deer to get their rations. They organized a pack of fifteen young men with shovels that took turns breaking the trail.⁴⁷

On the bordering Crow Agency, the agent stated there was actually an increase of four hundred and fifty calves, “a creditable exhibit considering the

⁴³ <http://www.nps.gov/thro/historyculture/elkhorn-ranch.htm>, November, 14 2007.

⁴⁴ Nelson, *I, and*, 218.

⁴⁵ John Stands In Timber and Margot Liberty, *Cheyenne Memories* (New Haven and London: Yale University Press, 1967), 255.

⁴⁶ R.L. Upshaw, *Report of the Secretary of the Interior* (Washington, D.C.: Government Printing Office, 1887), 2-229.

⁴⁷ Stands In Timber and Liberty, *Cheyenne Memories*, 255.

severity of the winter, which resulted in great loss among stockmen generally.”⁴⁸ A report from the Blackfoot Agency (near Cut Bank, Montana) supported “closer herding.” “This past winter was unprecedented in its severity, snowstorms and blizzards almost daily during the months of December, January, and February causing enormous stock losses to stock owners all through the Territory.” The loss reported to the agency was very small when compared to the loss to white stockmen of the region. Their success was believed possible due to a good supply of hay put aside for use during extreme cold weather.⁴⁹

The report from Pine Ridge Dakota Agent, H.D. Gallagher, noted that severe drought had taken everything planted on the reservation. By the mid 1880s it was very clear that raising stock was the Lakota’s only salvation as the majority of crops were generally destroyed by summer winds. Many Agency cattle had died during the winter and there were often horrible losses during their first year or from blizzards during calving season. Ironically, Gallagher penned little about such a polar beginning to “87” in his annual report.⁵⁰ Former agent Dr. Vallentine T. McGillicuddy, as well as H.D. Gallagher, had little use for stock from Texas, Indian Territory or even Kansas, and wanted only cattle bred in far northern Nebraska or Dakota.

Agent James McLaughlin of the Standing Rock Agency, of Dakota, reported the severest winter known in the history of the country in 1887 with Indian cattle losses of about 30 percent, while the agency beef herd lost 21 percent. The sub title in his annual report read “Rigorous Winter And Loss Of Cattle.” He stated the loss was unavoidable. His Indians had fed cut cottonwood trees, along with wheat, oats and corn held over for seed. The agent thought they had done an incredible job of bringing so many cattle through when the experienced stockmen of the region lost 75 percent. He added the mercury at Standing Rock fell to 50 below during many years.⁵¹ During the summer of 1887, stockmen from as far west as the Little Missouri Badlands searched for their stock all the way to the Standing Rock Agency. But after all, was this not really bison country?

When millions of bison and pronghorn vanished, deer and elk also became scarce; wolves, coyotes and mountain lions turned to calves and weakened cows. The wolves were the most destructive and would attack cows with calves, wearing out the mothers. After bison hunting and trapping played out, many old hunters and trappers switched to wolves and coyotes.⁵² Did the big outfits choose the wrong grazing animal or at the very least, the wrong variety?

With the tremendous advantage of nearly a century and a quarter of hindsight, one might conclude eastern and southern cattle did not adapt well on

⁴⁸ Henry E. Williamson, *Report of the Secretary of the Interior* (Washington, D.C.: GPO, 1887), 2-217.

⁴⁹ M.D. Baldwin, *Report of the Secretary of the Interior 2* (Washington, D.C.: GPO, 1887), 211.

⁵⁰ H.D. Gallagher, *Report of the Secretary of the Interior 2* (Washington, D.C.: GPO, 1887), 122-124.

⁵¹ James McLaughlin, *Report of the Secretary of the Interior 2* (Washington, D.C.: GPO, 1887), 130.

⁵² Hamilton, *History of Montana*, 336.

a stage created for the native bison. For at least three hundred years after the arrival of European man, the bison dominated the western plains. When Texas longhorns were driven north after the civil war, they did not do well on their own.⁵³ Possibly a horribly crude, yet heartfelt analogy, would be that of dumping a trout into a southern river in July. Was this what happened with so many poorly acclimated Texas cattle being transplanted onto northern ranges? It had worked pretty well for the past five or six years. There had been major warnings, but profits and investments were high, no one had a crystal ball, and it had almost always worked out. Most young cattle had done well foraging for themselves and losses of three or four per hundred were thought better than hiring hands for herding, hauling hay (if they had it) or chopping holes in the ice. When the November storms hit, thoughts must have been it would quickly pass.

When veteran Pine Ridge rancher Edgar Bronson embarked upon his career in 1872, the period of open range was just beginning north of the Platte River. This time when ranchers fattened their cattle on public domain lasted no more than twenty years, and in most regions, less than a decade. In the beginning, cattle were driven north to railheads and shipped to market. Later, cattle were driven to northern ranges to fatten over winter and shipped out the following year. And finally, the northern plains were stocked with breeding cattle from Texas.⁵⁴ By 1882, he clearly saw many dark clouds beneath his big western sky and sold out. He no doubt loved his Deadman Ranch and an exciting life most could only dream about, but felt there was just too much to overcome. Bronson thought they were long overdue for the big one.⁵⁵ And by late 1886, the big outfits were extremely worried, probably were unable to get to their stock even if they had hay, and the arctic cold had already forced out many that normally supervised their stock from Wyoming's Big Horn basin and the Tongue River drainage of both eastern Wyoming and Montana.

Many absentee owners were nowhere near their herds and lacked current news of the critical situation. Stagecoaches were irregular at best (trains had dropped rail cars onto the frozen Yellowstone River) were stalled in eastern Dakota and telegraph lines were buried in snowdrifts, mail routes were often piled high with it, and on a distant range, a typical owner may have known little until it was hundreds of cows too late. At the end of January 1887, a rancher from near Lewistown, Montana wrote that they were "weak, weaker than I thought they were." He had seen about 8,000 head gathering on the protected Judith River bottom, where they may have been warmer, but also where they had no feed.⁵⁶ During the same period, a Montana stockman complained the

⁵³ Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (New York: Cambridge University Press), 279.

⁵⁴ Bronson, *Reminiscences*, x. Although Bronson sold out, he remained in the area, active as a newspaperman, big game hunter and author until his death in 1917.

⁵⁵ *Ibid.*, xiii.

⁵⁶ Rackley, "The Hard Winter 1886-18887," 59.

“lack of care by cowboys had much to do with the bad condition of the herds.” One local cattleman wrote, he had hired men who “talk big in the summer but won’t stir in the winter when cattle require attention.”⁵⁷ Fellow Kansan and Osage Questa stockwoman, Constance Wood, has told me that her cattle would probably survive extreme cold for no more than a week without feed and water. “They need feed to keep warm.”⁵⁸

As the years rolled on, it became pretty clear that much of Indian country was suited for raising only northern-bred cattle. “Because of the government’s responsibility for providing annuity goods (beef) on contract, there were a few ranches established fairly close to Indian agencies.”⁵⁹ Nevertheless, Indian purchasing practices were slow to change, and as late as 1898, many Texas cattle had died during the winter. The country was said to have no value except for stock raising, which was increasing each year, and many Indians excelled at it.⁶⁰ The extreme climate offered little hope of any subsistence farming with the exception of small family or day school garden patches near creek bottoms. In dry years, these often failed, when streams evaporated into ribbons or dust.

The greatest surprise of all was that those, so terribly dependent on their herds, were able to avoid much of the devastation. Agency cattle were mostly on government land and possibly better supervised, but reservations were not placed on the garden spots of their regions, with the finest grass. In fact, a former Department of Interior Solicitor General and present day consultant to the Assinaboine tribe of Montana has told me: “most reservations were placed on or near what is considered the armpit of Montana.”⁶¹ Yet, many on Montana reserves experienced very little loss in spite of such extreme, prolonged cold and the vast Crow Agency actually experienced a significant increase in calves.

The hard winter dealt a “death blow” to the open range cattle industry of the northern plains. The Swan Cattle and Land Company, capitalized from Scotland, lost half their cattle and nearly went under. Many large outfits were backed by eastern or foreign capital and could no longer hold on, while those on reservations that chose not to just gamble, kept stock within reach and put out hay, fed grain held over for seed or cut cottonwoods for their ponies and cattle, did well. A few surviving open range cattlemen negotiated individual grazing leases with the government so they could keep their cattle within reach.

“I never again want to hear of the open range,” said one embittered stockman who had been forced to witness the suffering of his herd during the disastrous season.⁶² Charley Russell’s famous watercolor of the poor, starved

⁵⁷ Ibid.

⁵⁸ Constance Wood, conversation with author, Severy, KS., 27 October 2007.

⁵⁹ Bronson, *Reminiscences*, x.

⁶⁰ W. G. Clapp, *Report of the Secretary of the Interior* (Washington, D.C.: GPO, 1898), 276.

⁶¹ Richard Aldrich, conversation with author, Billings, MT, December 1, 2007.

⁶² Nelson, *Land*, 218.

cow may have said it best of all. On the other hand, an older, maybe, “Hollywood” image of cowboy’s heading their cattle from high snowy pastures down to sheltered valleys was the right one. When it all was over, survival, it seemed, came down to preparation and care.

Mary Mallon and Typhoid Fever
Emily Sweetland Long

She was born in Cookstown County Tyrone, Ireland on September 23, 1869. Neither she nor her family could have known what was to be her fate. If they had, perhaps she would never have become a cook; perhaps she would never have begun a new life in the United States. But she did. Mary Mallon journeyed to the U.S. in 1883 when she was only a teenager and soon settled with her aunt and uncle in New York City. She was by most accounts a good cook and she had no trouble finding work in the kitchens of New York's well to do.¹ It was here that she would be dubbed "Typhoid Mary."

Mary Mallon worked for at least ten years in these kitchens before she was accused of spreading typhoid fever to the families she had worked for. Undoubtedly Mary Mallon was shocked when she was accused of making people ill. She had never been ill with typhoid fever, how then could she be responsible for the things of which she was accused? This was the question Mallon would put forth to the health authorities of New York City time and time again during her twenty plus years of isolation at the Riverside Hospital on North Brother Island. However, it did not matter how many times Mary Mallon proclaimed her innocence and proclaimed she was healthy, she had become "Typhoid Mary," the "most dangerous woman in New York City." Was she really? We can be quite certain Mallon, along with most of the citizens of New York as well as the entire world, had never heard the term "healthy carrier." The truth is that healthy carriers of typhoid fever were walking the streets of New York City, and not too few of them. However, of all these healthy carriers, Mary was the only one forced into isolation for a significant portion of her life. Mary Mallon's fate was not only to become "Typhoid Mary," but also to become the first known healthy carrier of typhoid fever and an essential specimen for the New York City Health Department.

¹ Judith Walzer Leavitt, *Typhoid Mary: Captive of the Public's Health*, (Boston: Beacon Press, 1996), 14.

On August 27, 1906 one of Charles Henry Warren's daughters fell ill with typhoid fever at his rented home in Oyster Bay, Long Island. Soon followed two maids, Mrs. Warren, the gardener, and finally another of Warren's daughters. The home was owned by Mr. and Mrs. George Thompson of New York City. The Thompsons were in no hurry to see their house become unrentable and quite quickly hired private investigators to analyze the outbreak. The investigators tested the most likely sources first: the water, milk, and food supplies of the home. It was known by this period in time that in addition to unclean drinking water, milk and raw foods, such as vegetables, fruits, and oysters, were capable of harboring typhoid bacilli.² Unable to conclusively prove anything, they determined the water tank was contaminated, most likely due to the dirty, excreta covered boots of the men who had cleaned the tank. This answer was not satisfactory to the Thompsons so they turned to Dr. George A. Soper, a former engineer in the U.S. Army Sanitary Corps.³ At the time they hired him, Soper was a civil engineer and had become fairly well known for his analysis of typhoid fever epidemics. Soper, like the initial investigators, quickly ruled out milk, oysters from the bay, and other foodstuffs in the home. His next step was to interview all of the household inhabitants. The interviews revealed the Warren family had changed cooks shortly after the first typhoid outbreak. Soper's attention was sparked upon hearing this, and he wanted to know all about this former cook. He learned her name was Mary Mallon, and according to the testimony given she was quite healthy. Soper also learned Mallon had often made a dessert for the family that consisted of ice cream and fresh peaches. Peaches, Soper knew, would make an excellent conductor for typhoid fever. He was quite aware of the dangers of a typhoid carrier or patient preparing uncooked meals for others, and this information made him more suspicious. Despite the claims that she had been healthy, Soper grew increasingly convinced Mary was the culprit. It is quite possible Dr. Soper was one of the few New Yorkers who knew what a healthy carrier was, a point he later claimed was true.⁴

Before we delve further into Mary's story we must understand typhoid fever and the concept of the healthy carrier. Typhoid fever is a water and food borne illness that infects the intestines of those who suffer the illness. Typhoid bacilli enter the body through the mouth, and invade the body through the small intestine. The bacilli then enter the mesenteric lymph glands via Peyer's patches, which are lymphoid tissues on the wall of the small intestine. The bacilli usually infect the lower ileum of the small intestine but can attack the upper portion as well as the large intestine. Once the bacilli have entered the mesenteric lymph glands they multiply during an incubation period and then enter the blood stream, from which point they can enter the other organs,

2 "Oysters as a Means of Transmitting Typhoid Fever," *Science*, 2 (1895), 49-50.

3 Priscilla Ward, "Cultures and Carriers: 'Typhoid Mary' and the Science of Social Control," *Social Text* 52/53 (1997), 181.

4 Leavitt, *Typhoid Mary*, 14-17.

especially the liver, spleen and rediculo-endothelial system. Those bacilli that do not make it into the liver go through the liver capillaries into the bile cannulae. Here they may multiply again and make their way to the gallbladder. In this location they multiply again and re-invade the intestines. At this point the symptoms of the fever begin, the whole process having taken ten to fourteen days.⁵ Typhoid symptoms can include sustained fever, headache, malaise, and constipation (more common) or diarrhea. Following these initial symptoms sufferers often experience chills, loss of appetite and a rash on the abdomen and chest, as well as severe cramps and tenderness. Patients grow increasingly weaker and can suffer complications. One common complication is the inflammation of the lungs, leading to pneumonia or bronchitis during the early stages of typhoid fever. This can cause re-infection, also known as “superinfection” of the intestines. This “superinfection” can lead to perforation and hemorrhage, two other major complications of the disease.⁶

Modern medicine calls for antibiotics as treatment for typhoid patients, but that venue was not available until the 1940s, and there was little that could be done for typhoid patients during Mary Mallon's time. In 1904 the *American Journal of Nursing* advised making sure patients had plenty of rest, were kept in a light and cheerful room, cleaning bed linens as well as the patient several times a week, and giving the patient nourishment, despite any resistance.⁷ The fatality rate of the disease in Mary Mallon's time was around ten percent.⁸

Thomas Willis described typhoid fever in 1659, and was the first person to separate it from the diseases to which it is similar. He was not, however, the first person to record a typhoid-like disease. The Greeks quite possibly were the first to write of the disease. Hippocrates described a fever that was typhoid-like and wrote of a Roman physician, Antonius Musa, who treated the Emperor Augustus with cold baths when he fell ill with the fever.⁹ It has even been speculated that Alexander the Great died of typhoid fever in Babylon, most likely where the disease began.¹⁰ When Willis, an English physician, was describing the affliction he was writing about an epidemic among the parliamentary troops stationed in India.¹¹ Willis may have been correct in identifying a new disease, but he did not give it a name. That was left for the nineteenth century when a French physician by the name of Bretonneau recognized the disease as distinct and gave it the name of “dothineteritis.”¹² Fortunately Bretonneau's colleague, the popular French professor of medicine

5 R.L. Huckstep, *Typhoid Fever and Other Salmonella Infections*, (Edinburgh: E.S. Livingstone, LTD., 1962), 35-36.

6 Geoffrey Edsall, “Typhoid Fever,” *The American Journal of Nursing* 59 (1959), 989.

7 Mary J. Reynolds, “Nursing of A Typhoid,” *The American Journal of Nursing* 4 (1904), 276-279.

8 Edsall, “Typhoid Fever,” 990.

9 Huckstep, *Typhoid Fever*, 4.

10 Edsall, “Typhoid Fever,” 989.

11 Harry Wain, *A History of Preventative Medicine*, (Springfield, IL: Charles C. Thomas-Publisher, 1970), 284.

12 Edsall, “Typhoid Fever,” 990.

Charles Alexander Louis, changed the name to “typhoid fever,” which was a combination of the Greek word *typhus*, which means stuporous or clouded, and *eidōs* which means like. He chose this name because the typhoid patient commonly falls under a stupor, and because it was the only name to which others had not objected.¹³ Knowledge of typhoid fever began accumulating. In 1824 Nathan Smith, a professor at Yale, discovered that typhoid fever is contagious. In 1836 William Gerhard drew the distinction between typhoid and typhus, which until this point had been considered one disease. This was further confirmed by Sir William Jenner in 1850. Soon after Jenner's work, Austin Flint illustrated the contagious nature of typhoid with a story of a community in which every family was touched by typhoid fever except for the one family in the community that was not using the well because of a quarrel.¹⁴ William Budd, a nineteenth century English country doctor, soon noted that typhoid was spread through the feces, and that water and milk were excellent at transmitting the fever.¹⁵ Despite these claims many, including Flint, believed drains in the home as well as sewer vapors were the root of illness, rather than through food and water contaminated by infected feces.

The salmonella typhi bacillus, the causative agent of typhoid fever, was finally discovered by Klebs and Eberth, independently, in 1880. The discovery led to the culture of the bacilli in the laboratory, and that it did exist in the feces, as well as the urine, blood and bile of those infected, confirming Budd's claims.¹⁶ It would later be discovered that the typhoid bacilli also live in sweat, mother's milk, and the spleen. This information indicates how easy it was for a typhoid patient or carrier to spread the illness to others, and how easily drinking water could become infected.¹⁷

The discovery that typhoid was caused by a bacteria, coupled with the fact that typhoid bacilli lives in feces, led to measures to clean up water systems. Next to vaccination and knowledge of healthy carriers, water filtration was one of the greatest measures taken in the battle against typhoid fever. A filter for water systems was created in the 1890s and quickly proved to be effective in battling typhoid epidemics. Cities that sent untreated water through their pipes were the most likely to suffer typhoid epidemics. These cities only needed to recognize the problem and do something about it. Quite often, however, it took many epidemics to convince both legislators and taxpayers to spend the money on water filtration. Once they did, however, the results spoke for themselves.¹⁸ Philadelphia began filtering its water systems at the beginning of the 1900s, in

13 Wain, “A History,” 989.

14 Edsall, “Typhoid Fever,” 990.

15 Robert Moorhead, “William Budd and Typhoid Fever,” *Journal of the Royal Society of Medicine* 95 (2002), 561-564.

16 Edsall, “Typhoid Fever,” 990.

17 Joseph Chapman Doane, “Typhoid Fever,” *The American Journal of Nursing*, 27 (1927), 712.

18 Judith Walzer Leavitt, “‘Typhoid Mary’ Strikes Back: Bacteriological Theory and Practice in Early Twentieth-Century Public Health,” *Isis* 83 (1992), 610.

part largely because of the threat of typhoid fever.¹⁹ The installation of filtration equipment had begun in 1902. At that time the death rate from typhoid fever in Philadelphia was forty-five to seventy-five per 100,000. The filtration was complete in 1911, and chlorination was complete in 1913. After this point the rate dropped to eight or less per 100,000.²⁰ The mortality rate of typhoid fever per 100,000 in the United States was 31.3 in 1900, and had decreased to 22.5 by 1910. This was largely due to the clean up of water systems.²¹

During the nineteenth century it was common belief that dirt was the cause of disease. Bacteriology changed this.²² A leading proponent of bacteriology was Charles V. Chapin, the superintendent of health of Providence, Rhode Island. He was at the forefront of the bacteriology movement, and in his overzealousness claimed that it did not matter how dirty the streets were, bacteria caused typhoid.²³ Chapin claimed sanitation was unnecessary because it would "make no demonstrable difference in a city's mortality whether its streets are clean or not, whether the garbage is removed promptly or allowed to accumulate, or whether it has a plumbing law."²⁴ Fortunately today we understand that sanitation as well as bacteriology is needed to keep healthy. Imagine if we had heeded Chapin's words and discontinued trash disposal. Chapin was correct in his ideas on bacteriology, however. He recognized the need to understand what causes diseases to protect ourselves. He said:

Contact with the fresh secretions or excretions, of human beings, is the most important source of infection for most of our common contagious diseases. By turning the face from the coughing and loud talking of our neighbors; by putting nothing in the mouth except clean food and drink; by never putting the fingers in the mouth, or nose; most contagious diseases can be avoided. Wash the hands well before the eating and always after the use of the toilet. Teach this to the children by precept and especially by example.²⁵

This understanding of bacteria played a significant role in the idea of the healthy carrier. In 1884 Friedrich Loeffler, a German bacteriologist, put forth the idea that there were healthy carriers of diphtheria. This was confirmed in 1893 by William H. Park and A.L. Beebe. They concluded through their experiments that one percent of New York City's inhabitants had diphtheria

19 Michael P. McCarthy, *Typhoid and the Politics of Public Health in Nineteenth-Century Philadelphia*, (Philadelphia: American Philosophical Society, 1987), ix.

20 Edsall, "Typhoid Fever," 990.

21 H.C. Batson, *Typhoid Fever Prophylaxis By Active Immunization*, (Washington D.C.: U.S. Government Printing Office, 1949), 5.

22 Leavitt, "Typhoid Mary' Strikes Back," 612-613.

23 Ibid, 610-611.

24 Leavitt, *Typhoid Mary*, 24.

25 Leavitt, "Typhoid Mary' Strikes Back," 611.

bacilli in their throats. In 1893 Robert Koch, a German bacteriologist, suggested cholera also had healthy carriers. This was later proved to be true.²⁶ Robert Koch was the same man that declared in 1902 that a healthy person could potentially spread typhoid fever. This was also proven to be true, and accepted among the scientific world, however this fact was still largely unknown to everyone else.²⁷ Nevertheless, the discovery by Koch would be instrumental in preventing future typhoid epidemics.

To further understand Mary's dilemma we must fully understand the workings of a typhoid carrier. In the typhoid patient generally after ten or twelve days the typhoid bacillus disappears from the body. In the incubated form it may take weeks. In the healthy carrier the bacilli may last a lifetime.²⁸ In healthy carriers the bacilli manages to live in the tissues, most commonly the gallbladder, after the carrier is no longer ill.²⁹ There are three types of these healthy carriers:

1. Chronic carriers who have had an attack of the disease and did not realize it. Mary Mallon may have been one of these carriers; perhaps suffering symptoms she thought were the flu but were really typhoid fever.
2. Carriers who are in an incubation stage and will eventually become sick with the disease and pass it through their system.
3. True healthy carriers who have not suffered from the disease they carry and likely never will. Mallon was most likely a true healthy carrier.³⁰

Diphtheria, influenza, meningitis, pneumonic plague, dysentery, and cholera exhibit some of these same characteristics.³¹ In 1912 healthy typhoid carriers numbered between two and five percent and it was estimated three percent of those that contracted the bacilli would become carriers. It was also found that women were more likely to be carriers. This makes sense for Mary Mallon was both a woman and nearing middle age.³² Most importantly, the discovery of a healthy carrier meant the discovery of the source of a typhoid epidemic.³³ Mary Mallon was to be the first identified instance of this occurrence.³⁴ Chapin was as involved with bacteriology as he was with the healthy carriers. He understood the threat of a healthy carrier, and explained it this way:

26 Ibid., 613.

27 Edsall, "Typhoid Fever," 991.

28 Frederick G. Novy, "Disease Carriers," *Science* 36 (1912), 3-4.

29 Edsall, "Typhoid Fever," 991.

30 Novy, "Disease Carriers," 2.

31 Ibid., 5.

32 Ibid., 4-5.

33 J. Andrew Mendelsohn, "Typhoid Mary" Strikes Again: The Social and the Scientific in the Making of Modern Public Health," *Isis* 86 (1995), 274.

34 Wald, "Cultures and Carriers," 181.

Neither you nor I, nor the Board of Health, know where these [carriers and missed cases] are. The occupant of the next seat may, for all one knows, be a diphtheria carrier, so may the sales lady who ties up the package, the conductor who gives the transfer, or the express man who leaves a parcel at the door. The dirty man hanging on the car strap may be a typhoid carrier, or it may be that the fashionably dressed woman who used it just before was infected with some loathsome disease. If these people were sick in bed we would avoid them. As it is we cannot. Science has shown this new danger.³⁵

George Soper was convinced that Mary Mallon was one of these healthy carriers and set off to find her. He contacted the employment agencies she had been to and was able to piece together, through what is known as “shoe leather epidemiology” which eight families Mallon had worked for since 1897. What Soper found was astonishing; seven of the eight families Mallon had worked for had instances of typhoid fever. He put together this list:

1. During the summer of 1909 Mallon was working for a family in Mamaroneck, NY. A male visitor came to the home and fell ill shortly after his arrival. It was later determined he had come into contact with the disease before entering the home.
2. During the winter of 1901-1902 Mallon was working for a family in New York City. The launderess became ill soon after Mary's arrival. There was no investigation.
3. Mallon was working in Bar Harbor, Maine, during the summer of 1902, when seven of the nine people in the home fell ill. She stayed on to help nurse the ill, for which her employer was very grateful. Investigators determined the typhoid had been brought in by the footman.
4. In the summer of 1904 Mallon was working in Sands Point, NY. She and the other servants lived in a separate home from the family. Four of the servants fell ill. Investigators determined the launderess had brought the fever in.
5. During the summer of 1906 Mallon was working for the Warren's in Oyster Bay. This is where Soper first heard the name “Mary Mallon.”
6. Mallon was working in Tuxedo Park, NY, during the autumn of 1906. The launderess became ill, cause undetermined.
7. In the winter of 1907 Mallon was working in New York City. The chambermaid fell ill first, followed by a daughter who became ill and died. This was the home in which Soper finally tracked down

35 Leavitt, *Typhoid Mary*, 25.

Mary and conducted their first interview.³⁶

In all Soper identified twenty-two cases of typhoid fever connected to Mary between 1900 and 1907. At times, however, he claimed there were twenty-six, and other sources report there were up to forty-seven. It is estimated that three people died as a result. During this same period in New York City 3,000 to 4,500 new cases were reported, making the twenty-two or so cases attributed to Mallon a mere pittance. However, it can only be assumed that Mary was responsible for all the cases Soper pinned to her name.³⁷ The discovery of a healthy carrier could help investigators determine what had caused an outbreak, but there was no scientific method to prove beyond a doubt that the carrier found was the cause for every case. Any number of the people who had come into contact with Mary Mallon and fallen ill with typhoid fever could have contracted the disease elsewhere, whether through contaminated water or another person.

George Soper finally tracked Mary Mallon down in March 1907 at the New York City home in which she was employed. To the healthy Mallon, Soper came out of nowhere with wild accusations that through her cooking she had brought disease and death. If that was not enough, he demanded, not asked, but demanded samples of her feces, urine, and blood. Mary was quite confused and became livid, dismissing Soper from the house. Soper later said:

I had my first talk with Mary in the kitchen of this house ... I was as diplomatic as possible, but I had to say I suspected her of making people sick and that I wanted specimens of her urine, feces, and blood. It did not take Mary long to react to this suggestion. She seized a carving fork and advanced in my direction. I passed rapidly down the long hall, through the tall iron gate ... and to the sidewalk. I felt rather lucky to escape.³⁸

So, Mallon rid herself of Soper the first time. Next, he went to Mary's home. She insisted she was healthy and had never suffered from typhoid, and threw him out once again. Because Soper could not get the samples he needed directly from Mallon he was compelled to present evidence against her to Hermann Biggs, medical officer of the New York City Health Department. This was done on March 11, 1907, and Biggs agreed that one Mary Mallon was indeed a threat to the citizens of New York and authorized the department to go collect samples.³⁹

The department sent Dr. S. Josephine Baker to do the task. Dr. Baker's own father had died of typhoid fever when she was sixteen and she was

36 Ibid., 16-17.

37 Ibid., 17-19.

38 Ibid., 43.

39 Ibid., 44.

compelled to get an education in medicine. She did just that in a time when few women were privy to the medical world. Her focus was public health and poverty, but for a time she worked as the health inspector for New York City. This was her post when she was sent to see Mary Mallon and collect specimens to see if she was in fact the menace Soper envisioned her to be. As it happened Mallon was no more ready to give samples to Baker as she was to Soper. Upon Mary's refusal Dr. Baker felt she had no choice but to call in the police. Her account of the episode goes like this:

She came out fighting and swearing, both of which she could do with appalling vigor. I made another effort to talk to her sensibly and asked her again to let me have the specimens, but it was of no use. By that time she was convinced that the law was wantonly persecuting her, when she had done nothing wrong. She knew she had never had typhoid fever; she was maniacal in her integrity. There was nothing I could do but take her with us. The policemen lifted her into the ambulance and I literally sat on her all the way to the hospital; it was like being in a cage with an angry lion.⁴⁰

Mary was taken to Willard Parker hospital, the usual facility for contagious diseases. Mary's samples were taken, and Soper finally received his confirmation. Mary Mallon was carrying salmonella typhi bacillus, despite never having suffered the disease. This was a landmark for the health department of New York City. They had the first known person to harbor typhoid bacilli in their hands; they were not going to let her get away so fast. Mallon was kept in health department custody, and eventually she was moved to an isolation cottage on the grounds of the Riverside Hospital on North Brother Island, New York. Riverside Hospital was home to many contagious tuberculosis patients, and seemed the most appropriate location for a typhoid carrier. However, not suffering from tuberculosis, she was kept away from them. It was assumed by Dr. Park of the Board of Health that she was being kept with other typhoid patients. Mary said "I am not segregated with the typhoid patients. There is nobody on this island that has typhoid."⁴¹ It should be noted that Mallon said there was no one on the island with typhoid, rather than there is no one *else* with typhoid, indicating her conviction that she was healthy. Since she was the only one at the hospital for typhoid fever, and that she could not be housed with the tuberculosis patients, she was kept in isolation. She would not be leaving soon. This would be her "home" for the next few years.

Mary Mallon was taken to the hospital on March 20, 1907, and from that day until her release her feces received endless scrutiny from the

40 Ibid., 46.

41 Letter written by Mary Mallon to her attorney George Francis O'Neill in 1909, from <http://www.pbs.org/wgbh/nova/typhoid/letter.html>, March 6, 2008.

laboratory.⁴² The laboratory in which Mallon's specimens were continually examined was the brainchild of Hermann Biggs. He created the lab as part of the Division of Pathology, Bacteriology, and Disinfection with the health department. He hired William H. Park to organize the bacteriological laboratory and Park remained its director from 1893-1936. "Typhoid Mary" was their most important work for many years.⁴³ During the twenty-eight months Mallon was in isolation, 163 samples were taken and tested in Park's lab. This averaged out to more than one a week. One hundred and twenty of the 163 samples taken tested positive for salmonella typhi bacillus. These results indicated that Mallon was an intermittent carrier.⁴⁴

Mallon was not sitting idly by while her specimens were being tested. She was sending out her specimens to the private company of Ferguson Laboratories. Mr. A. Briehof, a friend of Mary's whom she had lived with in the past, collected the specimens from Mary and delivered them to the lab. The tests run by George Ferguson at his lab did not show that Mallon had typhoid in her system. However, the specimens were not fresh when they reached the private lab, Mallon was a proven intermittent carrier, and the Ferguson lab did only ten tests compared with the 163 conducted by the state. The evidence collected by the health department would prove to be damning in Mary Mallon's case, whereas the tests conducted by Ferguson Laboratories would be largely neglected.

While Mallon was in the custody of the health department there were attempts to "cure" her of her status of carrier. The doctors at the hospital gave her hexamethylenemine in increasing doses each day, but it had no affect. Hexamethylenemine, more commonly known as urotropin, was used for kidney and bladder troubles. Mary was none too pleased to be given this drug. She said:

Dr. Wilson ordered me urotropin. I got that on and off for a year. Sometimes they had it, and sometimes they did not. I took the urotropin for about three months all told during the whole year. If I should have continued [it], it would certainly have killed me for it was very severe. Everyone knows who is acquainted in any kind of medicine that it's used for kidney trouble.⁴⁵

They also tried controlling her diet and giving her a mild laxative, which had very minor results. For the time being doctors were at a loss as to how to cure a healthy carrier.

42 Leavitt, "Typhoid Mary' Strikes Back," 618.

43 Ibid., 618.

44 Leavitt, *Typhoid Mary*, 31-32.

45 Letter written by Mary Mallon to her attorney, George Francis O'Neill, from <http://www.pbs.org/wgbh/nova/typhoid/letter.html>, March 6, 2008.

In January of 1908 Mary believed her release was imminent. However, when asked what her plans were after her release, her honest response was not what the authorities wanted to hear. She wrote:

When in January [1908] they were about to discharge me, when the resident physician came to me and asked me where was I going when I got out of here, naturally I said to N.Y., so there was a stop put to my getting out of here. Then the supervising nurse told me I was a hopeless case, and if I'd write to Dr. Darlington and tell him I'd go to my sisters in Connecticut. Now I have no sister in that state or any other in the U.S. Then in April a friend of mine went to Dr. Darlington and asked him when I was to get away. He replied "That woman is all right now, and she is a very expensive woman, but I cannot let her go myself. The Board has to sit. Come around Saturday." When he did, Dr. Darlington told this man "I've nothing more to do with this woman. Go to Dr. Studdiford."⁴⁶

After receiving quite the go around, according to Mallon, Dr. Studdiford replied that "I cannot let that woman go, and all the people that she gave the typhoid to and so many deaths occurred in the families she was with." So, Mallon was not to be released, not so long as the authorities believed she was really a threat. Instead of discharging her they suggested she should go under the knife. In true Mary Mallon style she refused. This is Mary's account of the attempt to send her to surgery

Dr. Studiford said to this man [Mallon's friend; perhaps Mr. Briehof] go and ask Mary Mallon & enveigle [sic] her to have an Operation performed to have her Gall Bladder removed. She'll have the best surgeon in town to do the cutting. I said no [.] no knife will be put on me I've nothing the matter with my gall bladder. Dr. Wilson asked me the very same question. I also told him no then he replied it might not do you any good also the supervising nurse asked me to have an operation performed. I also told her no & she made the remark would it not be better for you to have it done than remain here I told her no.⁴⁷

Mary was quite correct in refusing the surgery. Besides posing a huge risk of infection, its track record for "curing" the healthy was less than stellar. The health department eventually confessed that it had followed five carriers who had agreed to the surgery and not one of them had ceased to shed typhoid bacilli.⁴⁸

46 Ibid.

47 Ibid.

48 Leavitt, *Typhoid Mary*, 35.

Judith Walzer Leavitt suggests the health officials were asking the wrong questions regarding Mary Mallon. They were intent on finding how to stop her from emitting bacilli, rather than how to keep her from cooking. They should have been teaching her proper hygiene and helping her learn new skills. Milton L. Rosenau of the U.S. Public Health Service's hygienic laboratory was thoroughly opposed to Mary Mallon's isolation. He said "it is not necessary to imprison the bacillus carrier. It is sufficient to restrict the activities of such an individual."⁴⁹ This should have been the route taken in Mary's case. But, the authorities made no effort to train Mary Mallon in a new skill, and how good hygiene would keep her from spreading the disease. Mary Mallon was quite certain herself that the health officials did not know what they were doing. She wrote:

There is a visiting doctor who came here in October. He did take quite an interest in me. He really thought I liked it here, that I did not care for my freedom. He asked me if I'd take some medicine if he brought it to me. I said I would, so he brought me some Anti Autotox and some pills then. Dr. Wilson had already ordered me brewer's yeast. At first I would not take it for I'm a little afraid of the people, and I have a good right for when I came to the Department they said they were in my [intestinal] tract. Later another said they were in the muscles of my bowels. And latterly they thought of the gallbladder.⁵⁰

This passage indicates that indeed the authorities were at a loss to explain how the healthy carrier operated. In many ways Mallon was a test case for them. They could use her to figure out just where the typhoid was in her system, and how to rid her of it. Unfortunately they never asked her if she would consent to the constant poking and prodding. They had the lab rat in the cage, they were not eager to let it go.

In 1909, after two years in her isolation cottage, and endless testing of her samples, Mary Mallon sued for her release. Her attorney was George Francis O'Neill, a young attorney who had only recently been admitted to the bar of New York state. On June 29, 1909 Mary appeared before the New York Supreme Court. Judges Mitchell Erlanger and Leonard Giegerich would decide whether or not she should be released.⁵¹ The lab tests formed the basis for the health department's defense. Mallon's lawyer argued, on the other hand, that she had never been sick with typhoid fever so she could not be the menace they called her. More importantly O'Neill argued that to keep Mary Mallon in the custody of the health department violated her constitutional right to due

49 Leavitt, "'Typhoid Mary' Strikes Back,' 621-622.

50 Letter written by Mary Mallon to her attorney, George Francis O'Neill, from <http://www.pbs.org/wgbh/nova/typhoid/letter.html>, March 6, 2008.

51 W.D. Mason, "Typhoid Mary," *Science* 30 (1909), 117-118.

process. He claimed the health department had not followed protocol in the case of Mary Mallon. O'Neill made this statement; "the said Mary Mallon is being confined without commitment or any other order of any Court within the state of New York, or that of any person or authority having power to restrain her." Two years later he said of Mary's situation:

It is quite a problem if a municipality can, without legal warrant, or due process of law, clap some one in jail upon the word of some medical man. If the Board of Health can act this way with any one who is alleged to be a germ carrier, yet who never suffered from the disease, then it can put thousands upon thousands of persons who suffered at some time or another from typhoid fever in confinement.⁵²

Mary had received no day in court before she was sentenced to her isolation cottage at North Brother Island. Even George Soper could not argue with this logic, himself having said "she was held without being given a hearing; she was apparently under life sentence; it was contrary to the Constitution of the United States to hold her under the circumstances." This was the truth, but unfortunately for Mary Mallon the court was trying to determine if the health department had the right to detain her, rather than if they had apprehended her within her rights.⁵³

Although not front page news, the media did cover the trial and Mallon's claims of injustice. *The New York Times* reported that the health department was holding Mary because they believed that "she had become a menace to every person with whom she came into contact, for the reason that, although immune from typhoid, she possessed the power of communicating the fever to others." The paper also published Mallon's side in which she "flatly denied, through her lawyer, that she had the power of communicating typhoid" although she admitted that some of the households she worked in had fallen ill with the fever. She was quick to blame unhealthy water sources and to point out that not every household had fallen ill. She said "Why, I was a cook for Mr. Stebbine's family and other families, too and nobody fell ill while I was there." Also reported by the *Times* was Mary's account of life on the island. She said she was "treated like a leper and was compelled to occupy a house by herself, her only companion a dog. She stated, "food was brought to her three times a day by a nurse, who left it at the door and then made a hurried departure."⁵⁴ While this particular article is less biased, neither condemning nor defending Mallon, others were more vindictive. In the July 1, 1909 edition of the *New York Times* one article claimed if it was true that

52 Leavitt, *Typhoid Mary*, 83.

53 *Ibid.*, 81-82.

54 "Wants to Leave the Island: 'Typhoid Mary' Declares the Health Board is Holding Her Illegally," *The New York Times*, June 30, 1909.

twenty-eight cases of typhoid fever have followed her successive engagements as cook in various families, and that she is still a carrier of virulent typhoid germs, obviously the first proceeding is not to set her free. She should in her own interest submit to examination and to operative treatment, if that be found necessary.

The article goes on to state Mallon must receive a certificate of clean health and “that she is not a carrier of disease to persons who are not immune.” While the article does not label Mallon as a murderer, it does not take into account that an operation might not help Mary, or the fact that she was being held without due process.⁵⁵ Indeed in the press Mary was painted as a victim as much as a threat. But would that have any affect on her fate in court?

The court had heard the results of the numerous tests upon Mallon’s feces, they had heard Mallon’s claims that she was not ill. Finally, Dr. Fred S. Westmoreland, the resident physician at Riverside Hospital on North Brother Island, gave his suggestion to the judges:

A bacteriological examination revealed the fact that fully thirty percent of the bacteria voided with the feces were of typhoid bacilli; the urine was negative ... Weekly examination of the stools have usually revealed large numbers of bacilli... In view of the foregoing and owing to the large quantities of typhoid bacilli existing in the alimentary tract, or gallbladder of the patient and her occupation as a cook or the fact that she may at any time come in contact with people wherein they would be likely to be infected with the typhoid bacilli, the Department of Health concluded that the patient would be a dangerous person and a constant menace to the public health to be at large; and, consequently, ... decided after careful consideration and acting upon their examination of the patient, to place her in a contagious hospital and isolate her from the general public.⁵⁶

Despite the arguments for Mary Mallon’s rights, and the sympathy she had gained during her trial, the judges were swayed by the lab results and ruled in favor of the health department saying “that said petitioner, Mary Mallon, be and she hereby is remanded to the custody of the Board of Health of the City of New York.”⁵⁷ So back to her “cage” she went, destined to isolation for the rest of her days. Then, in 1910 Ernst J. Lederle was named the new health commissioner. Lederle was a man who sympathized with Mary and her unusual predicament. He released Mallon in 1910 with the understanding she would not

55 “Healthy Disease Spreaders,” *The New York Times*, July 1, 1909.

56 Leavitt, “Typhoid Mary” Strikes Back,” 619-620.

57 *Ibid.*, 620.

work as a cook again. Mary Mallon, with the exception of her attempt to sue the city for damages in 1911 (she lost), disappeared for five years.

Mary Mallon was the first discovered healthy carrier, but she was certainly not the only one. The city recognized that people carrying the typhoid bacillus were walking the streets of New York City, and they were eager to find them. Not to imprison them, because they recognized this was hardly a likely solution (it was too expensive and no citizen would respond well to a massive isolation of a portion of the population), but to educate them about their ailment and to teach them proper hygiene. The health department had two methods for locating healthy carriers. The first method was the reporting by physicians of healthy patients shedding the typhoid bacilli. The second method was the investigation of individual typhoid outbreaks, the same way Mary Mallon was discovered. Seventy-five percent of carriers were discovered by the second method between 1911 and 1932. Both of the methods were flawed, however. The first method was flawed because physicians were reluctant to stigmatize carriers by reporting to the health department their condition. The second method was flawed because not all carriers were making people sick. In general, unless they were cooking for someone, it was difficult to make someone ill. A health carrier could work in the factory and never pass on the disease, but working in the kitchen, like Mary Mallon, was a sure fire way to pass on the bacilli. Typhoid continued to be a problem.

In 1887 Benmar and Peiper, and Chantemesse and Widal discovered that by injecting mice with sterilized cultures they could protect them from typhoid organisms. In 1896 Pfeiffer and Kolle published a report on the experimental vaccination of thirteen people. The credit of experimental human vaccination, however, generally goes to Wright who in 1896 inoculated two Indian Medical Service Officers with killed typhoid cultures. He then injected live typhoid organisms into one of the volunteers. The officer did not fall ill, proving typhoid inoculation was possible. The first large scale inoculation was done in the British Army in India and South Africa during the Boer War. Those immunized experienced 50 percent fewer typhoid breakouts than the unimmunized. The United States Army adopted general vaccination on a voluntary basis in March of 1909. During the first year fewer than 1,000 were vaccinated, but at the end of 1910 approximately fifteen percent of the army had been inoculated. In December 1911 typhoid vaccination was made mandatory for all personnel in the U.S. Navy.⁵⁸ It was also the first year the typhoid vaccine was made available to civilians.⁵⁹ In New York City the typhoid fever death rate per 1,000 went from .12 in 1911 to .04 in 1916.⁶⁰ Indeed the typhoid vaccination was a breakthrough in the typhoid problem of New York City as well as the rest of the world. It would not, however, do anything to help the plight of the healthy carriers.

58 Batson, *Typhoid Fever Prophylaxis*, 1-4.

59 Leavitt, *Typhoid Mary*, 18.

60 Batson, *Typhoid Fever Prophylaxis*, 14.

The health officials of New York City were still trying to figure out the carrier problem. Most did not advocate the isolation of all carriers. In 1910 Chapin said:

There certainly would be most energetic opposition on the part of the public, which probably would ultimately be sustained by the courts. The health officer who attempted to isolate convalescents until bacilli were no longer found in their urine, would be in an awkward position if he attempted to isolate all chronic carriers indefinitely...To attempt to isolate 6,000 [new] carriers [each year] would of course be futile ... To isolate the small fraction of carriers who can be discovered is practically useless, and therefore unjust. It may be, and probably is wise to regulate the life of such carriers as may be discovered, and at times to forbid their engaging in certain occupations, such as those of cook, waitress and milk dealer.⁶¹

It would, of course, have been absurd to round all of the healthy carriers up and ship them off to their own island. In 1909 the *New York Times* published a letter claiming it was wrong to label Mary Mallon “Typhoid Mary” and what it would be like if an island was created for others like her:

If one unfortunate woman must be labeled “Typhoid Mary,” why not send her other companions? Start a colony on some unpleasant island, call it “Uncle Sam’s suspects,” there collect Measles Sammy, Tonsillitis Joseph, Scarlet Fever Sally, Mumps Matilda, and Meningitis Matthew. Add Typhoid Mary, request the sterilized prayers of all religionized germ fanatics, and then leave the United States to enjoy the glorious freedom of the American Flag under a medical monarchy.⁶²

It would have been highly improbable to imprison all people of this affliction, and so there was not a mass quarantine of those unfortunate enough to be carriers. They were put on a list, advised to keep clean, and not to cook for other people. Some even had their income subsidized if they had trouble finding work. In 1915 the city began testing all of those who wished to go into the food industry. If they did not have the bacilli in their feces, urine, and blood they were given a certificate and allowed to work. This was highly ineffective, first because someone could be certified one year and pick up the disease the next year, second because once again doctors were reluctant to report their patients. It has been suggested there was class discrimination because those tested, cooks, waitresses, etcetera were typically of a lower class.⁶³ This may have been true,

61 Mendelsohn, “‘Typhoid Mary’ Strikes Again,” 275.

62 Letter to the Editor, *New York Times*, July 2, 1909.

63 Mendelsohn, “‘Typhoid Mary’ Strikes Again,” 227.

but it was also true that these workers were the most likely to spread the bacilli, and the city felt they must be tested.

Mary Mallon was re-discovered in March of 1915 when there was a large typhoid outbreak at the Sloan Maternity Hospital in New York City. It seemed she had been employed at the hospital since November of 1914 under the name of Mary Brown. There were twenty-five cases in this instance. She was taken into isolation once again; this time she would be held there for the remainder of her life.⁶⁴ Some argue that Mallon broke her promise to stay out of kitchens and so deserved to be incarcerated for a second time.⁶⁵ Indeed Mallon had said she would not cook anymore, but one must look at all of the facts. Mary Mallon had been released in 1910 and given no real assistance from the state. Lederle had helped her to find work in a laundry, but a laundress's income was much lower than the income of a cook, and it was not long before Mary was back in the kitchens of New York City, and why not? She never truly believed she was a threat. She had never been sick. If she had even the slightest inkling, she perhaps would have left the city, perhaps the state. She could have gone anywhere else and never be heard of again. But she did not. She stayed and was captured once more.

Mary Mallon stayed on North Brother Island from her apprehension in 1915 until her death in 1938. That is twenty-three years of isolation, with only a dog to keep her company. While she was there Alphonse Contils of New York City made some mistakes too. He was a healthy carrier who owned a bakery. In 1924 he was taken before a judge because he had broken an agreement that he would not handle food in his restaurant. The judge found him guilty, but was reluctant to lock him up. He said "I am thoroughly impressed with extreme danger from these typhoid carriers, particularly when they are handling food. I could not legally sentence this man to jail on account of his health..."⁶⁶ Meanwhile Mary Mallon was still in isolation on North Brother Island. This is how it would be for the remainder of her life. Other typhoid carriers would be free, given assistance when they needed it, and living a somewhat normal life. Mary Mallon was never given the chance. She watched as New York City gradually decreased their testing of those going into the food industries, as the overall grip on carriers began to loosen.⁶⁷ She was subjected to the analysis of her feces once more, although the record keeping of these analyses was very poor. Most likely she was continually tested so health officials could prove she needed to stay isolated. Mallon did enjoy some privileges in her isolation. In March of 1918 she was employed by the city as a Riverside Hospital helper. That same year she was granted off-island privileges and day trips for shopping. Between the years of 1925 and 1932 she worked in the Riverside Hospital

64 Leavitt, *Typhoid Mary*, 20-21.

65 Mendelsohn, "Typhoid Mary' Strikes Again," 272.

66 Leavitt, *Typhoid Mary*, 120.

67 Mendelsohn, "Typhoid Mary' Strikes Back," 274.

laboratory. On December 4, 1932, however, she suffered a stroke that rendered her completely bedridden, and her little freedoms were over.⁶⁸

Mary Mallon died on November 11, 1938. She died not of the typhoid that had cursed her life, but rather of pneumonia. After more than twenty years on the island she was cemented as “Typhoid Mary.” The day after her death the paper reported that “Typhoid Mary’ Dies of A Stroke at 68.” The *New York Times* gave an account of her life as “Typhoid Mary,” giving a brief description of her initial incarceration, her appeal for her release, and her short period of freedom. In general the paper was accurate, but made a few errors in her history saying, for instance, that she had fled her accuser when he came to collect samples, when in fact she had proclaimed she was healthy and chased him out of the house with a carving fork. The final passage of the article reads “Although she fought isolation for many years, she finally adopted a philosophic attitude and tried to make the best of her cloistered existence.”⁶⁹ In the end Mary did what she had to do to survive. She adapted and lived her life to the best of her ability, despite the hard hand she had been dealt.

Mary Mallon had spent more than twenty years in isolation on North Brother Island. She had been given the name of “Typhoid Mary” and lost the freedoms that so many of us enjoy. All throughout her ordeal she maintained not only her innocence, but that she was healthy. There have been several suggestions as to why she was kept in captivity for so long while others went free. The most common is that she broke the rules when she returned to cooking, and proved she could not be trusted. Another is that her constant refusal to accept she had typhoid bacilli in her system was used against her to show what a menace she was. A better explanation is that Mary Mallon and her supporters had claimed for so long that she was innocent, and George Soper and his supporters claimed equally as long that she was a threat, and neither side wanted to back down, no matter the cost to Mary Mallon. Even when other carriers were freed and when typhoid began to be less of a threat, neither side would compromise, and she was kept in isolation. I believe Mary Mallon was a lab rat. She was the first healthy typhoid carrier apprehended; she was single, a woman, and an Irish immigrant with little family. She proved to be an ideal specimen for furthering the knowledge not only of typhoid fever but of healthy carriers. Was it worth the incarceration of this woman? Today it is agreed it was not. In our age typhoid is no longer a threat in the United States. It is, however, still alive in third world nations who cannot afford vaccinations and cleaner water systems. In Mary Mallon’s time it was, however, so much of a threat that she was locked away forever, doomed to become “Typhoid Mary.”

68 Leavitt, *Typhoid Mary*, 225.

69 “Typhoid Mary Dies,” *The New York Times*, November 12, 1938.