CORNERSTONE

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CONTENTS

Editors' Introduction

Welcome to the 2015 edition of *Cornerstone*, the historical journal established by the Department of History at the University of California, Riverside in order to honor the research efforts of undergraduate students and to celebrate their most impressive accomplishments of the 2014-2015 academic year. This edition of *Cornerstone* features four papers that were chosen from dozens of submissions by an editorial committee of four graduate students from the Department of History. One of these four papers has been selected for the Peter Schneider Award for the best essay in American history, while another has been selected for the Cornerstone Essay Award, which is bestowed upon the best essay of any field featured in the journal. This year's submissions featured a diverse range of geographic and chronological settings, and the editors faced a real challenge in the process of narrowing down our choices to reach the four essays featured here. We are pleased to announce the following papers which were chosen for publication in this year's edition of *Cornerstone*: Cynthia Contreras's "Collective Public Actions: How the Chilean People Unified in the 1980s and Helped Bring Pinochet Down;" Nicole De Silva's "'A Princely Expenditure of Time': The Riverside Polo Club as Conspicuous Leisure;" Sergio González's "The Study of American History through European Written Sources;" and Mary Shanahan's "The Bad Seed: Dr. Ingo Potrykus, 'Golden Rice', and the Vatican."

In "Collective Public Actions: How the Chilean People Unified in the 1980s and Helped Bring Pinochet Down," Cynthia Contreras explores the roles that the Catholic Church, women, and youth had in forming a collective movement against the regime of Augusto Pinochet in Chile, which began with his seizure of power in 1973. Contreras argues that private discontent against the military regime moved into the public space, and examines street protest, art, and music to suggest that each of these played a definitive role in public activism. Focusing primarily on popular forms of public protest based in the capital city of Santiago, Contreras suggests that public discontent was a contributing factor in the weakening of Pinochet's military regime. The activism on behalf of the church, women and youth represented a counter movement and manifested their opposition to the regime in light of human rights abuses and repressive government actions. For its impressive engagement with a wide range of source material, detailed level of analysis, and nuanced approach, Contreras's paper is the winner of this year's Cornerstone Award.

Nicole De Silva's "A Princely Expenditure: The Riverside Polo Club as Conspicuous Leisure" takes us back to a time in Riverside's history when citrus was king and local elites sought to champion the city as sophisticated and cultured. Starting in the late 19th and peaking in the early 20th century, polo gained popularity in Riverside due in part to its association with European aristocracy, its celebration of the strenuous life, and its showcasing of Southern California's natural environment. De Silva marshals an impressive amount of primary source material, including newspaper clippings, meeting minutes and polo-related ephemera, in support of her argument that the Riverside Polo Club was an important site for Riverside's elite to flaunt their wealth and shape the city's physical and cultural image. De Silva's important research reminds us that while power is typically expressed through formal political and economic channels, it is often negotiated in informal social environments. In the broader sense, then, research projects like this highlight the fact that historians have to be open to seeing history in diverse environments. For her painstaking research efforts and keen analysis, De Silva's paper has been awarded this year's Peter Schneider Award in American History.

Sergio González's "The Study of American Indian History through European Written Sources" identifies and confronts a fundamental problem in the study of Native American life during the colonial period: namely, the overwhelming lack of extant non-European source material related to Native American culture. Beginning with a series of hypotheses and an innovative technique of reading documentary silences, González systemically unpacks a variety of European-authored sources from the American colonial period in order to demonstrate the value of such ostensibly compromised source material. Ultimately, González proves that while European-authored sources can often prove problematic for scholars primarily interested in native life and culture, a creative methodological approach to compromised source material can still yield massive benefits for a historian willing to put in the necessary work to do so.

Mary Shanahan's paper, "The Bad Seed: Dr. Ingo Potrykus, 'Golden Rice', and the Vatican," explores the issue of genetically modified rice, better known as Golden Rice, and its relationship to the political life of the Catholic Church. Throughout her paper, Shanahan explores the way in which the leading scientist of Golden Rice, Dr. Ingo Potrykus, has continually sought the Vatican's support for the production and distribution of his genetically modified rice. Within this discussion, Shanahan reveals the questionable relationship between scientific research, economic profit, and the Church. Her argument reveals that Golden Rice is not as beneficial as has been claimed. Yet, despite the inconclusive science behind genetically modified rice, Potrykus continues to seek a moral ally in the figure of the Pope, in order to gain access to the Philippine farms and markets. Ultimately, Shanahan carefully unpacks the complications and moral

ambiguity between traditional agriculture and technology, as well as science and religion, and in doing so offers a new look at one of the modern world's most relevant sociopolitical concerns.

Each of these authors deserves praise for their efforts, and the editors cannot wait to see more from such promising scholars. We would also like to acknowledge the help and support that *Cornerstone* continues to receive from the faculty and staff of the Department of History. Most importantly, the editors would like to thank Professor Brian Lloyd, the 2015 faculty advisor for the editorial committee, and Christina Cuellar, the department's Academic Advisor for the undergraduate students featured here and a driving force behind *Cornerstone*'s production and publication each year. The editors would also like to thank Professor Randolph Head, the Chair of the Department of History; Professor Molly McGarry, the department's Graduate Advisor; and Iselda Salgado, the department's Graduate Student Affairs Officer. Finally, we would like to thank the many students who submitted essays for our consideration this year for sharing their exciting research with us.

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April 2015
Riverside, California

Cornerstone Essay Award Winner

Collective Public Actions: How the Chilean People Unified in the 1980s and Helped Bring Pinochet Down

Cynthia Contreras

September 11, 1973, brought about dramatic changes for Chilean politics and society. A military junta, led by Chilean military leader Augusto Pinochet, overthrew and seized power from Chile's Socialist President Salvador Allende. Promptly after the *coup d'état*, the military junta set about imposing an authoritarian regime on the country. Congress was dissolved, the constitution was suspended, one party rule was established, and labor unions were repressed. Firm control was also placed on society; for example, curfews were set at 9 o'clock, the media was under the government's vigilance, and most notably, the new government persecuted Allende's supporters and leftists, commencing a period of repression, tortures, and killings of alleged oppositionists.[1] This was the age of *desaparecidos*, or the disappeared, "subversives" who were captured, often tortured, and then sometimes executed by the regime, and whose bodies "disappeared."[2] The presidency of Augusto Pinochet lasted from 1974 to 1990, ending because of a 1988 plebiscite that asked the Chilean population if they would like to keep him in office, the result was a 55 percent majority vote for "No."[3] It is important to ask what happened during the 1980s that led the Chilean people to voice their "No" in the referendum, who were these groups of people that voiced their opinions during this repressive period and how were they taking action against the regime?

Chile in the 1980s was beginning to see a change in its population for possibly the first time after the coup. It was a period when a unified national consciousness was beginning to form, with private discontent against the military regime moving into the public space. Santiago, the capital and center of the authoritative government, would become the focal point for public action. Different groups, such as church officials, women, and youth (university students and non-university students alike) became activists against Pinochet and began to voice their discontent in public ways. A progressive sector of the Catholic Church took a stance against the military regime by supporting and forming organizations that later protested against the government in the streets. Through their art and organizations, women were able to help form a collective struggle against the regime and later form and join street protest; and as youth became more alienated from the regime ruling them, their public activism in the public sphere rose too, in protests and in music. These specific groups of people in the 1980s helped seize control of the public space from the military regime by popularizing public protest culture, either in street protest, art, or music. They helped form a collective movement by serving as specific symbols of change to Pinochet's military regime. These public movements were a contributing factor to the weakening of the government's coalition of power and the military regime overall.

After the military regime came into power, the government enforced a strict control of the public space, dissolving many labor unions and human rights organizations.[4] The unification of people was not easy under the strict military regime, but

the May 1983 protest was the beginning of a collective public movement for change for Chile. The Copper Workers Federation's (CTC) called upon the Chilean people to protest on May 11, 1983, in "low-risk means-keeping children from school, purchasing nothing, banging pots at home at 8:00 p.m., driving slowly, refraining from errands, and turning off lights for five minutes at 9:30 p.m."[5] People reacted, doing exactly as the CTC demanded. This surprised the CTC, who organized the protest but expected a lack of cooperation, as well as the strict government regime, which expected order. The collective discontent Chileans had towards the military regime that had gone unspoken and acted upon was revealed in the explosion of this successful protest. With a collective unity against the government revealed, large street protests began to occur between May 1983 and October 1984, and reigniting between September 1985 and July 1986.[6]

While the May 1983 protest by the CTC seemed to be the only ignition to the street protest culture, it was not. Public protest culture in the 1980s was made possible only through the participation of specific notable subgroups, which each had similar and different symbolic roles in the protest. They were similar in that they fought for the same cause: they publically demanded a change in Chile's social, cultural, economic, and political system. Their roles differed in what each group symbolically represented. Church officials, lay people, and others of faith represented a moral and spiritual awakening in the public realm that the government had overtaken with secrecy and cover-ups.[7] These church officials sought to reveal the persecution the regime had and was currently causing.[8] Women in protest symbolized private figures that represented the center of the family. Their movement into the public space showed a withdrawal of support from the government regime and a call for others to join in their movement.[9] Women, much like church officials, sought to expose the regime's violence and torture as a motivator for action against it; they offered a political vision of life through democracy.[10] Chilean youth also became involved in public collective action. University students and non-university students served as symbols of alienation and anger at the regime.[11] The youth sector provided the collective force of action in society, they aimed to bring vitality, renewal and change to the regime.[12]

The participation of a specific branch of the Catholic Church and its lay people was very important to the unification and progress of the protests. They symbolized morality and truth in a time of government immorality and lies, it was their job to reveal the actions of the military regime that the regime sought to actively hide.[13] Entering the public space for protest, for the church, took the form of uncovering secrecy and revealing the torture of prisoners. Catholic priests and sisters, such as Fathers Roberto Bolton and Jose Aldunate, and lay people, in association with human rights circles, formed "discussion circles…to reflect on the Bible and the problem of torture" that became the National Commission Against Torture.[14] Angry about the continued infliction of torture by the government on prisoners, the group that converted into the Anti-Torture Movement took nonviolent action and protested on Borgoño Street in downtown Santiago in front of a secret *Central Nacional de Informaciones* (CNI) jail on September 1983. The group "disrupted traffic, handed out leaflets, unfolded a giant banner [reading] '*Aqui Se Tortura*' ('They Torture Here'). They also broke into singing and chanting." They continued to protest often; within seven years they had about one hundred and eighty total public actions, or approximately two a month.[15] The public actions taken by the Catholic Church specifically brought public

awareness to torture through occupying the public space with messages of truth.

The Catholic Church also created community groups, one of which was the *Vicaría de la Solidaridad*, a church group set up in 1976 by Cardinal Raul Silva Henríquez in Santiago with the simple mission "of assisting the victims of the regime while documenting the ongoing human rights violations."[16] The creation of the group infuriated President Augusto Pinochet, and he addressed Cardinal Silva directly, claiming the church was being "fill[ed]…with Communist[s]." Cardinal Silva upheld the Church's stance in defense of human rights. Pinochet responded sharply to Silva, accusing the Church of not following the government's orders. Cardinal Silva notably countered by remarking, "You can't stop the Vicaría. And if you try to I'll put all the refugees under my bed if that's necessary."[17] The preservation and strength of the group was held through its strong advocate and forthright leader, Cardinal Silva, who actively spoke out against Pinochet. Silva's placement of the Vicaría's headquarters in a prominent and visible location also helped the group by making their message of discontent towards the government a public one. Located in "the historical center of Santiago on the Plaza de Armas, right next to the Metropolitan Cathedral, the most important church in Chile," the group was placed in the symbolic heart of Chile.[18] This allowed it a position in Santiago, only blocks away from the *Moneda Palace*, Pinochet's headquarters. Despite hostility from the government, the Vicaría continued its mission of documenting human rights abuses in Chile and opposing the Pinochet regime overall. Notable consequences of this group were its spread of information to Western politics, like the United States who withdrew support for the Chilean government in 1976, and the creation of *arpillera* workshops for women, that helped facilitate that spread of information.[19]

Arpillera workshops were a private space for women to gain agency and discuss the regime with each other and others through their creation of arpilleras, or fabric art.[20] Arpilleras are pictures depicted in cloth that often tell a story about political and social conditions, including repression, torture, and hunger. These fabric art pieces served two main purposes: income for women who were poor and had unemployed husbands, and to educate buyers (often foreign or exiled Chileans) about the current happenings in Chile.[21] Camila Fernanda Sastre Días, Master Student in Latin American Studies in the *Universidad de Chile*, argues that this medium of expression in the workshops allowed the *arpilleristas* an entrance to the public sphere that validated their position in the protest movement as political bodies that had withdrawn support for the military regime.[22] Sociologist Jacqueline Adams, who spent a year conducting ethnographic research through "oral history informed by participant observation" in an arpillera workshop in Santiago, Chile, to research the role of art in social movements, makes many of the same arguments as Días, and adds that arpillera art in Chile was used in a specific way during the period of the 1980s.[23] Adams argues that arpilleras were used to frame the military regime and put it into context, mobilize resources for social movement against the regime, communicate information about the regime, and act as a symbol for promoting change in the regime.[24]

The many functions arpilleras had, like framing current events and resistance, mobilizing resources, communicating information, and acting as a symbol, when more carefully examined, suggest the arpilleras visibly served as a prime motivator for what would lead to public street protest culture through their word of mouth. Arpilleras were used as a framing device to

discuss the military regime in context for people inside and outside of Chile by providing information about the poor conditions of life, including "hunger, unemployment, human rights abuses, and shantytown raids," in hopes of garnering support and criticism for a change in Chile against the regime.[25] The arpillera workshops were also private spaces of discussion and fostered socialization among women about the effects of the military regime, places where through discourse new recruits for public action were gained. The Vicaría employees that directed the orders on arpillera making, "encouraged discussion about political events, or gave talks about the political and economic situation, human rights, and women's rights."[26] Mobilizing resources was another action accomplished by arpilleras. The money made through selling arpilleras went directly to the Vicaría de la Solidaridad, which in turn used the money to pay the arpilleristas, and thereby kept the production and awareness of the regime alive; and to other programs the Vicaría was running that supported a counter movement against the regime. More than money that was made, the arpilleristas collected "hope and determination" in their cause, knowing that the national and international community buying their work cared about them and their cause.[27] It was through their art that arpilleristas communicated what they saw the regime was doing to people.[28] These fabric art pieces served as symbols to bring diverse heterogeneous groups of protesters from different unions and organizations together in protest. The art pieces served as reminders that they stood for the same cause, leading some protesters to hold them in front of the protest group. For example, at the funeral of Father Andre Jarlan, who was killed in a military raid, protesters held a "huge arpillera with an image of a dove" in the forefront of the march.[29]

Examining an arpillera from 1983 titled "*Matan a nuestra profesora: Ellos mataron a nuestra profesora"* ("They kill our teacher, They killed our teacher"), one can see many of the main messages of death and violence that this movement of art was aiming to describe. The scene shows two men dressed in army attire, one man holding a gun, standing over a female teacher's body that has been shot. Countered on the right of this scene is a classroom full of students watching what has happened through the window, along with two adults spectating.[30] By having a clear audience watching this violent act, the arpillera is telling us how the military regime was committing crimes in public view. It is saying that although the military regime had a strict control of public space, they could not fully keep their acts of kidnappings and violence hidden. I would suggest arpilleras serve as a way of documenting Chilean history through the perspective of the arpilleristas, thereby making these fabric pieces a form of text. They serve as a means to communicate, through graphics that include color, fabric selection, stitching style, and picture. Arpilleristas formed their own pieces of text during a repressive period in Chile characterized by silence.

The Chilean youth movement is another subgroup that helped mobilize public action against Pinochet and the military regime; they did so by uniting politically like-minded university students in street protest. Professor of International Studies Cathy Lisa Schneider, who protested alongside Chileans in the *poblaciones* and in the universities the 1980s, writes about the development of the student movement.[31] Universities, similar to churches, were "a natural site for dissent in an authoritarian regime," yet the regime had a hard time repressing them, because to do so would destroy "the intellectual life that makes education possible."[32] Universities provided a private space for students to

convene and discuss, and just as the arpillera workshops, spurred what would become public activism.

Students' "resistance efforts were clandestine" in the 1970s, careful of the military supervising them, but moving into the 1980s, students finally moved into the public sphere with their dissent of the regime.[33] In the 1970s students at the *Pedagogico de la Universidad de Chile* were creative in their resistance. They formed cultural workshops, where through paintings, photography, poetry, and music, they recalled the earlier era before the 1973 coup and focused on the negative conditions they were presented with at the time.[34] Clandestine actions became more public after the tuition that the government had once paid converted into the students' responsibility. This created a wave of action that made culture clubs at other universities grow and a political tone now overtook these clubs. After the regime imposed its own student organization, the *Federación de Centros de Estudiantes de Chile* (FECECH), and held student elections, university students began to demonstrate for concerns beyond the university, like the desaparecidos, which was a pressing concern for arpilleras and church groups alike.[35] The student movement in the 1980s became intertwined with the surge of protest starting in 1983 in the poblaciones.[36] With the wave of protests in 1983, university students "sprayed walls with political slogans, occupied campuses, and built flaming barricades in the heart of the city."[37] Along with workers and *pobladores*, people who lived in the poblaciones, students, "engage[d] in strikes, hunger strikes, marches, demonstrations, and confrontations with police."[38]

Although many Chilean youth felt angry and alienated from the military regime, not all youth felt that protesting the military regime in the streets was enough. These youths wanted to spread the message about their discontent with the regime through music. Often this took the form of rock music with groups like *Electrodomesticos*, *Aparato Raro*, and *Los Prisioneros* forming in the 1980s. Professor of Latin American History, Steve J. Stern writes these rock bands criticized Pinochet's military regime through coded lyrics. Stern argues Los Prisioneros were "a protest rock group" that focused on having coded lyrics to express their anger and frustration with the regime without specifically discussing the regime by name.[39] Daniel Party, Professor of Music at *La Pontificia Católica de Chile* who has studied Latin American and Chilean music extensively, has a differing opinion on this 1980s rock music emergence. Party concludes that these newfound rock groups in the 1980s, including Los Prisioneros, were not specifically taking a stand against the Pinochet regime. Party argues that to categorize Los Prisioneros "solely as protest rockers" is something done by "an older generation, the one represented in Stern's memory study, who first turned Los Prisioneros into spokespeople for anti-dictatorship youth - a role (lead singer Jorge Gonzalez) rejected."[40] Party states that in an interview with Carlos Fonseca, long-time manager and producer for Los Prisioneros, Fonseca discusses that Los Prisioneros "wanted to be… successful everywhere. That's why they didn't address the songs to the Chilean reality," not because they were specifically discussing Chilean socio-economic and political issues and wanted to avoid censorship.[41] Los Prisioneros wanted to have mass appeal and "address larger issues important to youth across the hemisphere" and some, like the Chilean audience appropriated their music to the occurrences in Chile.[42] This differs from Stern's analysis of coded lyrics that addressed the Chilean military regime; Stern had even suggested the name "Los

Prisioneros" had been chosen to suggest "Chile was a prison."[43]

Looking closely at the song "*Nunca Quedas Mal Con Nadie*" ("You are never on bad terms with anyone") by Los Prisioneros, we can see that Party is right in his analysis that Los Prisioneros did not use coded language to talk about the regime, rather, they were trying to appeal to many angry youth. Its lyrics state, "*tu te quejas de las bombas / hablas que con el planeta van a acabar / pero nunca das un nombre / tienes miedo a quedar con alguien mal…/ Nunca quedas mal, quedas mal con nadie,*" ("you complain about bombs / you say they will end the world / but you never give a name / you are scared to be on bad terms with someone / you are never on bad terms with anyone / you are never on bad terms with anyone") one can see why Party's assessment is valid.[44] In this song, Los Prisioneros are criticizing university students who complain about their environmental, social, and political conditions, but do not directly address those who they are angry at because they do not want to be on bad terms with anyone. Here, one can see Stern's characterization of Los Prisioneros is exactly what Los Prisioneros reject.[45] Los Prisioneros are in favor of being direct with those whom one is angry with; so we can concur that if Los Prisioneros were actually publically contradicting the military regime, given these lyrics, they would be direct about it and mention Pinochet or the regime's name. Whether or not groups like Los Prisioneros were specifically discussing the Chilean military regime, many Chilean people appropriated their music as motivation for public action.[46]

The youth movement, which included university students and Los Prisioneros, were just one branch of a subgroup trying to bring awareness to people to take direct action against their circumstances. Youth, along with Catholic Church officials, and women, all helped in some fashion in uniting Chile against the military regime to help form a unified vision of the country without the military regime and with a new form of government. Professor of Political Science Ursula E. Daxecker argues that the unification of specific groups of people is what helped form a successful movement in their liberation against Pinochet's regime.[47] Daxecker notes that the alliance the Catholic Church made with women and youth helped Christian Democrats rise to power, by working through the military regime to actively fight against it.[48] What is important to examine next is how each of these groups responded to the democratic era that arrived in Chile after Pinochet was voted out of power in the 1990s. Did the democratic period with President Patricio Alywin, a Christian Democrat who succeeded President Augusto Pinochet in power through democratic election in 1990, bring the changes each group was looking for, in terms of the social, cultural, economic, and political changes they wanted to see? What remains clear is that the unification of specific groups of people (prominently the Catholic Church, women, and youth) shifted public space, from government controlled to that of the Chilean people, and this ultimately contributed to helping break Pinochet's military regime.

Notes

[1] Thomas E. Skidmore, Peter H. Smith, and James N. Green, "Chile: Repression and Democracy," in Modern Latin America (New York: Oxford University Press, 2014), 290-91.

[2] Roger Burbach, *The Pinochet Affair: state terrorism and global justice* (London & New York: Zed Books, 2003), 6, 50-51.

[3] Skidmore, Smith, and Green, "Chile: Repression," 293.

[4] Ibid., 293.

[5] Steve J. Stern, "Great Shakings: Memory War in the Streets, 1983-1986," in *Battling for Hearts and Minds: Memory Struggles in Pinochet's Chile 1973-1988* (Durham & London: Duke University Press, 2006), 251.

[6] Ibid., 253.

[7] Ibid., 263.

[8] Ibid., 257-61.

[9] Camila Fernanda Sastre Días, "Reflexiones Sobre la Politización de las Arpilleristas Chilenas (1973-1990)," in *Rev. Sociedad & Equidad 2* (2011): 365-370.

[10] Stern, "Great Shakings," 261-62.

[11] Ibid., 265-69.

[12] Cathy Lisa Schneider, "The Roots of Resistance," in *Shantytown Protest in Pinochet's Chile* (Philadelphia: Temple University Press), 1995. 119-128

[13] Stern, "Great Shakings," 257-61, 263.

[14] Ibid., 259.

[15] Ibid., 259-60.

[16] Roger Burbach, *The Pinochet Affair: state terrorism and global justice* (London & New York: Zed Books, 2003), 63-64.

[17] Ibid., 64, quoted in Ascanio Caballo, Manuel Salazar and Oscar Sepulveda, *La historia oculta del régimen militar. Memoria de una época, 1973-1988*, (Editorial Grijalbo, Santiago 1997), 111.

[18] Ibid., 64.

[19] Ibid., 64-65

[20] Días, "Reflexiones sobre," 364-77.

[21] Jacqueline Adams, "Art in Social Movements: Shantytown Women's Protest in Pinochet's Chile," *Sociological Forum* 17 (2002): 32-33. Adams conducted ethnographic research in Chile between July 1995-July 1996. She conducted interviews of 136 arpilleristas, Vicaría employees, and others that were involved in the arpillera process. Adams' work is relevant to the period of the 1980s because she interviews these individuals about the specific time period of the 1980s. She acknowledges that selective memory is an issue, but she finds similarities in their accounts and draws on this to make claims about the period relating to the workshops themselves, politics, economics, and social conditions at the time. Also, besides interviews, she engages in participant observation, specifically following a few select groups of arpilleristas, one notably that have been active since 1978 working in the Vicaría in a shantytown in Santiago.

[22] Días, "Reflexiones sobre," 370-74.

[23] Adams, "Social Movements," 32-33.

[24] Ibid., 33.

[25] Ibid., 34.

[26] Ibid., 30.

[27] Ibid., 39-40.

[28] Ibid., 40.

[29] Ibid.,43-44.

[30] Carolina Días, *Matan a nuestra profesora*. 1983. Arpilleras. Museo de la Solidaridad: Fundación Salvador Allende. Santiago. From: Fundación Salvador Allende, http://www.fundacionsalvadorallende.cl/en/archivo/centro-de-documentacion/colecciones/arpilleras/.

[31] Schneider, "The Roots," 119-128.

[32] Ibid., 119-120.

[33] Ibid., 120-21.

[34] Ibid., 121.

[35] Ibid., 121-24.

[36] Ibid., 128.

[37] Cathy, Schneider, "Protest in the Poblaciones," in *Shantytown Protest in Pinochet's Chile*, 153-190 (Philadelphia: Temple University Press, 1995), 160.

[38] Ibid., 174.

[39] Stern, "Great Shakings," 283.

[40] Party, Daniel, "Beyond Protest Song': Popular Music in Pinochet's Chile (1973-1990)." In *Music and Dictatorship in Europe and Latin America*, ed. by Roberto Illiano and Massimiliano Sala, (Turnhout: Brepols Publishers, 2010), 684.

[41] Ibid., 683.

[42] Ibid., 684.

[43] Stern, "Great Shakings," 283-84.

[44] Jorge Gonzalez with Miguel Tapia and Claudio Narea, *La Voz De Los '80*. 1984 by Capitol Records. The English translation was done by me.

[45] Stern, "Great Shakings," 283-84.

[46] Party, "Beyond Protest," 683.

[47] Ursula E. Daxecker, "Opposition Movements, Liberalization, and Civil War: Evidence from Algeria and Chile," *Civil Wars* 11 (2009): 234-254. Daxecker provides case studies of Algeria and Chile in the 1980s as a way to explain how the relationship between opposition groups and the government turns violent when there is a lack of unification, organization, and cohesion within the groups. She uses Algeria to show that opposition groups were divided and thus unable to succeed in their endeavors

of bringing democracy to their country, while Chile was able, through a cohesive and unified group, able to achieve a relatively peaceful transition of power and move into democracy.

[48] Ibid., 248-49.

Figure 1: *Matan a nuestra profesora*, http://www.fundacionsalvadorallende.cl/en/archivo/centro-de-documentacion/colecciones/arpilleras/.

Peter Schneider Award Winner

"A Princely Expenditure of Time": The Riverside Polo Club as Conspicuous Leisure*

Nicole De Silva

"It was pristine land then. Crystal clear air, thousands of acres of lush, rolling country with big, blue mountains on the horizon… It was a time before automobiles, and horses were a big part of life. We rode every day…. What a princely expenditure of time!"
-Eric Pedley, Former Riverside Polo Player, 1977[1]

Founded by citrus grower Robert Bettner in 1891, the Riverside Polo Club became a site for developing manners, conspicuously exhibiting a wealth of free time, and associating with a statewide leisure class. The club's socio-economic structure and material culture catalyzed the construction of an agricultural elite. Playing grounds, silver trophies, and newspaper photographs each present ways in which citrus growers' idealized notions of community and class were visually displayed and experienced. In this paper, I argue that polo became a means of not only attracting outside investment in the Riverside citrus industry, but also of sharpening the identity of the local elite and creating the city in their own, idealized image. Indeed, sport club culture sought to bring traditional East Coast and European institutions of class to the previously socially unorganized region. The club functioned as one element of the town's patrician image, fabricated as a protective enclosure for both the social and economic interests of citrus growers.

The eruption of polo in Riverside was hardly a historical accident: it was a response to current nationalist sentiment, the physical culture movement, and local aesthetic and economic attitudes. These concepts were deeply interrelated. Defined by the *Riverside Independent Enterprise*, the object of the physical culture movement was "the complete development of the whole man, the physical, then mental, and the moral being."[2] Key to this popular movement was the notion that action had the ability to shape personal character. Nationalism, the idea that political boundaries should be defined by cultural boundaries and vice-versa, was often commensurate to physical culture. Both movements are deeply rooted in the idea that the visual world revealed something beyond itself. If, according to nationalism, America's borders should contain a distinctly American character, then sport was perceived as a means of stabilizing and carving out its particulars.[3] In order to craft a distinct local or national identity, the task was to "find the games that had formed the so-called Anglo-Saxon" personality.[4] Though Polo was too expensive to become a mainstream marker of American identity, this decidedly Anglo-Saxon game seemed to Riverside growers an ideal way to construct a well-mannered, local leisure class.[5] Given the game's ties to the British aristocracy, polo allowed local citrus growers to imagine themselves within the idealized, glamorous social structure of Europe's fading Belle Époque.

In *Theory of the Leisure Class*, Thorstein Veblen notes that elite sport is attractive not only because it fulfills the strenuous life prescribed by the physical culture movement, but also because it allows for the construction and stratification of society. It "affords scope for emulation," that

is, the activity was easy to learn and imitate.[6] If, according to physical culturalists, ideas were not only "linked to actions" but also "had no existence outside of them" then emulating upper class activity had the potential to add socio-economic value to one's own character. However, suggests Veblen, this "scope for emulation" was not open to the lower and middle classes; making sport into a piece of personal identity was something that only the leisure class found time to do. Others could only enjoy sport as an "occasional diversion." Veblen terms such overt and "wasteful" displays of wealth "conspicuous leisure"—perhaps an ideal means of describing the Polo Club's function in Riverside.[7]

While sports acted as leisure for both rich and poor, these games were also brandished as symbols of class acculturation. They were capable of drawing distinctions that capital alone could not; as one East Coast businessman tersely states, "You can do business with anyone, but you can only go sailing with a gentleman."[8] Conspicuous leisure revealed not only excess capital, but also good manners, a wealth of free time, and leisure class socialization. Riverside's citrus elite became attracted to such markers of status for both social and pragmatic reasons: such excursions not only provided an excellent space for institutionalizing family and personal values, but also for demonstrating an ability to effectively manage and display capital.

The Riverside Polo Club grew out of the longstanding interest in horsemanship held by local agribusiness men. The city's athletic prowess was well-regarded throughout California: in 1915, the L.A. Examiner called Riverside polo "a horse race, a cavalry charge, a football game, and a war dance—all in one."[9] However, by imagining polo as solely a manifestation of masculine virtue, the journalist neglects the holistic athletic culture of teas, balls, and other weekly cotillions that enveloped sporting communities. The Los Angeles author's vision omits what the San Francisco Chronicle dreamily recounts as the "morning procession of short-skirted women passing like a moving picture through the [sports] grounds," the club house tea cotillions, and the "nightly promenade concerts" that surrounded the games.[10] These new social worlds of sport offered roles to citrus growers as well as downtown dwellers, to players as well as spectators. In the history of the Riverside Polo Club, each of these groups carved out a unique space that seemed to adjust, yet reaffirm, existing class divisions.

Polo was intricately tied to the land. The pristine landscape that Eric Pedley verbally constructs in his 1977 interview [above] was untouched by the industrial warehouses, large housing developments, and asphalt highways that characterize the industrial landscape of today's Inland Empire.[11] Instead, his image of 1915 Riverside was marked by 26,500 acres of citrus groves—including thousands bearing the famous Washington navel orange—serenely tucked up against the snow-capped San Bernardino, San Gabriel, and San Jacinto mountains.[12] Its wide open spaces fostered the ideal citrus landscape. Certainly, maintaining this citrus oasis in the midst of the Southwestern desert required vast capital investment; Riverside's citrus growers needed to convince financiers of the value of their land and the respectability of their social development. The polo field acted as one site upon which the effort to sustain Riverside's citrus economy took place.

Citrus formed an integral link between the economic and social life of early 20th century Riverside residents The cast of characters that made up the core of the early Riverside Polo Club—G.L. Warring, Robert Bettner, C.E. Maud, W.E. Pedley, and the first formal "President" of the club, Matthew Gage—played major roles in Riverside's

citrus industry as not only growers, but also, in the case of Gage, major waterworks developers.[13] Because Polo was tied to wide-open spaces and well-manicured fields, it mirrored Riverside's agricultural success. Riverside's water battles, struggles against insect infestations and crop maladies, and efforts to secure lands for fruit cultivation were each elements that allowed for (or threatened) the livelihood of the Riverside Polo Club and its primary players. As entrepreneurs such as Gage worked to physically develop Riverside into a citrus oasis, men such as Bettner worked to develop the richness of its leisure culture. Not unlike land and water, the resources necessary to fully enjoy these burgeoning recreational activities were in the hands of the few.

Business relationships and personal connections often functioned as one in the same. Citrus was necessarily a social industry: in the *Citrograph*, a 1915 outgrowth the *Riverside Daily Press*, G. Harold Powell discusses the community of growers formed by the California Fruit Growers Exchange. Success in the Riverside citrus industry required "good fruit, well-graded, well packed," with "good keeping quality."[14] This meant that it needed to be efficiently prepared for sale at the right moment. Fruit growers in an each Southern Californian region formed cooperatives to standardize grades, to gather information about market demand (such that they did not flood the market at the wrong moment), and to keep costs down by eliminating middlemen that might otherwise do these regulatory and managerial jobs.[15] Social relationships and local information sharing defined the stability of the industry. It is not surprising that the citrus growers throughout Southern California maintained relationships with their socio-economic peers even outside of the groves.[16] In this way, the sport field became a strategic means of strengthening business relationships.

The Riverside Polo Club deeply relied upon the infrastructure of the citrus industry; at the same time, it made good use of its members' shared personal ties to the groves. For example, at the end of 1895, players C.E. Maud, R.N. Allen, and J.H. Wright were chosen to "interview Mr. Irving of the Riverside Trust Co," a major player in the industry, "relative to the lease of 15 acres of land, situated on the north side of Victoria Avenue… for the purpose of a new polo ground and the erection of a house and other improvements," over the current, temporary field near Jefferson street.[17] Such correspondences suggest the strong connection between the personal and business worlds: the dream of bringing polo to Riverside materialized primarily due to the players' connections to major architects of the local built environment. However, given the teams' financial setbacks, it was unable to make the move to a new field in 1895: its plans were considerably scaled. The club's development needed to wait for further outside sponsorship.

Despite setbacks at home, the club continued to gain ground statewide: in 1896, the team won its second victory against the Burlingame team, the polo champions of Northern California. Interest in the team at home remained significant. By 1897, the team's trophies were relocated to a finished Club House at the original Jefferson Street property. According to the press, local spectatorship and pride grew ever stronger: on Washington's Birthday in 1898, "some lively racing" on the polo grounds drew "a good attendance."[18] A trophy still stands in the Riverside Heritage House Museum bearing witness to the victory of Robert Bettner's Lady Betty, who was generally regarded by the *Riverside Independent Enterprise* staff as "the best pony that has ever raced in Southern California. She is not only very fast, but can carry weight and go a distance."[19] The club's achievements were

not limited to local grounds: in 1897, the team won the California State Championship against Burlingame, the Northern California victors. Riverside's prowess on the polo field was gaining renown.[20] The clubs' glimmering trophies, neatly lined along the Club House shelves, served as an affirming and conspicuous reminder of the team's growing athletic and social prowess.

Lady Betty was not Robert's only excellent polo mount or racehorse. Two years later, in 1900, Bettner and his team made the trip to Del Monte near San Francisco, CA to "capture the Del Monte cup" for Riverside's Polo Club. On August 22, the *Riverside Daily Press* reprinted a laudatory passage from the San Francisco Call. According to San Francisco news reporters, the triumphant success of Robert Bettner, "probably the most expert of all gentlemen riders," made the event particularly exciting for spectators. His suspenseful victory on M.E. Flower's "sweet morsel of pony flesh", Viola, was met by a "burst of applause from coaches and grandstand."[21] An ornately carved silver trophy, inscribed with the words "From M.E. Flowers to R.L. Bettner in Commemoration of Viola at Del Monte, August 1900," remains a testimony to the good sportsmanship and collective pride of the team.[22] After winning 1/3 of the victories at the event for Southern California, the Polo Team began to make a make a name for Riverside in the athletic press throughout California. In this way, polo became a way in which Riverside, an otherwise small agricultural town, marked itself as a refined social center.

The year 1900 marked a major triumph for the Riverside Polo Club: the team was able to move to a far more spacious field in Frank Miller's Chemawa Park along Magnolia Avenue. The team stayed in this space for over 20 years; it was considered to be the best field that the team had access to. It is likely that the relationship between Miller and the Polo Club was a mutually beneficial one. As one of Riverside's foremost entrepreneurs, Frank Miller likely imagined that the popular club would boost local interest in the park and facilities that were being constructed on his Magnolia holdings.[23] Further, given the game's traditional ties to the Old World aristocracy, Miller likely felt that directing more public attention to the team could help to enhance Riverside's image as a profitable agricultural center.

Club architecture and field landscapes functioned as key elements in the physical and cultural development of the polo club. Of course, the game requires a wide-open space for practicing as well as for playing. The spatial layouts and designs of the Polo Club lands and fields have the power to reveal certain beliefs of the men who designed and funded them; as Paul Groth writes, "landscapes reveal the effect of individuals and local subculture… as well as cultural values."[24] Citrus planters, such as J.H. Reed, extolled "our great industry" of orchard growth as something that was not only economically productive, but also an "agreeable, pleasing, and beautiful" centerpiece for the Riverside social community.[25]

J.H. Reed suggests that the condition of working with (or owning) beautiful fruit orchards simply "affect one's" tastes. Reed tells readers of *The Citrograph* that "the matter of everyday association with objects connected with our occupations that are agreeable, pleasing, and beautiful has more to do with our everyday enjoyment than most of us stop to realize."[26] For Reed, an association with the great outdoors heightened and civilized the citrus grower's sense of aesthetics. Archie Shamel, pictured with Bettner in the figure at right, believed that "cultivated taste" was simply "inherent in the culture of the orange." Growers combined civilized "outdoor living" with "a high

appreciation for natural beauty."[27] Polo was one of the ways in which this perceived "love of the outdoors" and "natural beauty" manifested itself.

The connection between genteel employment and personal development was not unique to Riverside. In his *Theory of the Leisure Class,* socio-economist Thorstein Veblen writes that "from the days of Greek philosophers to the present, a degree of leisure and exemption from contact with such industrial processes" which "serve the everyday processes of human life have even been recognized… as a prerequisite to a beautiful, even blameless, human life."[28] As a result, conspicuous leisure—activities enjoyed precisely because they made it clear that the participant did not need to work for a living—were not seen as wasteful, but as "beautiful and ennobling in all civilized men's eyes."[29] As means of conspicuous leisure, polo fits perfectly within the capital-based citrus aesthetic. Only citrus growers could afford the time and space needed for practicing with, training, putting up, and caring for polo mounts.

One must be a "lover of the beautiful in nature," says Reed, to practice citrus cultivation. He believed that involvement with citrus produced two results: "the first is a desire to beautify immediate premises" with architecture and horticulture.[30] Reed believed that this implicit desire for aesthetic beauty explained the "more extensively beautified" homes of the valley-dwelling citrus growers. Second, perhaps more altruistically, "the spirit is catching": the citrus grower becomes so morally and spiritually uplifted by the natural beauty of his surroundings that he cannot help but become "interested in the general beautification of his neighborhood, his city, in its entirety."[31] This aesthetic altruism, he says, is the most important "feature of our citrus industry"—if fulfilled, it promises to make California into "the most beautiful and most interesting" piece of land in the Americas[32]

Robert Bettner and his team may not have been consciously aware of their tie to the aesthetic mythos of Riverside as defined by Reed; it is likely that the men played polo out of personal enjoyment. Yet, as J.H. Reed suggests, their perception may have been tinted by the beauty of their natural environment. Very likely, Robert Bettner was interested in playing polo as an athletic contest; indeed, his personal history reveals an avid interest in sportsmanship that predates the establishment of an elite sporting or leisure culture. However, it is likely that polo was appropriated as a symbol of the "romance of the orange" not only by reporters and photojournalists, but also by local entrepreneurs. The game lent itself well to the elite agrarian image: with its imagined ties to British aristocracy and reliance on wide open spaces, polo became one symbol of Mission Inn owner Frank Miller's idealized image of Riverside.

Miller's Chemawa Park was located seven and a half miles from his Glenwood Inn in the heart of downtown Riverside. However, the Polo Grounds were not cut off from the majority of the Riverside community.[33] In fact, Frank Miller's streetcar ended directly adjacent to the park in which the fields were located. This was likely a strategic move. For Miller, the club was an excellent punctuation of his narrative journey of Riverside; its outdoor setting and fabricated ties to European landed aristocracy epitomized the "romance of the orange" and the region's rarified social culture. Its location outside of the town center represented a symbolic connection between the urban and the rural. [34]

By 1902, the Polo Grounds located within Frank Miller's Chemawa Park were, "laid out by Bettner, Maud, and Warring according to the most approved methods."[35] The clubhouse was accompanied by a "lawn,

flowers, and ornamental shrubs" and a grand stand that seated 2,000 spectators. Thanks to these improvements, Miller's "street car playground" became an increasingly popular spot for local and visiting families to spend a weekend afternoon. Robert Bettner was exhilarated by the park's potential to popularize polo: "we are going to give the people everything we promised them" he announced to the *Riverside Enterprise* in 1915. Those promises included parades of ponies, a well-kept scoreboard, bands, buglers, and, of course, very "good polo" played often. "That's the only way to popularize polo," he admits, "And until polo is popularized it will never be a success on the coast."[36] While Bettner could not invite Riverside's lower and middle classes to participate in the sport, he felt that a larger audience would improve the spectacle.

The polo club celebrated a golden moment from 1900-1917. According to an interview with Robert Bettner conducted by the L.A. Examiner in 1917, spectators had grown to crowds of thousands after the move to Chemawa. Equestrian sports exploded in popularity: a "thousand or more" spectators came out to a Christmas Day race held by Bettner's Riverside Driving Association in 1903. Yet, a good time was reportedly had by all: the press announced that the crowd's excitement "indicates that Riverside contains plenty of speed, even if we are classed by some of our neighbors as a 'slow town'."[37] The day's events were particularly fortuitous for Bettner, who brought home a silver trophy for his victory on "Rio de Bonalos".[38] By popularizing polo, Riverside townspeople were invited to view the spectacle of the citrus elite; bringing more spectators to Chemawa Park sharpened the distinction between middle-class spectators and elite players.

Gymkhana games fostered even greater public interest in the team's activities. The idea for these types of races supposedly came from India, where "the great heat and the few comparatively cool hours during which anything like active exertion is possible prevent indulgence except to a limited extent." This, says the San Francisco Call, gave rise to "such games as afford harmless amusement and do not require any [extravagant] appliances." The result was the enduring "gymkhana," which is defined as "an outdoor gathering for purposes of recreation… in which horses of any sort take part.[39]

The games began to be played in by the polo club around 1894—over twenty years before they appeared on a professional or statewide scale. One particularly popular Riverside invention was the "Cigar and Umbrella Race," as played on New Year's Day of 1906:[40]

> The conditions for the cigar and umbrella race are that each contestant must light a cigar, open an umbrella, mount his pony, and ride a hundred yards to a stake. He must then turn this stake and ride back. At the finish his cigar must be lit and his umbrella intact.[41]

The 1906 games were part of a longer tradition. Each January 1, Chemawa was the site of a New Year's Tournament and race program. In 1908, "the popularity of Polo and Gymkhana sports in Riverside was thoroughly attested by the large crowd which saw the Reds defeat the Whites" with what the Press considered to be very "snappy playing." As usual, writers reported that "Bettner was the shining star of the period." He took home a two-handled silver-plated trophy commemorating his team's performance at the event.[42]

Chemawa Park also included a collection of other amusements, including a pavilion to be used as "a charming retreat for picnics, dancing parties, and summer evening

concerts."[43] The Sherman Institute for Native American students was located in the same vicinity; UC Riverside scholar Nathan Gonzales suggests that Miller designed his trolley line in a way that allowed him to capitalize on the public's interest in California's romanticized Spanish Colonial heritage. The polo grounds, the Sherman institute, and the Spanish Colonial style of the Mission Inn were all part of Miller's "entertainment program" that celebrated a mythologized Californian past of genteel agrarian patriarchs, amiable Spanish missionaries, and affable relationships with Native Americans.[44] Often, the Institute Band played between polo games as part of the game's spectacle.[45] Given its juxtaposition with the Sherman school, the polo grounds became a site of casting not only racial difference but also colonial inculcation: the student band became a symbol of assimilation at work. Given this interesting proximity to Sherman, Chemawa Park sharpened distinctions between not only the wealthy and the middle class, but also between Anglo landowners and Native Americans attending the Institute.

According to architectural historian Richard Mayo, the sport club was often constructed in a way that facilitated a sense of separation from urban life. Author E.S. Martin implies that clubs such as the RPC democratized leisure culture and celebrated an ideal of Jeffersonian democracy. For Martin the "citified country" inhabited by such clubs ensured that "many of the most agreeable pleasures of country life are brought within [visitor's and spectator's] reach at a moderate cost" of a few cents for each game.[46] In actuality, however, the so-called "democratization" of leisure culture was a misnomer: the distinctions between socio economic groups were very clear. Not only were agricultural laborers and downtown businessmen economically separated from citrus growers, they experienced a social division on the polo grounds as well.

The Chemawa Park facilities revealed certain class distinctions that may have otherwise remained invisible in a small agricultural town. Most class stratifications were communicated quite bluntly: During the 1908 New Year's Tournament, the press made certain to note that "the grandstand and bleachers were packed with Riverside's best people"—likely, local businessmen and prominent growers. However, not only the wealthy turned out to see fellow Riversiders play—"nearly as many more [average citizens] stood on the ground space."[47] Local sporting interactions reveal that there were subtle divisions within those divisions.

In 1966, Riverside historian Wilkie B. Leake proposed an often-overlooked socio-economic tension between the "town" and "valley" people. He suggested that, while the businessmen, bankers, estate agents, and other white-collar workers and managers in the town center had an interest in the agricultural success of Riverside, the citrus growing class disassociated itself with what they regarded as an inferior pecuniary group. Riverside was steeped in Jeffersonian ideals of "producerism," which celebrated the ability of growers to turn untapped resources into capital. Writing in the 1915 *Citrograph*, citrus researcher Archie Shamel lauded the growers' remarkable industriousness, saying that:

> Some one has said that man is a public benefactor who causes two blades of grass to grow where but one grew before. What, then, can be said of the pioneers of the navel orange industry who causes grass and fruits and flowers to grow where NONE grew before?[48]

By casting themselves as public benefactors and creators of both public wealth and public

beauty, the Riverside "valley people" constructed a social order in which they rested at the top.

The town/ valley distinction is typical of capitalist societies. In the language of Thorstein Veblen, the valley people were an industrial class; their groves created new capital. The industry of the town people, however, is closer to "exploit"—the process of turning that base capital into useable goods, information, or some other valuable product. Certainly, given the thousands of acres of citrus that specked the Inland Empire's landscape, the valley residents owned a great deal more productive resources than their downtown counterparts. As Veblen writes, "those who have to do immediately with ownership on a large scale are the most reputable of economic employments proper."[49] The town people, having "those employments that are immediately subservient to ownership and financiering—such as banking and law," rank a close second, followed by mercantile pursuits.[50] Polo, as a form of conspicuous leisure, made these inner-class stratifications clear: regardless of income, businessmen in the town center could never find the time or space to become full, playing members of the Polo Club.

Ironically, it became impossible for Riverside to sustain its own system of distinction: though the game began as an amateur sport, it became increasingly professionalized by the end of the 1910s. Though a reasonable mount cost only $25 in the 1890s, a truly competitive pony could fetch up to $2,500 by 1915.[51] As a relatively small agricultural town, Riverside growers found themselves unable or unwilling to continue investing in their equestrian hobbies. Further, many of Riverside's star players were drafted into the First World War. From 1917-1919, Miller converted the Chemawa Park field into a Junior High School. Popular interest in the sport's former pageantry waned as America's Gilded Age faded in the midst of wartime realities. The fabricated social structure that the game complimented had evaporated; it became clear that the illusion was not built on solid economic ground.

Riverside's elite sporting community was only one element of local culture; yet, as a representative slice of a socio-economic system it has the potential to reveal complicated tensions, alliances, and economic interests that might otherwise remain invisible. Polo facilitated ties between business alliances and social relationships: using spatial markers of status, players constructed a citified country that revealed Riverside as worthy of investment and full of socio-economic potential. The sport field became a stage upon which Riverside's citrus growers could construct an image that attracted necessary outside investment. Without imported water, capital, and labor, Riverside could not have developed the "rolling country with big, blue mountains on the horizon" that Pedley so fondly recalls. Further, Bettner's dreams of bringing Polo to Riverside could not have been realized without his relationship to industry giants, such as water engineer Matthew Gage, agri-businessman William Irving, and entrepreneur Frank Miller. Polo began as a leisure activity that drew from the physical culture movement; yet, it quickly took on a mythology of its own. In so doing, it became an emblem of Riverside's elite leisure class and its socio economic institutions.

Notes

*This paper is excerpted from a larger thesis.

[1] Margaret Ruddock. Interview with Eric Pedley from *The Official Publication of the U.S. Polo Association,* "Living Legend in Belvedere," Vol. 3 Issue 3. (1977)

[2] "Physical Culture at the YMCA," *Riverside Independent Enterprise* (Riverside, CA: July 12, 1913), p. 33
[3] Donald J. Mrozek. *Sport and American Mentality,* (Knoxville, TN: University of Tennessee Press ,1983): pg 165
[4] Mrozek, *Sport in American Mentality,* pg. 166
[5] Handbook of the National Polo Association, 1919, p. 115. Retrieved from the Riverside Metropolitan Museum Archives
[6] Thorsten Veblen, *Theory of the Leisure Class,* (New York, The Modern Library, 1934): p. 258.
[7] *Ibid,* pg. 92. Veblen writes that conspicuous leisure is "honorable... because it shows exception from ignoble labor."
[8] Mrozek, *Sport and American Mentality* pg. 123.
[9] L.A. Examiner, n.d., Clipping retrieved from the Riverside Metropolitan Museum Archives.
[10] "Bettner Won at Del Monte," *Riverside Daily Press,* (Riverside, CA: August 22, 1900), pg. 3. Reprinted from *San Francisco Chronicle, August 19, 1900.*
[11] Ruddock, "Living Legend in Belvedere."
[12] R. Brinsmead, "Growth and Extent of Citrus Industry," *Citrograph,* pg. 2.
[13] Patterson, *Colony for California*, pg 222
[14] G. Harold Powell, "The California Fruit Grower's Exchange," *Citrograph,* pg. 12
[15] *Ibid,* pg. 13
[16] Reed J.H., "The Riverside Horticultural Club," *Citrograph,* Vol LI, No 120 (20 May 1915): 6.
[17]Annual General Meeting of the Riverside Polo Club held at Mr. Hotson's House, Indiana Avenue, *Meeting Minutes of the Riverside Polo Club* (1895): pg 60.
[18] Text from "Some Lively Racing," *Riverside Independent Enterprise* (Riverside, CA: 23 February 1898): p. 3
[19] Riverside Metropolitan Museum Archives, Heritage House, Bettner Family Collection, Item A526-477.
[20] Leake, Wilkie B. "A Short History of the Riverside Polo Club," (BA Thesis, UCR, 1966) p. 14
[21] "Bettner Won at Del Monte: Captured the Del Monte Cup on Viola," *Riverside Daily Press,* (Riverside, CA: August 22, 1900), p. 3.
[22]Riverside Museum Archives, Heritage House, Bettner Family Collection, Item A526-466
[23] Leake, Wilkie. "A Short History of the Riverside Polo Club," (BA Thesis, UCR, 1966), p. 12
[24] Cited in Linda Boorish and Murray G. Phillips, "Material Culture of Sport," *Rethinking History* Vol 16, No. 4, December 2012, 465-477.
[25] J. H. Reed, "Influence of Citrus on Community Beautification," *Citrograph,* (Riverside, CA: May 20, 1915): pg. 8
[26] *Ibid,* 8
[27] Shamel, "Esthetic Side," No. 1 (January 1928). Cited by Hartig, *Citrus Growers,* 359.
[28] Veblen, *Theory of the Leisure Class,* pg 37
[29] *Ibid,* pg. 37
[30] J. H. Reed, "Influence of Citrus on Community Beautification," *Citrograph,* (Riverside, CA: May 20, 1915): pg. 8
[31] *Ibid,* pg. 8
[32] *Ibid,* pg. 8
[33] Chemawa park was located to the direct north of the Sherman Indian institute, 9010 Magnolia Ave Riverside, CA 92503
[34] Nathan Daniel Gonzales, *Visit Yesterday Today,* (PhD Thesis, UCR, 2006) pg. 82
[35] Improving the Park," *Press and Horticulturalist,* April 15, 1902. Pg. 8
[36] "To Popularize Polo," *Riverside Enterprise,* (Riverside, CA: February 9, 1915) pg. 2
[37] "Christmas Races a Great Success": *Riverside Daily Press,* (Riverside, CA: December 26, 1903): pg. 12.
[38] Riverside Museum Archives, Heritage House, Bettner Family Collection, Item A526-463
[39] Arthur Inkersley, "First Genuine Gymkhana in California Held at Coronado," *San Francisco Call,* Vol 108 (47), 1910, pg 16
[40] Riverside Museum Archives, Heritage House, Bettner Family Collection, Item A526-474
[41] "Polo Club Plays Another Gymkhana," *Riverside Independent Enterprise,* (Riverside, CA: December 30, 1903), p. 5
[42] Riverside Museum Archives, Heritage House, Bettner Family Collection, Item number A526-472
[43] "Improving the Park," *Press and Horticulturalist,* (Riverside, CA: April 15, 1902). Pg. 8
[44] Nathan Gonzales, *Visit Yesterday Today,* (PhD Thesis, University of California, Riverside, 2006): pg 83
[45] "To Popularize Polo," *Riverside Enterprise,* (Riverside, CA: February 9, 1915). Pg. 2
[46] Richard Mayo, *The American Country Club: Its Origins and Its Development,* (Rutger's University Press: New Brunswick, 1998), p. 84
[47] "New Year's Tournament at Chemawa Largely Attended," *Riverside Enterprise,* (Riverside: CA, January 2, 1908).
[48] Archie D. Shamel, "The Washington Navel Orange," *Citrograph* (Riverside, CA: May 28, 1915), p. 4.
[49] Veblen, *Theory of the Leisure Class,* pg. 231
[50] *Ibid,* pg. 231
[51] Wilkie B. Leake, Short History of the Riverside Polo Club, (BA Thesis, UCR), pg 21.

Figure 1: The first victorious Riverside Polo team at Burlingame, 1895. From left to right: TH Woods, RL Bettner, CE Maud, and GL Warring.

Figure 2: (A400-27) The back of this photograph is marked by Dollie Bettner: "Archie Shamel, Famed Palmologist at Citrus Experiment Station. Robert Bettner, Polo Player and Real Estate."

Figure 3: (A400-86): The grandstand at Chenawa Park, which, according to *The Riverside Enterprise*, had space for spectators (or “enthusiastic admirers of the sport”) in automobiles.

The Study of American History through European Written Sources

Sergio González

The academic study of history, as a university subject and profession, is one deeply engrained in the use of sources. While the use of secondary sources — books and articles — help in the study of history, the main emphasis is placed on the use of primary sources. The belief is that in order to better understand the events that took place at any given moment in history the use of written primary sources is essential, as they provide firsthand accounts of the events that took place. When studying history the understanding has been, for the most part, that "history is written by the victors," the key word in the phrase being written, as the study of history, or at least those histories written by the "victors," seem to only be legitimized by written primary sources. For the most part the majority of written primary sources used to study American Indian history tend to be in European languages (Spanish, English, French, and Portuguese). The primary use of written European sources becomes more complicated when studying the history of American Indians, which has mainly been approached through written documents left behind in European languages — a move that has by default discounted the oral histories and traditions of Native peoples.

Some historians have argued that the use of Native oral histories and traditions cannot be heavily relied on to validate and assert history, but the reality is that Native oral traditions operated, and continue to operate, in an intricate system of strict checks and balances, allowing the history told through the oral tradition to hold the test of time with astounding accuracy. For the sake of trying to understand American Indian history through the "victors" perspective, though, the focus will be the written sources — in no way discounting the credibility and accuracy of the Native oral tradition. In the case of studying the history of Southwestern Indians — the American Southwest and northern regions of Mexico, mainly, but not limited to, Sonora and parts of Sinaloa and Chihuahua — the majority of the research is done through the written documents that the missionary priests and other Spaniards left behind.

The use of primary sources written in European languages for the study of American Indian history can prove to be complicated and subjective. In this case, though, the histories left behind by the missionaries and Spaniards in the Southwest can provide insight, when carefully analyzed — and not taken at face value — into the lives, and histories, of the Indians of the Southwest. In order to produce a reasonable picture of past events in the Southwest, this paper will examine some examples of this genre: Andrés Pérez de Ribas' History of the Triumphs of Our Holy Faith Amongst the Most Barbarous and Fierce Peoples of the New World; Revolt of the Pueblo Indians of New Mexico and Otermin's Attempted Reconquest, 1680-1682; The Navajos in 1705: Roque Madrid's Campaign Journal; The Relation of Philip Segesser; and Ignaz Pfefferkorn's Sonora: A Description of the Province. Given that the primary sources that will be used consist of missionary and military histories of the Southwest, the goal is to answer the following questions: What can be learned about the history of American Indians from the sources? Can a reasonable picture of past events using these types of

sources be achieved? Through a careful analysis of the documents this paper will prove that although the documents are European written sources there is a significant amount of information about American Indians in the Southwest that can be extracted. The sources produce an understanding of the realities that Indians faced during the mission period providing a reasonable understanding of past events.

Studying written sources can prove beneficial, especially in the Southwest, where there exists numerous written records left behind by missionary priests and Spanish military captains. In the History of the Triumphs of Our Holy Faith Amongst the Most Barbarous and Fierce Peoples of the New World, Andrés Pérez de Ribas, a Spanish Jesuit missionary, writes extensively on the missionization of the Native peoples of Sinaloa in the late sixteenth and early seventeenth centuries. In his writing, Ribas attempts to garnish support for the building of more garrisons in Sinaloa in order to secure Christianity for Spain, and the converted Indians from the "most barbarous and fierce peoples of the New World." Ribas' writing, although highly subjective, provides a better understanding of the Indians of the Southwest and brings to light the power structure that existed between the Church and the military in Sinaloa, and by extension the rest of New Spain; without the Church there would not have been the presence of the military and without the military the Church, or missions, could not have survived.

In his attempt to convince the viceroy of New Spain and governor of Nueva Vizcaya, present day Chihuahua, to build more garrisons in Sinaloa, Pérez de Ribas explains, "Now that there was a greater [Spanish military] force in the province to repress troublemakers and those who were restless, the priests began anew to visit these nations, pacifying them and laying the foundations of Christian doctrine."[1] Inadvertently Ribas reveals the inseparable marriage that was the Church and the military. As he explained, more garrisons, or Spanish military installations, meant more Indian converts. Although the Indians were supposed to convert solely on the power of the "word of God," the reality was that the Indians were not as willing as the missionaries had expected, which meant that almost always the Spanish soldiers were needed for the conversion of the Indians. As he continued to explain the need for more garrisons, Ribas later wrote on why the Indians joined the missions: "They [the Indians] see how much this friendship benefits them in their defense against their former enemies, which they all generally have. They also see that due to this friendship they live peacefully in their pueblos, lands and fields."[2] It becomes evident, through writings such as Ribas's, that the Indians were aware of the power structure that existed within the missions, manipulating it to their advantage as much as possible — if being part of the mission meant safety from "former enemies" and the ability to "live peacefully," then why not join them? Although some Indians might have genuinely converted, most understood that a "friendship" with the Spanish had benefits and therefore did what was in their power to ensure their survival.

In his insistence of the building of more garrisons, and the need for more soldiers, Ribas explained, "There are twenty or thirty thousand Indian warriors who could be fielded if the [different Indian] nations were to unite. What can forty-six soldiers do against an enemy force of thirty thousand?"[3] The question then becomes why, if the Indians outnumbered the Spaniards by so many, did the Indians simply not just attack the Spaniards? Although the answer might not be apparent, when carefully analyzed, the passage reveals the power structure that existed between the Spaniards and the

Indians. To begin with, the military technology of the Spaniards was superior to that of the Indians, which was a significant reason for not constantly attacking, and as Ribas explained, "an armed [Spanish] soldier riding an armored horse is a castle to which an Indian archer cannot compare."[4] Secondly, even though the Spaniards were few they almost always brought Indian allies along, "depending on the needs of the expedition, they are helped by a greater or lesser number of Indian allies, who are never lacking."[5] Most importantly the Indians, and Spaniards understood the dynamics of power at work; if either side pushed too hard reprisal could be brutal and severe.

In examining the Pueblo Revolt of 1680, the document Revolt of the Pueblo Indians of New Mexico and Otermin's Attempted Reconquest, 1680-1682 provides important information on the reasons the Pueblo Indians decided to revolt. The document includes the description of the aftermath of the revolt by Antonio de Otermin, the Spanish governor of New Mexico at the time of the revolt, and also testimonies he gathered from captured Pueblo Indians to understand the reasons for the revolt. The Pueblo Revolt of 1680 was the result of continued abuse of the Pueblo people by the Spaniards. In 1675, five years prior to the revolt, a priest in New Mexico had gone on a campaign to "purge" the Pueblos, and New Mexico, of Indian religions, burning the kivas, buildings of high religious importance for the Pueblo peoples, and humiliating the religious leaders, including one by the name of Popé, who would become an important leader in the Pueblo Revolt.[6]

After finally being pushed too far, the Pueblo people gathered enough support and revolted with their main goal to expel the Spaniards, and everything related to the Spaniards, out of New Mexico. In recounting the events that took place during the revolt, the Count of Paredes, on February 28, 1681, wrote, "They set fire to the temples, seizing the images of the saints and profaning the holy vessels with such shocking desecrations and insolences that it is indecent to mention them."[7] The Count's words revealed one of the main things the Pueblo people despised and wanted to eliminate — the mission and Christianity — and they humiliated and desecrated the Spanish religion, just as the Spanish had done to the Pueblo religion. It can be concluded that the Pueblo people, those who revolted, understood that if they purged New Mexico of the Spanish religion, they would get rid of the Spaniards. As the Count later recounted, "Fearful lest the Spaniards turn upon them all the rebels were joining together and were even summoning the heathen nations to aid them."[8] The Pueblo Revolt was not only comprised of Pueblo peoples, but also the "heathen nations," which refers to the Apaches, who were key to the success of the revolt, and revealed that a "Pan-Indian" movement to rid the land of the Spaniards was beginning to emerge.[9]

Towards the end of his investigation Antonio de Otermin took testimony from Don Pedro Nanboa, an Indian from the Alameda pueblo said to be "somewhat more than eighty years old."[10] Questioned for the reasons of the revolt Otermin wrote that Don Pedro stated "that for a long time, because the Spaniards punished sorcerers and idolaters, the nations of the Teguas, Taos, Pecuríes, Pecos, and Jemez had been plotting to rebel and kill the Spaniards and the religious, and that they had been planning constantly to carry it out, down to the present occasion."[11] Don Pedro expressed the importance that the Pueblo people held for their native religion and leaders, and although he refers to the religious leaders as "sorcerers" and "idolaters," he is simply using the terminology that the Spaniards used to describe those Indians that continued to practice and keep the old ways. Otermin then

writes that Don Pedro "declared that the resentment which all the Indians have in their hearts has been so strong, from the time this kingdom was discovered, because the religious and the Spaniards took away their idols and forbade their sorceries and idolatries; that they have inherited successively from their old men the things pertaining to their ancient customs; and that he has heard this resentment spoken of since he was of an age to understand."[12] Although for the most part Indian testimonies were not given the same credibility as that of the Spaniards, those Indian testimonies left behind in the written documents, such as Don Pedro's, reveal the genuine sentiment of the Indians towards the Spanish. By recording the actions that the Spanish took after the revolt, and the testimonies by the Pueblo Indians, the document revealed that the Indians had never really accepted the rule of the Spanish and the mission system.

After the success of the Pueblo Revolt the Spaniards had not successfully occupied the New Mexico territory, although several unsuccessful attempts were made. So in 1705, twenty-five years after the Pueblo Revolt, Maestre de Campo and principal military Roque Madrid were given the task to "go forth and make war by fire and sword on the Apache Navajo enemy nation."[13] The Spanish considered the Apache part of the Navajo and therefore referred to them as the Apache Navajo although the two were separate nations. On his campaign to "make war by fire and sword," Madrid, as did most Spanish captains, kept a journal of his journey, providing insight to the events that took place as he attempted to make war on the "Apache Navajo" and the way that the "Apache Navajo" were affected and the way they reacted to Spanish reprisal.[14] While in his search for the Apache Navajo, Madrid, on July 5, 1705, stated, "I sent the war captains from the Tewa and Picuris nations, who knew those mountain ranges and woodlands, to reconnoiter a route where Spanish arms had not been for some thirty years."[15] Two reasonings can be deduced from such statement: first, that without the Indians it would have been extremely difficult for the Spaniards to travel and explore through lands only known to the Natives; and second, that "Spanish arms had not been there for thirty years" as a result of the success of the Pueblo Revolt in 1680.

Although there is no mention as to why Madrid is given the task to "make war by fire and sword" on the Apache, it can be safely concluded that it was retribution for the alliance the Apache had made with the Pueblo Indians, which was key to the success of the revolt. While continuing on his mission, after encountering some Apache and waiting to have a peace talk with them, Madrid recounted that "at this we retired to the camp, which was very near the peñol, taking the greatest care possible that they not achieve some surprise, fearing the treachery of these barbarians because of many years of experience fighting them."[16] Madrid's fear of "treachery" from the Apache was acquired after many years of fighting them, proving that the Apache had continued to resist Spanish encroachment and proved to be a formidable force. The continual attempt to retake, or at least punish, New Mexico proved that the Pueblo Revolt was a defeat that had been dealt to the Spaniards like no other, as the Spanish would never fully regain control of the region despite continual attempts.

Writing on the Native people of Sonora in the early eighteenth century Philipp Segesser, a Jesuit missionary, in his letter The Relation of Philipp Segesser: The Pimas and Other Indians documented his experiences among the "Pimas and Other Indians." Through his relation Segesser reveals the importance and power that the Native religious leaders, which he referred to as "sorcerers," continued to hold within the

Native communities, in this case the Pima, and also the threat that they posed to the missionaries' credibility and power. Although Segesser refused to acknowledge the power that religious leaders held, either through medicine or psychological effect, the power of the "sorcerers" becomes evident in an incident where Segesser mysteriously fell ill and was then healed by one of the "sorcerers" of which he writes, "Yet during the time I was asleep the judges, unknown to me, brought to my bedside a sorcerer who took a thing like a pea out of my mouth, after which I improved."[17] Without the medicine of the "sorcerer" Segesser would have most likely died. He later described what occurred to Father Augustín de Campos, the father of the mission that Segesser was visiting, on behalf of the same "sorcerer" as he explained, "After permission was granted he [the sorcerer] told the father things which no human being could have known, as the padre himself assured me. Such experiences as this one made me more careful in my dealings with the Indians."[18]

Through his admission of having to be "more careful" with the Indians, mainly the "sorcerers," Segesser unknowingly revealed the respect, through fear, that he too learned to have for the powerful "sorcerers." By analyzing Segesser's writings in depth his relation also brings to light the ways that the Pima, and other Indians of the region, engaged in resistance through everyday actions as he states, "Every day I must awaken the houseboys and supervise the morning prayer, because the Pima is so careless that he no longer knows on one day what he was ordered to do the day before."[19] The Pimas' "carelessness" can be read as an act of defiance as the Pima actively chose to forget "one day what he was ordered to do the day before." Although the documents do not directly suggest that the Indians, in this case the Pima, continued to resist due to discontent with the missionaries and the mission system, by carefully reading the reaction of the missionaries to the actions of the "sorcerers" and the mission Indians, a different conclusion can be reached.

Ignaz Pfefferkorn, another Jesuit missionary writing on the Native people in Sonora, mainly focused on the non-Christian Indians of Sonora in the eighteenth century in Sonora: A Description of the Province. Although highly subjective and biased toward the non-Christian Sonorans, Pfefferkorn's writings also provide insight, when read carefully, into the history of Southwest Indians. Pfefferkorn's description of Sonora provides instances of resistance, the importance of Native religious leaders, and the continuation of the Sonoran ways. Just as Philipp Segessers' relation had brought to light acts of resistance by the Pima, Pfefferkorn writes about a similar incident as he explained, "For the rest, one finds many with such a rude and laborious power of comprehension that it takes a long time for them to learn the Lord's prayer."[20] Pfefferkorn's description provides evidence of resistance on the part of Sonoran's through the refusal to quickly learn the "Lord's prayer."

The description of the Sonoran's also reveals what continued to be important to the Indians of Sonora, despite the missions, as Pfefferkorn described how "Sonora diversions consist generally of dancing, drinking, and playing games. Frequently for their dances an entire nation, or at least the greater part of it, will assemble at a given place. Sometimes also neighboring tribes are invited, making the congregation very numerous."[21] The Sonorans continued their practices, proving that they functioned as sites of unity as an "entire nation...will assemble" to take part in the "diversions." Given that almost an entire nation gathered, it is safe to assume that the "diversions" were much more than simple distractions. They held great significance and importance to the

Sonorans, especially the non-Christians, and could have also been sites of the aforementioned "pan-Indian" movement that had been present in the Pueblo Revolt of 1680, as "neighboring tribes are invited, making the congregation numerous."[22] Many times those "diversions" were the places where rebellions against the Spanish were planned and where the Sonorans were able to continue their way of life, without, at times, disruption by the Spanish missionary priests and soldiers.

The questions initially posed were: What can be learned about the history of Southwestern Indians from the sources? Can a reasonable picture of past events using these types of sources be achieved? Through careful analysis of the documents described above the answers become evident through the realities that American Indians faced during the mission period. Through the careful analysis of the sources the realities that Indians experienced included: the inseparable relationship between the Spanish missionaries, or the Church, and the Spanish military; the different ways, through everyday actions, that Indians continually resisted missionization; the importance of Native religious leaders and the survival of Native traditions and practices; and the power structure, the balance of power, that existed between the Spanish and the Indians of the Southwest.

Studying the history of Southwestern Indians can prove to be a difficult task without the use of the written sources that have been left behind by the Spanish missionaries and soldiers. By carefully analyzing the documents a reasonable picture of past events in Southwest Indian history develops and provides a better understanding of American Indian histories. The full picture of American Indian history is only achieved once every side gets to tell their story, a difficult task in the academic study of history as written documents, in European languages, remain the main sources used in the field of American Indian history — a practice that keeps the histories of American Indians hidden, although not silent. The study of history, as a profession, has been built around European written sources making the task at hand for historians to effectively and carefully navigate through the documents and learn as much as possible, through close analysis, about the non-written histories of American Indians — and ultimately to allow American Indian histories to step out of the shadow of the written documents, giving them the credibility and importance that they deserve.

Notes

[1] Pérez de Ribas, Andrés, *History of the Triumphs of Our Holy Faith Amongst the Most Barbarous and Fierce Peoples of the New World,* An English Translation Based on the 1645 Spanish Original by Daniel T. Reff, Maureen Ahern, and Richard K. Danford, (Tucson, Az: The University of Arizona Press), 134.
[2] Ibid, 138.
[3] Ibid, 139.
[4] Ibid, 140-41
[5] Ibid, 139.
[6] Dr. Robert Perez, Southwestern Indian History (History-141, University of Ca., Riverside), Lecture, 10/31/13.
[7] *Revolt of the Pueblo Indians of New Mexico and Otermin's Attempted Reconquest, 1680-1682,* translated by Charmion Clair Shelby, Ph.D. (Albuquerque, N.M.: The University of New Mexico Press), 3.
[8] Ibid, 5.
[9] Dr. Robert Perez, Southwestern Indian History (History-141, University of Ca., Riverside), Lecture, 11/5/13
[10] *Revolt of the Pueblo Indians,* 60.
[11] Ibid, 61.
[12] Ibid, 61.
[13] *The Navajos in 1705: Roque Madrid's Campaign Journal,* Edited and translated by Rick Hendricks and John P. Wilson, (Albuquerque, NM: University of New Mexico Press) 13.
[14] Ibid, 13.
[15] Ibid 26.

[16] Ibid, 27.
[17] Theodore Treutlein, translator, "The Relation of Philipp Segesser: The Pimas and Other Indians," *Mid-America* 27:3 (1945), 156.
[18] Ibid, 156.
[19] Ibid, 160.
[20] Ignza Pfefferkorn, *Sonora: A Description of the Province*Ignaz Pfefferkorn, Translated by Theodore Treutlein, 169
[21] Ibid, 180.
[22] Ibid, 180.

The Bad Seed: Dr. Ingo Potrykus, "Golden Rice", and the Vatican

Mary Shanahan

"In the state of innocence man's mastership over plants and inanimate things consisted not in commanding or in changing them, but in making use of them without hindrance."
-Thomas Aquinas, *Summa Theologica*[1]

"Golden Rice" (GR), a strain of rice genetically modified to enhance its βeta-carotene content, has remained in its developmental stages for over 25 years, but has become increasingly controversial. Speaking at a nutrition convention in 2014 the co-creator of GR, Dr. Ingo Potrykus, claimed his product contained "enough provitamin A to prevent vitamin A-deficiency (VAD)," a health issue which currently affects the "millions of poor who cannot afford a diversified diet."[2] At the conference, which included not only fellow members of the Vatican's Pontifical Academy of Sciences (PAS), but also representatives from various global corporations, Potrykus praised the biofortification of micronutrients as having "the highest economic return for investment on interventions for development."[3] Indeed the private sector has invested millions in GR, which has allegedly been withheld from distribution due to "highly emotional opposition to genetic 'engineering'."[4] Some of this opposition has come from the last three Popes; all opposed the use of genetically modified organisms (GMOs) as a sustainable solution to malnutrition. Despite the refusal of the Holy See to embrace GR as "modern manna," Dr. Ingo Potrykus has used his membership in the PAS to continually pressure the Vatican for an endorsement in the hopes of overcoming Filipino resistance to his product's distribution.

The PAS was formed in 1603 and is currently composed of 80 scientists of varying fields chosen "on the basis of their eminent original scientific studies and of their acknowledged moral personality."[5] In 1940, Pope Pius XII gave carte blanche to the scientists, stating, "The Church acknowledges complete freedom in method and research" in regards its Academy members.[6] The PAS itself claims it is "an invaluable source of objective information upon which the Holy See and its various bodies can draw."[7] For instance, Dr. Ingo Potrykus joined the Academy in 2005 despite a continued lack of support from the Holy See, regarding GMOs. In fact, immediately before his nomination to the PAS, Potrykus wrote a letter seeking funds from Pope John Paul II, which had gone unanswered. In the letter, he promoted GR as a humanitarian effort in jeopardy and jested, "You know the definition of an optimist? Someone who's asking the church for money."[8] Yet the scientist was ultimately fishing for a moral ally more than he was fishing for a financial contribution.

Ingo Potrykus did not need Vatican funding, although he claimed only $2.4 million was spent over nine years on the development of GR. The Rockefeller Foundation had funded the original concept since the late 1950s.[9] These donations were both increased and redirected to Potrykus following a brainstorming meeting in 1992 in which the Golden Rice Project was officially greenlighted.[10] The first rice strain to successfully produce "good qualities of phytoene in their endosperm" was created in 1997.[11] Despite Pope John Paul's lack of interest in a monetary contribution, the PAS

was already endorsing Potrykus' product. During a lecture given to the PAS in 1999, GR was presented as a possible future means of alleviating Vitamin A-deficiency.[12] Even with the PAS's early interest in GMOs, Pope John Paul did not concur with their findings. In 2000, he cautioned against hasty solutions bred by biotechnology in response to the world's hunger and malnutrition problems:

> This is a principle to be remembered in agricultural production itself, whenever there is a question of its advance through the application of biotechnologies, which cannot be evaluated solely on the basis of immediate economic interests. They must be submitted beforehand to rigorous scientific and ethical examination, to prevent them from becoming disastrous for human health and the future of the earth.[13]

Shockingly, in 2009, these cautionary words were quoted verbatim in a PAS publication in order to *support* the use of GMOs to end world hunger and malnutrition. In addition, John Paul's successor, Pope Benedict XVI, was also quoted out of context in the same publication: "It could be useful to consider the new possibilities that are opening up through proper use of traditional as well as innovative farming techniques."[14] The phrase 'innovative farming techniques' does not refer directly to GMOs, and therefore, cannot be interpreted as direct approval of either GR or GMOs. However, Pope Benedict did refer to GMOs in this speech from which the quote was taken. Benedict warned, "When technology is allowed to take over, the result is confusion between ends and means, such that the sole criterion for action in business is thought to be the maximization of profit, in politics the consolidation of power, and in science the findings of research."[15] Ingo Potrykus drew together all three of these extreme means to further his own end: the distribution of GR. He involved corporate investors for development, a powerful political body for propaganda, and inconclusive scientific evidence for justification.

During a PAS conference on *Transgenic Plants for Food Security in the Context of Development*, Ingo Potrykus was one of only seven PAS members present to sign the document which quoted the two Popes out of context. The report's conclusions confused the worldwide public into thinking the Vatican had endorsed GMOs. Alarmingly, this study strongly suggested a reassessment of the Cartagena Protocol on Biosafety (which would affect 170 countries) in order to free modern genetic engineering techniques "from excessive, unscientific regulation, allowing their application to enhance the nutritional quality and productivity of crops everywhere."[16] The manipulated report had claimed that the main obstacle GMOs faced was not emotional opposition, but excessive costs, wrought by either over-regulation or apathetic government expenditure. There was no need to suggest a reassessment of the Protocol, because an "evaluation of the effectiveness of the Protocol" is to be assessed at least every five years.[17] It was suggested by Potrykus and his colleagues only to confuse the reader into thinking the Protocol was somehow outdated by current technological standards. The chancellor of the PAS later clarified the Academy's official position towards the document: "The statement is not a statement of the Pontifical Academy of Sciences because the Pontifical Academy of Sciences as such -- 80 members -- wasn't consulted about it and will not be consulted about it."[18]

The Philippines is primed to be the subject in this mass experiment to end vitamin A-deficiency, which will be repeated in other countries if it is successful.[19] The country has a population of over one hundred

million which garners up to 80% of its daily calories from rice; 86% of this population is Catholic. This predominantly Catholic population is highly influenced by the decisions made at the Vatican. Monsignor James Reinert, formerly of the Pontifical Council for Justice and Peace, "pointed to the Philippines as a country with a particularly anti-GMO Catholic hierarchy, joking that the Filipino Church would 'go into schism' if the Vatican came out any stronger for biotech food."[20] Therefore, in order to push the acceptance of GR into the Filipino rice market more easily, Potrykus needed someone who is highly regarded by the Filipino public to be seen supporting GR. This tactic had worked before in 2003, when the president of the Philippines, Gloria Macapagal-Arroyo, intended to use Vatican endorsements to promote GMOs within her country. After returning from a visit to Pope John Paul II she proclaimed, "The Vatican said that GMOs are not immoral."[21] This statement was followed by an immediate retort from the Catholic Bishops Conference of the Philippines that stated, "(The) government's claims that the Pope has endorsed GMOs are unsubstantiated and premature."[22] This shows that quoting the Pope out of context was a common tactic for GMO propaganda, but Ingo Potrykus took it one step further.

Having already manipulated the words of two Popes, Potrykus was also able to manipulate a picture of a Pope Francis I in order to promote GR. Pope Francis blessed a sample of Golden Rice held in the hands of its co-creator, Dr. Ingo Potrykus, in 2013.[23] In the photo, Pope Francis is not looking into the camera, and had been approached by Potrykus on his way out of a PAS meeting. Unless Ingo Potrykus carries GR around with him at all times it seems he planned the encounter. Indeed the photographer had a connection to the Biotechnology Coalition of the Philippines. This moment potentially influenced a Catholic congregation of over one billion to support the product simply because it was seen blessed by the Holy See, though it has not been endorsed by the Vatican itself.

Despite his photo with Potrykus, Pope Francis has continually denounced capitalism as a contributor to the world's malnutrition and hunger problems. Indeed before his by-proxy endorsement, Francis had said, "The excluded are still waiting…. This imbalance is the result of ideologies which defend the absolute autonomy of the marketplace and financial speculation."[24] Soon after the photo was taken, Francis warned that progressive economics brought to a developing country by foreign commercialism could become a "new tyranny," which "unilaterally and relentlessly imposes its own laws and rules" onto the targeted market.[25] When corporate giants give the largest "humanitarian" donations, the line between humanitarian philanthropy and self-promotion for financial gain becomes obscured.

The Vatican's official position on GMOs does not come from the PAS, but from the Pontifical Council for Justice and Peace. This council's current president, Cardinal Peter Turkson, once described the reliance of small farmers upon GMOs as a new form of slavery.[26] Surprisingly, Turkson was invited to speak to the three recipients of the 2013 World Food Prize (WFP), one of whom is the founder of Syngenta. Syngenta is represented on the Humanitarian Board for GR. Cardinal Turkson warned the stunned scientists at the WFP, ""It is hazardous -- and ultimately absurd, indeed sinful -- to employ biotechnology without the guidance of a deeply responsible ethic".[27] Given Cardinal Turkson's statement, how ethical is it for Dr. Ingo Potrykus to misuse the PAS in order to overcome the largest hurdle Golden Rice has yet to surmount, the "impending deregulation by the Philippine Department of Agriculture"?[28]

Upon approval, GR will be given freely to Filipino farmers grossing under $10,000 per year; this would include almost all rice-farmers in the Philippines whose average yearly gross is under $4,000.[29] Currently, the farmer sells rice to the Filipino Government, who then resells it nationwide to the public. There is a clause in the bylaws surrounding GR which does not allow any profit over $10,000 to be made or it voids the humanitarian focus and becomes commercial property of Syngenta. If GR is the product bought by the government from the farmers, how will they be able to sell it on a large scale without Syngenta making a profit? Yet Syngenta claims to have "no commercial interest in GR in respect of its potential use or application in developing countries."[30] There is also a clause in the intellectual property rights that states there will be no exporting of GR, yet the Philippines is the 8th largest producer of rice for the world market.[31] What will happen to the Filipino economy if its rice market is flooded with a product which cannot be exported? One entity, which will not be held accountable for the possible failure of GR, is the IRRI. Sometime during the period of Martial Law in the Philippines (1972-1981), the laboratory was granted "immunity from any penal, civil, and administrative proceedings."[32] This immunity is still in place.

In 2014, the IRRI admitted GR trials showed that the "average yield was unfortunately lower than that from comparable local varieties already preferred by farmers".[33] Lower yields are only the tip of the iceberg of GR's drawbacks. In 2013, Ingo Potrykus cited the "unethical" 2012 Tufts University study done on Chinese schoolchildren as proof of Golden Rice's efficiency.[34] The subjects in the controlled experiment were middle-class children with no history of vitamin A-deficiency and no infectious diseases. Though the study concluded that the β-carotene in GR could be effectively converted into Vitamin A, it also admitted "there were enough missing data to compromise our ability to estimate individual" results.[35] These individual results are crucial because an earlier study done on β-carotene conversion rates in different ethnic groups showed that 70% of Asians have a certain allele, which decreases their ability to effectively convert β-carotene.[36] Potrykus has never openly addressed conversion issues in different ethnicities.

Even more disturbing, the GR website claims that higher carotenoid intake is associated with lower cancer incidence. This is misleading! It is retinol, not carotenoids, which shows this correlation.[37] In a 1996 independent study, β-carotene itself was tested on adult male smokers. The metabolic compounds created by conversion caused an increased risk for lung cancer and mortality, so much so that the study was halted twenty-one months ahead of schedule.[38] A separate study done in Finland that same year showed similar results. The GR website claims, "There is no reasonable argument that would support any public health, human toxicological or any other adverse effect in respect of carotenoids," yet in a preceding section of the website cited the Finland β-carotene study and even admitted the increased risk of lung cancer.[39] In 2012, Ohio State University (OSU) analyzed the metabolic compounds from the 1996 study; some of the compounds were actually vitamin A-inhibitors. Dr. Earl Harrison of OSU warned about the risks of certain fortified GMOs, including GR specifically, "A concern is that if you engineer these crops to have unusually high levels of β-carotene, they might also have high levels of these compounds."[40]

The focus of Golden Rice's humanitarian effort has been aimed at children and pregnant or nursing mothers, or 13% of the Filipino population. In 1997, the World

Health Organization reported that the program to deliver vitamin A supplements in the form of retinol, which Ingo Potrykus claims are both costly and less effective, "can be organized relatively quickly and at reasonable cost and has the effect of immediately improving the bodily reserves of vitamin A among deficient populations."[41] Current Filipino methods of controlling VAD have resulted in a 25% drop in cases since 2003.[42] If this method worked well and had successfully targeted portions of a population who were in need of vitamin A, then there should be no humanitarian interest in blanketing an entire population with potentially-harmful rice. Yet there is a commercial interest. A 2004 study of the potential benefits of Golden Rice on the Philippines mentioned "rates of return on R&D investments range between 66% and 130%".[43] The Golden Rice website mentions this study in some detail, yet omits this particular financial information. In addition, in 2013, Ingo Potrykus quoted this now outdated study as proving Golden Rice to be "by far the most cost effective and sustainable intervention" for VAD, yet the study showed that industrial fortification is a cheaper method.[44]

Pope Francis was made aware of some of GR's questionable claims in a letter he received from the Action Group for Erosion Technology and Concentration (ETC) in 2014, which was signed by Vandana Shiva, a recipient of the 2014 Mother Teresa Award for Social Justice.[45] Shiva had earlier blasted fortified GMOs claiming to be a cure for VAD-associated blindness, calling them, "a blind approach to blindness control being used as a Trojan horse to push genetically engineered crops."[46] In the ETC letter, Pope Francis was asked to consider making his views regarding GMOs clear to the public. Though remaining silent about GR, on a recent trip to the Philippines Pope Francis spoke about using ethical methods for alleviating hunger and malnutrition. He reminded the Filipino government that, "The Bishops of the Philippines have asked that this year be set aside as the '"Year of the Poor".' I hope that this prophetic summons will challenge everyone, at all levels of society, to reject every form of corruption, which diverts resources from the poor."[47] The Holy See has successfully resisted the corrupt persuasions of Ingo Potrykus and the PAS, in defense of an ethical solution for the malnourished poor.

Ultimately, Ingo Potrykus' obsession with promoting his corporate-funded novelty ignores the true science behind Golden Rice's claims of efficiency, undermines the development of a sustainable solution to micronutrient deficiency, and jeopardizes both the stability of the Filipino economy and the health of its citizens. Potrykus is indeed akin to the bad seed mentioned in a New Testament parable:

> The kingdom of heaven may be compared to someone who sowed good seed in his field, but while everybody was asleep, an enemy came and sowed weeds among the wheat" ; when the good sower saw the weeds among his own crop, he advised his workers at harvest time to "Gather the weeds first and bind them in bundles to be burned, but gather the wheat into my barn.[48]

Potrykus has sown his weed, Golden Rice, into the field of the Pontifical Academy of Sciences, where it took root and has yielded a blighted harvest of corruption. In order to save the Vatican's credibility, it is time for Pope Francis to pull the weeds from his home plot once and for all, starting with Ingo Potrykus, who once used the words of Thomas Aquinas to justify the creation of GR: "Many things for the benefit of human life have been added over and above the

natural law, both by divine laws and by human laws."[49] It is thus fitting to close with an observation taken from the very same treatise Dr. Potrykus so admired. "The natural law was perverted in the hearts of some men, as to certain matters, so that they esteemed those things good which are naturally evil; which perversion stood in need of correction."[50]

Notes

[1] *Summa Theologica*. Thomas Aquinas. Part I. Question 96. Article 3. Benziger Bros. edition, 1947. Translated by the Fathers of the English Dominican Province. http://dhspriory.org/thomas/summa/index.html Since the "fall from innocence", mankind has indeed acquired the ability to both command and modify plants.

[2] *Lessons from Golden Rice*. Ingo Potrykus. From *Bread and Brain, Education and Poverty*. Pontifical Academy of Sciences. *Scripta Varia* 125. Vatican City, 2014. Pgs.2 and 3. http://www.casinapioiv.va/content/dam/accademia/pdf/sv125/sv125-potrykus.pdf

[3] *Ibid*. Pgs. 1-2

[4] *Ibid*. Pg. 2

[5] *Statutes*. The Pontifical Academy of Sciences Website. Part II, Article 5. http://www.casinapioiv.va/content/accademia/en/about/statutes.html Galileo was a member of the first PAS before he was condemned by the Church as a heretic. Pope John Paul II exonerated him in 1992.

[6] *History*. The Pontifical Academy of Sciences Website. http://www.casinapioiv.va/content/accademia/en/about/history.html

[7] *Ibid*.

[8] Potrykus entered the PAS during Pope Benedict XVI's term. Ingo Potrykus quoted in *Tough Lessons from Golden Rice*. Martin Enserink. 2009. Foundation for Biotechnology and Awareness and Education. http://fbae.org/2009/FBAE/website/news_tough-lessons-from-golden-rice.html

[9] Potrykus' predecessor Dr. Peter "Jennings had been looking for yellow rice since his earliest days as a rice breeder in Colombia with the Rockefeller Foundation in the 1950s." from *Seeing Clearly: Golden Rice and Climate Science*. Robert Zeigler (on the GR Humanitarian Board, affiliate of Tufts U). IRRI Website. http://irri.org/blogs/bob-s-blog/seeing-clearly-golden-rice-and-climate-science

[10] *The Golden Rice Tale*. Ingo Potrykus. AgBioWorld Website. http://www.agbioworld.org/biotech-info/topics/goldenrice/tale.html In 1991 Potrykus joined with Dr. Peter Burkhardt on a Vitamin A-infused foodstuff concept. Despite Potrykus' claims that he never wanted private funding for GR, he had originally proposed the idea to Nestle in 1991. GR funding has grown since the 1997 success; the Gates Foundation spent $10 million on Golden Rice in 2011 alone. Potrykus has never been in need of a papal contribution.

[11] Phytoene is a necessary precursor for the ability of plants to create beta-carotene-producing carotenoids.

[12] *Food Needs of the Developing World in the Early Twenty-First Century: the Proceedings of the Study Week of the Pontifical Academy of Sciences 27-30 January 1999*. Section titled *Improvement of the Nutritional Value of Specific Food Commodities*. Ezzeddine Boutrif and Renata Clarke. Pg. 330 http://www.casinapioiv.va/content/dam/accademia/pdf/sv97pas.pdf

[13] Pope John Paul II, 11 November 2000, quoted in an email to Drew L. Kershen, *Response to: Pope, Vatican, and Biotech; Pesticides in Baby*. Piero Morandini, Dept. Of Biology, University of Milan. 1 December 2000. AgBioWorld Website. http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=869

[14] *Transgenic Plants for Food Security in the Context of Development*. PAS Study Week, Vatican City, 15-19 May 2009. Pg. 4 http://www.goldenrice.org/PDFs/PAS2009-en.pdf

[15] *Caritas in Veritate*. Pope Benedict XVI. 2009. #71. http://w2.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf_ben-xvi_enc_20090629_caritas-in-veritate.html

[16] *Transgenic Plants for Food Security in the Context of Development*. PAS Study Week, Vatican City, 15-19 May 2009. The Cartagena Protocol outlines risk assessment steps which must be followed to the letter before a living modified organism is released to the public. It was created in 2003.

[17] *Cartagena Protocol on Biosafety*. Article 35. Convention on Biological Diversity Website. 11 September 2003. Pgs. 10-11, #'s 4 and 5. https://bch.cbd.int/protocol/text/

[18] Bishop Marcelo Sanchez Sorondo quoted in *Vatican has not Endorsed Genetically Modified Food, official says.* Carol Glatz. Catholic News Service. 1 December 2010. http://www.catholicnews.com/data/stories/cns/1004910.htm

[19] The IRRI said: "If at the end of this project, golden rice is proven to be safe, with improved Vitamin A

status, and reaching the poor and those most in need, we will introduce it to other countries to fight Vitamin A deficiency." Quoted from *PhilRice to Test Genetically Modified 'Golden Rice'.* Anselmo Roque, Inquirer Central Luzon. 7 August 2011. Biotechnology Information Center, SEARCA Website. http://www.bic.searca.org/e-news/archives/09aug2011.html

[20] *Vatican: Looking Ahead on Biotech*. Confidential Document. US Embassy, the Vatican. 26 August 2005. WikiLeaks. https://wikileaks.org/cable/2005/08/05VATICAN514.html

[21] *CBCP Says Vatican Never Endorsed GMOs*. Maurice Manales. 2 October, 2003. http://www.gmwatch.org/latest-listing/1-news-items/5514-vatican-never-endorsed-gmos-strong-anti-gmo-sentiments-from-episcopal-conferences-across-asia-africa-and-some-european-countries

[22] *Ibid*.

[23] *Golden Rice, Children, and Ideology*. Glynn Young. 7 November 2013. From Monsanto's *Beyond the Rows*. http://monsantoblog.com/2013/11/07/golden-rice-children-and-ideology/ The photograph was reprinted courtesy of the Biotechnology Coalition of the Philippines.

[24] T*he official English language translation of Pope Francis' address for the New Non-Resident Ambassadors to the Holy See: Kyrgyzstan, Antigua and Barbuda, Luxembourg and Botswana*. Pope Francis I. Vatican Radio. 16 May 2013. http://www.news.va/en/news/pope-financial-reform-along-ethical-lines

[25] *Evangelii Gaudium. Apostolic Exhortation on the Proclamation of the Gospel in Today's World*. Pope Francis I. 24 November 2013. #56. http://w2.vatican.va/content/francesco/en/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium.html#No_to_the_new_idolatry_of_money

[26] Cardinal Peter Turkson quoted in *GM Crops Breed Economic Dependence, New form of Slavery, says Cardinal*. Carol Glatz. 5 January 2011. Catholic News Service. http://www.catholicnews.com/data/stories/cns/1100033.htm

[27] Cardinal Peter Turkson quoted in *Turkson Addresses World Food Prize*. Megan Fincher. 12 November 2013. GM-Free CYMRU Website. http://www.gmfreecymru.org/news/Press_Notice13Nov2013.html

[28] *People Pope Blesses Golden Rice.* Tyrone Spady, ASPBNews. Golden Rice Website. http://www.goldenrice.org/

[29] *Rice Science for Decision Makers: Is the Household Income of Rice Farmers Getting Better over Time?* Philippine Rice Research Institute. October 2010. Pg. 1. file:///C:/Documents%20and%20Settings/owner/My%20Documents/Downloads/Is%20the%20Household%20Income%20of%20Rice%20Farmers%20Getting%20Better%20Over%20Time.pdf

[30] *Frequently Asked Questions*. GR Website. http://www.goldenrice.org/Content3-Why/why3_FAQ.php#Inventors

[31] *The Essence of the Sublicensing Agreement*. GR Website. http://www.goldenrice.org/Content1-Who/who4_IP.php

[32] *Japan and International Law: Past, Present, and Future*. Nisuke Ando, editor. Kluwer Law International; The Netherlands, 2001. Pg. 175, Footnote 6.

[33] *Philippines: Farmers Call to Stop 'Golden Rice' Trials*. Oliver Tickell. 8 September 2014. The Ecologist Website. http://www.theecologist.org/News/news_analysis/2546891/philippines_farmers_call_to_stop_golden_rice_trials.html

[34] *Is Opposition to Golden Rice Wicked?* Andy Coghlan. 20 October 2013. New Scientist Website. http://www.slate.com/articles/health_and_science/new_scientist/2013/10/golden_rice_inventor_ingo_potrykus_greenpeace_and_others_wicked_for_opposition.2.html Dr. Guangwen Tang, who led the study, was barred from human experimentation for two years by Tufts' Internal Review Board. The scientist who approved the trial, Dr. Robert M. Russell, is now on the Humanitarian board for GR. *Golden Rice not so Golden for Tufts*. Martin Enserink. 18 September 2013. *Science Insider*, Science Magazine Website. Sponsored by the American Association for the Advancement of Science. http://news.sciencemag.org/asiapacific/2013/09/golden-rice-not-so-golden-tufts

[35] *B-Carotene in Golden Rice is as Good as B-Carotene in Oil at Providing Vitamin A to Children*. Guangwen Tang, et al. 1 August 2012. Pg. 4. *American Journal of Clinical Nutrition*. http://ajcn.nutrition.org/content/early/2012/07/31/ajcn.111.030775.full.pdf+html Beta-carotene must be converted by the body in order to be absorbed as vitamin A. Retinol does not.

[36] Chinese and Japanese subjects overwhelmingly exhibited the A-allele for rs6420424 and 100% showed the G-allele for rs11645428. The former shows a 59% loss in conversion efficacy and the latter shows a 59% decrease. The study claims 70% of Asians have both alleles. This "indicates the importance of factoring in genetic variation and ethnic origin when provitamin-A activities of plant-

based foods are determined." *Single Nucleotide Polymorphisms Upstream from the b-Carotene 15, 15'-Monoxygenase Gene Influence Provitamin A Conversion Efficiency in Female Volunteers.* Georg Lietz, et al. 23 November 2011. " Pgs. 3S-4S. *The Journal of Nutrition*. http://jn.nutrition.org/content/early/2011/11/22/jn.111.140756.full.pdf

[37] *Vitamin A and the Beta-Carotene Myth*. Dr. Phil Maffetone. http://www.philmaffetone.com/vitamin-a-and-the-beta-carotene-myth

[38] *Risk Factors for Lung Cancer and for Intervention Effects in CARET, the Beta-Carotene and Retinol Efficacy Trial*. Gilbert S. Omenn, et al. *Journal of the National Cancer Institute*, Volume 88, no. 21. 6 November 1996. http://www.simplyfit.com/pdfs/NColumn130512-Ref-9.pdf

[39] *Frequently Asked Questions*. Golden Rice Website. http://www.goldenrice.org/Content3-Why/why3_FAQ.php#Solution

[40] *Researchers Find Potential Dark-Side to Diets High in β-carotene*. Emily Caldwell. Ohio State University Website. http://researchnews.osu.edu/archive/betacarotene.htm

[41] *Vitamin A Supplements: A Guide to their Use in the Treatment and Prevention of Vitamin A Deficiency and Xerophthalmia*. WHO/UNICEF/IVACG Task Force. World Health Organization; Geneva, 1997. Pg. 1

[42] *Farmers Oppose Golden Rice: Challenge Foreign Lobbyists to a Debate*. Advocacy Desk MASIPAG Mindanao. 3 March 2015. GM Watch Website. http://gmwatch.org/index.php/news/archive/2015-articles/15985-philippines-farmers-oppose-gmo-golden-rice

[43] *Potential Health Benefits of Golden Rice: a Philippine Case Study*. Roukayatou Zimmermann and Matin Qaim. 2004. http://www.goldenrice.org/PDFs/Philippines_GR_Food_Policy_2004.pdf

[44] *Professor Potrykus on Golden Rice*. Ingo Potrykus. 8 September 2013. PSIRAM Website. http://blog.psiram.com/2013/09/prof-potrykus-on-golden-rice/ Industrial fortification does not require genetic modification.

[45] *Letter sent to Pope Francis Regarding GMOs*. Ana María Primavesi, et al. 30 April 2014. ETC Group Website. http://www.etcgroup.org/content/letter-sent-pope-francis-regarding-gmos

[46] *Travels in the Genetically Modified Zone*. Mark L. Winston. Harvard University Press, 2002. Pg. 228.

[47] *Meeting with Authorities and the Diplomatic Corps*. Pope Francis I. Rizal Ceremonial Hall of the Malacañang Palace, Manila. 16 January 2015. http://papalvisit.ph/meeting-with-authorities-and-the-diplomatic-corps-address-of-his-holiness-pope-francis-rizal-ceremonial-hall-of-the-malacanang-palace-manila-friday-16-january-2015/

[48] *The New Oxford Annotated Bible.* Michael D. Coogan, editor. Oxford University Press, 2010. Matthew 13:24-30.

[49] *Transgenic Plants for Food Security in the Context of Development*. PAS Study Week, Vatican City, 15-19 May 2009. Pg. 10. http://www.goldenrice.org/PDFs/PAS2009-en.pdf

[50] *Summa Theologica*. Thomas Aquinas. Part II-I. Question 94. Article 5. Benziger Bros. edition, 1947. Translated by the Fathers of the English Dominican Province. http://dhspriory.org/thomas/summa/index.html