

THE RESONANCE OF EXPLORATION

by

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EMBARKATION

What constitutes the crowning achievement for a nation or a society? In his book *Men From Earth*, Buzz Aldrin stated that the Apollo Program was the single most audacious endeavor in human history.¹ Aldrin implied that there is a pinnacle of achievement which a nation reaches. In some cases this pinnacle is represented in a physical structure, but in others it is represented in an extraordinary feat. In his essay, “Apollo’s Stepchildren: New Works on the American Lunar Program,” Matthew Hersch expanded on Aldrin’s point. He stated, “History tends to remember each civilization for a single achievement: the Egyptians, their pyramids; the Chinese, their Great Wall; the Romans, their roads.”² In addition to these architectural or engineering achievements, an extraordinary feat such as an exploratory endeavor can stand as the crowning achievement for a nation.

There are several explorations which come to mind that serve as the crowning achievement for the nations involved. As Aldrin pointed out, the landing of men on the moon in 1969 is perceived as a pinnacle of achievement for Americans. In the same context, the Soviet Space Program and its achievements in the 1960s, represent a crowning achievement for Russia. Additionally, Sir Edmund Hillary and Tenzing Norgay’s summit of Mount Everest, in 1953, represents a crowning achievement for New Zealand and for Nepal. Finally, Roald Amundsen reaching the South Pole, in 1911, serves as a pinnacle of achievement for Norway. There are many other examples of high profile, successful

¹ Buzz Aldrin and Malcolm McConnell, *Men From Earth* (New York: Bantam Books, 1989), xix – xxii.

² Matthew Hersch, “Apollo’s Stepchildren: New Works on the American Lunar Program,” *Technology and Culture* 49, No. 2 (2008): 455.

explorations, but these stand out as they are recent and have become embedded into the culture of their respective nations.

Exploratory endeavors carry a legacy which is unique and enduring. They create heroes in their respective nations and in some cases around the world. The culture and identity of a nation can become linked with exploration in general or can become linked with a particular focus of that nation's exploratory achievement. For example, U.S. Astronaut Colonel Eileen Collins in her speech before the Republican National Convention in 2016 stated, "We are a nation built by the passion of people who weren't afraid to do something first, to step into the unknown, and pave our own way forward. We are a nation of explorers."³ Col. Collin's sentiment is echoed by President Obama in his statement regarding the passing of John Glenn, the first American to orbit the Earth. Obama stated that Glenn's achievement "...reminded us that with courage and a spirit of discovery there's no limit to the heights we can reach together."⁴ He went on to state that because of Glenn's example, "...we know that our future here on Earth compels us to keep reaching for the heavens."⁵ Upon the death of Neil Armstrong in 2012, Senator Rob Portman quoted then-presidential candidate Mitt Romney in his eulogy, stating "The soles of Neil Armstrong's boots on the moon made permanent impressions on our souls and in our national psyche..."⁶ Exploration has become entrenched in American society, not only since the moon landing in 1969, but even well before that in American History. Americans

³ Eileen Collins, "GOP Convention Remarks" (speech, Republican National Convention, Ohio, Columbus, July 20, 2016).

⁴ Jeremy Burke, "On behalf of a grateful nation, Godspeed, John Glenn: Obama pays tribute to John Glenn," Business Insider, December 8, 2016.

⁵ Ibid.

⁶ Rob Portman, "Neil Armstrong Eulogy," September 1, 2012, , accessed September 3, 2018, [https://ceas.uc.edu/content/dam/ceas/documents/College/Alumni and Friends/Armstrong Eulogy.pdf](https://ceas.uc.edu/content/dam/ceas/documents/College/Alumni%20and%20Friends/Armstrong%20Eulogy.pdf).

have continually demonstrated a tendency to push the limits of national or even human boundaries. This exploratory drive or tendency is clearly exemplified in the concept of manifest destiny, which inspired the nation's westward expansion. Certainly, not all the effects of American expansion have been positive. American's had little regard for the inhabitants of the lands they were expanding into and in some cases committed atrocities as a result. However, this callous disregard for others in the name of expansion shows how deeply rooted manifest destiny can be in American society. Space exploration can be viewed as an extreme extension of that manifest destiny. The manner in which exploration has become an integral part of American society serves as an example of the unique and long-lasting legacy of exploratory endeavors.

This tie between the culture of a nation and its exploratory endeavors is seen in other nations as well. In the opening ceremonies of the 2014 Winter Olympics, there was a segment called "Dreams of Russia". The intent of the segment was to showcase Russian culture to the world. This presentation was centered around the Cyrillic Alphabet. Each of the 33 letters of the alphabet was displayed with an illustration of something from Russian culture which begins with that letter. The list contained former Russian leaders, writers, artists, place names, etc. Interestingly, five of the 33 illustrations were related to the Russian Space Program. The prominent place which space exploration holds in Russian Culture is exemplified by its dominating presence in this segment of the opening ceremonies.

The legacy of exploration is further shown in the heroic status which the explorers garner. Explorers have been immortalized in statues and their equipment and ships have been put on display in museums. In Russia, for example, explorers are immortalized in the

Monument to the Conquerors of Space and the Memorial Museum of Cosmonautics, both of which are located in Moscow. Cosmonaut Alley, a pedestrian walkway situated between the Monument and the Museum of Cosmonautics, is lined with statues commemorating the Russian space heroes. The statues recognize not only the Cosmonauts themselves, but also the scientists and leaders who played a major role in the space program. Similarly, at the Kennedy Space Center, NASA highlights its heroes in an exhibit appropriately titled “Heroes & Legends”. In yet another example, one of Norway’s great explorers, Roald Amundsen, is memorialized with statues in Oslo, Tromso, and Svalbard. Sir Edmund Hillary receives similar treatment in New Zealand with statues both in Hillary Square, Orewa and at the Sir Edmund Hillary Alpine Center which lies at the base of Aoraki Mt. Cook. In some cases, the heroic status of these explorers is demonstrated by the fact that they are commemorated with holidays such as South Pole Day or Yuri’s Night, where their nation pauses to remember and celebrate their exploits.

Not only are explorers memorialized in statues, museums, and holidays, but also in the on-going desire of audiences to experience what the explorers experienced first-hand. In his work *Lacon, or, Many Things in Few Words*, Charles Caleb Colton stated that “imitation is the sincerest [form] of flattery”.⁷ Many individuals have sought to follow in their hero’s footsteps and as technology has improved, many have succeeded. For example, since Hillary and Norgay’s successful summit of Everest in 1953, an astonishing 4,469 different people have summited Everest 7,646 times as of December 31, 2016.⁸ The vast majority of the summits have occurred in the last thirty years. Tragically, 282 climbers

⁷ Charles Caleb Colton, *LACON: Or Many Things in Few Words* (Miami, FL: HardPress, 2017).

⁸ Alan Arnette, "Everest by the Numbers: 2017 Edition," Alanarnette.com, December 30, 2016, , accessed February 20, 2017, <http://www.alanarnette.com/blog/2016/12/30/everest-by-the-numbers-2017-edition/>.

have perished on the Mountain.⁹ Some of the fatalities pre-date Hillary and Norgay's successful summit, as there were expeditions which attempted to claim Everest prior to the successful 1953 expedition. Yet, despite the mountain's inherent dangers, climbers still flock to the mountain. Similarly, individuals have attempted to follow in the footsteps of Roald Amundsen and Robert Falcon Scott in their treks to the South Pole, although the extreme remoteness of the location results in very few attempts as compared to Mt. Everest.¹⁰ An increase in South Pole attempts was seen surrounding the 100-year anniversary of Amundsen reaching the South Pole, which occurred on December 14, 2011, due to media coverage of the anniversary.¹¹ In contrast to both Everest and the South Pole, no one has returned to the moon since the end of the Apollo Program in 1972. However, humans may return to the moon in the near future. NASA has very recently announced their intention to have a continuous manned presence on the moon in the next ten years.¹² The lack of return trips to the moon can be attributed to the extreme cost and technological difficulty of journeying to the moon along with the lack of a Cold War rival and does not indicate any lack of reverence for the astronauts who achieved this feat. Overall, the desire of individuals to follow in the footsteps of explorers demonstrates in a unique way the legacy of exploration. It is one thing to read about an exploration or to erect a statue, but

⁹ Ibid.

¹⁰ "Amundsen's Antarctica: At the Pole," Explorers Web, December 15, 2011, accessed February 21, 2017, <http://www.explorersweb.com/polar/news.php?id=20536>

¹¹ "100th Anniversary of Roald Amundsen Reaching South Pole is Honoured," The Telegraph, December 14, 2011, accessed February 20, 2017, <http://www.telegraph.co.uk/news/worldnews/antarctica/8956091/100th-anniversary-of-Roald-Amundsen-reaching-South-Pole-is-honoured.html>.

¹² Tess Bonn, "NASA Chief Says US within 10 Years of Continuous Manned Presence on Moon," TheHill, November 29, 2018, , accessed December 08, 2018, <https://thehill.com/hilltv/rising/418877-nasa-administrator-says-us-is-within-10-years-of-continuous-manned-presence>.

it is quite another to be so inspired by the feats of these men and women to attempt to achieve these feats oneself.

The legacy of exploration is also demonstrated by the fact that museums have been established to commemorate these exploratory endeavors. Furthermore, attendance at museums related to exploration is remarkably high. For example, the National Air & Space Museum in Washington, D.C. has an annual attendance of approximately 7 million people.¹³ The attendance at the National Air & Space Museum can be more fully appreciated when compared with the United States Capitol, which receives only 2.2 million visitors annually.¹⁴ Similarly, a museum was established to honor the exploits of Norwegian explorers, especially Roald Amundsen, in Oslo, Norway. It contains Amundsen's ship *The Fram* and is therefore appropriately dubbed The Fram Museum. Attendance at the Fram Museum is also remarkably high. It is the second most popular museum in Norway with an annual attendance of approximately 280,000 visitors.¹⁵ It is also one of the top ten most visited attractions in Oslo.¹⁶ In the same way, museums have been established in Moscow to honor the heroes of the Russian Space Program and in New Zealand to honor Sir Edmund Hillary. The Memorial Museum of Cosmonautics welcomes an average of 300,000 visitors annually.¹⁷ Each of these museums is one of the most popular museums in its respective nation. Furthermore, the popularity of these museums

¹³ "Smithsonian Visitor Statistics," Newsdesk: Newsroom of the Smithsonian, February 22, 2017, accessed February 22, 2017, <http://newsdesk.si.edu/about/stats>.

¹⁴ Tom Fontana, "Capitol Visitor Statistics," e-mail message to author, February 22, 2017.

¹⁵ Geir Klover, "Interview with The Fram Museum Director," telephone interview by author, September 10, 2014.

¹⁶ Ibid.

¹⁷ "The Museum of Cosmonautics," Museum of Cosmonautics, 2017, accessed February 22, 2017, <http://russianmuseums.info/M329>.

has not declined despite the most recent of these explorations occurring almost 50 years ago.

The fact that these museums exist and are so well attended demonstrates that there is something singularly captivating about exploration. Stories and news related to exploration stand out when compared to most news stories because they are more positive in nature. While the majority of news seems to focus on the negative: wars, politics, scandals, etc., positive stories resonate with audiences on a deeper level. Certainly, not all exploration stories are completely positive. Many explorations included the forced relocation and extermination of entire nations. However, more recent explorations which were attempting to reach the extremes of the planet or more recently to leave the planet, lacked this element of displacing native populations. These more recent explorations exemplify stories of man overcoming nature. Audiences are enthralled by examples of the triumph of the human spirit, man overcoming insurmountable obstacles, and feats which exemplify that which is great in humans. This enthralling quality is evidenced by the vast amount of literature, film, and art dedicated to exploration. At present, the concept of exploring Mars has grown in popularity and coverage. As the idea of sending explorers to Mars has become an increasing possibility, films and literature on the subject have exploded. Andy Weir has achieved great success with his novel *The Martian* and the film adaptation of the book starring Matt Damon. Similarly, Stephen Petranek has capitalized on the popularity of the subject with his book, *How We'll Live on Mars*, which was turned into a National Geographic mini-series. The popularity of these works is a testament to the captivating drama which exploration fashions. Even in the 1960s, this enthralling drama was also recognized by Hollywood and resulted in a boom in science fiction stories. The

Star Trek television series debuted in 1968 and was extraordinarily popular, inviting viewers to follow in the astronauts' footsteps as they explored space, "the final frontier." The film 2001: A Space Odyssey was also released in 1968 to great acclaim. Additionally, the Star Wars film series debuted in 1977 and is the second highest grossing movie franchise of all-time. These franchises have capitalized on the popularity of space exploration in American Society.

The captivating nature of exploration is further epitomized in the worldwide response to Mars One. Mars One is a company which is attempting to send colonists to Mars by 2032.¹⁸ Mars One opened a worldwide, online application process in 2013. The catch was that the potential Mars astronauts will not be able to return from the Red Planet. Anyone selected to be sent on a Mars One mission is agreeing to a "one-way ticket" to Mars for the purpose of establishing a colony. Astonishingly, over 200,000 individuals applied from 140 different countries.¹⁹ This outpouring of support speaks to the idea of the discovery of far off lands being able to enchant and inspire individuals.

Joseph Conrad spoke to this idea in *Heart of Darkness* describing the allure which the blank spaces on the map held for him as a child and the way in which an image of a far-off river in Africa could charm him like a snake.²⁰ In truth, Conrad's "blank spaces" on the map were not empty and undiscovered lands, they were inhabited and had been for long periods of time. However, from Conrad's perspective they were lands to be discovered and explored, and that was what made them enchanting. To be sure, the targets

¹⁸ "Human Settlement On Mars," Mars One, 2017, accessed February 22, 2017, <http://www.mars-one.com/>.

¹⁹ "Human Settlement On Mars," Mars One, 2017, accessed February 22, 2017, <http://www.mars-one.com/>.

²⁰ Joseph Conrad, *Complete Works of Joseph Conrad: Geography and Some Explorers*, (ebook: Delphi Classics, 2013).

of exploration have changed since Conrad's time, to areas that truly are "blank spaces", as exemplified by the summit of Mt. Everest or the South Pole. These undiscovered lands enchant explorers and audiences in the same way that the interior of Africa enchanted Conrad and the drama associated with their conquest is highly captivating to audiences. Richard Holmes echoed Conrad's thoughts in his book *The Age of Wonder*, discussing this idealization of exploration as being part of a larger "second scientific revolution" in which science and exploration captured the minds of audiences during the 18th and 19th centuries.²¹ Since that time the development of new technology and new media types has allowed the reader or viewer to follow the progress of an exploration in real time. This experience can truly allow the viewer to feel like he/she is walking with the explorer and is invested in their success, allowing them to feel connected to that achievement.

Overall, the development of museums, the establishment of national holidays, the popularity of literature and films related to exploration, the desire to follow in these explorers' footsteps, and the manner in which these explorations become tied into the identity of nations illustrates that these endeavors serve as the crowning achievements of their nation. However, there are certain exceptions. In some baffling cases, an exploration fails to capture the hearts and minds of a nation. It becomes easily forgotten and unacknowledged in the annals of history. What makes one exploration stand out over another? Certainly, recent explorations are more well remembered than those of the distant past, but even over the long term some explorations are memorialized while others hold a lesser status. For example, the exploits of Columbus and Magellan are celebrated while the achievements of Pedro Alvares Cabral and Gaspar Corte-Real are not.

²¹ Richard Holmes, *The Age of Wonder* (New York, NY: Vintage Books, 2008), xv-xvi.

The most notable recent case is that of Project Nekton. Project Nekton was a deep-sea exploration program run by the United States Navy in the late 1950s and early 1960s.²² This program culminated in two explorers, Jacques Piccard and Lieutenant Don Walsh, diving to the deepest point of the ocean, the Challenger Deep, on January 23, 1960.²³ These men dove to an astonishing 35,797 feet below sea level. This is a feat which is easily comparable to Hillary and Norgay's summit of Everest just seven years before, and it represents a technological achievement comparable to the successes of the Apollo Program which would follow in the 1960s. However, this endeavor has received little or no recognition or remembrance. These men were not hailed as heroes. They did not receive ticker tape parades in American cities. Furthermore, Americans have certainly not developed a culture of deep-sea diving due to this exploit and only one individual has ever journeyed back to Challenger Deep. The ship in which they performed this journey is housed in the U.S. Navy Museum in Washington, D.C.. However, the Museum only receives about 100,000 visitors per year, a paltry number compared to the 7 million visitors the National Air & Space Museum is receiving just a short distance away.²⁴

The lack of response to Project Nekton is certainly unusual and leads to several questions. Why do some explorations have a profound influence, while others fall into obscurity? Is it a matter of whether the exploration achieves its ultimate goal? Does it matter whether the explorers survive? What is it about exploration that captivates an audience?

²² Jacques Piccard, *Seven Miles Down: The Story of the Bathyscaph Trieste*, (New York, NY: Putnam Publishing, 1961).

²³ Ibid.

²⁴ Edward M. Furgol, "Visitor Numbers," e-mail message to author, February 22, 2017.

The argument proposed in this study is that an exploration will captivate a nation if it meets several criteria. For the purposes of this study, these criteria will be known as factors of resonance. The more factors of resonance an exploration meets, the greater it captivates an audience and therefore the greater its legacy and effect on a nation. The factors of resonance are: an attractive target, a compelling narrative or contest, amount of publicity, media type employed, and relatability. For the purposes of this study, four twentieth-century explorations will be analyzed considering these factors. These case studies will include: the race to reach the South Pole, the conquest of Mount Everest, the exploration of the Mariana Trench, and the Space Race. A brief synopsis of each case study will be conducted along with an assessment of how well the case study meets each one of the factors of resonance.

An analysis of these four exploration case studies will allow for a greater understanding of each factor and of each case study's resonance. A greater understanding of each factor will emerge by answering questions such as: What constitutes an attractive target? Why are some exploration narratives compelling to an audience while others are not? Does the compelling nature of the story garner publicity during the event as well as long after the event? Which media type is most effective? Do more modern media types limit the imagination of the audience and dispel the compelling narrative? Does the ability for the public to follow in the explorer's footsteps take away from the impressiveness of the feat or does it make it that much more real for the audience?

The four case studies which will be analyzed in this study represent exploratory achievement taken to its greatest extremes. Although exploration did not define the Twentieth Century as it did preceding centuries, the drama reached a crescendo as

explorers “triumphed” over the last few and most challenging “blank spaces” on the map. During the Twentieth Century the exploratory endeavours targeted the most difficult to reach points on our planet: the highest peaks, the deepest ocean, the greatest extremes of latitude, and eventually beyond the Earth itself. The Twentieth Century as a whole was characterized by extremes. It saw war on a scale which was previously unimagined, political upheavals which affected millions, advances in science and technology at an incredible pace, and an overall change from national identities towards a global identity. It is not surprising then that during this century of extremism, individuals and nations were driven to extremes of exploration. Some of these exploratory endeavours were inevitable. They were the next logical steps in man’s continued drive to explore, map, and understand his surroundings. The timing, however, may have been affected by the surrounding events of the century. How many of these accomplishments were achieved sooner because of the driving forces of the time? These events also stand out amid the Twentieth Century because they are extreme events which are generally positive in nature. So many of the extreme characteristics of the Century are horrific in nature. For example, according to historian Eric Hobsbawm, in the Twentieth Century “more human beings had been killed or allowed to die by human decision than ever before in history.”²⁵ Exploratory achievements in the Twentieth Century, on the other hand, tended to be unifying events, sometimes even on a global scale. These case studies exemplify the high points of the century and certainly serve as the most extreme explorations to date.

This approach is a departure from previous work on exploration. The vast majority of scholarly work on exploration focuses on the heroic figure of the explorers and/or

²⁵ Eric Hobsbawm, *The Age of Extremes: The Short Twentieth Century, 1914-1991* (London: Abacus, 1995), 12.

assesses the political significance of each exploration. This hagiographic emphasis is seen in the plethora of autobiographies available, to include Sir Edmund Hillary's *View from the Summit* and Roald Amundsen's *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910-1912*.²⁶ Both of these texts explain in great detail the preparation, effort, and challenges faced by both Hillary and Amundsen in working to achieve the goal of their expeditions. Biographical texts on the subject, such as Tom Cheshire's *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further Than Any Before* and Jasper Rees' *Blizzard – Race to the Pole*, tend to explain the manner in which the goals of an exploration were achieved in addition to analyzing the character of the explorers in an attempt to evaluate what qualities, if any, make these men extraordinary.²⁷ This focus on the explorers is to some degree dictated by the record keeping associated with explorations. According to Dane Kennedy, "Much of the available information about journeys to distant lands came from the firsthand accounts of those who made them."²⁸

In addition to biographies and autobiographies, scholars have evaluated the political significance of explorations. This is especially evident in the case of the Space Race, as seen in Karsten Werth's "A Surrogate for War – The U.S. Space Program in the 1960s" and Foy Kohler and Dodd Harvey's "The International Significance of the Lunar

²⁶ Sir Edmund Hillary, *View From the Summit*, (New York, NY: Pocket Books, 1999). And Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910-1912*, (New York, NY: First Cooper Square Press, 2001).

²⁷ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further Than Any Before*, (New York: Marble Arch Press, 2013). And Jasper Rees, *Blizzard - Race to the Pole*, (London: BBC Books, 2006). For additional examples see: Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999) and Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006)

²⁸ Dane Kennedy, *Reinterpreting Exploration: The West in the World*, (New York, NY: Oxford University Press, 2014), 3.

Landing.”²⁹ The role which the Space Race played in Cold War-related defense policy is heavily evaluated in these texts. Most recently, Dane Kennedy focused on the effects of explorers on European imperial expansion in his text, *Reinterpreting Exploration: The West in the World*.³⁰ Despite the quantity of works on the subject, scholars have failed to focus on the importance of these explorations to the nations they represented. Few, if any, texts have analyzed the effects of these explorations on their audience. The focus has remained consistently on the explorer or on the state, rather than on the people who were captivated by these explorations. This study hopes to fill this void in the scholarship, determining what makes an exploration resonate with an audience and what does not.

²⁹ Karsten Werth, “A Surrogate for War – The U.S. Space Program in the 1960s,” *Amerikastudien/American Studies* (2004). And Foy Kohler and Dodd Harvey, “The International Significance of the Lunar Landing,” *Journal of International Studies and World Affairs*, no. 12. Jan. (1970).

³⁰ Dane Kennedy, *Reinterpreting Exploration: The West in the World*, (New York, NY: Oxford University Press, 2014).

ICE

As the twentieth century dawned, few targets remained for ambitious explorers to cast their sights upon. The Age of Exploration had led to the charting of nearly all the coastlines of the world. The subsequent eighteenth and nineteenth centuries were characterized by explorations of the interiors of continents; to include Lewis and Clark's traverse of North America from 1804-1806, and Henry Morton Stanley's exploration of the Congo River and the African Interior from 1874-1877.³¹ The prizes which were left to be claimed were few and were incredibly difficult to reach due to extremes of elevation, depth, or climate. As the nineteenth century came to a close, the most notable of these prizes were the North and South Poles, as a result the focus of exploration was placed heavily on the Arctic and Antarctic regions of the World. At the meeting of the Sixth International Geographical Congress in July 1895 a resolution was passed which stated, "the exploration of the Antarctic regions is the greatest piece of geographical exploration still to be undertaken...this work should be undertaken before the close of the century."³² The International Geographical Congress is a meeting of geographers from around the world for the purpose of initiating and coordinating geographic research. Its first meeting was held in 1871 and it still meets today. Despite this call to arms, planning and execution of exploratory endeavors takes time and neither pole was attained by the close of the nineteenth century, but the stage was set for high drama to unfold in the Arctic and Antarctic regions of the World in the twentieth century.

³¹ John R. Hale, *Age of Exploration*, (New York, NY: Time Inc., 1966), 143-146. And Leonard Outhwaite, *Unrolling the Map: The Story of Exploration*, (New York, NY: Reynal & Hitchcock, 1935), 152-153, 265-269.

³² Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 49.

The drama began with the race to the South Pole. In 1909, Roald Amundsen, a Norwegian explorer who had become the first to successfully sail the Northwest Passage in 1906, was preparing an expedition to the North Pole. At the same time, Robert Falcon Scott, an English Naval Officer who had led the Discovery Expedition to Antarctica from 1901 to 1904, was preparing an expedition to the South Pole.³³ Alas, in September of 1909 news broke that Dr. Frederick Cook, an American explorer, had reached the North Pole on April 21, 1908. Within the same month news media reported that Robert Peary, another American explorer, had also reached the North Pole on April 6, 1909. These events understandably altered Amundsen's plans. Amundsen had the following reflection on the news, "...the North Pole, the penultimate question of popular interest in Polar exploration, had been settled. If I was to succeed in rousing interest in my enterprise, nothing else remained for me to do than to try to solve the last great question – the South Pole."³⁴ With Amundsen's change of target, although not yet known to any but himself, the race to the pole was on.

Amundsen and his crew departed Norway on August 9, 1910 on their ship *The Fram* and in the company of 97 sled dogs. Their voyage began with no fanfare. According to Amundsen, "Quietly and unobserved we went out of the fjord at dusk; a few of our friends accompanied us out."³⁵ On September 6th the *Fram* put in at Madeira, Portugal to obtain supplies and repairs. Before departing Madeira, Amundsen informed his crew of his change of course, to attempt the South Pole. Additionally, he dispatched a cable to

³³ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 130.

³⁴ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 207.

³⁵ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter III.

Captain Scott stating simply, “Beg leave to inform you *Fram* proceeding Antarctic. Amundsen.”³⁶ Amundsen did not previously announce his intention to try for the South Pole in order to avoid unnecessary “newspaper discussion [which could] possibly have ended in the project being stifled at its birth.”³⁷ From Madeira, Amundsen sailed directly to the Bay of Whales and arrived there, after four months of travel at sea on January 15, 1911. He set up his camp, called Framheim, and began preparations for the Antarctic winter and his South Pole trek.

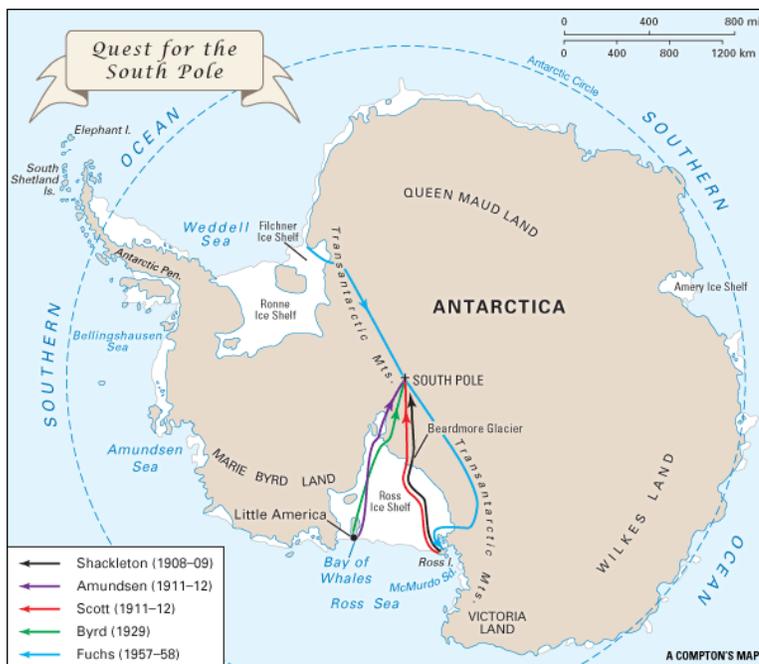
Meanwhile, Captain Scott and his crew departed from Cardiff, Wales on their ship *The Terra Nova* on June 15, 1910. The *Terra Nova* departed Britain to great fanfare. One of Scott’s crewmembers recalled the event in detail, “Neither before or since in time of peace have I heard such an uproar as that which made the air tremble as *Terra Nova* glided out through the docks. People in their thousands yelled as if they had taken leave of their senses.”³⁸ This fervor for exploration and conquest among the British is understandable considering the state of the British Empire at the time. In 1910, Britain ruled over more than twenty percent of the world’s population and controlled almost one quarter of the World’s land area. British explorers had recently come very close to claiming the South Pole and the nation was united behind achieving yet another great victory for England.

³⁶ Jasper Rees, *Blizzard: Race to the Pole* (London: BBC Books, 2006), Ebook, Chapter 2.

³⁷ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter III.

³⁸ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 273.

In contrast to Amundsen, Scott did not bring a plethora of dogs with him. He had little faith in or experience with dogsledding. He brought ponies and motorized sledges. He also favored man-hauling sledges, which was a long-established practice in the British Navy. He had developed a confidence in this practice on the Discovery Expedition. Concerning the usefulness of dogs, as with many other points, Scott and Amundsen had contrasting practices and views. Roland Huntford points out, “Scott and Amundsen were ideal antagonists: on almost every point they stood opposed.”³⁹ Scott arrived in Melbourne, Australia on October 12th and received Amundsen’s cable. One of the members of Scott’s expedition, Apsley Cherry-Garrard, later wrote of Scott’s reaction, “Evidently a great shock for him - he thinks it very unsporting since our plans for landing



a party there were already known.”⁴⁰ Scott and the *Terra Nova* arrived at Cape Evans, Antarctica on January 5, 1911 and began setting up what would be their winter quarters. Scott immediately recognized the threat that Amundsen represented in the race to the

Figure 1
pole. He wrote in his log, “There is no doubt that Amundsen’s plan is a very serious

³⁹ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 11.

⁴⁰ Jasper Rees, *Blizzard: Race to the Pole* (London: BBC Books, 2006), Ebook, Chapter 2.

menace to ours. He has a shorter distance to the pole by 60 miles – I never thought he could have got so many dogs safely to the ice. His plan for running them seems excellent. But above and beyond all he can start his journey early in the season – an impossible condition with ponies.”⁴¹ Finishing second would be a catastrophic blow to either explorer. Amundsen had called the South Pole the “last great prize”. In order to claim that prize one had to reach the pole first, anything else would be failure.

Both the Norwegian and the British Expeditions spent the Summer and Fall of 1911 making preparations for Winter. Additionally, they both made initial journeys to the South to set up depots of food and supplies which they would need the following Summer. The depot laying journeys gave both commanders an opportunity to get their men into good working order, to work out any problems with gear, and to test out their chosen means of travel. For Amundsen, the depot journeys provided invaluable knowledge into the most effective ways to run the dogs and the associated problems to avoid.⁴² In Scott’s case, unfortunately, his ponies did not fare well. After the first depot journey, Scott had lost five of his eight ponies in addition to two dogs. While returning from this depot journey, Scott’s party ran into bad weather and was forced to make a run for the shelter of Scott’s former camp from the *Discovery Expedition*.⁴³ In order to reach this shelter, they attempted to cross some seasonal sea ice, but the ice began breaking up and two more ponies were lost.⁴⁴ Amundsen’s depot journeys reached about 82° South and achieved their goal of setting up supplies for next year’s journey. Scott only made it as far as 80° South, but left a sizeable

⁴¹ Ibid.

⁴² Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter IV.

⁴³ Jasper Rees, *Blizzard: Race to the Pole* (London: BBC Books, 2006), Ebook, Chapter 2.

⁴⁴ Ibid.

depot there, which he called One Ton Depot. The stark contrast in the results of the two commanders' depot journeys was a sign of things to come for both Amundsen and Scott.

After a Winter of continued preparation and planning, Amundsen began his Southward journey from Framheim on September 8, 1911. Unfortunately, this first departure was a bit premature. The cold temperatures punished both men and dogs; it was all they could do to struggle to the first depot at 80° South, drop more supplies there and make it back to Framheim. As a result of several lessons learned on this “false start”, Amundsen reduced his polar party from eight men to five men.⁴⁵ This decision made the depots of supplies even more valuable, as they had set by enough supplies to support eight men, a polar party of only five men would have more than enough supplies.

Amundsen and his men eventually made their departure for the pole on October 20, 1911, when it appeared Spring had finally set in. Amundsen reached their first depot at 80° South without delay. His team and their dogs covered an average of 20 miles a day and reached the depot in three days. At this point Amundsen repacked his sledges and set a reasonable pace of 17 miles a day. The dogs could cover this distance quite easily, and this gave Amundsen and his men time to erect beacons to make their return journey easier.⁴⁶ They erected beacons every nine to fifteen kilometers. The beacons were six feet high, built of ice/snow blocks, numbered, and a paper was stored inside each beacon which indicated the direction and distance to the next northward beacon. Amazingly, Amundsen and his team built 150 beacons in total, to ensure a safe return journey.⁴⁷ By November

⁴⁵ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 389.

⁴⁶ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter X.

⁴⁷ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter X.

6th, they departed their final depot of supplies at 82° South. They had updated their pace to cover 23 miles a day and were now erecting beacons every five kilometers and erecting a depot at each degree of latitude.⁴⁸ The planning and attention to detail employed by Amundsen and his team was truly remarkable. Certainly, they were blessed with reasonable weather and passable terrain, but they took every opportunity to ensure success through proper planning.

Amundsen's meticulous planning was single-minded in its focus, all efforts were geared toward reaching the pole as quickly as possible and then returning to the civilized world to announce this accomplishment without delay. Amundsen was almost ruthless in his focus and determination. Modern readers have at times criticized this ruthlessness especially when it came to the slaughtering and eating of dogs. Admittedly, he planned at what points dogs would be slaughtered to reduce their number, when they would be eaten, and where dog meat would be deposited for later use. Whatever one may think of Amundsen's ruthlessness, it is difficult to argue with his prudence. When on December 7, 1911, he and his men passed Shackleton's furthest south point of 88°23' they established yet another supply depot and began erecting beacons every two miles from this point to the pole. In Amundsen's words, "...we should adopt a system of marks that would lead even a blind man back to the place."⁴⁹

Amundsen's planning was rewarded on December 14, 1911 when he and his men reached 90° South. They spent two days determining the exact position of the South Pole and marking it. They also journeyed an additional 12 miles south, west, and east,

⁴⁸ Ibid.

⁴⁹ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter XI.

essentially encircling the Pole, to ensure that no argument could be made against their claim. Amundsen did not wish to repeat the mistakes or be accused of the deceits of Peary and Cook. They erected a tent, which they had specifically designed and crafted for this purpose, on the location they had determined to be 90° South, which they called Polheim.⁵⁰



Figure 2

Figure 2 shows Amundsen and three members of his polar party admiring the tent they erected at Polheim. In the tent, Amundsen placed a letter to King Haakon VII of Norway detailing their discoveries and achievements. Additionally, he

left a letter for Captain Scott which stated “Dear Captain Scott, As you are probably the first to reach this area after us, I will ask you kindly to forward this letter to King Haakon VII. If you can use any of the articles left in the tent please do not hesitate to do so. With kind regards I wish you a safe return. Yours truly, Roald Amundsen.”⁵¹ The letters Amundsen left for King Haakon and Scott were a surety against any disaster which might befall Amundsen and his men on their return journey. He wanted to ensure that news of his accomplishment reached the world. Amundsen and his men spent three days and five hours in the vicinity of the pole before heading north again.

In December of 1911 audiences in Norway and England knew nothing of the achievements and struggles of Amundsen and his men. They had heard nothing from the Antarctic explorers since they sent their last telegraph messages on their seaward journey south. The world at large would have to wait for news of the explorers until they returned

⁵⁰ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 476.

⁵¹ Jasper Rees, *Blizzard: Race to the Pole* (London: BBC Books, 2006), Ebook, Chapter 12.

to civilization. Audiences were unable to follow the progress of the explorers. Communications with the Antarctic continent were nonexistent. The revelation of the incredible exploits of these brave men would have to wait.

While Amundsen was arriving at the Pole, Scott and his men were still 360 miles north. Although Scott's motor sledges had started their journey a bit sooner, the main body of Scott's expedition left their Winter quarters at Cape Evans on November 1, 1911. Scott's party consisted of sixteen men, eight ponies, and several dogs, along with the two motor sledges which had already departed. Unfortunately, five days into their journey they found the two motor sledges broken down and abandoned by their drivers, who had been forced to begin man-hauling their sledges. Scott's party was complex in that it encompassed multiple forms of transportation, all of which traveled at different rates. According to Huntford, this added an unusual dynamic to the daily marches: "Each day began with five separate starts, spread over several hours to allow for different speeds and ensure that everyone arrived, more or less together... It was a clumsy performance, reminding Scott himself of "a somewhat disorganized fleet.""⁵² This disorganization led to much less ground covered each day by Scott as compared to Amundsen. Scott averaged 9.8 miles a day over the first 38 days, whereas Amundsen averaged 13.3 miles a day during that first portion of the journey.⁵³

As they journeyed South, successive members of Scott's party created depots for the return journey of the polar party. Once each group had created their designated depot they turned back; in this way Scott's party was gradually reduced in size as they moved

⁵² Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 407.

⁵³ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 445.

South. The first of these groups turned back on November 24th, having completed their depot just South of 81° South. By December 5, 1911 Scott's party had reached the foot of the Beardmore Glacier, as seen in figure 3, where they became snowed in by a blizzard. They spent four days at the foot of the Beardmore



Figure 3

waiting out the blizzard, mostly because Scott was loath to make the ponies march in such conditions. Ironically, when the blizzard finally cleared, he only could coax one more march out the ponies. They were shot on December 9th. The last of Scott's animals were jettisoned when Scott sent two of his men back North with the dogs on December 11th; the party then turned completely to man-hauling as their means of transportation. Admittedly, although a significantly less efficient form of transport, man-hauling certainly demonstrates strength, willpower, and determination. Roland Huntford described man-hauling by stating, "Sapping their vital energy, the British endured struggles far more heroic than Amundsen on his climb to the Plateau."⁵⁴ Man-hauling certainly demanded an heroic effort, but Scott's poor planning and leadership were destined to make it tragically heroic.

The efforts of these men were well documented in the journals of both Scott and Amundsen. The meticulous notes and memoirs kept by these men and other members of each expedition would eventually provide the details needed to vividly depict this adventure to audiences around the world. Amundsen and Scott were documenting a story which would be analyzed and retold countless times, continuously captivating audiences.

⁵⁴ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 447.

Scott and his men man-hauled themselves up to the top of the Beardmore Glacier, reaching the top on December 21st. At this point they created another depot, the upper glacier depot, and another four men turned back; eight men remained in Scott's party. They were left with two sledges, each pulled by four men. By January 2, 1912 Scott and his men had reached the plateau on which lay the Pole. They were a mere 150 miles from their goal. He then reduced his party further, but instead of taking one sledge and four men with him to the Pole, he took five men. A group of five was contrary to all the designs they had made for Antarctic travel and accommodation. The tent was designed to fit four men, their rations were parceled out for four, and it took considerably longer to prepare food and water for five men as it did for four. Additionally, this left the men who were turning back at this point with only three men to pull their sledge. They were placed in a dangerous and difficult position for their return journey.

Scott and his Pole team plodded on, covering about 10 miles a day. They passed Shackleton's furthest South of 88°23' on January 9, 1912, three years to the day after Shackleton had reached that point and a little over a month after Amundsen.⁵⁵ They came upon the first evidence of a Norwegian presence near the Pole late in the day on January 16th when they spied one of Amundsen's black flags, which he had used when they marked a box around the Pole in all directions. Amundsen had planted a Norwegian flag at the Pole, but had used black flags to mark a larger area 12 miles around the Pole. This ensured that regardless of calculation errors, his claim could not be challenged. Scott and his men arrived at the Pole itself the following day, January 17th to discover Amundsen's tent, Polheim, and his message for Scott. Thus, Scott and his men achieved their goal of

⁵⁵ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 459.

reaching the Pole, but this achievement lacked the celebratory air which Amundsen's men enjoyed. A feeling of disappointment permeated Scott's camp and a sense of dread at the difficult journey they faced to return to their winter camp. Scott's diary entry for January 17th stated, "We have turned our back now on the goal of our ambitions with sore feelings and must face our 800 miles of solid dragging – and good-bye to most of the day dreams!"⁵⁶

The return journeys of the two men could not have been more different. Routine and discipline characterized Amundsen's Northward journey. He and his men began travelling at night, which put the sun behind them and reduced the blinding effects of the snow. Additionally, while on the plateau, he would allow 15 miles a day and no more. He knew that rest was important, and he wanted to conserve their strength. They continued to reach more of their depots and were so well supplied with food that Amundsen kept increasing the daily rations for both men and dogs. On the barrier, their route was easy to follow, and they greatly increased their daily distances covering more than 20 miles a day. They reached Framheim, their winter quarters, on January 25th, 1912. Roland Huntford described their arrival, "Bursting with health, [5] men and [11] dogs careered down from the Barrier and across the ice of the Bay of Whales. By the way they moved, it would be hard to tell that they were just finishing off a journey of 1,400 miles."⁵⁷

According to Amundsen's diary the trip took ninety-nine days and covered a total of 1860 miles.⁵⁸ It is a tribute to Amundsen's intricate planning and possibly to Amundsen's good luck that his ship, the *Fram*, arrived back at Framheim the following

⁵⁶ Jasper Rees, *Blizzard: Race to the Pole* (London: BBC Books, 2006), Ebook, Chapter 12.

⁵⁷ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 490.

⁵⁸ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter XIII.

day. Amundsen and his men departed Antarctica on January 30th, 1912 bound for Hobart, Tasmania, determined to broadcast their news to the World as quickly as possible. In Amundsen's words, "The fact was that what we had done would have no real value until it was brought to the knowledge of mankind, and this communication had to be made with as little loss of time as possible."⁵⁹

Scott's return journey, unfortunately, was markedly different from Amundsen's. In addition to having low morale after having discovered the Norwegian flag at the Pole, Scott's and his men were also drained physically. They had not been consuming the same level of nutrients that the Norwegians had, and they had man-hauled most of the way South. They started off well, as they were blessed with a tail wind and were able to erect a sail on the sledge. This allowed them to average fourteen miles a day for the first few weeks. However, they had run their supplies thin and, in some cases, needed to reduce their rations in order to make them last until they reached the next depot. When they reached the Beardmore Glacier and the upper glacier depot, they had five days of food and the mid-glacier depot was five days away. According to Huntford, Scott continued to fail to grasp his situation, "...Scott, with grotesque misjudgment, stopped for the afternoon to collect geological samples, and thenceforth dragged thirty pounds of stones on the sledge. Geology cost him six or seven miles, and time when time was against him."⁶⁰ They luckily discovered the mid-glacier depot when they had essentially no food left.

The wear and tear of the journey was showing clearly in the men. They all were suffering from frostbite and snow blindness in varying degrees, in addition to malnutrition

⁵⁹ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter XIV.

⁶⁰ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 502.

and fatigue. But one of their number, Petty Officer Evans, was becoming disoriented and was deteriorating rapidly. On February 16th, on their way to the lower glacier depot Evans collapsed. The following morning, he could not pull the sledge and was ordered to march along behind the party. Evans fell behind and was found collapsed in the snow and unconscious. He did not survive the night and the rest of the party continued on to find the lower glacier depot.

The situation continued to decline, as distances between depots remained vast and became more and more difficult to cover as the men weakened and the temperatures dropped. Each depot they came to was yet another disappointment as the supplies were not sufficient to reach the next depot. Thus, each depot dashed their hopes and led to another desperate race to reach the next few days of supplies. Scott had left things far too close and although he hoped his men at Cape Evans would come and retrieve the Polar Party with dogs, he had not made those orders clear.⁶¹ The Polar Party's salvation lay in the form of One Ton Depot, the massive store of supplies Scott had left at 79°28.5'South. One Ton Depot represented their final beacon of hope.

As they journeyed, scurvy, malnutrition, and fatigue continued to work on the party. The next victim was Titus Oates, a Cavalry Officer, who had been with Scott primarily to handle the ponies. Oates had reached a dire point, where he was no longer able to pull the sledge or even keep up. On the morning of March 17th, he told the others, famously "I am just going outside and may be some time."⁶² He walked out into the snow and was not

⁶¹ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 520.

⁶² Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 523.

seen again, bravely sacrificing himself to increase the odds of survival of the others in the party.

The last three men of the Polar Party continued for three more days. They made camp on March 21st, a mere eleven miles from One Ton Depot.⁶³ At this point Scott could barely walk. In the opinion of Roland Huntford, the other two members of the party, Wilson and Bowers, could have continued on to the Depot; but Scott “persuaded them to lie down with him and wait for the end.”⁶⁴ Huntford argues that Scott did not want to face returning to England as a failure.⁶⁵ Martyrdom allowed him to achieve a form of victory in the end. The more accepted account is that the three men were trapped in their tent at this point by a blizzard until their supplies ran out, which took at least nine days. It seems unfathomable that these men who had struggled so far would not press on despite the weather for another eleven miles to reach supplies. Huntford points out that Scott began penning his farewells as early as March 16th and therefore may have already set his course for martyrdom.⁶⁶

When all seemed lost, Scott seems to have sought the role of the tragic hero. In his journal entries, he tried to explain away his mistakes and assign all the blame for the failure of the expedition to things which were outside his control. Scott knew that his journal would be published and read by audiences back in England. His tragic heroism and colorful prose went a long way in creating an historical legacy for him in British culture, exactly as he intended. He indicated this intent with some of his last words, “We are showing that

⁶³ Ibid.

⁶⁴ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 524-525.

⁶⁵ Ibid.

⁶⁶ Ibid.

Englishmen can still die with a bold spirit, fighting it out to the end...I think this makes an example for Englishmen of the future.”⁶⁷

Both Scott and Amundsen’s journeys were heroic in different ways and as a result, reactions in their home countries and around the world were markedly different towards each explorer. Each of their stories resonated with audiences differently. Evaluating Amundsen and Scott’s expeditions based on the factors of resonance will help develop an understanding of the influence of this exploration and its captivating nature.

The first factor is whether the target of exploration is attractive. Does the audience find the target compelling? Is it exciting and/or interesting for humans to go there? The South Pole has positive and negative attributes in this regard. The fact that it is located at what is commonly known as the “bottom” of the Earth works against its attractiveness. Audiences seem to find targets that are considered above them to be more attractive and targets that are considered below to be less attractive. Perhaps this is associated with ascending to the heavens versus descending to the underworld. Up is often associated with good, for example in giving something a “thumbs up”, and conversely down is generally associated with bad. Professors George Lakoff and Mark Johnson explained this concept in their book, *Metaphors We Live By*. They contended that good is associated with up because humans normally interact with their world in an upright position.⁶⁸ This normally upright positioning results in good being understood as the “physical basis for personal well-being: happiness, health, life, and control - the things that principally characterize

⁶⁷ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 526.

⁶⁸ George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, IL: University of Chicago Press, 2017), Ebook, 132.

what is good for a person - are all up.”⁶⁹ Additionally, up is associated with the heavens and down is associated with hell or the netherworld. This association is carried over into the ideas of North and South because cartographers consistently put North at the top of

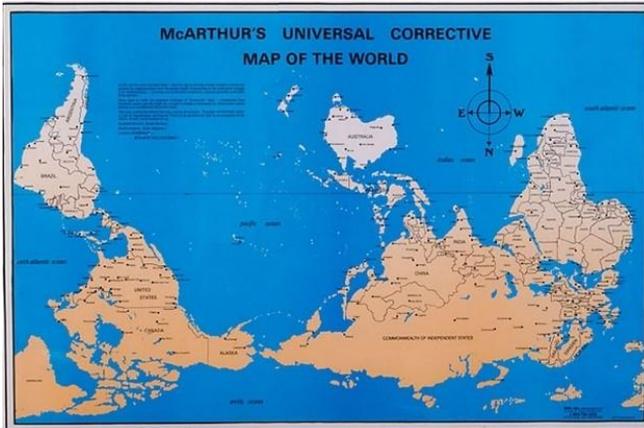


Figure 4

their maps. This is not always the case, as some maps can be found with South at the top, as seen in Figure 4. However, most cartographers during the Age of Exploration were employed by nations in the Northern Hemisphere

and therefore most maps have been created with North at the top. Cartographers tend to place their own nation at the top of the map because information in the upper part of the map is viewed as more important and is thought to stand out more.⁷⁰ This practice continues today because North America and Europe contain many of the World's most powerful countries.⁷¹ Overall, the idea of the explorers traveling down to the South Pole works against its attractiveness as a target.

The South Pole's unattractive location was offset by the fact that there were so few "prizes" left to be claimed and furthermore by the World's focus on the Antarctic regions at the time. One must remember that the Sixth International Geographical Congress had declared in 1895, "the exploration of the Antarctic regions is the greatest piece of

⁶⁹ George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, IL: University of Chicago Press, 2017), Ebook, 16.

⁷⁰ Xanthe Webb Aintablian, Contributing Writer. "North at the Top of the Map," ThoughtCo, Accessed October 29, 2018, <https://www.thoughtco.com/north-at-top-of-the-map-1435682>

⁷¹ Ibid

geographical exploration still to be undertaken.”⁷² To illustrate the importance of the South Pole, when the *New York Times* announced Amundsen’s success their front page stated, “The whole world had now been discovered.”⁷³ Amundsen’s achievement also blanketed the front page of the leading Norwegian newspaper, *Aften Posten*, for several weeks after the news reached Norway. Despite the media acknowledgment of this exploration, the overall importance of the South Pole is counterbalanced by its downward association. Therefore, its attractiveness as a target is only mediocre.

The second factor is whether the exploration contains a compelling narrative or contest. Amundsen and Scott could not have created a more compelling narrative, complete with a “great race”, extreme hardship, and even tragic heroism. This aspect of their exploration, their “race to the South Pole”, is still captivating audiences today. As previously stated, Amundsen and Scott were “ideal antagonists”.⁷⁴ Readers in England and Norway take different sides in this contest, some claiming that Amundsen was wrong in heading South instead of North, while others point out Scott’s lack of planning and preparation. The debate is still ongoing, as is seen in a 2011 article in the *Guardian* by Carol Birch. Birch discusses Scott’s legacy: “The explorer’s death sparked a frenzy of mourning, but he was later viewed as a buffoon.”⁷⁵ Simply the fact that there are sides to take and arguments to be made on both sides illustrates the compelling nature of the narrative. This exploration hits the mark with this factor of resonance and much of the

⁷² Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 49.

⁷³ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 528.

⁷⁴ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 11.

⁷⁵ Carol Birch, "Scott of the Antarctic: Hero or Buffoon?" *The Guardian*, December 31, 2011, , accessed October 29, 2018, <https://www.theguardian.com/uk/2011/dec/31/scott-antarctic-carol-birch-hero-buffoon>.

reason it enjoys such a long-lasting legacy and these two individuals are still discussed and celebrated today is because of their great contest and its associated compelling story.

The third factor is the amount of publicity the exploration received both at the time of its occurrence and in its aftermath. When it comes to publicity and marketing Amundsen and Scott differed greatly in their approaches, as did their respective nations. Amundsen handled the initial announcement of his success quite effectively. He had secured a contract with London's *Daily Chronicle* for exclusive rights to his story.⁷⁶ Of course, his news was met with great celebration in Norway and much animosity in England. Amundsen then quickly published his book, *The South Pole: An Account of the Norwegian Antarctic Expedition in the "Fram," 1910-1912*. Unfortunately, Amundsen was not a gifted storyteller. A *Daily Chronicle* publisher described Amundsen's writing: "I am...disappointed with the want of imagination he displays...in even so thrilling a thing as his achievement."⁷⁷ Amundsen's writing resembles a technical report rather than a fantastic story. For example, he describes all his preparations in great detail. In one particular example, he describes the loads of all the sledges: "Case No. 1 contains about 5,300 biscuits, and weighs 111 pounds. Case No. 2: 112 rations of dogs' pemmican; 11 bags of dried milk, chocolate, and biscuits. Total gross weight, 177 pounds. Case No. 3: ..."⁷⁸ He continues to describe the contents of all the cases on all the sledges to illustrate the weight on each sledge. This attention to detail accentuates Amundsen's meticulous planning, something which Scott lacked; but it is not necessarily entertaining for the reader.

⁷⁶ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 528.

⁷⁷ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 535.

⁷⁸ Captain Roald Amundsen, *The South Pole: An Account of the Norwegian Antarctic Expedition in the Fram, 1910 - 1912* (New York, NY: First Cooper Square Press, 2001), Ebook, Chapter X.

His uninspired technical style of writing was unlikely to capture readers in the same way that Scott's heroic death inspired them. Audiences only had access to these stories through the written word and possibly seeing Amundsen on a speaking tour. The inability of Amundsen to write his story in a captivating way serves as a detriment to the popularity of his accomplishment.

In contrast to Amundsen, Scott was a gifted writer and spent his last days writing, rather than marching to the next depot. According to Roland Huntford, "Amundsen...leaves the impression that this was all basically a comparatively simple affair while Scott brings out and underlines the "inhuman exertion" ..."the exceptional ill fortune" and the "unsatisfactory weather" both when it froze and when it thawed."⁷⁹ Both Scott's sacrifice and the way he wrote about it inspired feelings of nationalism in Britain. Thousands gathered for Scott's funeral in February of 1913.⁸⁰ Wisely, the British Government capitalized on this and used Scott and his men as an example of British spirit and as a rallying cry whenever they needed to encourage military enlistment or any service to the State. Scott's cavalry officer, Titus Oates', brave sacrifice served as the perfect example of English loyalty and honor. One can easily understand how the sacrifice of these men and the sentiments expressed in Scott's writings inspired young Britons. In one of his later diary passages he wrote, "We are setting a good example to our countrymen, if not by getting into a tight place, by facing it like men when we get there."⁸¹

⁷⁹ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 478.

⁸⁰ Carol Birch, "Scott of the Antarctic: Hero or Buffoon?" *The Guardian*, December 31, 2011, , accessed October 29, 2018, <https://www.theguardian.com/uk/2011/dec/31/scott-antarctic-carol-birch-hero-buffoon>.

⁸¹ Roland Huntford, *The Last Place on Earth: Scott and Amundsen's Race to the South Pole*, Modern Library Exploration Series (New York, NY: Random House, Inc, 1999), 525.

The British efforts to keep Scott's memory alive have served to prolong publicity of his exploration, thereby continuing to introduce this story to new generations. Interestingly, new portions of Scott's diary or the works of another member of the party continue to be "found" and released to the public, even now, 105 years after his death. Whereas Amundsen released all his writings in his autobiographical text very shortly after he returned from Antarctica, nothing new has since been released and nothing further is expected. Although he reached the Pole first and survived, Amundsen has passed into respective anonymity outside of his native Norway, due to a lack of continued marketing. Jasper Rees remarks on this in his book *Blizzard: Race to the Pole*, "...the victor has been reduced to the status of an also-ran. Why has this happened? The most obvious answer is that Scott wrote himself into the wider consciousness in the style of his death."⁸² One can appreciate that in the case of an exploration, which is now more than a century in the past, the population at large is less likely to remember and celebrate these feats without publicity to remind them and retell the story.

The fourth factor is the media type employed in disseminating news of the exploration. News of the Race to the Pole was limited to communication via telegraph and newspaper. Although this was a step forward in that the masses could read about the triumphs and failures of their Nation's explorers on the front page, this media type didn't allow the reader to feel as if they were "walking with the explorers" on their journey. The limitation comes in the fact that once the explorers' ships departed from Madeira or Australia or their last port of call before heading for Antarctica, there is no further contact from the explorers until their ship returns to a port of call with a telegraph. Therefore, the

⁸² Jasper Rees, *Blizzard: Race to the Pole* (London: BBC Books, 2006), Ebook, Chapter 10.

entire story is released at once, rather than being able to have a news report periodically on the progress of the explorers. In the case of Amundsen, his victory graced the front page of the papers for a few days in March of 1912. He then conducted a speaking tour in which he was well received, especially in the United States and in his native Norway. The problem is that all the news is received in one lump sum with telegraph and print as the media type. If either explorer could have set up a telegraph station in Antarctica they could have broadcast regular reports. Audiences would then have been able to follow the progress of the explorers more closely and thereby become more invested in the story and the outcome.

The fifth and final factor is relatability to the explorers' feat. Can the public follow in the explorers' footsteps and perhaps then gain a greater appreciation and understanding of the accomplishment? The remoteness of the white continent serves as a significant deterrent to individuals seeking to repeat the treks of Amundsen or Scott. As a result, few have done so. Famously, Henry Worsley, a British explorer and descendant of a member of Shackleton's Endurance Expedition, repeated both Amundsen's and Scott's journeys to the South Pole in honor of the centennial.⁸³ Generally speaking, though, very few individuals have successfully followed in the footsteps of Amundsen or Scott. Several people tried to follow Amundsen's route to the South Pole to celebrate the centennial, however they did so with significant assistance and even so many had to be picked up by helicopter in order to make it to the ceremony at the Pole.⁸⁴ Not only is this an exploration

⁸³ "In the Footsteps of Polar Giants: An Illustrated Lecture by Henry Worsley," Leelanau.com, March 6, 2015, , accessed August 26, 2017, <http://leelanau.com/event/in-the-footsteps-of-polar-giants-an-illustrated-lecture-by-henry-worsley/>.

⁸⁴ "100th Anniversary of Roald Amundsen Reaching South Pole is Honoured," The Telegraph, December 14, 2011, accessed February 20, 2017, <http://www.telegraph.co.uk/news/worldnews/antarctica/8956091/100th-anniversary-of-Roald-Amundsen-reaching-South-Pole-is-honoured.html>.

that audiences find difficult to repeat, it is also challenging for the reader to understand and picture a place which is so far removed from what they are most likely accustomed to. Pictures of the South Pole do not cause audiences to marvel at the achievements of these men. These pictures resemble indistinct snowy, flat, landscapes which fail to inspire the awe which a mountain peak or an image of the Moon might inspire. The difficulty individuals have in repeating this exploratory feat may serve to heighten the sense of amazement which audiences may feel when reading or studying about the feats of Amundsen and Scott. However, since the South Pole is distant from general audiences' thoughts and since the event cannot be repeated by many, it is not easily related to.

When considering all the factors together, the Race to the Pole meets the criteria for a compelling narrative and for strong publicity (especially in the case of Scott). It meets the criteria for both an attractive target and for employing mass media to a lesser degree. It fails to meet the criteria for relatability. Therefore, this exploration meets approximately three out of the five factors of resonance. This assessment matches well with the legacy of this exploration. These explorers are quite popular in their home nations, but they are not household names around the World. Furthermore, the Fram Museum in Norway has remarkably high attendance but, in the words of its director Geir Klover, "None of these old guys are heroes today... The exploration is not deeply rooted in current day society."⁸⁵ The decline in the captivating nature of this exploration is related to the extended period of time which has elapsed since its occurrence. This exploration was certainly more well known a century ago. Amundsen and Scott were names which were recognized around the world in the years following their Great Race. The continued passage of time will tell if

⁸⁵ Geir Klover, "Interview with The Fram Museum Director," telephone interview by author, September 10, 2014.

the other explorations which will be analyzed in this study will undergo the same decline as they reach and pass their centennial. The Race to the South Pole is a remarkable story of heroism and determination, but its legacy has faded from the minds of audiences primarily due to a lack of publicity in recent years and an inability to relate to these accomplishments which happened so long ago.

Mountains

The nineteenth century's continued efforts to explore and define the "blank spaces" on the map led explorers into the interior of continents. In 1802, the Surveyor General of India, William Lambton, began a sophisticated effort to map the Indian sub-continent and at the same time measure the curvature of the Earth.⁸⁶ This geographical survey took nearly 70 years to complete. Lambton passed away in 1823 and was succeeded by Sir George Everest. Everest eventually retired in 1843 and his successor Andrew Scott Waugh completed the survey.⁸⁷ In 1856, Waugh published his findings. These findings were dramatic due to the fact that Waugh had determined one of the Himalayan Peaks to be 29,002 feet in elevation. He announced that this peak was "most probably" the highest mountain in the world and named it Mount Everest in honor of his predecessor.⁸⁸ The indigenous populations in the area already knew that this mountain was incredible. The Tibetan people had named it Chomolungma, which means Holy Mother, and the Nepali people had named it Sagarmartha, which means forehead of the sky. The English clearly did not discover the mountain. However, the important contribution they made was the mathematical determination of its extreme elevation. Everest was not just an incredible mountain anymore, it now held the distinction of being the tallest mountain in the world.

The determination of Everest as the highest mountain in the world made it one of the great exploratory prizes left to be claimed. Sir Francis Younghusband, an English Officer who was instrumental in early efforts to gain British access to Everest, famously

⁸⁶ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 25-27.

⁸⁷ Ibid.

⁸⁸ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 30.

wrote in 1922: “It stands to reason that men with any zest for mountaineering could not possibly allow Mount Everest to remain untouched. The wish and will to stand on the summit of the world’s highest mountain must have been in the heart of many a mountaineer.”⁸⁹ Unfortunately, the political situation in Tibet and in Nepal made the mountain unapproachable at the time. Initially, Younghusband conducted the British Expedition to Tibet in 1903-1904, which resulted in the signing of the Treaty of Lhasa in 1904. This treaty established Tibet as a British Protectorate. Relations gradually improved, and in 1920 the Dalai Lama approved an English exploratory expedition to Everest through Tibet.⁹⁰ This initial reconnaissance of the mountain was led by George Mallory. The reconnaissance was successful in that he determined an approachable route to the summit from the north side of the mountain. The south side of the mountain, located in Nepal, was still not available to Mallory for political reasons. Nepal was a country which was closed to Westerners at the time.

Mallory returned to the mountain in the spring of 1922. Following the route he had planned the previous year, he climbed to a new record altitude of 26,985 feet.⁹¹ Other members of his expedition eventually reached 27,200 feet but were forced back. Unfortunately, during this expedition, Mallory also learned how perilous Everest could be. On his last attempt of the expedition, seven porters were killed in an avalanche. Despite this tragedy, Mallory’s passion for the mountain was undeterred. When asked, “what is the use of climbing Mount Everest?”, Mallory is commonly remembered for responding, “because it is there.” Mallory’s more articulate response is less often quoted, “What is the

⁸⁹ George Lowe and Huw Lewis-Jones, *The conquest of Everest: original photographs from the legendary first ascent* (New York, NY: Thames & Hudson, 2013), 33.

⁹⁰ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 37.

⁹¹ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 87-89.

use of climbing Mount Everest?... If you cannot understand that there is something in man which responds to the challenge of this mountain and goes out to meet it, that the struggle is the struggle of life itself upward and forever upward, then you won't see why we go. What we get from this adventure is just sheer joy. And joy is, after all, the end of life."⁹² It is not surprising then, given this undeterred passion, that Mallory returned to the mountain again in 1924 for yet another attempt.

The 1924 expedition established camps high up on the mountain and had climbers in good position for the summit attempt. Edward Norton, the expedition leader, conducted a summit attempt on June 5 and made it to an astonishing 28,126 feet, but the lateness of the day and the troubles which his climbing partner was having forced him to turn back.⁹³ Turning back was certainly the correct decision, as even if they had achieved the summit, it is unlikely that they could have returned safely back to their camp. Mallory made his attempt on June 8th with climbing partner Sandy Irvine, as seen in Figure 5. Noel Odell, an expedition geologist, saw two figures on the North ridge just after midday and then they were eclipsed by clouds. Mallory and Irvine were never seen again.⁹⁴ It is unknown whether Mallory and

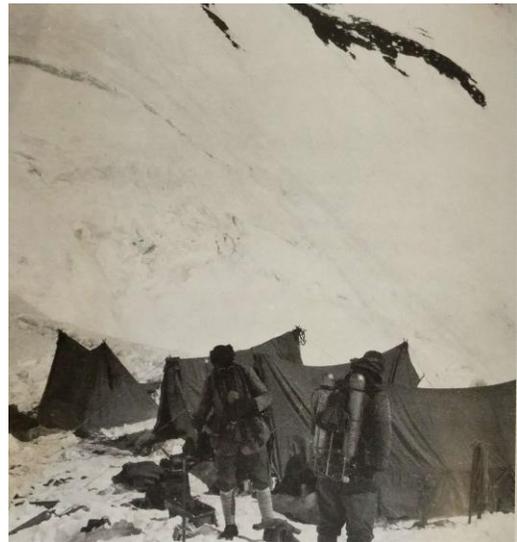


Figure 5

Irvine achieved the summit, but it is unlikely that they could have. What was later

⁹² George Lowe and Huw Lewis-Jones, *The conquest of Everest: original photographs from the legendary first ascent* (New York, NY: Thames & Hudson, 2013), 17.

⁹³ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 90-92.

⁹⁴ James M. Deem, *Bodies from the ice: melting glaciers and the recovery of the past* (Boston, MA: Houghton Mifflin, 2008), 38-40.

discovered to be Mallory's body was spotted by a climber in 1975. An expedition was conducted in 1999 which succeeded in finding and recovering the remains, as seen in figure 6.⁹⁵ Unfortunately, the discovery of Mallory's body did not shed light on whether he and Irvine reached the summit of Everest. There are differing views on this point, but it is generally accepted that they perished in an



Figure 6

attempt to reach the summit, not on their descent. The body of Sandy Irvine has not yet been discovered. Perhaps Irvine's body could provide clarification on the question.

Following the loss of Mallory and Irvine, four more British expeditions were conducted in the 1930s, but none achieved the heights which the 1924 expedition achieved. The expeditions in both the 1920s and the 1930s were funded by the Mount Everest Committee, which consisted of the Royal Geographical Society and the British Alpine Club. This would indicate that the expeditions were privately funded enterprises. Mountaineering expeditions then took a back seat for a time as the world was busy at war in the 40's. Interestingly, the political situation in Nepal began to thaw after World War II and the Nepalese began to allow Europeans to access the southern approach to Everest. Nepal was a country that had hitherto practiced strict isolationism. However, Sherpa involvement in British Everest Expeditions and the service of some Nepalese soldiers on the side of the British in World War II had begun to introduce some of the ideas and

⁹⁵ James M. Deem, *Bodies from the ice: melting glaciers and the recovery of the past* (Boston, MA: Houghton Mifflin, 2008), 38-40.

practices of Western Society in to Nepal.⁹⁶ Nepalese leaders saw the inevitability of Western influences affecting their nation and therefore began to gradually open their borders.⁹⁷

In 1951, Eric Shipton, who had led some of the expeditions in the 30s, led a reconnaissance expedition to determine if there was an accessible route up the south side of the mountain.⁹⁸ Coincidentally there was a group of climbers from New Zealand operating in that area of the Himalayas at the time. Shipton contacted them and asked if they would like to send two men to join his reconnaissance.⁹⁹ As a result, Earle Riddiford and Edmund Hillary joined Shipton's team. The combined efforts of the Englishmen and the New Zealanders resulted in a very successful expedition. They determined that there was a viable route to the summit of Everest on the Nepal side. Their plan was to return in the spring of 1952 and make an attempt. However, before they could return, a Swiss expedition was able to obtain permission to attempt the southern route in 1952. A team of experienced Swiss climbers came very close to summiting, but ultimately did not succeed.¹⁰⁰ Swiss climber Raymond Lambert and Sherpa Tenzing Norgay were able to ascend to 28,200 feet.¹⁰¹ This was an extraordinary achievement, but the prize was still there to be claimed.

⁹⁶ Mark Horrell, "How Nepal First Came to Open Its Doors to Tourism," *Footsteps on the Mountain*, August 13, 2015, , accessed November 02, 2018, <https://www.markhorrell.com/blog/2014/how-nepal-first-came-to-open-its-doors-to-tourism/>.

⁹⁷ *Ibid.*

⁹⁸ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 66-68.

⁹⁹ *Ibid.*

¹⁰⁰ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 156-159.

¹⁰¹ *Ibid.*

The 1953 expedition began somewhat auspiciously. The organizers decided that Eric Shipton should not participate and that the expedition would be led by John Hunt, a British military officer.¹⁰² Similar to Shipton, Hunt decided to include two New Zealanders. Edmund Hillary had made quite an impression on the reconnaissance expedition in 1951 with his climbing ability and ferocious energy. Therefore, Hillary and his friend and climbing partner George Lowe were included in the 1953 expedition. John Hunt was a renowned organizer and his talents shone brightly in the spring of 1953.¹⁰³ Similar to Amundsen, he conducted intricate planning. He delegated responsibility for preparing and perfecting certain types of equipment to each member of the expedition.¹⁰⁴ He had his team situated at the base of the mountain with the necessary supplies earlier in the year than any previous expedition had been able to. Hillary commented on the early stages of the expedition, “This is certainly proving the pleasantest trip in I’ve yet had. We’ve a really good bunch of chaps and the organisation has been first class... I really think we might climb the mountain this time...”¹⁰⁵

¹⁰² Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 75.

¹⁰³ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 162.

¹⁰⁴ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 79.

¹⁰⁵ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 93.

Well prepared and well situated in base camp, they began their assault on the Khumbu icefall on April 13. The icefall is an extraordinarily dangerous portion of the southern approach to Everest. It is formed where the Khumbu glacier falls down a 600m drop in elevation, as seen in figure 7, creating what is similar to a terminal moraine. A terminal moraine is the ice formation that is formed at the end of a glacier.



Figure 7

The Khumbu Icefall is a difficult first obstacle on the southern route, but Hunt had highly experienced climbers and an excellent plan.

John Hunt had planned a siege style assault on the mountain. His approach was not all that different from Mallory's approach on the North side. Hunt had planned five separate camps at different elevations along the route. They continued trailblazing to the area of their next camp, establishing a hold there and then ferrying the necessary supplies up to that camp. This takes a great deal of time and requires repetitive climbs up and down from one camp to the next, but it serves to help climbers acclimatize. It was in these earlier climbs through the icefall and into what is called the Western Cwm that Edmund Hillary and Tenzing Norgay developed an affinity for climbing together.¹⁰⁶ In the words of Hillary on April 28th, "Actually I am going extra well and Tenzing (the famous Sherpa) and I have teamed up as the Tigers of the party..."¹⁰⁷ Hunt recognized early on that Hillary and Tenzing Norgay were strong climbers. In early May, he disclosed his plan that there would

¹⁰⁶ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 98.

¹⁰⁷ *Ibid.*

-Image taken from George Lowe and Huw Lewis-Jones, *The conquest of Everest: original photographs from the legendary first ascent* (New York, NY: Thames & Hudson, 2013), 16. (The roman numerals represent camps which the team set up along the route. Camp II in in the middle of the Khumbu Icefall.)

be two summit climbs. The first conducted by Charles Evans and Tom Bourdillon which would serve as more of a reconnaissance.¹⁰⁸ The second conducted by Hillary and Tenzing as a push for the summit itself.¹⁰⁹ The ingenuity of Hunt's plan lay in the fact that his summit teams were not the climbers who had to trailblaze the way up the Western Cwm and the Lhotse face (camp III to camp VII on the route map seen in figure 8). The lion's share of this work was left to other members of the team, so that the summit teams would be well rested and prepared.



Figure 8

The work which needed to be accomplished on the Lhotse face (the area near camps VI and VII) proved a trying task for the expedition. Hillary's friend and fellow New Zealander, George Lowe, famously spent 11 days in this area, at incredible altitude, "cutting innumerable steps on the steep ice-slopes, putting in fixed ropes on the more dangerous

stretches, and generally transforming this highly technical route into one that a heavily laden man could follow."¹¹⁰ After being nearly defeated by the Lhotse face, Hillary and

¹⁰⁸ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 165.

¹⁰⁹ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 98-99.

¹¹⁰ Quote from Edmund Hillary in Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 99.

Norgay had to assist the beleaguered team and lead them into the South Col (camp VIII) on May 22.¹¹¹

Bourdillon and Evans departed from camp VIII for their summit climb/reconnaissance on May 26. Expedition leader, John Hunt, along with Sherpa Da Namgyal also climbed from camp VIII that day in an effort to create a camp IX for Hillary and Norgay at 28,000 feet.¹¹² Unfortunately, Hunt and Da Namgyal were unable to make it to their goal and were forced to leave the supplies they carried at 27,350 feet. Bourdillon and Evans, hiking with supplemental oxygen, were instructed by Hunt to “reach the South Summit, assess the difficulty of the climb beyond it and



Figure 9

continue only if all conditions - including their oxygen supply were favorable.”¹¹³ They reached the South Summit in the early afternoon and stood at 28,700 feet, higher than anyone had been before and a mere 300 feet from the summit. However, before them stood a difficult step (a steep rise) and it was getting late in the day. Figure 9 shows Bourdillon at the South Summit. They needed to make it back down to camp VIII before dark. They turned back and their caution was justified. By the time they made it back to camp they were exhausted.

¹¹¹ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 100-101.

¹¹² Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 168.

¹¹³ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 101-102.

The heroic efforts of the entire expedition had paid dividends. Hunt had a team of fit climbers at camp VIII. Unfortunately, similar to the situation with Amundsen and Scott's expeditions to the South Pole, audiences back in Britain and around the world had little knowledge of the expedition's progress. Periodically, a runner would be sent from base camp to Kathmandu with a telegraph message. However, this is not a short or easy journey and these messages could certainly not be considered regular updates on the expedition. Audiences would have to wait for news of the expeditions success or failure to arrive.

On May 28th, five climbers left camp VIII determined to establish camp IX and put Hillary and Norgay in excellent position for the Summit attempt. These men included Hillary, Norgay, George Lowe, Alfred Gregory, and Sherpa Ang Nyima.¹¹⁴ They picked up the supplies which Hunt had left at 27,350 feet and with each man carrying extreme weight they pushed on to 27,900 feet. They successfully established camp IX and Lowe,

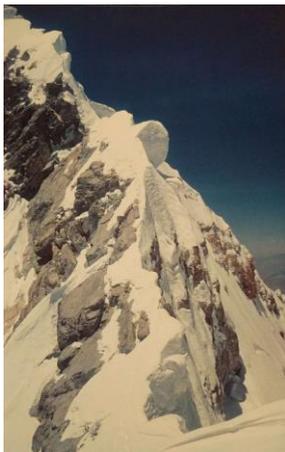


Figure 10

Gregory, and Ang Nyima went back down to the South Col leaving Hillary and Norgay behind. On the morning of May 29th, Hillary and Norgay departed camp at 6:30 am. They reached the South Summit by 9:00 am and looked upon what would become known as the Hillary Step, as seen in Figure 10. Hillary free climbed the step which was an incredible feat at that altitude. According to Hillary, once the step was surpassed, it was just “a few more whacks of the ice axe, a few very weary steps, and we were on the

¹¹⁴ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 173.

summit of Everest.”¹¹⁵ Hillary makes light of their achievement, but it was the culmination of years reconnaissance and study and certainly months of effort by the members of the expedition.

Hillary and Norgay dutifully documented their summit to ensure that no questions could be raised against their claim. Hillary photographed Norgay on the summit, as seen in figure 11, and photographed the views looking down all three sides of the mountain.¹¹⁶ They found no evidence to suggest that



Figure 11

Mallory had reached the summit. After a brief stay, they proceeded back down the mountain to bring news to the world.

The story associated with releasing the news of Hillary and Norgay’s successful summit is an interesting one in and of itself. James Morris a correspondent with *The Times* of London was at Camp III, where the news was received from Hillary and Norgay on the following day, May 30th.¹¹⁷ Morris was anxious to get the news back to England in time for the coronation of the new Queen, which was to take place on June 2nd. He made a daring dash back through the Khumbu Icefall at dusk in order to transmit news of the expedition’s great success. His message was famously transmitted using a prearranged code, “Snow condition bad hence expedition abandoned advance base on 29th and awaiting improvement being all well.”¹¹⁸ The Times translated and published the grand news on the morning of the coronation June 2nd: “With the Conquest of Everest one of the great

¹¹⁵ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 113.

¹¹⁶ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 181-182.

¹¹⁷ Ibid.

¹¹⁸ Stephen Venables, *Everest: summit of achievement* (New York, NY: Simon & Schuster, 2003), 183.

prizes of adventure had been won.”¹¹⁹ Headlines read, “The Crowning Glory - Everest is Climbed.”¹²⁰ The New York Times called the event, “one of the most remarkable conjunctures of events in all history. Nothing less can characterize that wonderful combination of the conquest of the last unconquered spot on earth and the dawn of a new Elizabethan era.”¹²¹

In the aftermath of their great success, both Hillary and Norgay have become heroes in their respective nations. Their fantastic achievement has certainly resonated with audiences both shortly after their success and even now, 65 years later. The purpose of this study is to evaluate explorations based on five factors of resonance. Evaluating this case study based on these factors will lead to a greater understanding of the captivating nature of this exploratory achievement.

As to the first factor, is Mount Everest an attractive target? Everest has several points working in its favor in this area. It is the highest mountain in the world. Explorers were literally trying to reach the top of the world. Both literally and figuratively, there is no greater pinnacle. Added to this attractiveness is the fact that explorers were ascending to the Summit. As discussed in the previous chapter, audiences generally associate targets that are above them as good or attractive and targets that are below them as bad or unattractive. Up to this point there was no higher conceivable target than Mount Everest. As George Mallory so eloquently put it, “How can I help but rejoice in the undimmed splendour, the undiminished glory, the unconquered supremacy of Everest.”¹²²

¹¹⁹ "Everest Conquered," *The Times* (London, England), June 2, 1953, Issue 52637.

¹²⁰ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 9.

¹²¹ *Ibid.*

¹²² George Lowe and Huw Lewis-Jones, *The conquest of Everest: original photographs from the legendary first ascent* (New York, NY: Thames & Hudson, 2013), 34.

Adding to the attractiveness of this target is the fact that it began to be associated with tragedy, death, and failure. By the time of the 1953 expedition there had been several decades of expeditions that had failed and several of which had ended in tragedy. Certainly, the most famous example of this is the death of George Mallory and Sandy Irvine. Everest was already notorious for claiming the lives of world renown mountaineers. This made the task of summiting Everest seem all the more dangerous and challenging to audiences, thereby making the target seem that much more alluring or attractive.

Despite Everest's attractiveness as a target, this exploration is lacking in a compelling narrative/contest. This exploration does possess the common narrative of man overcoming nature. Unfortunately, this does not differentiate it from any other exploration narrative. It also lacks the race or contest which helps to capture an audience, as was demonstrated so profoundly in the race to the South Pole. There was a threat from the Swiss in 1952, when they came close to summiting. However, the feeling of the British racing against the Swiss is significantly diminished by the political lack of access to the Mountain. It would be a completely different story if both teams were on the Mountain in the same season, racing one another to the summit, challenging one another, and driving one another. Alas, that was not the case.

The success of the British Everest Expedition was publicized remarkably well. The progress of the expedition was regularly reported back by runner to Kathmandu and thereby published in *The Times*. A correspondent from the *The Times* was climbing with the expedition in order to give first-hand reports and to prevent other news media from stealing the story. In addition to relaying information back to the outside world in a regular and timely manner, the expedition was well equipped with both still and motion cameras and

several men trained to use them. Therefore, they documented each stage of their journey up the mountain. Unfortunately, as seen with the race to the South Pole, these pictures and documentation were not able to be published during the expedition in order to update the audience on the explorers' progress. Similar to Amundsen's race to the South Pole, the focus was on the success of the expedition not on broadcasting regular news. No facilities were established at base camp for the developing of film and only brief messages were dispatched back to Kathmandu to be shared with audiences back in England. As with the polar explorations, the audience had to wait to see the photos and hear the full telling of this story until after the expedition had returned.

The lack of news related to the progress of the expedition, while it was ongoing, certainly prevented the audience from tracking the real time experience of the explorers. This effect was offset by the ability of the audience to immerse themselves in a plethora of literary works produced by the members of the expedition in a reasonably short period after the summit. Unlike the Race to the South Pole, where audiences had no news of Scott for an extended period of time and only Amundsen published his account of the Norwegian Expedition, no fewer than seven members of the British Everest Expedition published their account of the expedition within approximately five years following the event. In addition, a documentary containing footage from the expedition was released in December of 1953.

The summiteers, especially, were celebrated in their respective nations. The entire expedition was invited to Buckingham Palace, where John Hunt and Edmund Hillary were knighted.¹²³ Hillary's status in New Zealand was that of the conquering hero. Hillary and Lowe returned home to raucous crowds and praise. According to Peter Hansen in his article

¹²³ Alexa Johnston, *Sir Edmund Hillary: An Extraordinary Life* (Auckland, New Zealand: Penguin Books, 2006), 113.

Confetti of Empire, "...for many New Zealanders, Hillary became the icon for a New Zealand identity that replaced the affinity they still felt for Britain."¹²⁴ Overall, the fame the explorers enjoyed, the significant amount of press coverage, and the prolific writing by the members of the expedition provided for outstanding publicity in the time period following their success.

The high level of publicity which this exploration enjoyed did not diminish over time. There continue to be books written and films made about their achievements, many of which accompanied the 50th anniversary of the summit. Their fame did not diminish as time passed. For example, in 1992, Edmund Hillary's face was put on New Zealand's five-dollar bill, replacing the Queen's face.¹²⁵ On May 29, 2003 *The Guardian's* leading article read: "Hillary and Tenzing's ascent still shines like a peak, high in the sunlight. In a world that reduces so many human acts and aspirations to banality, their achievement remains a matchless pinnacle of genuine unselfish heroism."¹²⁶ This statement articulates clearly the reasons why this exploration has not fallen into anonymity but continues to be discussed and celebrated.

The resonance of this case study was both hindered and helped by the media type which was employed. The majority of the news associated with this exploration appeared in newspapers and, as previously discussed, the lack of information on the explorers' progress may have detracted from the resonance of this event. However, a documentary

¹²⁴ Peter H. Hansen, "Confetti of Empire: The Conquest of Everest in Nepal, India, Britain, and New Zealand," *Comparative Studies in Society and History*, 42, no. 2 (2000): 326, <http://www.jstor.org/stable/2696608> (accessed May 20, 2014).

¹²⁵ Peter H. Hansen, "Confetti of Empire: The Conquest of Everest in Nepal, India, Britain, and New Zealand," *Comparative Studies in Society and History*, 42, no. 2 (2000): 328, <http://www.jstor.org/stable/2696608> (accessed May 20, 2014).

¹²⁶ Leader, "Leader: Hillary and Tenzing Dwarf Later Explorers," *The Guardian*, May 29, 2003, , accessed November 02, 2018, <https://www.theguardian.com/world/2003/may/29/everest.nepal1>.

of the expedition was published just seven months after the summit. Film was a media type that had not been used before to illustrate the achievements of explorers and the hardships they faced. Color photos were another new addition. The use of these two types of media made Everest much more real to the audience than could a few black & white, grainy photos of Antarctica or of the 1924 Everest Expedition. The value of color photography and film are undeniable, but again, the advantages which these media types provided materialized after the expedition had ended. This expedition, similar to the South Pole expeditions, failed to give the reader regular updates on the progress of the explorers, which would effectively allow the reader to “walk with the explorers”. As in the case of the South Pole, if the expedition leaders could have set up a telegraph station on site, at base camp or at advance base camp (camp III), they may have been able to provide detailed reports of the progress of the exploration to the outside world.

Lastly, this case study stands as an example of relatability. Those adventurous people who have wished to be able to follow in Hillary and Norgay’s footsteps have been able to in great numbers. As discussed earlier in this text, 4,469 different people have summited Everest a total of 7,646 times as of December 31, 2016.¹²⁷ All of these followers, however, in no way diminish their incredible achievement. The mountain is still incredibly dangerous, many climbers have perished attempting to summit and countless more have failed in the attempt and prudently turned back. Overall, this expedition and its heroes inspired generations of mountaineers and adventurers. It has created an entire tourism industry around the mountain, which has had both positive and negative effects.

¹²⁷ Alan Arnette, "Everest by the Numbers: 2017 Edition," Alanarnette.com, December 30, 2016, , accessed February 20, 2017, <http://www.alanarnette.com/blog/2016/12/30/everest-by-the-numbers-2017-edition/>.

Everest also has relatability because it is something that audiences can see and visualize. It is truly a pinnacle. Even though one may have never been to the Himalayas and seen the Mountain, images of Everest are very recognizable. This stands in stark contrast to the South Pole, where there is nothing to visualize or photograph. A mountain is tangible. A point of latitude is not.

Once again, considering all of the factors together, the summiting of Everest meets the criteria for an attractive target, effective publicity, and relatability. It meets the criteria for media type to a lesser degree. It does not meet the criteria for a compelling narrative or contest. When taken as a whole, this exploration meets four of the five factors. This assessment aligns with the popularity which this exploration enjoys. The 1953 Summiting of Everest has resonated well with audiences. Edmund Hillary, at least, is world renown. Tenzing Norgay is famous in the mountaineering community and may be considered as well-known as Hillary in the Eastern World. In addition to world renown, they are the single most famous citizens of their respective nations. This exploration understandably enjoys a long-lasting legacy. There will never be another “top of the World” to ascend to.

Water

Explorers of the 19th century and the early 20th century had daringly charted the unknown regions of the world. At the start of World War II, the highest peaks of the Himalayas still remained to be conquered, an area where many explorers were soon to make their fame. Yet other men were called to different paths. Jules Verne's *Twenty Thousand Leagues Under the Sea* was originally published in 1870. This science fiction novel had a profound effect on some men, driving them not only to wonder what lay beneath the sea but to then strive to explore this uncharted region.

The regions of the Earth covered by water truly were uncharted. Humans knew very little of what lay beneath the sea. They were another "blank space" on the map which men had been unable to fill in. The charting of the seafloor began in earnest in 1872 with the voyage of the HMS Challenger.¹²⁸ The Challenger conducted a five-year survey of the ocean depths, discovering underwater mountains and deep-sea trenches.¹²⁹ However, the expedition was limited by the technology of the time. The following decades saw significant technological improvements, including the development of echo sounders, which came into practical use during World War II.¹³⁰ The use of echo sounders allowed oceanographers of many nations to continue to pry the ocean depths. A pattern began to emerge: that the deepest part of the ocean seemed to lie along the Western part of the Pacific Ocean in a series of trenches. Eventually, the deepest point of the ocean was found, when in 1951 a British ship appropriately named the HMS Challenger in honor of her

¹²⁸ Edwin L. Hamilton, "The Last Geographic Frontier: The Seafloor," *The Scientific Monthly* 85, no. 6 (December 1957): 294, accessed November 3, 2018, <https://www.jstor.org/stable/21815>.

¹²⁹ Ibid.

¹³⁰ Edwin L. Hamilton, "The Last Geographic Frontier: The Seafloor," *The Scientific Monthly* 85, no. 6 (December 1957): 297, accessed November 3, 2018, <https://www.jstor.org/stable/21815>.

predecessor, discovered an area approximately 35,800 feet deep in the Mariana Trench, near Guam.¹³¹ The area became known as the Challenger Deep. It represented a new challenge to be conquered. Jacques Piccard, whose role in the story was still to come, stated “We knew it was there. That was just about all we did know... Man, in his unquenchable thirst for first hand, directly observed knowledge, was not satisfied.”¹³² Unfortunately, Challenger Deep may as well have been on the moon, such was its apparent difficulty for men to achieve.

The difficulty with underwater exploration lay in the extreme pressure associated with depth. At sea level, a person experiences one atmosphere of pressure (14.7 pounds per square inch). The weight of one atmosphere is essentially pressing down upon an individual. However, every ten meters that one descends underwater pressure increases by approximately one atmosphere.¹³³ This leads to incredible pressures at depth, to include the equivalent of almost 1,000 atmospheres of pressure at the Challenger Deep.¹³⁴ The technical challenge of creating a vehicle which could operate at extreme depth without being crushed was the key to opening undersea regions to exploration. The man who would solve this problem was born in Switzerland in 1884. His name was Auguste Piccard. Auguste had already made himself famous as a scientist and an engineer by building a sealed cabin which, when attached to a balloon, carried him to the stratosphere.¹³⁵ He was the first man to ascend to the stratosphere and return alive.

¹³¹ Jacques Piccard and Robert S. Dietz, *Seven Miles Down: The Story of the Bathyscaph Trieste* (New York: G.P. Putnam Sons, 1961), 26.

¹³² Ibid.

¹³³ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 92.

¹³⁴ Ibid.

¹³⁵ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 55.

Auguste Piccard was a visionary and saw the far-reaching capabilities of his sealed cabin. As early as the 1930s, he predicted that “a closed-capsule system like his own would one day carry a human being to the moon.”¹³⁶ Yet, his ambitions were not directed towards the heavens but towards the depths. At a young age he had been captivated by Captain Nemo and Professor Aronnax and their undersea adventures. In 1937, long before the discovery of the Challenger Deep, Auguste told King Leopold of Belgium, whose own interest in exploration fueled the growth of the Belgian Empire in nineteenth-century Africa, that he was going to build a “deep-sea research submarine... for diving to the very bottom of the sea.”¹³⁷ The deepest anyone had descended to at this point was 3,028 feet in 1934, by Otis Barton and Charles William Beebe. They had built a ship in the shape of a sphere, which was attached to a cable from the surface.¹³⁸ Piccard’s challenge was to build a submersible that did not require an umbilical connecting it to the surface, which could descend and then rise again of its own accord. His idea was to use the same principles which he applied so effectively with balloons and air travel.

After several initial projects, Auguste, who was now working with his son Jacques, secured a contract with businessmen and leaders in Trieste, Italy to finance the building of a new bathyscaphe submersible.¹³⁹ Auguste went to work with Jacques on building what would become known as the bathyscaphe Trieste. The Trieste was completed on August

¹³⁶ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 75.

¹³⁷ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 75.

¹³⁸ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 94.

¹³⁹ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 127.

1, 1953 and the Piccards immediately began testing the ship.¹⁴⁰ There was a sense of urgency because the French had completed a submersible and were racing the Piccards to achieve greater depths. On August 14th, the French reached a depth of 6,888 feet, establishing a new record depth. It was not long, however before the Trieste outstripped them. On September 30th the Piccards dove to 10,392 feet, it would set a new record and be Auguste's last dive.¹⁴¹ This was as deep as they could go in the Mediterranean Sea. After this success, the Piccard's ran into a lack of funding and the Trieste was grounded for several years. The French retook the depth record by descending to 13,260 feet in February of 1954.¹⁴² The outlook for the Piccards and the Trieste was bleak.

Things began to look up for the Piccards in 1955, when Jacques met Robert Dietz, an oceanographer for the United States Navy. Dietz was highly interested in the Trieste. He realized that "...the oceanographic potential was boundless and the best navy in the world must have the best oceanography."¹⁴³ He inspected the Trieste and convinced the U.S. Navy to buy the bathyscaphe. Dietz made his first dive with Jacques in 1957 and knew immediately that the Navy needed Jacques Piccard as much as it needed the Trieste.¹⁴⁴ The ship had been entirely designed and operated by the Piccards, only they knew how the controls operated, and only they had an intricate understanding of how to solve problems the ship might encounter under extreme pressure. As a result of Dietz's

¹⁴⁰ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 133.

¹⁴¹ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 137-138.

¹⁴² Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 143.

¹⁴³ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 145.

¹⁴⁴ Jacques Piccard and Robert S. Dietz, *Seven Miles Down: The Story of the Bathyscaph Trieste* (New York: G.P. Putnam Sons, 1961), 95.

influence Jacques was brought under contract as a consultant and pilot. Now that the support and the logistics of the U.S. Navy had been added, much more could be accomplished. The Trieste was relocated to San Diego in order to conduct operations in the Pacific. They were now setting their sights on the ultimate goal, the Challenger Deep.

The push for reaching the Challenger Deep received the navy codename, Project Nekton. The word Nekton refers to aquatic organisms that can swim. According to Jacques, "Project Nekton was never supposed to be a deep dark military secret, ...[however] we did hope to keep the plan reasonably quiet."¹⁴⁵ The Challenger Deep seems to have been the ultimate goal of Dietz and Jacques for quite some time. Over coffee years before, they discussed it, Jacques stated "until man placed himself on the bottom of the deepest depression on Earth he would not be satisfied. There is a driving force in all of us which cannot stop, if there is yet one step beyond."¹⁴⁶ Jacques and the Project Nekton team worked diligently to achieve that goal. They conducted more than 50 dives in the Pacific and refitted and strengthened the Trieste to prepare it for the Mariana Trench.

There was some media interest in the Trieste and its mission. The Trieste was very popular in San Diego and the local paper would publish an article every time the Trieste put to sea.¹⁴⁷ For example, on December 20, 1958 a San Diego Union Tribune article stated, "The success of the first test dives of the Navy's Bathyscaphe Trieste promises fascinating and valuable oceanographic research."¹⁴⁸ Additionally, as the Trieste had some

¹⁴⁵ Jacques Piccard and Robert S. Dietz, *Seven Miles Down: The Story of the Bathyscaph Trieste* (New York: G.P. Putnam Sons, 1961), 134.

¹⁴⁶ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 150.

¹⁴⁷ Jacques Piccard and Robert S. Dietz, *Seven Miles Down: The Story of the Bathyscaph Trieste* (New York: G.P. Putnam Sons, 1961), 118.

¹⁴⁸ "Down, Down, Down," *San Diego Union Tribune*, December 20, 1958, accessed November 3, 2018, http://nl.newsbank.com/nl-search/we/Archives/?p_product=HA-CAET&p_theme=histpaper&p_nbid=&p_action=list&p_topdoc=11.

initial successes in the Pacific the New York Times ran stories reporting these achievements on November 17 and November 29, 1959, entitled “Record Ocean Plunge” and “Man’s Deepest Dive” respectively.¹⁴⁹ However, not all publicity programs were successful. A photographer participated in a dive off San Diego to take pictures and prepare for a television documentary, however “the photographs came out badly, and the TV show was cancelled before it was even made.”¹⁵⁰ Regardless of media attention, or the lack thereof, Project Nekton progressed smoothly and rapidly while in San Diego and it was not long before the Trieste was ready for deeper dives.

Several test dives were conducted in the area of the Mariana Trench in late 1959 and very early 1960. On the morning of January 23, 1960, all was prepared. The Trieste was in position over the Challenger Deep. Jacques Piccard and Navy Lieutenant Don Walsh dove just after 0800 hours. They descended 35,800 feet and reached the bottom at 1306 hours.¹⁵¹ The ship performed admirably and although they heard a “strong, muffled explosion” at about 32,000 feet, they were able to reach the bottom without much trouble.¹⁵² After a short stay on the bottom, Piccard and Walsh realized that the explosion they heard was related to one of their plexiglass windows cracking due to the intense pressure. Luckily, it did not fail. They cut short their stay on the bottom and returned to the surface by 1700 hours. In planning this momentous achievement, Jacques stated “Once [the Trieste] touched down in the Challenger Deep, there would be no place on Earth, from

¹⁴⁹ "RECORD OCEAN PLUNGE." *New York Times (1923-Current File)*, Nov 17, 1959, <http://taurus.hood.edu:2048/login?url=https://taurus.hood.edu:2803/docview/114844368?accountid=11467>. And "Man's Deepest Dive." *New York Times (1923-Current File)*, Nov 29, 1959.

¹⁵⁰ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 153.

¹⁵¹ Jacques Piccard and Robert S. Dietz, *Seven Miles Down: The Story of the Bathyscaph Trieste* (New York: G.P. Putnam Sons, 1961), 117-118.

¹⁵² *Ibid.*

the highest mountains to the frigid poles, that still thwarted man's entry. It would be the last great geographic conquest."¹⁵³

Piccard's statement rings true with regard to the Challenger Deep. It served as the last great geographic conquest on Earth. However, this geographic conquest differed from its predecessors. When analyzing this exploration in light of the five factors of resonance it must be viewed with a slightly different lens than the previous two case studies. According to James Cameron, "The challenge of this sort of exploration is... less a physical challenge of pitting one's body against the elements, but instead a mental challenge of pitting one's intellect against the physics of the natural world."¹⁵⁴ Cameron's statement is accurate in that this was the first exploration where man was entirely reliant on technology to achieve success. Modern Science and technology were used to assist Hillary and Norgay in achieving the summit of Everest. Yet their success was still determined by strength of human spirit, along with proper planning and organisation. The success of Project Nekton was determined by the ingenuity of the scientists and engineers who designed, built, and operated the bathyscaphe Trieste. Certainly, this journey required a great deal of courage on the part of Jacques Piccard and Don Walsh, but it becomes more of a story of technology versus nature rather than man versus nature. Once again, an analysis of this case study in light of the five factors of resonance will help develop an understanding of the influence and captivating nature of this exploration, or lack thereof.

In regard to the first factor, the attractiveness of the target, the Challenger Deep is an interesting case. Like both Everest and the South Pole before it, it was perceived by

¹⁵³ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 151.

¹⁵⁴ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), location 55.

both audiences and explorers as the last great geographic conquest. Unfortunately, the Challenger Deep lacks something of the inspiring nature which Everest and the South Pole possess. There were no pictures of the Challenger Deep to inspire explorers as there were with Everest. Furthermore, even when the feat was accomplished the explorers were unable to bring pictures back from the deep to show audiences what they experienced. In contrast, audiences were able to view images of Amundsen and his men at the South Pole. Similarly, audiences were able to view images of Hillary and Norgay summiting Everest. The Challenger Deep represents an abstract target which science tells the audience exists but provides no visuals to help an audience understand the accomplishment. This target is hidden from the world under seven miles of water, a depth and an accomplishment which is extraordinarily difficult for audiences to fathom. In discussing the popularity of space exploration over oceanography, Jacques Piccard stated, “Man could look up and *see* space. It was ‘there’ and he must learn the nature of it. With the oceans, it had been a case of out of sight, out of mind.”¹⁵⁵

In addition to the abstract nature of the target, another point detracting from the attractiveness of the Challenger Deep is its position in the world. As previously discussed, humans naturally associate up with good and down with bad. There exists no target further down than the “deepest point on Earth”. This position makes the Challenger Deep a very unattractive target. Furthermore, Project Nekton can clearly be compared with a descent into the netherworld. The deepest parts of the ocean are called the Hadal Zone, a name which is derived from the Greek god of the underworld, Hades. As previously discussed,

¹⁵⁵ Jacques Piccard and Robert S. Dietz, *Seven Miles Down: The Story of the Bathyscaph Trieste* (New York: G.P. Putnam Sons, 1961), 28.

up is further associated with righteousness whereas down is associated with wickedness.¹⁵⁶ This association is evident in the way a moral person is commonly described as upstanding or in the way an immoral act is described as a “low-down thing to do”.¹⁵⁷ Overall, descending to the deepest point on Earth, although scientifically valuable, does not carry much attractiveness for an audience.

The second factor concerns whether the exploration has a compelling narrative or contest. Project Nekton is decidedly lacking in this area. Although the French had made some deep dives with their ship, the F.N.R.S. 3, they had not achieved any significant success since 1953 and those successes were not comparable to the depths which the Trieste was achieving once it was purchased by the U.S. Navy. The French Navy was supposedly building a submersible which could compete with the Trieste, but it was not in service and therefore, there was no “race to the Challenger Deep”. The narrative of the exploration itself differs from previous explorations because it is not man overcoming nature, but technology overcoming nature. This type of narrative is less inspiring to an audience than one with a conquering hero. Although scientists are revered and respected, most of the heroes in stories which define western culture are characters of will and action who must strive to overcome the difficulties they face. The narrative associated with Project Nekton more closely resembles a science documentary. As a whole, this exploration lacks both a compelling narrative and any form of contest.

The third factor concerns the amount of publicity both at the time of the exploration and in the years following the event. Project Nekton has been plagued by a significant lack

¹⁵⁶ George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, IL: University of Chicago Press, 2017), Ebook, 16.

¹⁵⁷ *Ibid.*

of publicity. This may be related to the fact that it was a military operation and therefore kept somewhat close to the vest, but regardless of the causes there was very little marketing that went on before, during, or since Piccard and Walsh's success. As mentioned earlier, San Diego newspapers documented the activities of the Trieste and there was a failed attempt to create a TV special about the project. Unfortunately, the camera was crushed by the extreme underwater pressures and the TV special was abandoned.¹⁵⁸ As far as national press coverage went, there was a small article in the New York Times on January 23, 1960, discussing the imminent attempt on the Challenger Deep. This was followed by a front-page article on January 24th announcing their success. The headline read "Navy's Bathyscaph Dives 7 Miles in Pacific Trench".¹⁵⁹ Both the headline and the article itself read like a scientific documentary of the accomplishment. The press coverage lacked the excitement associated with the conquest of Everest seven years before. In announcing the summiting of Everest, the *New York Times* article read, "A thrill has gone around the world with the flashing of the news that Mount Everest, the unconquerable, has at last been conquered."¹⁶⁰ Project Nekton also lacked the amount of coverage which the summiting of Everest enjoyed. In addition to the front-page article announcing their success, there was a small follow up article on January 25th on page 26 of the *Times*. This seems a miniscule amount of press coverage for achieving the "last geographic conquest on Earth."

¹⁵⁸ Tom Cheshire, *The Explorer Gene: How Three Generations of One Family Went Higher, Deeper, and Further than Any before* (New York, NY: Marble Arch Press, 2013), 153.

¹⁵⁹ Special to The New York Times. "Navy's Bathyscaph Dives 7 Miles in Pacific Trench." *New York Times (1923-Current File)*, Jan 24, 1960.

<http://taurus.hood.edu:2048/login?url=https://taurus.hood.edu:2803/docview/115229188?accountid=11467>.

¹⁶⁰ "CONQUEST OF EVEREST." *New York Times (1923-Current File)*, Jun 02, 1953.

<http://taurus.hood.edu:2048/login?url=https://taurus.hood.edu:2803/docview/112783436?accountid=11467>.

Publicity after the fact has also been limited. Jacques Piccard and Robert Dietz wrote an autobiography about Project Nekton which was published in 1961, but Don Walsh is yet to publish any memoirs of the adventure. The extent of the celebration for the 50th anniversary of their success was an event held by Rolex at a store in Orange County, California.¹⁶¹ Rolex held this ceremony to promote their deep-sea line of watches, one of which was used on Project Nekton.¹⁶² Additionally, the U.S. Government has done little or nothing to promote and celebrate this success. Their ship, the Trieste, is housed in the U.S. Navy Museum in Washington, D.C., as seen in figure 12, but unfortunately this



Figure 12 museum is on a military installation and is therefore not accessible to the public. It receives few visitors and no marketing is done to publicize the fact that this amazing ship is available for viewing. Publicity in the aftermath of the exploration has been as limited, as it was at

¹⁶¹ Landon Hall, "After 50 Years, He's Still Dived Deepest," Orange County Register, January 22, 2010, , accessed April 18, 2018, <https://www.ocregister.com/2010/01/22/after-50-years-hes-still-dived-deepest/>.

¹⁶² Ibid.

the time of their success, due both to the fact that it was a military operation and to a lack of public interest in the exploration.

Regarding the fourth factor, the media type which is used to cover the exploration, the primary media type for Project Nekton was print media. They were unable to take advantage of the availability of television due to the nature of the exploration. The only photos which were successfully taken were of the explorers on the ocean surface. Despite the fact that news could travel quickly in the 1960s and there were new and more advanced media types available, newspaper was still the primary media type used to cover this exploration. The rapid nature of the exploration may have served as a detriment. There was a lack of media coverage leading up to the attempt on the Challenger Deep and then the mission was completed in a day. It was positive that audiences could find out what was happening with the explorers rather quickly unlike explorations of the past, but the Navy wasn't putting out any information until the project was successfully completed anyway. Overall, modern media and broadcasting was an untapped resource in the case of Project Nekton.

The relatability of the explorers' accomplishment is the final factor of resonance. Can audiences follow in the explorer's' footsteps? The incredible difficulty of what Piccard and Walsh accomplished is highlighted by the fact that only one person has journeyed to the Challenger Deep since 1960. James Cameron, the acclaimed movie director and undersea explorer returned to the Mariana Trench in March of 2012 in his ship, the Deepsea Challenger. Cameron discussed his motivations, stating "This quest was not driven by the need to set records, but by the same force that drives all science and exploration ... curiosity. So little is known about these deep places that I knew I would see things no

human has ever seen.”¹⁶³ He is the only person to repeat this feat to date. Another strike against the ability of the audience to relate to Piccard and Walsh’s achievement is the inability to see the target, to gaze in wonder at the pinnacle which they achieved. One cannot see the Mariana Trench, again it is out of sight, out of mind. This stands in contrast to the Moon or the summit of Everest which audiences can regularly see in person or in images and be amazed that man has reached those heights.

In light of this assessment, it becomes clear that Project Nekton does not meet the criteria for any of the factors of resonance. It is an unattractive target. The narrative was not as compelling as audiences were accustomed to and there was no race or contest. It received very little publicity, perhaps due to the unattractive target and military secrecy. It did not take advantage of modern media types and audiences could not relate to the journey or accomplishments of the explorers. This assessment matches the lack of fame which this exploration receives. Even in the United States, audiences are unfamiliar with Don Walsh and Jacques Piccard. Most Americans have never heard of them, let alone Project Nekton. The Piccard family is more well known in Europe, but some of that fame is associated with the accomplishments of Auguste Piccard. Don Walsh seemed to sum up the situation nicely at the 50th anniversary, when discussing why he and Piccard never enjoyed the popularity which the astronauts received, stating “I’ve referred to it recently as the right stuff, but the wrong direction.”¹⁶⁴ Project Nekton is understandably mired in anonymity and Walsh’s assessment seems highly accurate.

¹⁶³ "DEEPSEA CHALLENGE Expedition - James Cameron and National Geographic," DEEPSEA CHALLENGE, July 01, 2014, , accessed November 03, 2018, <http://www.deepseachallenge.com/the-expedition/>.

¹⁶⁴ Landon Hall, "After 50 Years, He's Still Dived Deepest," Orange County Register, January 22, 2010, , accessed April 18, 2018, <https://www.ocregister.com/2010/01/22/after-50-years-hes-still-dived-deepest/>.

Moon

The wanderlust which drives men to explore the unknown regions of the planet can be derived from several varied sources. It can come from a cultural affinity for an Arctic and Antarctic journeys, from a haunting image on a map, from the inspiring works of great authors, or perhaps a combination of such influences. The influences which drove men to explore beyond the planet and into space were more complex than those of previous explorations. In the post-World War II era the United States and the Soviet Union were competing for technological superiority over one another. The nuclear age had recently dawned and both superpowers were attempting to avoid a situation where their opponent would have the capability to deliver nuclear weapons in a manner which they could not.

Both the United States and the Soviet Union believed that the science of rocketry was the vehicle by which their opponent sought to gain this capability. Rocketry had made significant advances in the early 20th Century and several pioneers in the field had already envisioned how rockets could be used to send men into space. In 1903, Konstantin Tsiolkovsky wrote *The Exploration of Cosmic Space by Means of Reaction Devices*. This text was followed in 1920 by Robert Goddard's *A Method of Reaching Extreme Altitudes*. Subsequently, in 1923, German Hermann Oberth wrote *Die Rakete zu den Planetenräumen* (By Rocket into Planetary Space). Man had been dreaming of going to space for centuries, however it was these three visionaries who detailed how this feat could be accomplished using rockets. In the very first line of his book, Hermann Oberth simply stated: "At today's state of science and technology, it is possible to build machines able to ascend beyond the limits of Earth's atmosphere."¹⁶⁵ In addition to advancement in the science of rocketry,

¹⁶⁵ Hermann Oberth, *The Rocket into Planetary Space* (Berlin: De Gruyter, 2014), 7.

scientists were making advances in the use of sealed cabins to reach extreme altitudes via balloon. Auguste Piccard became the first man to reach the stratosphere in 1931 using a sealed cabin of his own design. The combination of a sealed cabin with a rocket providing a vehicle for propulsion would provide the recipe for unlocking space exploration.

The Soviet Union took the first step in proving their superiority in both rocketry and space exploration on October 4, 1957, with the successful launch of the first satellite, Sputnik. This feat coincided with the first successful test of an ICBM by the Soviets in August of 1957. This demonstrated progress by the Soviet Union in the field of rocketry and proved that they now had, or could soon develop, the ability to reach anywhere in the world with weapons of mass destruction. Joseph Newman, journalist and former editor of the U.S. News and World Report, discussed this in his book, *U.S. on the Moon, What it Means to Us*. According to Newman, “Whether we [the United States] liked it or not, we were now involved in a space race – not because we sought or desired such a race, but simply because if we refrained from entering it, the Soviet Union would inevitably extend its sway over a greater part of the world.”¹⁶⁶ Newman was correct in that the U.S. was now involved in a space race, however the U.S. had not been innocent bystanders up to this point. The United States had actively acquired German scientists during and after World War II, including Wernher von Braun, for the purpose of developing rockets which could carry men into space or deliver ICBMs, or both. Regardless of how the race began, keeping pace with the Soviets in the fields of Science and Technology as demonstrated by space exploration was vital to preventing them from establishing scientific, and thereby military, dominance.

¹⁶⁶ Joseph Newman, *U.S. on the Moon: What it means to us*, (Washington, D.C.: U.S. News & World Report, 1969), 26.

In addition to competing to establish technological superiority over one another there was an underlying philosophical competition at play. The two superpowers both subscribed to different political ideals. Demonstrating superiority in space exploration would attest to the world that the victor's political philosophy was the preeminent form of governance. Each nation was driven to prove that their ideals (communism or capitalism) were more successful than the other. According to Odd Arne Westad, a Cold War historian, "...Washington and Moscow needed to change the world in order to prove the universal applicability of their ideologies..."¹⁶⁷ Karsten Werth, a public relations and communications manager at Kraftanlagen Munchen in Munich, Germany, described the situation as an "...all-encompassing competition between the two leading capitalist and communist societies that was essentially a surrogate for war."¹⁶⁸ Space became a battleground for this competition. Instead of focusing their efforts on destroying one another, these two nations focused their efforts on proving which was greater through space exploration.

In response to the Soviets' successful launch of Sputnik in late 1957, the U.S. Congress passed a bill, which was signed by President Eisenhower on July 29, 1958, creating the National Aeronautics and Space Administration (NASA), a civilian agency that would conduct the U.S. drive into space.¹⁶⁹ However, as NASA was just starting to begin operations, the Soviets extended their lead in the space race, achieving great success with the Luna missions in 1959. These missions were unmanned but accomplished great

¹⁶⁷ Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge, UK: Cambridge University Press, 2007), 4.

¹⁶⁸ Karsten Werth, "A Surrogate for War – The U.S. Space Program in the 1960s," *Amerikastudien/American Studies* (2004): 568.

¹⁶⁹ Joseph Newman, *U.S. on the Moon: What it means to us*, (Washington, D.C.: U.S. News & World Report, 1969), 28-29.

feats, placing the first man-made object on the moon and taking the first photographs of the far-side of the moon. While the Soviets were reaching the moon with their unmanned probes, NASA had initiated Project Mercury with the expressed mission of putting a man into Earth's orbit. The initial Mercury efforts were not successful to say the least. On November 21, 1960, a launch of a Redstone rocket failed miserably when the rocket only lifted a few inches off the launch pad and then settled back down.¹⁷⁰ This created a dangerous situation because the operators no longer had control of the rocket which was full of fuel and needed to be disarmed. To complicate the situation the rocket had deployed its parachutes which created a danger of tipping over and detonating.¹⁷¹ It would become known as "the four-inch flight". They were able to resolve the situation safely and successfully launched a chimpanzee in January of 1961, but the American Space Program was in its infancy and was well behind the Soviets. The use of animals as proxies for humans in the space race makes it unique among the case studies. The extreme nature of this exploration led the organizers of these missions to send an animal first, prior to risking human lives. The Soviets sent dogs into space to test life support systems before sending humans. This differed from previous explorations because this was the first exploration which was attempting to leave Earth's atmosphere. Greater precautions needed to be taken in order to ensure the soundness of the spacecraft and its ability to support life in a vacuum. Additionally, in this case, spacecraft could be controlled remotely and did not require a human pilot in these early flights. This type of litmus test was not available or necessary

¹⁷⁰ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 29.

¹⁷¹ Ibid.

in previous explorations. Even in the case of Project Nekton, the Bathyscaphe could not be operated remotely. Human pilots were required.

The Soviet's lead in the Space Race was made abundantly clear on April 12, 1961 with the launch of Vostok, in which Yuri Gagarin became the first man in space and the first man in orbit. This was a devastating blow to the fledgling U.S. Space Program. They continued to push the envelope as a result of Soviet successes. The fact that this exploration was a race to prove superiority caused both sides to continue to take risks, like those seen in the race to the South Pole. On April 25, NASA launched the Mercury-Atlas 3, an unmanned rocket, but it had complications immediately after launch and had to be destroyed 43 seconds into its flight.¹⁷² It was yet another setback to the program and its credibility. But the men of NASA were nothing if not determined, and they continued to address the problems and work to find solutions. On May 5th they successfully launched Alan Shepard into space. His flight was not as long as Gagarin's and he did not reach orbit, but it was a success for NASA. With Shepard's successful flight NASA had closed the gap in the space race dramatically. This success did not go unnoticed.

President Kennedy recognized the upward momentum which NASA was riding and attempted to propel them forward with even greater direction and fortitude. On May 25, 1961 he delivered a second State of the Union Address to Congress, a special message on urgent national needs.¹⁷³ He was driven to set the nation on a course for success, unique from anything which had been attempted before. In this famous address he outlined a bold vision: "I believe that this nation should commit itself to achieving the goal, before this

¹⁷² Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 39-40.

¹⁷³ Karsten Werth, "A Surrogate for War – The U.S. Space Program in the 1960s," *Amerikastudien/American Studies* (2004): 571.

decade is out, of landing a man on the moon and returning him safely to the earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish.”¹⁷⁴ The men and women of NASA were stunned and challenged by this call to arms. Gene Kranz, a flight control director at NASA, later reflected, “to those of us who had watched our rockets keel over, spin out of control, or blow up, the idea of putting a man on the Moon seemed almost too breathtakingly ambitious.”¹⁷⁵ Intelligently, Kranz and the team at NASA approached this lofty goal one step at a time.¹⁷⁶ The next mission was to put an American into orbit, as Shepard’s flight did not achieve this feat.

The Soviet Space Program followed the success of Gagarin’s flight with the launch of Vostok 2, in which Gherman Titov completed an astounding 17 orbits in August of 1961. NASA, however, continued making strides and on February 20, 1962, John Glenn was successfully launched into orbit on the Mercury-Atlas 6.¹⁷⁷ Glenn conducted 3 orbits to great acclaim. The success of Glenn’s mission brought incredible public support and enthusiasm in the wake of Kennedy’s “call to arms”. He was given a ticker tape parade in cities around the country and became a national hero. His charismatic nature and leadership abilities would eventually lead him to the United States Senate and a Presidential campaign.

The Vostok program continued to achieve successes for the Soviet’s in the early 1960s. In 1962 and 1963, four more cosmonauts were launched into space. These launches

¹⁷⁴ Joseph Newman, *U.S. on the Moon: What it means to us*, (Washington, D.C.: U.S. News & World Report, 1969), 31-32.

¹⁷⁵ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 56.

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

included the first coordination of two manned spacecraft in orbit at the same time and the first female in space, Valentina Tereshkova.¹⁷⁸ The subsequent program was called Voskhod. This program also helped the Soviets achieve incredible “firsts” in space. In 1964, they launched the first multi-member crew into orbit and remarkably, in 1965, cosmonaut Aleksei Leonev conducted the first EVA (extra vehicular activity) in space.¹⁷⁹ Unfortunately, the Soviet Space Program suffered a serious setback in January of 1966 with the death of Sergei Korolev. Korolev had served as the Chief Rocket Engineer and Spacecraft Designer throughout the 1950s and early 1960s. He had been the architect of the success of the Sputnik, Vostok, and Voskhod programs. His death dealt a significant blow to the Soviet’s at a time when the U.S. Space Program was taking the lead in terms of structure and organization.

What had started off slowly in the United States had become a National effort, inspired by Presidential leadership. The brightest minds in the nation wanted to be part of the Space Program and the Country’s best engineering companies wanted to build spacecraft that would take Americans to new heights. Young scientists realized that the Space Program was breaking ground on new science and that history was being made at NASA. As the Space Program grew, NASA unveiled plans for the Gemini and Apollo program. The mission of the Apollo program was to put men safely on the Moon. The Gemini Program was designed to bridge the technical gaps between the Mercury Program and the loftier goals of the Apollo missions.¹⁸⁰ Overall, the Mercury Program successfully

¹⁷⁸ "Russia's Early Manned Space Flight Projects (1945-1963)," *Aftermath of Sputnik Launch*, accessed July 11, 2018, http://www.russianspaceweb.com/spacecraft_manned_first.html.

¹⁷⁹ *Ibid.*

¹⁸⁰ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 56.

launched six astronauts into space, four of whom reached orbit. The program culminated in May of 1963 with Mercury-Atlas 9, in which Gordo Cooper conducted 22 orbits. Despite the success of Mercury, the stakes had to be greatly increased in order to reach the Moon by the end of the decade. According to Kranz, "...we needed to develop new skills in mission planning, in the rendezvous and docking of two spaceships, in performing on-orbit maneuvers.... Our mission duration had to virtually double with each flight until we reached fourteen days, the longest possible lunar mission duration."¹⁸¹

The Gemini missions kicked off in early 1965, with the first manned mission, Gemini 3, conducted in March of 1965. After Gemini 3, the successes piled up. Gemini IV was a four-day mission which included the first American EVA by Ed White. NASA had finally caught up with the Soviets and now desired to take the lead. Gemini V pushed the envelope for endurance and broke the Soviet record for time in space. The mission lasted nearly eight days and completed 120 orbits.¹⁸² Gemini VI and VII conducted the first rendezvous in space and Frank Borman and Jim Lovell spent an astonishing fourteen days in space on Gemini VII. The subsequent Gemini missions accomplished docking with other spacecraft, extended length EVAs, and repeated rendezvous. The milestones achieved in Gemini gave the Americans a commanding lead over the Soviets. Each of these successes was accompanied by press coverage and excitement began to build in the press that the U.S. would beat the Soviets to the moon. Additionally, the astronauts and flight controllers were able to hone their skills and become more familiar with every aspect of their spacecrafts before they ventured into the more challenging Apollo missions.

¹⁸¹ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 119.

¹⁸² Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 148-150.

The Apollo missions, according to Buzz Aldrin, were the most audacious endeavour in human history.¹⁸³ The men and women of NASA had prepared themselves for the technical challenges they faced, but they were reminded of the inherent danger of their quest on January 27, 1967. A test was being conducted of the new Apollo Command Service Module (CSM). There was no launch associated with the test, only ground tests. Tragically, fire broke in the CSM and three astronauts, Gus Grissom, Ed White, and Roger Chaffee were trapped inside. The fire inspired flight controllers and the remaining astronauts to rededicate themselves even more fully to the mission. Gene Kranz gave an inspiring speech to his controllers in the days following the fire, stating “spaceflight will never tolerate carelessness, incapacity, and neglect. From this day forward, Flight Control will be known by two words: ‘Tough and Competent: Tough means we are forever accountable for what we do or what we fail to do... Competent means we will never take anything for granted.’”¹⁸⁴ He made all of his controllers write these two words on their work stations, to be reminded of the sacrifice of the Apollo 1 Astronauts. The fire helped shape the focus and determination with which the subsequent Apollo missions would be conducted.

Another important result of the fire was its effect on the public. According to Kranz, “It reminded the American public that men could and would die in our efforts to explore the heavens. It recreated the tension of the early flights of Shepard... and Glenn.”¹⁸⁵ Whereas, the Russians told the public nothing about their efforts until they achieved a new

¹⁸³ Buzz Aldrin and Malcolm McConnell, *Men From Earth* (New York: Bantam Books, 1989), xix – xxii.

¹⁸⁴ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 202-204.

¹⁸⁵ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 200.

success, NASA was open to the press. Audiences could regularly read in the Nation's major newspapers about what NASA was trying to accomplish next and what challenges they faced. Missions were televised and the astronauts were well known in America. The public could follow the unfolding drama of the U.S. Space Program and live through its successes and failures as a nation.

As a result of the fire, Apollo 2 and 3 were cancelled. The next mission would be Apollo 4, which would be an unmanned test flight of the Saturn V rocket. Apollo 5 and 6 were also unmanned flights testing various aspects of the new rocket, CSM, and Lunar Module (LM). The first manned Apollo mission, Apollo 7, was launched in October of 1968. It included astronauts, Wally Schirra, Walt Cunningham, and Donn Eisele. Apollo 7 served as a manned test of the CSM and LM, it only reached Earth Orbit as intended. Uniquely, a video camera was mounted in the CSM and the crew conducted daily broadcasts for a TV audience. Now that all aspects of the new spacecraft had been tested, it was ready to be pushed to new limits.

Apollo 8 both literally and figuratively took the U.S. Space Program to new heights. Frank Borman, Jim Lovell, and William Anders launched on December 21, 1968. Their mission took them all the way to the moon, where they performed ten lunar orbits and returned safely to Earth. The mathematical and technical challenges overcome to perform these feats for the first time are truly incredible. The controllers at NASA had to have the spacecraft perform a burn at the precise time in order to leave Earth's orbit and head for the moon. Then, upon reaching the moon they had to perform another burn at the appropriate time in order to decelerate enough to enter lunar orbit. Any miscalculation and they could have missed the moon entirely. Once these feats were accomplished, they had

to be performed yet again in reverse in order to bring the astronauts home safely. The list of firsts for mankind accomplished on this mission is extensive. The Apollo 8 astronauts were the first men to leave Earth's orbit, to leave Earth's gravity, to enter lunar orbit, to see the far side of the moon, and to view an Earthrise. This mission truly represented the greatest extreme to which man had gone, leaving Earth's orbit entirely for the first time, and viewing Earth from afar. The astronauts observed the lunar surface and named parts of the landscape after those individuals who had helped pave the way for this accomplishment.¹⁸⁶ Kranz described the Apollo 8 Astronauts, "[They] were like explorers from ancient days, seeing a new land for the first time...."¹⁸⁷ The mission represented a huge step forward in terms of preparedness for a moon landing, every aspect of a moon landing mission had been accomplished relative to the CSM. The Lunar Module still remained to be tested.

Spacecraft rendezvous and docking skills, which NASA had demonstrated and honed during Gemini, were essential to putting men on the Moon. The CSM on its own could not land on the moon. Lunar landing required the Lunar Module. After launch and separation from the rocket, the CSM would turn around, dock with LM which was still housed in the rocket, and extract it. The two pieces would then function as one spacecraft during their journey to the moon. Once in lunar orbit, the two pieces would separate, and the LM would descend to the surface while the CSM remained in orbit. Once its surface operations were completed, the LM would then ascend back to orbit and dock with the CSM. The LM would then be jettisoned and the astronauts would return to Earth in the

¹⁸⁶ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 244.

¹⁸⁷ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 245.

CSM.¹⁸⁸ During Apollo 9, this entire series of operations was tested in Earth's orbit. This was the first flight test of the Lunar Module. It is interesting to note that while Apollo 9 was accomplishing these complicated docking procedures, the Soviets had only just recently achieved the docking of two spacecraft.¹⁸⁹ Apollo 10, launched in May of 1969, served as a full-dress rehearsal for the moon landing. It incorporated all the objectives achieved on both Apollo 8 and Apollo 9. The Lunar Module descended to within 10 miles of the lunar surface and then ascended back to orbit. Incredibly, as the end of the decade approached, all the pieces were in place to put men on the moon. The Apollo 10 astronauts were quoted in the New York Times on June 8: "Apollo 10 men say "go" for the Moon; ...see no bar to Moon landing."¹⁹⁰

The culmination of the efforts and sacrifices of both astronauts and those behind the scenes at NASA came in the form of Apollo 11. On July 16, 1969, Neil Armstrong, Buzz Aldrin, and Michael Collins launched aboard Apollo 11 to great fanfare. All three of these men were experienced astronauts who were veterans of Gemini missions. By July 20th the spacecraft was in lunar orbit. The LM separated from the CSM, leaving Michael Collins in lunar orbit with the CSM while Armstrong and Aldrin descend in the LM. The descent went smoothly but they shot past their targeted landing area in the Sea of Tranquility. This caused problems as they then had to burn precious fuel to bypass an area which was rocky and unsafe to land on. In the end, they put the spacecraft down safely

¹⁸⁸ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 262.

¹⁸⁹ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 248.

¹⁹⁰ William K. Stevens, Special to The New York Times. "Apollo 10 Men Say 'Go' for the Moon." *New York Times (1923-Current File)*, Jun 08, 1969.
<http://taurus.hood.edu:2048/login?url=https://taurus.hood.edu:2803/docview/118507759?accountid=11467>.

with only seconds of descent fuel remaining. Armstrong historically radioed in, “Houston, Tranquility Base here. The *Eagle* has landed.”¹⁹¹ This success caused cheers and high emotions at flight control and around the world, but it was only a part of the objectives of Apollo 11.

The next step in the mission was to conduct an EVA on the Lunar Surface. After a few hours of preparation, Neil Armstrong descended a ladder attached to the spacecraft at 9:56 p.m. Houston time. Armstrong dubbed his first step on the moon, “...one small step for man, one giant leap for mankind.” He captured the idea that this accomplishment had moved beyond a National achievement and become a worldwide achievement, a new extreme which no exploration had previously reached. This sentiment was seconded in a phone call from President Nixon to the Apollo 11 astronauts while they were on the moon, “...For one priceless moment in the whole history of man, all the people of this Earth are truly one.”¹⁹² In addition, newspaper articles and other writings from around the world characterized the moon landing as an incredible accomplishment for all men.¹⁹³ The world stood transfixed by the achievements of these explorers. Overall, Armstrong and Aldrin spent 2 and a half hours on the lunar surface collecting samples, planting an American Flag, taking photos and conducting experiments, for example soil composition tests. They then ascended back to rendezvous with the CSM and returned to Earth safely, thereby fully accomplishing President Kennedy’s prescribed goal.

¹⁹¹ Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 292.

¹⁹² Foy Kohler and Dodd Harvey, “The International Significance of the Lunar Landing,” *Journal of International Studies and World Affairs*, no. 12. Jan. (1970): 3.

¹⁹³ Foy Kohler and Dodd Harvey, “The International Significance of the Lunar Landing,” *Journal of International Studies and World Affairs*, no. 12. Jan. (1970): 3 – 5.

The three Apollo 11 astronauts returned to a hero's welcome. Like Glenn, they were welcomed with ticker tape parades and showered with medals.¹⁹⁴ Subsequent Apollo missions sent 18 more men to the Moon, 10 of whom would walk on the Moon. All of the Astronauts who traveled to the Moon would be treated as National Heroes, but Armstrong and Aldrin stand above the rest in the public eye. An entire generation stood transfixed watching them accomplish their goal. Once it was accomplished, interest lessened, and this might explain why the other astronauts hold a secondary status in the public eye. Overall, the Apollo Missions captivated both the United States and the World in a manner not previously seen. As with previous explorations, an analysis of this case study in light of the five factors of resonance will help develop an understanding of the influence and captivating nature of this exploration.

When it comes to the first factor, attractiveness of the target, the moon is as attractive as it gets. It was the first exploratory target which was outside of Earth, which certainly differentiates it from any other target. It was, and still is, the first planetary body which men have walked on outside of Earth. Furthermore the moon is a concrete target, which all the world can see. It does not need to be visualized through images. It is not the summit of a mountain which only those who live near it or travel to it can see. Anyone who looks up in the sky on a clear night can see what these explorers were aiming for and be amazed. What makes the moon even more attractive though, is its location in the heavens. As previously discussed, up is historically associated with good and down is associated with bad. The moon is truly an example of the explorers ascending to a heavenly body.

¹⁹⁴ Roger Launius, "Heroes in a Vacuum: The Apollo Astronaut as Cultural Icon," *The Florida Historical Quarterly* (2008): 200.

The second factor, a compelling narrative or contest, is also well represented in the Space Race. From the late 1950s to the mid-1960s the Soviets and the Americans were neck and neck in the competition for superiority in space. Even in the late 1960s many believed that the Soviets were still capable of beating the U.S. to the moon. The Soviets were very secretive about any progress they were making, or lack thereof. It was only later revealed that the death of Sergei Korolev had crippled Soviet progress to such an extreme. In 1969, few knew that the Americans were in a one-horse race to the moon.

In addition to the contest, the Space Race was a compelling narrative in general. According to James Kauffman in his book *Selling Outer Space*, the American drive into space was similar to that of the American expansion into the West.¹⁹⁵ Both expansions were driven by an American belief in Manifest Destiny. Kauffman states that the moon landing contained all the component parts of an Old West frontier epic: "... (1) an identifiable, conquerable geographic location that is (2) unknown and hostile and includes (3) a malevolent antagonist who is thwarted by (4) a heroic adventurer."¹⁹⁶ This represents the quintessential compelling narrative in Literature. Kauffman's comparison of the conquest of the moon to a frontier epic seems apt. It is a well written script which captures the imagination and commands audiences' attention. One could not have planned a better narrative for the Apollo program.

The third factor, publicity, is also well represented in the Space Race and moon landing. NASA was proactive with its marketing of the astronauts and the feats they were attempting to accomplish, securing a contract with *Life* magazine in the late 1950s to

¹⁹⁵ James L. Kauffman, *Selling Outer Space: Kennedy, the Media, and Funding for Project Apollo, 1961-1963*, (Tuscaloosa: The University of Alabama Press, 1994), 1-5.

¹⁹⁶ James L. Kauffman, *Selling Outer Space: Kennedy, the Media, and Funding for Project Apollo, 1961-1963*, (Tuscaloosa: The University of Alabama Press, 1994), 79.

publish the astronauts “personal stories”.¹⁹⁷ Both the White House and NASA believed that public support was essential to the success of the Space Program and they saw *Life* magazine as the best means for achieving and maintaining this support. As a result, “...*Life* published over seventy articles on the astronauts and their wives from 1959 to 1963.”¹⁹⁸ Due to the access which this contract provided, the astronauts were well known to the American public even before their great accomplishments started to pile up in the late 1960s. Publicity was further promoted by NASA’s insistence on putting video cameras in the spacecraft and having its astronauts conduct live feed broadcasts. Audiences were therefore allowed to experience some of the daily life of an astronaut first hand. Overall, publicity at the time of the moon landing was extensive. The *New York Times*, for example, was publishing multiple articles daily related to the moon landing in the weeks leading up to Apollo 11 and in the weeks following their success. The astounding nature of the achievement also commanded the attention of a worldwide audience. The story of the moon landing dominated the front pages of newspapers around the world.¹⁹⁹ For example, the New Delhi *National Herald* described the moon landing as “the most glorious moment yet in the saga of the sons of Adam.”²⁰⁰ As a result, publicity was not limited to the U.S., the story naturally was publicized to a much larger audience because it was seen as a human accomplishment as well as an American accomplishment.

¹⁹⁷ James L. Kauffman, *Selling Outer Space: Kennedy, the Media, and Funding for Project Apollo, 1961-1963*, (Tuscaloosa: The University of Alabama Press, 1994), 71.

¹⁹⁸ James L. Kauffman, *Selling Outer Space: Kennedy, the Media, and Funding for Project Apollo, 1961-1963*, (Tuscaloosa: The University of Alabama Press, 1994), 74.

¹⁹⁹ Foy Kohler and Dodd Harvey, “The International Significance of the Lunar Landing,” *Journal of International Studies and World Affairs*, no. 12. Jan. (1970): 3 – 5.

²⁰⁰ Foy Kohler and Dodd Harvey, “The International Significance of the Lunar Landing,” *Journal of International Studies and World Affairs*, no. 12. Jan. (1970): 4.

Publicity in the years following the event has also been strong. Much of this publicity has come in the form of literature and movies. Many of the astronauts wrote autobiographies detailing their experiences. In addition, Norman Mailer, a famed American Author of the time, was contracted by *Life* magazine to write an in-depth story of Apollo 11. His documentary appeared in three installments in the magazine and was later published as a book. The book was republished as a special edition for the fortieth anniversary of the moon landing. Mailer's work stands as just one example of many works of literature which were produced in honor of Apollo 11. Many highly popular films were also created on this topic. A mini-series, entitled *Moon Shot* was highly successful in 1994, documenting the space program from the perspective of the astronauts. This was followed by a full-length feature film telling the story of the near crisis of *Apollo 13* in 1995, which won 2 Oscars and was nominated for many more. These films along with many others, were released 25 years after the moon landing and served to instill this great accomplishment into the minds of a whole new generation. In general, the Apollo program has benefited from a plethora of publicity, coming in various forms both in the immediate aftermath of the moon landing and the in the many years that have followed.

Media type, the fourth factor, stands out in the case of the moon landing. This exploration serves as an example of the benefits of mass broadcasting and television media used in conjunction with print and radio. The moon landing was the first exploration which audiences could watch live on television. According to the *New York Times* the spectacle was witnessed by hundreds of millions of viewers.²⁰¹ In addition to being able to view the exploration's culmination, audiences had also been able to follow the progress of the space

²⁰¹ "Tranquility Base," *The New York Times* (New York, N.Y.), July 21, 1969, July 21, 1969, accessed July 26, 2018, <https://www.nytimes.com/1969/07/21/archives/tranquility-base.html>.

program for more than a decade. It was a drawn-out series of successes and failures that served to create an emotional journey, which audiences traveled along with the astronauts. As previously discussed, *Life* magazine had published numerous articles about the astronauts and their families. Audiences knew these men well by 1969. They had mourned the loss of the Apollo 1 astronauts and celebrated the successes which followed. In addition, coverage of the Apollo program was rife with resplendent photography, which amazed and delighted viewers. In some cases, amazing, dramatic photography from the Apollo program had profound effects on human understanding of Earth and its beauty, such as the Earthrise photo seen in figure 13. Photographs and



Figure 13

television broadcasts left lasting impressions on audiences which newspaper articles and literary descriptions by themselves could not.

Viewing the moon landing became a defining moment for a generation, something that they would remember and celebrate the rest of their lives. There are few events in history for which life pauses and the overwhelming majority of people stop what they are doing in order to observe an event, especially a positive one. Most of the events in a generation which raise the question, “Do you remember where you were when...?” are tragic events: assassinations, attacks, natural disasters, etc. The rare exception is an exploratory achievement. Americans all over the nation and individuals all over the world

stopped to watch on live television the first men walk on the moon. Indeed explorations before the age of television did not have the same life pausing quality.

Relatability, the fifth factor, presents an unusual case when it comes to the moon. Subsequent explorers have not been able to follow in the footsteps of the Apollo astronauts. In fact, the last men to walk on the moon were members of the Apollo 17 crew in 1972. In total only 24 men have been to the moon, and only 12 have walked on it. Therefore, this achievement is certainly not repeatable for audiences. Although in the future men may return to the moon, the cost, distance, and difficulty make the journey prohibitive. In this respect, audiences may find it difficult to relate to the accomplishment of these explorers. This lack of relatability is offset, however, by the moon's regular presence in the night sky. It serves as a constant reminder of what the explorers achieved and creates a sense of wonder. This stands in contrast to other explorations because audiences are consistently reminded of the awe-inspiring achievement. Unlike a distant mountain which is out of sight, out of mind, the moon is rarely out of sight.

Overall, the moon landing meets all of the factors of resonance. The moon's location makes it an attractive target. The Space Race with the Soviet Union adds to the compelling narrative of the frontier story. The exploration was well publicized before, during, and since the moon landing. The Apollo program was the first exploration to benefit from the use of modern mass media and allow a world audience to journey with the explorers. Lastly, although the achievement has not been repeated, the moon's regular visibility serves as constant reminder to audiences of the incredible accomplishments of these explorers. This assessment correlates well with the popularity that the moon landing has enjoyed over the last 49 years. It stands out as a defining moment for Americans and

although younger generations did not witness this event, an appreciation for the exploration is passed down through education, museums, films, and literature.

The ability of man to overcome incredible obstacles to achieve the impossible continues to inspire audiences. President Kennedy's vision was inspiring not only to the men and women of NASA, but to the audiences who bore witness to their journey. "We choose to go to the moon... We choose to go to the moon in this decade, and do other things... not because they are easy, but because they are hard!"²⁰² Audiences are captivated by individuals demonstrating strength of human spirit and ingenuity. There is no better example of that demonstration than by surmounting a new and unconquered pinnacle.

²⁰² Gene Kranz, *Failure is not an Option: Mission Control from Mercury to Apollo 13 and Beyond*, (Simon & Schuster, 2000), 294.

Safe Return

Explorations can have a profound effect on an audience. They can become the crowning achievement for a nation and can stand as the defining moment for a generation. However, this captivating effect on an audience varies depending upon the exploration. Some explorations resonate with an audience while others do not. The argument proposed in this study is that an exploration will captivate a nation if it meets several criteria. These criteria, known as factors of resonance, help evaluate and predict the degree of effect on an audience. These criteria: an attractive target, a compelling narrative or contest, publicity, media type, and relatability, create a standard based on which explorations can be evaluated. The more factors an exploration meets, the greater it resonates with an audience.

After evaluating four twentieth-century case studies, based on the factors of resonance, a better understanding of each factor emerges. The first factor, an attractive target, raises several questions. For example, what constitutes an attractive target? The analysis of the case studies indicates that audiences find a target attractive, firstly, if it is considered a worthwhile target of exploration. A target is considered valuable if it is remarkable or distinguished in some manner. For example, it is not perceived as nearly as incredible to summit K-2, the second tallest mountain in the world, as it is to summit Everest. Mount Everest is the tallest and is therefore distinguished above all other mountains as a target of exploration. In the same respect, the Mariana Trench is distinguished because it is the deepest point in the ocean. These targets are the epitome of extreme, which make them more attractive as a target.

Further analysis of the case studies reveals that audiences find a target attractive, secondly, if it is associated with ascension or with going up. Conversely, audiences find

targets unattractive if they are associated with going down or descending. This up/down association is tied to a natural human association with gravity. Without gravity, humans would have no understanding of up and down.²⁰³ In the gravitational environment in which humans function, most operations are performed in an upright position.²⁰⁴ This leads to a natural association with up as being good or more desirable and down as being bad or less desirable. This association is carried over into the targets of exploration. Both the moon and Mount Everest are seen as attractive targets because explorers must ascend to them. Whereas, the South Pole and the Mariana Trench are considered less attractive by audiences because explorers are perceived as descending to these regions. These two perceptions of a target, its value and its position (above or below), combine to create a level of attractiveness by which a target is regarded.

The second factor of resonance is a compelling narrative or contest. The question posed early in this study was: why are some narratives compelling to an audience while others are not? As previously discussed, audiences are captivated by individuals demonstrating strength of human spirit and ingenuity. A narrative which is based on man, the hero, overcoming nature to conquer that which has never been conquered before makes for a story which captivates and inspires an audience. It is even more compelling if these feats are accomplished by demonstrating the best traits that mankind has to offer: resilience, willpower, loyalty, innovation, bravery, etc. Humans like to be reminded of the best and brightest examples of humanity. Such stories are highly compelling. However, the narrative takes on an additional level of intensity when a contest or competition is

²⁰³ George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, IL: University of Chicago Press, 2017), Ebook, 132.

²⁰⁴ *Ibid.*

created to add to the compelling story which already exists. When two explorers or groups are racing to conquer the unconquerable, the narrative becomes legendary. This is clearly seen in the case of the Race to the South Pole. Amundsen and Scott's competition to reach the South Pole has made for a legendary story.

The narrative changes somewhat when it becomes technology versus nature rather than man versus nature. The story can lose some of its demonstration of human willpower and determination. It still showcases bravery, ingenuity, and innovation; however the journey has changed for the audience. The amazement which the audience might feel in response to what the explorers have overcome is diminished. This is evident in Project Nekton. Although the explorers achieved an incredible feat, the achievement is mostly technological, not physical. The explorers were able to conduct the journey in a matter of hours. This takes away from the compelling narrative, despite the dangers of the exploration. The Space Program, despite its reliance on technology, does not seem to suffer the same diminishment of the narrative. This is because the explorers are still required to endure great hardship and their achievement still requires physical resilience and willpower. In the end, narratives are compelling to an audience if they demonstrate those qualities which are most desirable in mankind and even more compelling if this occurs within a contest or race.

The third factor of resonance is the amount of publicity which an exploration receives both in the immediate aftermath of the exploration and in the long term. The amount of publicity depends in part upon how the exploration was conducted and funded. Explorations conducted and funded by the military or government tend to garner less publicity because the information which the press receives is limited or controlled. For

example, in the case of both Project Nekton and the Soviet Space Program, publicity was limited by the organizations running the exploration. Therefore, audiences knew little about the successes and failures which these expeditions experienced along the way. However, in the cases of the U.S. Space Program, Amundsen's expedition, and the British Everest Expedition of 1953, the information which the press received was controlled but not limited. In each of these cases, a contract was secured with a media organization to publish the story. This did not detract from publicity and in some ways served to increase it, allowing media members exclusive access to the expeditions.

Publicity is furthered by the writing of memoirs by the members of the expeditions and the depiction of the exploration in film. In some cases, expedition members were prolific and gifted writers, as seen in the Everest Expedition, Scott's South Pole Expedition, and the U.S. Space Program. However, in other expeditions, few if any memoirs were produced. This is the case with both Project Nekton and Amundsen's Expedition. All of the explorations have been publicized repeatedly in various films, with the exception of Project Nekton, which still receives little publicity. Additionally, the compelling nature of the story plays a role in how much publicity an exploration will receive. In this case, even the names by which the explorations are remembered reflect a combination of the compelling narrative and the publicity given to the exploration by the press. The press begins to refer to an exploration by a name which relates to the narrative, for example the Space Race or the Race to the South Pole. Explorations which lack a contest or race do not possess such a compelling narrative and end up with simpler, less captivating titles: Columbus' Voyage, Project Nekton, and others.

The fourth factor of resonance is the media type employed in presenting the exploration to an audience. Analysis of the case studies reveals that, the more awe inspiring the presentation, the more captivating the effect. Reading about the exploits of explorers in a newspaper is not very shocking or awe inspiring. The inclusion of photos can help bring the exploration to life for the reader, especially color photos as seen in *Life* magazine in the case of the U.S. Space Program. However, newspapers did not start using color photos on a wide scale until the 1970s. The invention of television allowed audiences to follow the progress of an exploration in nearly real time. Audiences were truly able to watch astronauts walk on the moon, an awe-inspiring level of access which was unavailable in any previous exploration. This elevated the moon landing to an event for which millions of people stopped their busy lives and watched. It became a captivating, life-pausing event which many would not forget; so great was the impact of television.

The fifth factor of resonance is relatability. Audiences can relate to an exploration if they can follow in the explorer's footsteps or if there is a tangible representation which audiences can view and be reminded of the accomplishments of the explorers. The only case study which has seen individuals follow in the explorer's footsteps in great numbers is the Conquest of Everest. The other case studies were either so remote that audiences found it difficult to repeat the feat or following in an explorer's footsteps was so technologically prohibitive that very few could. The ability to view the target of an exploration can also add to an audience's ability to relate to the accomplishment. In the case of both Mt. Everest and the moon landing, viewing images of the mountain or the moon causes viewers to be amazed that humans have achieved such a feat. This effect can also occur as a result of seeing Everest or the moon in person. This is especially apt for

the moon because, although only a small percentage of the population will ever see Mt. Everest in person, the entire world sees the moon on a regular basis. This effect is not elicited by images of the South Pole or the Mariana Trench. Images of the South Pole present a barren landscape with nothing to distinguish the South Pole from any other point and few have the opportunity to see the location in person. There are few, if any, images of the Mariana Trench and they also present a barren, dark landscape. Both cases lack the ability to inspire audiences visually.

Overall, relatability adds to the awe-inspiring nature of an exploration. It allows audiences to be reminded of their amazement at the accomplishment. All of the subsequent climbers of Everest have returned with photographs documenting their incredible journey, thereby adding more and more images to inspire audiences and more stories to tell about how difficult the mountain is to summit. It is reasonable to ask whether the fact that many people have repeated an exploratory feat takes away from the impressiveness of the original exploration? The accomplishments of those who came first are not diminished by those follow subsequently. It is far easier to follow a path that has already been trodden than it is “to boldly go where no man has gone before”. For example, Hillary and Norgay had no idea what was ahead of them. They had to free climb the Hillary Step, with no concept of what was beyond. All subsequent climbers have had the advantage of the knowledge which Hillary and Norgay’s accounts provided. The second or fifth or thousandth person to accomplish a feat can never compare to the individual that paved the way.

The analysis of the case studies based on all five factors of resonance does indicate that the more factors an exploration meets, the more it will resonate with an audience. This is clearly evident in the case of the moon landing, which met all five of the factors.

Audiences are captivated by the accomplishments made in the Space Race. Literature and films are still being released today, nearly fifty years after the event, analyzing the astronauts and their achievements. The images which astronauts brought back to Earth changed the way humans view the planet. Unlike previous twentieth-century explorations the moon landing created new industries which still exist today. It represented the heart of a broader geopolitical competition, which elevated the narrative to a level rarely encountered previously. Furthermore, the Space Race pushed the extremes of manned exploration beyond the terrestrial for the first time. The moon landing was truly a triumph for the human race, one which continues to be celebrated and appreciated.

In opposition to the moon landing, Project Nekton demonstrates the accuracy of the factors of resonance by failing to meet any of the factors. As a result, audiences are not captivated by the journey to the Mariana Trench. It fails to resonate with audiences and is therefore not well remembered or celebrated. Both the Conquest of Mount Everest and the Race to the South Pole meet some of the factors of resonance, but not all. Everest meets four out of the five factors, and the South Pole meets three out of the five factors. This also is accurate because neither of these explorations is as captivating to audiences as the moon landing, but both explorations are captivating in their own right. Both explorations enjoy a significant level of popularity. As with the moon landing, films and literature on both topics have been released in recent years. They are not events that will soon be forgotten, especially in the case of Everest, which is more recent and met more factors than the South Pole.

In summary, one of the questions posed in this study was: what is it about exploration that makes it so captivating? Exploration is captivating because it possesses

the components of the most popular human narratives and then takes those narratives to greater extremes than have ever been attempted before. It includes an everyday human hero attempting to conquer dangerous natural challenges which have hitherto been insurmountable, not just for the hero, but for the entire human race. Exploration expands the knowledge of the human race. Explorers return images to the audience that can alter permanently human perceptions of the world. Furthermore, it allows for the best qualities of humans to be demonstrated. Explorations can serve as one of the few positive, uniting events for the world. This might serve to explain humans' continued drive for new horizons. In his poem *Ulysses*, Alfred Lord Tennyson described humans: "yearning in desire to follow knowledge like a sinking star, beyond the utmost bound of human thought."²⁰⁵ Tennyson understood well that in all of us lives a bit of the explorer who longs "...to strive, to seek, to find, and not to yield."²⁰⁶

²⁰⁵ Alfred Lord Tennyson, *The Works of Alfred Lord Tennyson*, (Ware: Wordsworth Editions Limited, 1994), 162-163.

²⁰⁶ Ibid.

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