The front cover contains a picture of the Bennett Building, home of the Upsilon-Upsilon Chapter of Phi Alpha Theta and the History and Political Science Department of University of the Cumberlands. Built in 1906 as part of Highland College, University of the Cumberlands assumed ownership in 1907. The building underwent extensive renovation in 1986-1987.
TABLE OF CONTENTS

iii Comments from the Editor ..................................Andrew Wolfe
iv Comments from the President .............................Elizabeth Davis
v Comments from the Advisor ..................................Eric L. Wake
vi The Authors

ARTICLES

1 “Khrushchev and the Legacy of Stalin” ......Amanda Sickman
9 “Throwing the Hedgehog: Khrushchev’s Motives in the Caribbean Crisis” ........................................... Allyson Blessman
19 “Leonardo Da Vinci: Observations Applied to Art” ............................................................... Ashleigh Collard
COMMENTS FROM THE EDITOR

The utmost congratulations and praise must go out to Allyson Blessman, Ashleigh Collard, and Amanda Sickman whose research papers are featured in this year’s edition of The Upsilonian. All three of them in their own unique way looked back at the vast portrait that is the human experience and found a story they felt would be interesting to tell the world. They tell these stories in a way that is both informative and highly entertaining. The writing of history is not an easy medium to conquer, but these three historians did it with flourish and grace. We would be amiss if we didn’t also thank all the historians who submitted papers not chosen in this year’s edition. To them, we encourage a continued pursuit of the lessons and stories the past has to offer.

We would like to extend sincere thanks to everybody who worked so hard to make The Upsilonian possible. The annual publication of this esteemed journal would not be possible without continued guidance and dedication from Dr. Eric Wake, Chairman of the Department and Advisor of the Upsilon-Upsilon chapter. We can’t begin to thank him enough for everything he does. A huge thank you goes out to the Department’s Faculty and students who helped read and select the published papers. We would like to especially thank Dr. Christopher Leskiw, this year’s Chairman of the Board of Advisors. Finally, a special thank you goes to Mrs. Fay Partin, the Department’s Administrative Assistant. This journal’s publication is largely due to her unwavering assistance and hard work.

A final Hurrah goes out to the Department’s graduating seniors. We wish God’s Blessings on all your future endeavors both in and out of the field of History. All your hard work and dedication to the Department will be missed by everybody. To everyone who will have the unmitigated delight of reading the stories contained within this 24th edition of The Upsilonian I hope you are both entertained and inspired to look into the past and find your own unique stories to tell.

Andrew Wolfe
Editor, Upsilon-Upsilon
2012-2013
COMMENTS FROM THE PRESIDENT

This year has been another great year for Phi Alpha Theta. Members and faculty did a wonderful job in all the activities we were able to host. To start the year, we hosted our first lecture with students from UC’s campus sharing their journeys on Summer Missions. This was followed by The Great Debate with Dr. Broome and Dr. Hicks helping students to understand election politics. Dr. George C. Wright, President of Prairie View A&M explained his life as a black child in Kentucky, and finally a mixture of professors sharing what it was like “back in the day” at Cumberland College. All of our lectures were exemplary and saw some of the largest attendance sizes in years. This year, we also hosted many gatherings, including a cook-out with Dr. Smith’s amazing barbeque, a pizza party, a Christmas get-together with the English department, and an end-of-the-year picnic. Along with our busy schedules, we were still able to find time to orchestrate two book and bake sales which helped provide funds to send two members to the Regional Conference where both presented papers. Overall it has been a magnificent year. We inducted five new members this spring, which makes for a very promising and exciting year to come.

I have truly enjoyed being president of Phi Alpha Theta this year and am enthusiastic to see what new surprises next year will have to offer. However, this past year and the years to come would not be possible without our advisor, Dr. Eric Wake. We cannot express our gratitude enough for all of the work he puts in to making this honor society what it is. Our deepest thanks must go to Ms. Fay Partin, though. Her countless hours working on organizing the locations and times for all of the lectures, bake sales, events, and Best Chapter registration is outstanding. Her passion for the students in the society is unparalleled and we truly appreciate it. We would also like to thank the entire faculty in the History and Political Science department for all they do for their students.

Enjoy reading this year’s submissions to the Upsilonian. I know this year’s entries are entertaining as well as insightful.

Best wishes,
Elizabeth Davis
President, Upsilon-Upsilon Chapter
2012-2013
COMMENTS FROM THE ADVISOR

I have been the advisor of our Upsilon-Upsilon Chapter since 1985. Some years have been easier than others because we have had large numbers and students eager to carry on the work. But this year our numbers were small. We did not have a fall initiation because no one qualified. This has been the only time in my tenure as advisor that this has happened. But we had a good spring initiation and these students will return next year. And to top it off, this year’s group had a difficult time finding a business meeting time. One semester we had to meet at 8:00 a.m. in the morning and you know how students love to go to meetings at 8:00 a.m. During the spring semester we met on Sunday afternoon, perhaps the only worst time than 8:00 a.m. These students, however, gave me a great sense of pride because they knew that there was work to be done, and they were determined to get it done.

This year our lectures were packed. The lowest number was somewhere around 75. A couple of the lectures averaged around 200 or more. We had a special guest lecturer, Dr. George Wright, a noted African-American scholar and President of Prairie View A&M College. He presented two lectures to large crowds. And then we had our socials. I always say that we are the best fed department on campus. And although it rained on the picnic forcing us to move it inside, we still had a great time.

We will lose three of our members this year. They will go on to start their careers as they should. We know that they will be successful, and they will remember that they are always a part of the Upsilon-Upsilon tradition. Those of us who remain will carry on the tradition as we know that our alumni expect it.

Eric L. Wake, Ph.D
Advisor, Upsilon-Upsilon Chapter
Amanda Sickman was a May 2013 graduate with an area in social studies. The original draft of her paper was written for the Russia course.

Allyson Blessman was a May 2013 graduate with majors in history and political science. The original draft of her paper was written for the Russia course.

Ashleigh Collard was a May 2013 graduate with majors in history and political science. The original draft of this paper was written for a course entitled Renaissance and Reformation.
In the early hours of the morning on February 25, 1956, Nikita Khrushchev delivered a smashing criticism of previous Soviet leader Joseph Stalin. Never before had anyone dared to so openly criticize the Soviet leader. This address, despite being known as the Secret Speech, had far reaching and public effects. It indicated openness to reform and relaxation of international tensions, but on both counts lasting change was constricted by the rigidity of Soviet ideology.

The death of Stalin in March of 1953 left a gaping hole in the picture of Soviet leadership. For years, he had been the ultimate determiner of Soviet policy, and although publicly the government espoused the idea of “collective leadership,” it was recognized to have no correlation to reality; Stalin was the leader of the Party and ran the country. Khrushchev was appointed chairman of the funeral commission. Over the following months Khrushchev was fully solidified in the top position. On September 8th he became the First Secretary.

The death of Stalin encouraged hopes of relaxed tensions, internationally and domestically. In fact, Khrushchev’s far more yielding and agreeable nature made him a natural follow up to the years of oppression under a cold and ruthless leader such as Stalin. The fear that had been endured, even at the highest levels of power, had been severe. Soviet politician Nikolai Bulganin divulged to Khrushchev, “Sometimes when you go to Stalin’s, he invites you as a friend. But while you’re sitting with him, you don’t know where they’ll take you afterward: home or to prison.”

Interestingly enough, Khrushchev engaged in some terror of his own to solidify his grasp on power following the death of Stalin. Lavrenti Beria had served as the head of the Interior Ministry. This powerful position put him at the head of the notorious Gulag, the Soviet system of forced labor camps, and in charge of the overall system of punishment and control. Though he had held this position at the bidding of Stalin, the great power he wielded was a personal threat to the Presidium, the central governing body of Party leadership. One of Khrushchev’s advisors, Fedor Burlatsky, recalled hearing Khrushchev say of Beria, “As long as the bastard’s alive, none of us can feel safe.”

Khrushchev sought to organize with other Presidium members against Beria. Having secured the aid of a dozen senior military men, the plan to take down Beria was set in motion. At a joint meeting of the Presidium of the Council of Ministers and the Party Presidium, Khrushchev leveled a slew of accusations: Beria conspired with British intelligence, served as a spy for the Caucasian Muslim opposition, undermined Soviet unity, doubted the future of socialism in East Germany, and interfered in the Party affairs of national republics. In conclusion he sweepingly declared, “Beria is no Communist.”

Khrushchev proposed that Beria be removed from all of his positions. Then, Georgi Malenkov, Chairman of the Council of Ministers of the USSR, called in the army men who took Beria into custody. Beria spent his time in prison furiously putting pen to paper, addressing many of his former colleagues and pleading for the possibility of still serving the Party.

The case was opened for debate in a special plenary meeting of the Central Committee. It lasted for a total of five days, with Malenkov presenting the case. Once again Beria was accused of various crimes and abuses, including placing the Ministry of
the Interior above the Party. His surveillance on Presidium members was also raised. Khrushchev, who opened and chaired the session, then spoke for an hour. While Beria had been close to Stalin, in his speech Khrushchev deflected criticism from Stalin by portraying Beria as a cunning man who took advantage of an aging and ailing Stalin. He also, like Malenkov, questioned the broad powers of the Interior Ministry. The Ministry was known to completely fabricate charges, and had also made use of special boards, extra-judicial bodies with broad penal powers.

The closing speech was delivered by Malenkov. He roundly condemned the cult of personality which surrounded Stalin. “We do not have the right to hide from you the fact that such a deformed personality cult led to arbitrary individual decisions and that in recent years this began to cause serious harm to the business of leading the Party and country.”

In late 1953 Beria was tried at a Special Judiciary Hearing. It was a lengthy process and questionable evidence was presented indicating his contact with anti-communist intelligence. The trial also delved into Beria’s alleged sexual promiscuity and violence. Numerous names of women he assaulted or raped were submitted. Eventually Beria confessed to all the charges made against him and desperately pleaded for his life. But his pleas fell on deaf ears. He was sentenced to the supreme capital penalty, death by shooting, and immediately removed to a bunker and shot.

The removal of Beria freed Khrushchev to act more confidently in his position of leadership. It was not long then, before he turned to the issue of Stalin’s legacy. Indeed, the need for some sort of discourse on Stalin was about to become incredibly apparent. Thousands of people sentenced to lengthy exiles during Stalin’s reign were reaching the end of their sentences and filtering back home. With them traveled their stories and allegations of wrongful imprisonment. In particular, hundreds of thousands who had been sentenced to ten years at the end of the Second World War were set to be released in 1955.

With them came the need for rehabilitation into mainstream Soviet society. Regardless of the justice of their sentences, they faced discrimination for having once been labeled “enemies of the people.” Rehabilitation would extend far beyond merely including them once again in society, but would imply their innocence. Further demonstrating the need for a reassessment of Stalinist imprisonment practices were the piles of requests flowing in for case reviews.

Khrushchev also believed that the truth was not necessarily something to be feared. Instead he trusted that facing the reality of the past would strengthen the party’s authority. There also was an element of power politics at play. Many who were in the leadership of 1956 had been senior to Khrushchev during the bloodiest years of Stalin, thus they held greater responsibility for what had taken place.

Khrushchev was motivated by moral reasons as well as political in his decision to face the truth about Stalin. Speaking in private he shared, “I have blood on my hands up to my elbows…This is the most terrible thing that burdens my soul.” The memory of what he had participated in as a supporter of Stalin haunted him. He recalled that the night before delivering the Secret Speech he could still, “hear the voices of comrades who perished.”

Khrushchev firmly believed that in order to move forward, it was first necessary to deal with the past. He saw the terror of Stalin as damaging to the “revolutionary legality” of the Soviet Union, and wished to repair this and get back to the core of “Soviet
socialist democracy.”18 In an effort to deal with this legacy, Khrushchev established a commission for the express purpose of investigating Stalin’s activities. It was to be conducted as quietly as possible and focus on the violations made against socialist legality. After facing some protest, the commission moved into action and generated a report on Stalin’s violations. It was approved by Khrushchev and then issued to the Presidium.

The report served as a forum for comparison, setting the example of Lenin in contrast to the practices of Stalin. While Lenin had attacked only “genuine class enemies,” Stalin had pursued an “arbitrary terror.”19 The responses were initially mixed, which is understandable considering that many of the readers had been part of Stalin’s apparatus of repression.20 If the analysis went too far they could be implicated.

Moving forward in his dealing with the past, Khrushchev determined to take the report to the Twentieth Party Congress. The gathering opened on the 14th of February, 1956. Khrushchev requested that a vote be taken amongst the delegates whether to hear a report from him. It was approved, and the big unveiling of Stalin’s abuses was set to occur.

Khrushchev, however, was not the first to address party leadership on the failings of Stalinist rule. Prior to his “Secret Speech,” Anastas Mikoian, the first deputy premier, made reference to the cult of personality and to people being wrongfully declared enemies of the people. Still, he did not make as bold and direct a reference to Stalin as Khrushchev would a few days later. In fact it is possible that he delivered his statements in order to test the waters before Khrushchev delivered his blow to the memory of Stalin.21

As the Twentieth Party Congress drew to a close on the 25th, Khrushchev began his four hour long speech detailing the cult of personality and its repercussions. With the intent to keep the matters discussed Party business only, the speech was delivered in a closed session. No foreign guests or journalists were present and the floor was not opened for debate following the address.22

As Khrushchev spoke he damaged the reputation of Stalin, focusing largely on the repressions which had been carried out against leading party officials. This focus would serve to make his speech more appealing, while simultaneously giving assurance that these repressions would not be repeated.23 Various abuses of Stalin’s were drawn out. Among these were the use of beatings to force confession, the killing of people who recanted their forced confessions, the massive arrests and deportations, and executions carried out without a trial or normal investigation.24 He pointed out the use of the term “enemy of the people” as a means of engaging in violent repression without factual justification.25 Khrushchev refused to surrender the legacy of the past to silence. This view was not widely shared. Many in the audience would have been content to simply “leave the horrors of the past in the past.”26

Though his speech was bold in its questioning of the justice of Stalin’s actions and policies, it was limited in its ability to affect far reaching reform. In fact, the limited focus on Stalin’s wrongdoing limited the good such an analysis of the past could do. While abuses of power were cited, the speech did not constitute a serious examination of the ideological and structural basis of Stalin’s reign.27 Additionally, though similar terrors had occurred during the time of Lenin, these were not referenced. To have dug deeper into the legacy, questioning the principles which the Soviet system centered on,
could have ended up constituting a challenge to the legitimacy of the entire Soviet system. 

Though Khrushchev was able to recognize the brutality against fellow communists as wrong, he was not yet ready to look into the issue more deeply. He still had much praise to offer for Lenin, the Party, and the general Bolshevik system. But what he failed to see was that by defending the memory of Lenin he was in essence preserving Stalin.

Khrushchev did not wish to bring about the end of communism in Soviet Russia. In fact, at the conclusion of the Secret Speech he emphasized a return to true Leninist principles. Neither did he question the rightness of violence between classes. While he promoted the possibility of peaceful coexistence between states with different social systems, this applied only to states. Thus he was supportive of wars of national liberation in ex-colonial developing countries. He also believed that different paths could be followed to socialism. Unlike Stalin who supported a “my way or the highway” vision of socialism, Khrushchev did not object to nations adapting the system to their particular conditions. He also asserted that the transition to communism could be achieved through peaceful means; precipitating violence was not necessary.

It is important to note that Khrushchev, despite all his words condemning the excesses of Stalin’s leadership, had been a fully integrated part of the Stalinist government for years. He zealously executed whatever course Stalin willed, all the while managing to escape the purges. He was a leader in the typical Stalinist mode: minimally educated, energetic, and blindly trusting of Party instruction. Stalin in fact, did not consider Khrushchev as a serious possibility for his successor. While forthright, he was a “peasant leader,” not cunning top job material. This contributed to his preservation during all of the purges. His image of simplistic, blind faith kept him from being seen as a threat.

At a Moscow Party meeting on August 22, 1936, Khrushchev had fiercely advocated Stalin’s sharp tactics against political enemies. “Just as Comrade Stalin, with his sharp Leninist eye, has always accurately pointed out the path for our Party, as for the whole of the construction, so he has pointed out the corners where vermin can crawl out. We have to shoot not only this scum, but Trotsky should also be shot.” Similarly, he spoke of “finishing off the enemies” in the Ukraine. Khrushchev was equally zealous in the so called “reconstruction” of Moscow, proudly supporting the tearing down of old, historic monuments. So while he would condemn Stalin after the fact, during his reign he was a zealous and committed servant of the Party.

Khrushchev does not deserve to be condemned though, for the rigidity of his philosophy. Khrushchev’s belief in the Soviet system of government ran deep. His entire life had served to make him receptive to a belief in the communist ideals of Karl Marx. He was born in 1894 in the village of Kalinovka, located in Kursk province on the border of Great Russia and the Ukraine. It was a region of rich agricultural opportunity, but suffered from overpopulation. His family, like many in the region, was of the peasant class forced by necessity to seek seasonal industrial work in other regions.

From an early age Khrushchev was expected to contribute to the family’s survival. Until the age of fourteen he did this by tending livestock and shepherding. At that time he then moved to Donbass, the industrial region of Southern Ukraine and took up work in a mine alongside his father. Ivzovka, the company town where they resided, like others in the region, was a filthy and miserable place. It was here that he became
aware of the backwardness of Russia and of the great need for economic development; it was also here that he developed a distaste for capitalism.39

During his years in industrial Donbass he came across the works of Karl Marx for the first time. The combination of his ongoing personal toil and struggle and communist ideology proved deeply influential. The circumstances described by Marx were a personal reality every day, and his ideas seemed to offer the direction to a better way of life.40 Khrushchev himself, reflecting on this first encounter stated, “When, later on, I listened to lectures on political economy…it seemed to me as though Karl Marx had been at the mine where my father and I had worked.”41 With the promises of communism swirling about in his head, Khrushchev then became sympathetic to the rising Bolshevik Party, though he would not officially join their ranks until after the 1917 revolution.

Despite the veracity of Khrushchev’s past commitment to Stalin, and the essential limitations to reform imposed by the limited scope of his assessment of Soviet history, the Secret Speech did bring about some tangible results. In Tbilisi, Georgia riots broke out on the anniversary of Stalin’s death. Special tribunals by security services were abolished, and workers’ councils were instituted on an experimental basis in some factories. Overall, people felt freer to voice their thoughts on political leadership; writers began addressing topics which formally were strictly off limits,42 Criticism even began to extend beyond the Stalin legacy to the larger failings of the system. Thus the process of dethroning the Stalin mythology threatened to also turn into anti-Soviet criticism.43

Greatest of all the results though, was the acceleration of the rehabilitation process for gulag returnees. Ninety special commissions were set up to re-examine the convictions of those still serving sentences. The numerous people who had been wrongfully sentenced to work camps were now freed to find their place in Soviet society.

Another important aspect of his time in power was the relationship of the Soviet Union to the United States. Khrushchev was hopeful for improvements in Soviet and American relations.44 Still, the rigidity of the Soviet ideology and the unswerving American commitment to capitalism and democracy made this difficult. It is notable that even after the Cuban Missile crisis heightened tensions almost to the brink, Khrushchev and John F. Kennedy were still committed to avoiding nuclear war.45

Even with all of these positive developments, the impact of the Secret Speech was limited. There was considerable pushback against such frankness on the grounds that such talk constituted, “spitting on the history of our country.”46 Others saw the opening of anti-Stalinist sentiment as a means of questioning the Soviet regime, and thus as a threat to Soviet rulers. In other situations, the criticisms were permitted, but only alongside praises. So while the Central Committee criticized Stalin’s repressions and theoretical mistakes in its resolution, “On Overcoming the Cult of Personality and its Consequences,” it also defended his achievements, such as his war time leadership.47 Even Khrushchev himself followed this pattern in the Secret Speech, simultaneously calling out Stalin’s excesses and his achievements.48 Also demonstrating the limits to reform was Khrushchev unwillingness to grant freedom of expression to artists. He viewed the arts as inseparable from political expression.49

Khrushchev also continued to pursue a hard line against political dissidents. When the Polish communist leader Boleslaw Bierut died, internal disquiet followed, including the organization of a strike. The Soviet expectation was that these events would be blamed on evil western influence and swiftly ended. Instead the Polish authorities referred to the social and economic conditions of the region as the
provocation. They even made efforts to ameliorate the problem and improve standards of living, making financial concessions. Upset by this seemingly unfavorable turn of events, officials from Moscow, including Khrushchev, arrived uninvited in Warsaw, Poland.⁵⁰ Khrushchev, taking things a step further, backed up this appearance with force, as word arrived of western units of Soviet tanks headed toward the city.⁵¹ The burgeoning conflict was peacefully concluded when the Soviet leaders were assured the transition of leadership in Poland would not alter the Polish-Soviet relationship.⁵²

The Secret Speech and its results did not even satisfy all the hopes of Khrushchev. As his son Sergei wrote of his father, “The problem of political power greatly disturbed Father.”⁵³ Even after being in power and addressing the abuses of power of Stalin, he still worried about what could happen in the future.⁵⁴ It remained unknown who would succeed him and by what manner they would succeed to power. And it still remained to be answered how future governments would guarantee that a concentration and abuse of power would not reoccur.

Interpretation of Stalin’s legacy was far from ended after the Secret Speech. Even today Russians continue to be divided in their interpretations. Do they see the speedy industrialization and victory over Nazi Germany, or do they see the crimes and victims?⁵⁵ Still, the Secret Speech was the opener of this great debate, with Khrushchev setting an important example.

Endnotes


3 Volkogonov, Autopsy for Empire, 181-185.


5 Volkogonov, Autopsy for Empire, 186.

6 Ibid., 186-193.

7 Ibid., 187.

8 Volkogonov, Autopsy for Empire, 186-193.

9 Ibid., 191.

10 Ibid., 186-193.

11 Ibid.


18 Volkogonov, *Autopsy for Empire*, 201-209.

19 Ibid., 203.

20 Ibid., 201-209.


22 Volkogonov, *Autopsy for Empire*, 201-209.


27 Ibid., 154-159.

28 Ibid.


32 Ibid.

33 Ibid.

35 Ibid., 170.
36 Ibid., 183.
37 Ibid., 184.
39 Ibid.
40 Ibid.
41 Ibid., 8.
42 Ibid., 161-163.
46 Cohen, *The Victims Return*, 127.
49 Ibid.
50 Ibid.
51 Volkogonov, *Autopsy for Empire*, 201-209.
54 Ibid.
Throwing the Hedgehog: Khrushchev's Motives in the Caribbean Crisis
By Allyson Blessman

In 1962, Soviet Premier Nikita Khrushchev launched a covert operation to place nuclear missiles, aimed at the United States (US), on the island of Cuba. His action kicked off the nuclear confrontation known as the Cuban Missile Crisis in the US, and the Caribbean Crisis in the former Soviet Union. Fifty years later, the motive for Khrushchev’s action remains unclear. Khrushchev consistently maintained that his highest objective was to defend Cuba, a claim that remains accepted in Russia to this day.1 The US dismissed Khrushchev’s explanation as nothing more than Communist propaganda. The prevailing view in the US today is that Khrushchev’s motivation lay purely in the “balance of power.”

Although from a western point of view Khrushchev’s explanation is hard to comprehend, in the context of Khrushchev’s political objectives, it is conceivable that his primary goal truly was Cuban defense. That is not to say that the balance of power had no bearing on his final decision. Undeniably, Khrushchev appreciated the strategic implications of his decision. It is also unlikely that he was motivated purely by a moral drive to correct an international injustice. In examining Khrushchev’s statements on the matter, it seems that his primary motive for placing nuclear warheads in Cuba was to protect the vulnerable, socialist nation from US aggression, in advancement of his political strategy of “peaceful competition.”

“To interpret Soviet decisions is to interpret Khrushchev. He alone decided on policy.” And “[he] made decisions largely on his own.”2 Khrushchev’s past, especially his climb to prominence through the ranks of the Communist Party, reveals much about his values and objectives. His deep understanding of the Russian people, and his revisionary application of Marxist-Leninist ideology are exemplified by his actions. These factors undoubtedly influenced his subsequent foreign policy.

Little is known about Khrushchev’s early life other than what he himself related in his speeches.3 Even in his multivolume memoirs he mentioned very little about his childhood.4 He described himself as, “the son of a working man, [and] the grandson of a serf.”5 He was born on April 17, 1894, in the Russian village of Kalinovka. According to Khrushchev he started working very young. When he was fifteen he found work in a German factory, and eventually took a job as a miner and ironworker. His employment in that necessary field kept him from being drafted into the Red Army during World War I. He did, however, still gain some military experience when he joined the Bolsheviks in the Russian Civil War.6

After the war was over he returned to the mines, working in the Donbass region of the Ukraine.7 As a reward for his work in the Communist Party, he was selected to attend one of the Schools the Party had established to train Party members to become leaders in industry. He took advantage of the educational opportunity, and attended school in Yuzovka (Stalino), where he studied math and physics. He soon worked his way up the party structure.8

Khrushchev skillfully judged the political climate around him. After Lenin’s death in 1924, when Stalin arose as the new leader of the Party, Khrushchev managed to remain afloat in the turbulent political waters that sank so many of his peers. By 1934 he had risen to the position of First Party Secretary in Moscow, the most politically influential city in the Soviet Union.9 He was eventually appointed First Secretary of the
Central Committee, a position that allowed him to hold cooperative leadership after Stalin’s death in 1953. He again employed his political wiles, and in 1957, he eliminated his competition and assumed the primary leadership position.

When Khrushchev emerged as the head of the Soviet Union, he had to deal with the turmoil left behind by Stalin’s regime. The Soviet Union had been racked by war and its people had lived on the edge of starvation for far too long. In a speech made to the assembly, Khrushchev denounced Stalin’s despotic abuses and pledged to reinstitute the Leninist ideal of “democratic centralism.” He vowed to continue the pursuit of Socialism by a peaceful means.

Khrushchev abandoned the Leninist principle that a violent war was necessary for communism to defeat the imperial capitalists. He also publicly condemned Stalin’s repressive actions and pledged to promote communism peacefully. Khrushchev wrote in the introduction to the English edition to his book For Victory in Peaceful Competition With Capitalism, “War and aggression are alien to the very nature of the socialist system.” Through his strategy of “competitive coexistence,” he waged a passive aggressive attack against the US and shifted tactics from traditional military might, toward the use of wit and wiles. When Khrushchev rejected the possibility of an armed conflict, based on his belief in the doctrine that the capitalist world would “of itself turn to Socialism,” emphasis was shifted away from traditional military and focused more on intelligence.

In 1960, relations between Cuba and the United States grew increasingly sour. The Cubans seized several American owned ranches and nationalized US owned industries. Meanwhile, Cuba’s relationship with the Soviet Union grew closer. Diplomatic relations between the two countries was established in May of that year, and was followed by several trade and defense agreements. In July Khrushchev stated, “Speaking figuratively, in case of necessity, Soviet artillermen can support the Cuban people with rocket fire….” On July 12th Khrushchev declared that the “the Monroe Doctrine” was “dead,” and promised to help Castro force the United States to withdraw their Naval forces from Guantanamo Bay.

After that, a series of events began that rapidly increased the ties between Cuba and the Soviet Union. On July 29, Cuban Economic Minister “Che” Guevara announced that Cuba would adopt the Communist economic system. By November of 1960, the US government reported that Cuba had received at least twelve shipments of arms and ammunition from the Soviets, totaling about 28,000 tons. On December 19, Cuba officially allied itself with the Sino-Soviet Bloc and aligned itself with the Soviet Union’s domestic and foreign policies. On January 3, 1961, the United States and Cuba discontinued diplomatic relations.

On April 3, the United States issued a pamphlet stating its intention to support future democratic government in Cuba, and called on the Cuban people to disassociate with the Soviet Union. Soon after that President Kennedy promised that, under no circumstances, would the US endeavor to overthrow Castro by military force. His promise was broken shortly thereafter; from the 17 through 19 of April the United States backed Cuban Exiles in their attempted “Bay of Pigs” Invasion. The attack failed and strengthened Castro’s regime.

At this juncture, in an attempt to solidify Soviet support, Che Guevara declared Castro’s revolution to be “the first socialist revolution in Latin America.” On December 7, 1961, Fidel Castro declared his acceptance of the Marxist Ideology stating, “I believe
absolutely in Marxism…. I am a Marxist-Leninist and will be a Marxist-Leninist until the last day of my life.”

Disturbed by Soviet intervention so close to their southern coast, the US dealt harshly with Cuba. On February 3, 1962 President Kennedy placed a trade embargo against Cuba encompassing all goods except for medical supplies. In September, Cuban exiles requested that the US government support another invasion attempt. Khrushchev received word through secret channels about operation MONGOOSE, a second US plot to unseat Castro’s government. Khrushchev warned the United States that any attack on Cuba or Soviet ships headed for the island, would result in nuclear war.

Khrushchev predicted all nations would forsake capitalism for communism as Cuba had done. US interference with Cuba’s voluntary adoption of Communism was not fair play according to Khrushchev. Therefore Khrushchev decided to restore order, by doing exactly what the US had done to Russia in the case of Berlin. Undoubtedly, Khrushchev thought that employing the United States’ own tactics against her was poetic justice, but the balance of power was second in Khrushchev’s mind to ensuring that the peaceful Communist revolution was allowed to occur.

In his memoirs, Khrushchev stated that the idea of placing nuclear missiles in Cuba first occurred to him while he was on tour in Bulgaria. Looking back on the event years afterward he stated, he was convinced that the Americans would not allow Cuba to remain a socialist nation. He wrote, “an action had been taken that could have deprived the Cuban people of all their revolutionary gains; it could have meant the loss of the possibility of building socialism in Cuba.” The failed Bay of Pigs invasion would be followed by additional attempts. He noted that the Americans “feared, as much as we hoped, that a Socialist Cuba might become a magnet that would attract other Latin American countries to Socialism.”

Khrushchev saw Castro’s regime as a foot in the door to a Socialist Latin America and he believed that it was in the interest of the Soviet Union to prevent the United States from slamming that door shut. “We had an obligation,” Khrushchev explained, “to do everything in our power to protect Cuba’s existence as a Socialist country and as a working example to the other countries in Latin America.” The question of what the Soviet policy toward Cuba would be was “constantly” on his mind. He needed to think of a way “to establish a tangible and effective deterrent to American interference in the Caribbean.” He eventually came to the conclusion that, “The logical answer was missiles.”

Khrushchev saw that his planned course of action had the “additional” benefit of equalizing the “balance of power.” In response to Soviet action in Berlin, the US had stationed Jupiter missiles in Turkey pointed at Soviet cities. This advantage, as he stated it, was only a secondary motivator. Khrushchev thought it was only fair for the Soviet Union to react to a similar situation in a similar manner. “Why not throw a hedgehog at Uncle Sam’s pants?” He asked Soviet Minister, Rodion Malinovsky. Apparently he could not think of a reason, for by May of 1962 the Presidium had unanimously voted to put Khrushchev’s plan into action.

Khrushchev’s stated motivation is supported by the text of the Draft Agreement between Cuba and the USSR on Military Cooperation and Mutual Defense, signed in August of 1962. The document stated the USSR would supply Cuba with troops and weapons for defense. The preamble stated repeatedly that the preservation of peace was a priority.
The mission to defend Cuba included a complex plan of deception to keep the US from discovering their plot until the missiles were in place. The mission’s name itself was part of the deception campaign. The Soviets assigned the mission the code name of OPERATION ANADYR after a river in a region of Siberia. It was their thought that if the United States intercepted documents dealing with the mission they would assume that the Soviets were preparing to ship supplies to that region rather than to the Caribbean.

In the first wave, the Soviets shipped twenty-four mobile launchers with thirty-six missiles designated R-12, (SS-4). The Medium Range Ballistic Missile (MRBM), could strike eleven hundred miles of the US South. Later shipments included sixteen fixed site launchers with twenty-four R-14 (SS-5) missiles, which are a type of Intermediate Range Ballistic Missile (IRBM). The missiles had a predicted range of twenty-two hundred miles meaning they could strike anywhere except the far northwest corner of the United States. The total from all the shipments equaled forty launchers and sixty nuclear missiles with an explosive yield of two to eight hundred kilotons, ten to forty times the power of the bomb dropped on Hiroshima.

This was not the first time Khrushchev had used his nuclear capability as a negotiating technique. Interestingly enough Khrushchev had threatened to put missiles in Cuba as early as the summer of 1960. This time, however, the results of his strategy were disappointing. Before Khrushchev stationed the missiles in Cuba the US did not seem to take his threat seriously. Throughout this period, Kennedy had maintained that Cuba did not possess any “offensive” weapons that directly imperiled the United States and therefore military action on the part of the US was unnecessary. His policy was derogatorily dubbed his “do nothing policy.” It would not be long, however, before Kennedy was forced to act.

On October 14, 1962 American U2 spy planes photographed what appeared to be Soviet missile bases on the nearby island nation of Cuba. By the 16th the images were confirmed to be of missile bases and President John F. Kennedy’s administration was faced with making the next move. On October 22 Kennedy related the situation to the public. The next day he enforced his “quarantine,” preventing all ships from entering Cuban ports.

In order to decide the best plan of action the administration tried to figure out what motivated Khrushchev to take such extreme action. Kennedy and his Executive Committee (ExComm) came up with several theories in an attempt to explain the Soviet leader’s drastic move. They speculated that it could have been:

A quick and inexpensive way to increase Soviet strategic missile strength; a bargaining chip to be traded away in exchange for Western concession regarding the status of Berlin; a diversion which would allow the Soviets to take unilateral action on Berlin; a way to end the double standard which allowed the United States to deploy IRBM’s on the Soviet periphery but not vice versa’ or a test of US resolve which would demonstrate US irresolution and thus advance Soviet geopolitical power.

Kennedy was convinced the incident involved Berlin, which had been the dominant diplomatic issue up to that point. Ambassador Llewellyn Thompson, a member of Kennedy’s Executive Committee, disagreed with the theory that Khrushchev’s actions had anything to do with Berlin or the Jupiter Missiles in Turkey. “The important thing for
Khrushchev,” he thought, “is to be able to say: I saved Cuba. I stopped an invasion.”

Thompson had just returned from his tour as ambassador to the Soviet Union; among the members of the committee he was probably the most qualified to speculate about Khrushchev’s reasoning. The other members remained skeptical.

Still unsure of Khrushchev’s motives, Kennedy’s administration continued to negotiate with Soviet ambassadors. They hoped to be able to find a peaceful resolution to the conflict. For his part in the negotiations Khrushchev repeatedly stated that the missiles were there to defend Cuba. On October 26, news correspondent and ExComm-Soviet go-between, John Scali, submitted his notes from a meeting with Soviet embassy counselor, Alexandr Fomin. During the meeting Fomin stated that Soviet “bases would be dismantled under United Nations supervision and Castro would pledge not to accept offensive weapons of any kind, ever, in return for a US pledge not to invade Cuba.”

That same day Kennedy received a letter from Khrushchev formally stating those same conditions for conflict resolution. Before Kennedy could accept, he received another letter demanding that in addition to Cuban security the Soviets also wanted the Jupiter missiles removed from Turkey. Exactly why the Soviets increased their demands at that point is still uncertain. Kennedy responded by agreeing to the terms of the first letter. In his reply letter to Khrushchev on October 27, Kennedy wrote that the US would lift the “quarantine” and publically pledge never to invade Cuba again. To sweeten the deal Kennedy entered into secret negotiations about the removal of NATO missiles in Turkey in response to the demands in Khrushchev’s second letter.

Kennedy’s acceptance of the terms in Khrushchev’s letter marks the beginning of the end of the crisis. The fact that, except for Khrushchev’s second letter, the only demand Khrushchev made was for US assurance of Cuban security supports the theory that Khrushchev’s primary motive was what he claimed. Mutual disarmament was obviously more advantageous to the Soviet Union than Cuban defense. Had the balance of power been his primary motive he would have dropped the façade of protecting Cuba when negotiations first began. Furthermore, in a speech to the Supreme Soviet in December 1962, Khrushchev gave the same explanation of his motivation for placing the missiles into Cuba to the committee. He said that his action was simply in defense of their Soviet brother from the inhumane actions of the United States. Khrushchev felt the US “quarantine,” or “blockade” as he called it, was an unjust attempt to “Starve a whole nation.” Despite his repeated explanation western scholars remain skeptical of Khrushchev’s stated motivation.

Part of the skepticism is based on the assumption that Khrushchev lacked confidence. Max Frankel demonstrates this view. In his book on the crisis he wrote “As I first sensed in reporting from Moscow at the height of Khrushchev’s power, his pugnacity was born of a typically Russian insecurity. His most aggressive actions against the west tended to mask a deeply defensive purpose. The evidence now available, though still debated shows that it was to offset a debilitating weakness, not to imperil America that Khrushchev careened into the crisis.” This commonly held American evaluation of the Soviet leader seems largely unfounded.

Throughout his life Khrushchev frequently defied the odds. His success in working his way up through the ranks of the party was remarkable. His political as well as physical survival during the Stalin era, and afterward, alone was an incredible achievement. His perseverance in the party would have been enough to build his self-confidence, but he had the added self-esteem boost of seeing many of his organizational
reforms result in major improvements in efficiency of production. It hardly seems reasonable to say that Khrushchev suffered from chronic insecurity. Not that he was without worry, but overall, Khrushchev seems to have been a confident individual. If anything Khrushchev appears to be overconfident to the point of recklessness. He was impulsive and willing to take a gamble to achieve his objectives.52

Khrushchev stated repeatedly that his sole intent was to defend the newly established Communist nation from the unprovoked aggression of the United States. He spoke frequently of “peaceful coexistence.”53 By that he did not mean that the conflicting ideologies of Capitalism and Communism could be allowed to coexist, but rather capitalism would eventually be defeated through peaceful competition in each individual state. Khrushchev expected that the fall of Capitalism would likely involve some violence on the local level as each people rose up to topple their country’s capitalist structure. His end goal was the peaceful coexistence of people in all states living in a Communist system.54 He wrote “society as a whole, must strive to find ways not only of postponing war, but also of abolishing it forever.”55 Khrushchev’s positioning of missiles in Cuba was not warmongering, it was insurance. He may have achieved peace by the threat of war, but he achieved it nonetheless.

Khrushchev thought if he committed only troops and lesser weapons to Cuba’s defense, the US would not be effectively deterred.56 By upping the ante to the threat of nuclear war, US invasion was prevented. Khrushchev was an excellent judge of character. His evaluation of Kennedy was that he was a man he could reason with. Khrushchev was counting on the fact that Kennedy wanted to avoid war as much as he did.57

In light of his stated aversion to war, American scholars and officials often wonder why Khrushchev employed such drastic measures if his primary concern was truly to deter a US attack. Khrushchev explained that he thought “if the United States discovered the missiles were there after they were already poised and ready to strike, the Americans would think twice before trying to liquidate our installations by military means.”58 In Khrushchev’s mind, his extreme measure was the best way to “peacefully” defend Cuba. Khrushchev stated, “When we put our ballistic missiles in Cuba, we had no desire to start a war. On the contrary, our principal aim was only to deter America from starting a war.”59

One of the reasons that American scholars reject Khrushchev’s statement of motivation is that he is generally viewed as a pragmatist rather than an ideologue.60 He was adept at navigating his way through political situations.61 He was a good judge of character and would often say whatever was necessary to achieve his goal. This interpretation of Khrushchev’s personality has led many to dismiss his explanation of Cuban defense as pure propaganda. It is true that Khrushchev frequently made use of propaganda when he saw that it would advance his cause. In this case, however, the tale of how he defended Cuba from an unprovoked attack by a greedy imperialist nation fit neatly into Khrushchev’s arsenal of propaganda. Considering Khrushchev’s policy of peaceful competition, his belief in the inevitability of socialism, and his high level of self confidence, it is likely that Khrushchev saw defending Cuba as part of his policy’s fulfillment.
Endnotes


5 Mager and Katel, *Conquest without War*, 16-17.


7 Ibid., 278.

8 Ibid., 279.


17 Larson, “*Cuban Crisis,*” 300-301.

18 Ibid., 302.

20 Larson, “Cuban Crisis,” 303.

21 Ibid., 304.


25 Ibid., 324.

26 Ibid., 493.

27 Ibid.

28 Ibid.

29 Ibid., 494.

30 Max Frankel, *High Noon in the Cold War: Kennedy, Khrushchev and the Cuban Missile Crisis* (New York; Ballantine Books, 2004), 8.


34 Frankel, *High Noon in the Cold War*, 13.


39 Ibid.
Ibid., 41-46

Ibid., 55-57


May and Zelikow, The Kennedy Tapes, 667.


John Scali’s notes on first meeting with Soviet embassy counselor and KGB officer Alexandr Fomin, October 26, 1962, in Chang and Kornbluh, The Cuban Missile Crisis, 194.

Khrushchev letter to Kennedy, October 26, 1962, in Chang and Kornbluh, The Cuban Missile Crisis, 195-198.

Khrushchev’s Message to Kennedy, October 27, 1962, in Eubank, The Missile Crisis in Cuba, 204.

A Message From Kennedy to Khrushchev, October 27, 1962, in Eubank, The Missile Crisis in Cuba, 204.

Eubank, The Missile Crisis in Cuba, 88.

Devine, The Cuban Missile Crisis, 102-108.

Frankel, High Noon in the Cold War, 5.

Nathan, Cuban Missile Crisis Revisited, 179.


Mager and Katel, Conquest Without War, 3-7; Nikita Khrushchev, For Victory, 12.

Nikita Khrushchev, For Victory, 12.


Frankel, High Noon in the Cold War, 5.

Khrushchev, Khrushchev Remembers, 494.

Ibid., 495.

61 Medlin, “Khrushchev: A Political Profile: I,” 278.
Leonardo Da Vinci: Observations Applied to Art
By: Ashleigh Collard

The Renaissance was home to many great artists who created changes and techniques with their masterpieces and studies. One of these artists was Leonardo da Vinci. Da Vinci did more than create paintings; he also studied the natural world and earned the title of scientist. He believed that painting was the best form of art because it was grounded in mathematics and visual experience. He also believed that science and art were inseparable and used each to enhance the understanding of the other. His need to understand how everything worked affected his artwork and helped create his artistic techniques. It also made him the leader in some aspects of studies in nature and the human body. His studies were grounded in nature and harmony; his studies of rocks, plants, light, anatomy, human expressions, and many other subjects in nature led to improvements in realistic paintings and scientific studies of nature.

Da Vinci viewed painting as a science and art as a way for scientists to visually improve their studies of the world. His studies of the human body as a scientist and artist increased the understanding of man’s structures, portrayal of emotions, and movement. His studies were based on visual observation, and he found that people could only gain knowledge by visually studying objects. This belief led to his conclusion that the best way to inform people of his findings was through his paintings.

Da Vinci’s main focus, as both an artist and a scientist, was on the study of nature. His art was used as a way to better study and understand nature, while his scientific studies were used to also improve his art. As an artist Da Vinci wanted to represent nature’s beauty as accurately as possible and as a scientist he wanted to learn the universal laws that affected how all things took place within nature. He respected that people were able to be a part of nature as well as observe and reflect on it creatively. He possessed an infinite amount of curiosity about the world and his artwork became a way to study things with more focus and detail to discover how they worked, such as the movement of water. Da Vinci used his studies of the world in an attempt to find a unifying principle that would connect all things. He was fascinated by the way elements interacted with one another and how those relations influenced the natural world. Da Vinci was mesmerized by geology, the structure of the earth, and how water shaped that structure. His studies led to the detailed constructions of landscape in his artwork.

He created an understanding of the characteristics of rocks and how they were created with his artistic and scientific studies in geology. He may have been the first person to study and accurately depict rocks. He studied how they were created and used his art to show in detail how they truly appeared in nature. His understanding of geology and the arrangement of landscapes is noticeable throughout his paintings. However, he did combine his knowledge with his imagination to create landscapes that were completely unique, but appeared realistic. Such as with mountains, which he would accurately sketch during his scientific studies, but would sometimes distort when he used them in the background in his paintings.

Da Vinci was also a botanist, someone with the scientific knowledge of plants. He studied the growth of plants, the effect water had on them, and how the sun affected them. His determination to portray plants as similar to how they appear in nature led to his intense study of plant life. Before his studies of plants, drawings of plants did not accurately represent the flora because artists avoided details, such as overlapping leaves, in order to show all the parts. Da Vinci’s drawings accurately depicted the correct
placement and number of leaves. His use of light was one of his most impressive
techniques in his studies; he created the illusion of light on the curved surfaces which was
corroded by darkness on other parts. Most of his drawings from his studies of plant
life were used for figures to enhance the settings of his paintings. His accurate drawings
illustrate his sense of proportion and visual perception, and his willingness to change a
plant’s appearance at times to create harmony within his painting.

Da Vinci wrote about techniques he believed a master artist should have in
regards to nature. He instructed artists to combine their observations of nature, reasoning,
and imagination to produce new artwork. He also believed that artists should refer to
nature when they were creating works of art. He expected them to understand how light
could create a sense of a three-dimensional space in art, as well as how colors were
changed by the atmosphere. Leonardo da Vinci believed that all things in life are unified and created harmony. He supposed that the human
body, growth of trees, and flight of birds were connected by the principles of
proportion.

According to his journals he expected a master artist to understand how the eye
worked and know the math to judge distance. Understanding optics was important to Da
Vinci. He expected artists to take into account how the hue and point of view would
affect the painting. His own studies of optics led to notes in his journal of how distant
objects appeared to intersect and disappear at a vanishing point. This concept helped him
express depth with balanced reduction in the size of objects to create a sense of
distance.

He studied light closely because it stimulated sight and used it as a physical
element as well as a figurative representation of mind and spirit in his art. Leonardo da
Vinci did not separate his study and artful use of light from dark because he realized that
they were dependent on each other. The use of light and shadow, as well as something
between the two, was used to create depth within his paintings. This understanding of
depth led to his mastery of sfumato, a technique used to create a three-dimensional
illusion by using restrained tone, color, and making objects seem more distant by making
their edges hazy. He was also intrigued by the color of the atmosphere; he realized that
the light of the sun and air created the blue of the sky as well as other colors in his
paintings. Da Vinci studied the effects of atmosphere on color, light, and shade. His
study of the atmosphere helped him perfect his use of sfumato as he realized that its
density affected how distant things appeared. He was able to portray mists through which
shapes were barely discernable, such as mountains and valleys during a storm. His use
of light and shade eventually led painters away from the clear tones and linear method
used before his time.

Da Vinci also created a science called chiaroscuro, which was used to make
artificial images appear natural through the arrangement of light and dark areas. While it
does not affect the color used he did not consider them separate; instead they were used
to complement each other and make the painting more realistic. After finding how to
represent color changes caused by light he came to the conclusion that light created color.
This idea was developed as he noticed that color seemed to disappear due to the amount
of light the object received. This technique was used throughout his paintings to add
depth and a realistic quality to the subject.

Leonardo da Vinci’s study of shadow also led to better understanding of
techniques used in art. He found that the use of copying shadows from direct light to
create subjects in art caused the forms to be distorted. He realized that this old method caused forms to be elongated instead of maintaining a more natural appearance. It was very rare that he found an object and its shadow that were equal in size and shape. From his scientific observations da Vinci concluded that every shadow was distorted in some way. His explanations of shadows led artists away from the contemporary process of copying shadows to create forms in paintings. Da Vinci’s observations also led to more artists studying the effect light had on an objects shadow and more attention to recreating realistic shadows within paintings.

Leonardo da Vinci was devoted to the study of human anatomy and physiognomy, facial features which can also indicate character and emotion. These studies of man put his understandings of the body three-hundred years ahead of the medical community of his time. He would study the human body at all stages, from the smooth shape of children to the faces wrinkled from old age. In his notebooks he used his study of the human body to show his students what areas to portray and in what condition for the different ages. He also described how an artist should portray people during movement. He encouraged painters to study gestures and body language so they could be better able to portray movements and convey the emotions in their art. By conveying the subject’s feelings the artwork becomes a narrative. Da Vinci would closely observe the people with which he had contact. There were times that he would become fascinated by someone’s appearance on the street and would follow them. He would observe their gestures and structure until he was able to go home and draw the person as if they were with him. This intense study of individuals helped him learn to convey the emotions of his subjects through his paintings.

Da Vinci’s need to perfectly illustrate and understand all things led to his anatomical studies of the human body. He was the first artist to study the human body to better portray it, as well as the first to use art to depict the human anatomy. Marc Antonio della Torre, a famous anatomist during the Renaissance, helped him in his research. Leonardo da Vinci’s early studies of the human body had been hindered because he had trouble finding bodies. In 1510 he began working at the medical school at the University of Pava, where he had more access to corpses. His admiration of and need to understand the living world led to his dissections being systematic and his illustrations of the bodies being clear and precise. His understanding of perspective allowed him to recreate a three dimensional view of the organs in his drawings, which made the representation more accurate. Through his dissections da Vinci was able to combine his understanding of dexterity, physical structure, with his artistic talent. His study of the eye and vision helped him master perspective, representing a three-dimensional world on a one dimensional surface.

Da Vinci viewed painting as a science, where objects are created in permanent forms. He considered painting a way for the scientist to use precise theories to recreate beauty and better understand nature through its use. He also insisted painters should have a strong understanding of mathematics. During the Renaissance mathematics was the basis of perspective, defined at the time as the representation of recreated objects. Da Vinci mainly focused on the use of geometry in correlation with the proportion of the human body. He considered harmony could be found in comparing geometric forms to nature. He formed basic laws based on his observations of symmetry found in plant life, diffusion of light, and sedimentation. He believed the body was the measure of all things; therefore the perfectly formed man’s proportions were reducible to mathematical
terms. The physically perfect body should be related to shapes such as squares and circles. Da Vinci followed this geometric idea of the physically perfect body when creating the heads in his paintings. He would create heads using two intersecting circles, the lower circle created the curved mouth and the upper circle created the hairline. Where the circles intersected he placed the corners of both the eyes or of the eye closest to the viewer if it was a side profile. When creating the heads of men he would usually use a square as his geometric design. He also created the Vitruvian figure as a way to show these ideal anatomical proportions. The Vitruvian is an ink drawing of a man standing in two positions. The man whose legs are together represent that his outspread arms are the same length as his height. The other figure represents the rule that “if you open your legs so much as to decrease your height by 1/14, and raise your outspread arms till the tips of your middle fingers are level with the top of your head, you will find that the center of your outspread limbs will be the naval, and the space between the legs will be an equilateral triangle.” The man’s naval is the center of the circle of which he stands. The Vitruvian Man also shows the tension between the workings of the bones and dynamics of the muscles within the human body.

Leonardo da Vinci’s study of the natural world cannot be separated from his artwork. Each of his paintings involved a new aspect not used before, such as a new technique or interpretation. Three of his masterpieces, the Adoration of the Magi, Virgin of the Rocks, and The Last Supper, represent his different studies and techniques. In the Adoration he created contrast by placing a group of figures in light and another group in almost complete darkness. These two dynamic groups were balanced by a single focal point. In this painting his study of movement and physiognomy was very important; it was how he expressed the differences in emotions and age throughout the artwork. He worked on this piece for a year before he left Florence to move to Milan. Virgin of the Rocks was the first painting he did in Milan. In this painting he combined his study of nature with his own imagination. He created the landscape as a “timescape” and his detailed rocks led to new understanding of geology. Virgin of the Rocks surpassed any of his earlier artwork because it combined his technical skills with the bold sfumato technique.

Leonardo da Vinci started The Last Supper in 1495 for the convent of Dominican Friars at Santa Maria delle Grazie, Milan. Da Vinci’s Last Supper is different from other representations that have been created because his contains unity and drama that the others do not. As in the Adoration he created two dynamic groups with a single balance point, the two groups of six apostles on either side of Jesus, who is the focal point. While he was painting The Last Supper, he increased his studies of how emotions affected the form, attitudes, and expressions of man. The Last Supper is viewed as a drama because the actions, expressions, and costumes he used were chosen to suit the subject, not for their picturesque effect as earlier representations were. Each gesture given to the disciples is enhanced by contrast, such as Peter, who seems to be eagerly declaring his innocence, is contrasted by St. John, who sits quietly.

Leonardo da Vinci transformed science into an art and created harmony between inner and outer experience through his studies and artwork. Da Vinci believed that science and art were inseparable, each used to enhance the understanding of the other. His studies were based on visual observation, and he found that people could only gain knowledge by visually studying objects. This belief led to his conclusion that the best
way to inform people of his findings was through his paintings. His need to understand how everything worked affected his artwork. It led him to create techniques in art that he was later noted for, and also made him a leader in some aspects of studies in nature and the human body. His studies were grounded in nature and harmony; they led to improvements in realistic paintings and scientific studies in nature.

Leonardo da Vinci’s study of the natural world cannot be separated from his paintings, as each was used to test new techniques he had discovered as well as illustrate the different findings of his studies. His art was used as a way to better study and understand nature, while his scientific studies were used to also improve his art. Da Vinci’s studies of nature led to the detailed structures of landscapes in his artwork. The use of light and shadow, as well as a shade between the two, was used to make his paintings appear three-dimensional. Da Vinci’s study of the human body led to his understanding on how to best portray age, movement, and emotions. He believed that painters should have a strong understanding of mathematics, especially geometry, because this comprehension helped to better recreate the human body. Leonardo da Vinci wanted to raise the status of the artist with his artwork and teachings by conveying the idea that an artist was insightful and understood the world around them.

Endnotes


6 Barber, Through the Eyes of Leonardo Da Vinci, 17.


9 Ibid.

10 Ibid.

Ibid.

Ibid.

Ibid.


Ibid., 20.

Ibid., 10.


Ibid.


Wray, *Leonardo Da Vinci: In His Own Words*, 54-55.


Ibid., 101.

Ibid., 108.


Wray, *Leonardo Da Vinci: In His Own Words*, 84.
32 Ibid.

33 McLanathan, *Images of the Universe*, 74.


37 Ibid., 73.


39 Nadin, “Science and Beauty,” 70.


42 Ibid., 76.


44 Ibid.

45 Ibid.


48 Ibid.


52 Ibid., 31.

53 Maiorino, *Leonardo Da Vinci*, 76.


56 Ibid., 94.
57 Ibid., 94-95.


59 Clark, Leonardo Da Vinci: An Account, 96.

60 Ibid., 97.


63 Wray, Leonardo Da Vinci: In His Own Words, 104.